

## SCHEDULE for Introduction to International Health, 1<sup>st</sup> Term, 2003-2004

| Date  | Topic and lecturers  | Question           | Location                         |
|---|--|--------------------|----------------------------------|
| <b>Module One: Describing the Health Priorities of a Country (Assignment One)</b> |  |                    |                                  |
| I. Tues<br>Sept 2   | Hour 1 – Department and course overview: Peter Winch<br>Hour 2 – Maternal, perinatal and under-five mortality, regional mortality trends: Gary Darmstadt   | A1: Q2-4           | Becton-Dickinson                 |
| II. Thur<br>Sept 4  | Hour 1 – Population pyramids, fertility indicators, demographic transition &<br>Hour 2 – Epidemiologic transition, Burden of disease/DALYs, HIV trends: Peter Winch  | A1: Q1-4           | Becton-Dickinson                 |
| III. Tues<br>Sept 9   | Discussion group 1: Regional comparisons of health and development indicators  | A1: Q1-4           | Discussion groups                |
| IV. Thur<br>Sept 11   | Economic and equity indicators, development banks, structural adjustment: Peter Winch  | A1: Q4,7           | Becton-Dickinson                 |
| V. Tues<br>Sept 16  | Levels of causality, human rights and environmental indicators, setting health priorities: Peter Winch   | A1: Q5-7<br>A2: Q1 | Becton-Dickinson                 |
| VI. Thur<br>Sept 18   | Economic development, microcredit and grassroots organizations: Corinne Whitaker, International Women's Health Coalition, New York   | A2: Q2-4           | Becton-Dickinson                 |
| VII. Tues<br>Sept 23  | Video: Faces of microcredit<br>Discussion group 2: Microcredit interventions   | A1: Q7<br>A2: Q2   | Video B-D (1pm) then Disc. Grps. |
| <b>Module Two: Health Systems</b>   |  |                    |                                  |
| VIII. Thur<br>Sept 25   | Improving the organization & management of health systems: David Peters<br><b>Assignment #1 due</b>  | A2: Q2             | Becton-Dickinson                 |
| IX. Tues<br>Sept 30   | Video: Donka<br>Discussion group 3: Case study on organization & management – Donka Hospital, Conakry, Guinea  | A2: Q2             | Video B-D (1pm) then Disc. Grps. |
| <b>Module Three: Selecting Interventions and Partners (Assignment Two)</b>        |  |                    |                                  |
| X. Thur<br>Oct 02   | Hour 1: Selecting the health problem and activities to address it in relation to country situation analysis and Millenium Dev't Goals: Gary Darmstadt<br>Hour 2: Partners for implementation and indicators: Peter Winch | A2: Q1-5           | Becton-Dickinson                 |
| XI. Tues<br>Oct 07  | Discussion group 4: Selection and justification of activities  | A2: Q1-5           | Discussion groups                |
| XII. Thur<br>Oct 09   | The Role of History in International Health – Randall Packard  | A2: Q4             | Becton-Dickinson                 |
| XIII. Tues<br>Oct 14  | Discussion group 5: Defining indicators for your program and partners for implementation   | A2: Q4-5           | Discussion groups                |
| XIV. Thur<br>Oct 16   | Financing of health care in low and middle-income countries: Hugh Waters   | A2: Q1-3           | Becton-Dickinson                 |
| XV. Tues<br>Oct 21  | Communities as partners for health and environmental interventions: Carl Taylor  | A2: Q2-3           | Becton-Dickinson                 |
| XVI. Thur<br>Oct 23   | Concluding remarks, career planning, course selection: Gary Darmstadt and Peter Winch<br><b>Assignment #2 due</b>  |                    | Becton-Dickinson                 |

# INTRODUCTION TO INTERNATIONAL HEALTH

## 221.601.01

First Term, 2002 - 2003, East Baltimore campus

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### Manual for Assignments & Discussion Groups

Tuesdays & Thursdays, 1:30 - 3:20

Becton-Dickinson auditorium

Required textbook                      Michael H. Merson, Robert E. Black, Anne J. Mills. (Eds.)  
International Public Health: Diseases, Programs, Systems and  
Policies. Gaithersburg MD, 2001.

Required articles                         Instructions for accessing additional assigned readings through  
the Welch Medical Library E-Reserve system will be given during  
the first lecture.

Course instructors                        Peter Winch, Room E5030  
Gary Darmstadt, Room E8153

Administrative Assistant                LaKeisha Hicks, Room E5527, Tel: 410-955-2378  
introih@jhspsh.edu  
(To make appointments with instructors or pick up handouts and graded assignments)

Appointments with instructors        Please do not telephone instructors or leave a message. To  
make an appointment, send an e-mail to introih@jhspsh.edu and  
1) Write APPOINTMENT in subject line, 2) state the reason for  
the appointment and 3) list the days and times you are available.

Hand in assignments to:                Either in class, or in mailbox outside Room E5527

Home page for the Department        <http://www.jhspsh.edu/Dept/ih>

#### Dates for video previews for discussion groups

| Topic & date of discussion group       | Date of video preview | Time       | Room    |
|--|-----------------------|------------|---------|
| Discussion #2, Sept 23, Microcredit    | Thursday Sept 11      | 12:45-1:15 | B-D Aud |
| Discussion #3, Sept 30, Donka Hospital | Tuesday Sept 16       | 12:15-1:15 | B-D Aud |

Manual produced by: Peter Winch and Jaime Castillo

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# I. Course Overview

## 1.1 Course Description

Welcome to Introduction to International Health. This course provides an overview of current issues in international public health with particular emphasis on low and middle-income countries. The course is designed to be both a first course for students entering the field of international health, as well as an update on current technical and policy issues for advanced students who may have considerable experience. While taking this course, you may identify specific topics in which you want to gain more knowledge and skills in courses offered later in the year on core areas of international health such as structural adjustment and health care reform; organization and management of health systems; community health and primary health care; humanitarian assistance and refugee health; international nutrition; vaccine development and policy; disease prevention and control; and social and behavioral interventions.

The course is taught in three modules:

**Module 1** introduces basic concepts and tools needed to describe the health situation and health priorities of a country. We examine concepts as demographic and epidemiologic transition; epidemiologic polarization, and burden of disease. Students describe the health situation of a country applying health indicators and criteria for setting health priorities commonly used in international public health. On-line exercises provide the opportunity to train research skills and to integrate human rights principles and environmental indicators into the analysis.

**Module 2** discusses the organization, financing and management of health systems and its relevance to the analysis of public health problems in low and middle-income countries in particular. A video and discussion groups exercise explore the role of health systems.

**Module 3** focuses on the process of problem definition and selection of key determinants, strategies, partners and measurement indicators. Students define public health problems; identify key determinants and stakeholders; discuss and select activities to address the problem; and recommend measurement indicators. We also examine underlying models of economic and social development, current issues in health care financing and community-based approaches in international public health. The module closes with a discussion of career planning and course alternatives in international health.

We hope you enjoy the course. If you have any questions, please contact the teaching assistant for your discussion group section, or write an e-mail to [introi@jhsph.edu](mailto:introi@jhsph.edu).

## **1.2 Overview of the assignments**

The entire grade for this course is based on two 10-page double-spaced assignments. The assignments are described in detail later in this manual, as well as during the first lecture.

Both assignments are based on a specific country chosen by the student. Students are free to choose any country, whether low, middle or high income.

In Assignment One, students describe the demographic and health situation in their chosen country, examine how their country's health indicators compare to others in the region, and describe how these indicators have changed over time. In the final question, students state the criteria they think are most appropriate for selecting health priorities for their country, and state what they feel to be the top health priorities of the country and justify the choices they made. Assignment One is similar to a "situational assessment" that Ministries of Health, donor agencies and non-governmental organizations carry out when they are thinking through how to invest the funds they have available for health activities in a country.

In Assignment Two, students decide on a health problem that could be the focus of a three-year \$5 million grant given by a donor agency to improve health in their chosen country. Students argue for why the health problem or issue is the one that most warrants investment of additional resources at this time, and describe how they would invest these resources to address the problem or issue they have selected.

Successful completion of Assignments One and Two requires searching for data on the internet, looking up scientific articles, incorporating concepts introduced in the lectures and interacting with other students taking the course. Both Assignments require the creation of a number of tables summarizing data about the country.

More detail on the assignments will be available in the lectures, specifically lectures 1, 2, 4, 5 and 10, including instructions for completing each question, websites for accessing demographic, health, social and economic indicators, and instructions for the format of the assignment.

### **1.3 Overview of Course Objectives**

By the end of the course students should be able to

- ❖ Describe the health situation of a country using the concepts of demographic and epidemiological transition
- ❖ Identify and apply a wide array of indicators to the analysis of international public health problems
- ❖ Analyze a public health problem and recommend strategies using a problem solving oriented approach
- ❖ Integrate human rights into the analysis of international public health problems
- ❖ Discuss economic, community and social development issues as related to the definition of health problems and the development of interventions
- ❖ Recognize the role of health systems and the impact of health care financing mechanisms in international public health
- ❖ Recognize major environmental health problems in the international context
- ❖ Clarify topical interests in international public health

### **1.4 Course Grades and Evaluation**

- ❖ 40% Written assignment #1, due Thursday September 25, 2003 in class
- ❖ 60% Written assignment #2, due Thursday October 23, 2003 in class or by 6pm on Friday October 24, 2003 in the course mailbox outside Room E 5527
- ❖ Students are expected to participate actively in all 5 discussion group sessions. Participation in discussion groups is not graded, but up to 10 points may be deducted from the final grade if students either do not attend discussion groups or do not assist in with preparation of group assignments.

#### **1.4.1 Grading of assignments**

- ❖ All Assignments are individual. You are encouraged to discuss the assignment questions. You must, however, write up your assignment individually
- ❖ Grading process: Initial grading of all assignments will be carried out by the teaching assistants for the course who are doctoral students in the School of Public Health. Assignments will be graded on different sets of criteria using the grading sheet shown in the syllabus. After initial grading, the papers are reviewed by a faculty member to ensure that the criteria have been applied equally.
- ❖ Default grade. In the "criteria for grading" section, you will see that many of the questions have a "default grade". This is the grade that a question receives if the answer is complete, but not "above average". To get above the default grade requires that the answer be innovative, insightful and/or particularly well researched (Statements backed up by appropriate references).

## II. Detailed Course Objectives

This course provides an overview of current issues in health policy and implementation of health programs in low- and middle-income countries. The course focuses primarily on activities related to health, social, and economic development funded and/or implemented by Ministries of Health, multilateral organizations, and bilateral and non-governmental organizations.

The course has two sets of objectives:

1. General learning objectives related to international health programs and policies
2. Degree-specific academic planning objectives

### ***II.1 General learning objectives***

By the end of the course students should be able to do the following:

- ❖ Describe the health situation of a country using the concepts of demographic and epidemiological transition
- ❖ Identify and apply a wide array of indicators to the analysis of international public health problems
- ❖ Analyze a public health problem and recommend strategies using a problem-solving oriented approach
- ❖ Integrate human rights into the analysis of international public health problems
- ❖ Discuss economic, community, and social development issues as related to the definition of health problems and the development of interventions
- ❖ Recognize the role of health systems and the impact of health care financing mechanisms in international public health
- ❖ Recognize major environmental health problems in the international context
- ❖ Clarify topical interests in international public health

### ***II.2 Degree-specific academic planning objectives***

#### **Masters of Health Science**

1. To further define the student's geographical and topical interests in international public health. This will aid in the definition of learning objectives for the year during first term, and selection of courses in subsequent terms.
2. To further define the type of internship the student wants to do in the second year of the degree program.

#### **Masters of Public Health**

1. To further define the student's geographical and topical interests in international public health. This will aid the student in the completion of the MPH Goals Analysis and learning objectives for the year during first term.
2. To select a topic or choice of topics for the MPH Capstone Project (<http://www.jhsph.edu/Academics/MPH/capstone.html>). The student may also choose to use Assignment #2 to start work on the Capstone Project.

## **DrPH, ScD and PhD**

1. To further define the student's geographical and topical interests in international public health. This will aid the student in developing learning objectives and selecting courses.
2. To start the process of identifying a topic for the student's DrPH externship or doctoral dissertation research.

### ***II.3 Further courses***

The course is designed to be the first course for students in the Department of International Health, MPH students pursuing a concentration related to international health, as well as students from Homewood Campus or from other departments with an interest in international health. Students can follow this course by taking a more in-depth course in core areas of international health such as structural adjustment and health care reform; organization and management of health systems; community health and primary health care; humanitarian assistance and refugee health; international nutrition; vaccine development and policy; disease prevention and control; and social and behavioral interventions.

Some of the courses that go into greater depth on specific intervention strategies include:

#### **Direct Interventions**

|              |  |
|--------------|--|
| 221.612      | Confronting the burden of injuries: A global perspective             |
| 221.627      | Maternal Health Care in Developing Countries                         |
| 221.639      | Refugee Health Care  |
| 221.668      | Foundations of behavior change interventions in developing countries |
| 222.649      | International Nutrition  |
| 222.657      | Food and Nutrition Policy  |
| 223.662      | Vaccine Development and Application                                  |
| 223.663      | Infectious Diseases in Child Survival                                |
| 223.680      | Global Disease Control Programs and Policies                         |
| 223.705      | Clinical Vaccine Trials  |
| 380.731/7321 | Health Communication Programs  |

#### **Organization and Management of Health Systems**

|         |   |
|---------|---|
| 221.604 | Case Studies in Health Systems Decision-Making                      |
| 221.661 | Project Development for Primary Health Care in Developing Countries |
| 221.706 | Management of Health Systems in Developing Countries                |
| 221.722 | Quality Assurance Management Methods for Developing Countries       |
| 551.601 | Managing Health Services Organizations                              |
| 551.602 | Exercises in Managing Health Services Organizations                 |
| 551.605 | Case Studies in Management Decision-Making                          |

#### **Structural Adjustment, Reform of Health Care Financing**

|            |                             |
|------------|-----------------------------|
| 221.609.01 | International Health Reform |
|------------|-----------------------------|

#### ***11.4 Terms and concepts to be mastered in the course***

By the end of the course, the student should have mastered the following terminology and concepts:

- ❖ Demographic transition, population pyramids
- ❖ Neonatal mortality rate, Perinatal mortality rate, Infant mortality rate, <5 mortality rate, maternal mortality ratio
- ❖ Top causes of death in children less than 1 year of age
- ❖ Top of causes of death in children 1-5 years of age
- ❖ Top causes of maternal mortality
- ❖ Impact of HIV/AIDS in different world regions
- ❖ Epidemiologic transition, epidemiologic polarization, burden of disease, DALY
- ❖ GNP, GDP, Gini Coefficient
- ❖ Development bank, structural adjustment, sectoral adjustment
- ❖ Levels of causality, proximate and distal determinants of mortality
- ❖ Human rights as a framework for health
- ❖ Environmental systems indicators
- ❖ Primary health care, child survival
- ❖ Interventions to improve organization and management of health systems
- ❖ Decentralization
- ❖ Health sector reform, mechanisms for health care financing
- ❖ Vertical program, horizontal program
- ❖ Bilateral, multilateral organizations
- ❖ Non-governmental organizations
- ❖ Economic development, social development
- ❖ Microcredit, microenterprise
- ❖ Input, process, output, outcome and impact indicators

### **III. General Guidelines for Written Assignments**

#### ***III.1 Format for assignments***

All written assignments must have these characteristics:

- ❖ Cover page including:
  - Name (first name/last name)
  - Current email address
  - Mailing address
  - Assignment number (#1 or #2)
  - Country chosen
- ❖ Font: Times New Roman
- ❖ Font size: Minimum font size is 12 points (12 pt) or 10 characters per inch (10 cpi)
- ❖ Double-spaced
- ❖ Header or footer on every page (except front page) with:
  - Your name (first name/last name)
  - Assignment number (#1 or #2), and
  - Page number
- ❖ Margins, top, bottom, left and right of at least 1" = 2.54 cm.
- ❖ All tables and graphs have to be labeled and numbered (according to the order of presentation on the main text). No table takes more than one page (except Table 6).
- ❖ Graphs printed from Web sites should contain the graph only (you may have to cut the graph out and paste it to a clean piece of paper)
- ❖ Length: up to 10 double-spaced pages of text, not including tables, references, and cover page

#### ***III.2 Citing sources of information***

**Proper citation of sources is essential:**

- ❖ You must have a list of all the references you cited at the end of the assignment. This reference list will not count in your page total.
- ❖ Use a consistent format for references. Any consistently used format is acceptable (e.g., ICMJE, APA). If you do not have a format, we recommend you use the format of the International Committee of Medical Journal Editors (ICMJE), also known as the Vancouver format, which is shown in the next pages and described at:  
<http://www.icmje.org/index.html#reference>
- ❖ Cite all electronic references according to the Electronic Reference Formats recommended by the American Psychological Association (APA): <http://www.apastyle.org/elecref.html>

#### **Quoting and paraphrasing**

Any time you copy text from an article or report word for word, it must be in quotation marks and the source must be cited (including the page number).

- ❖ Use of quotation marks: quotations marks are used to indicate that material is taken from another source. Quotation marks clarify authorship of words and ideas presented in the text:
  - Text with no quotation marks and no citation: the ideas and words presented in the text belong to the author of the paper
  - Text with no quotation marks but with a citation: the words are yours, but the ideas belong to someone else
  - Text with quotation marks and a citation: the ideas and words belong to someone else
- ❖ When to use word-for-word quotations? There is no rigid rule, but a recommendation is when the passage states an expert opinion relevant to your argument. Try to limit quoting to essential passages. An adequate paper is not a summary of quotations.
- ❖ When to paraphrase? Any time we refer to general/background information.
- ❖ How to paraphrase? Read the original. Put the original aside, then write your paraphrased version. Check your version with the original for plagiarism and accuracy. Insert the citation. Citing is essential in order to avoid plagiarism.

## Plagiarism

- ❖ What is plagiarism? To take ideas or words of another as one's own without crediting the source
- ❖ We can distinguish four types of plagiarism:
  1. "Direct plagiarism: Verbatim lifting of passages without enclosing the borrowed material in quotation marks and crediting the original author.
  2. Mosaic: Borrowing the ideas and opinions from an original source and a few verbatim words or phrases without crediting the original author. In this case, the plagiarist intertwines his or her own ideas and opinions with those of the original author, creating a "confused, plagiarized mass."
  3. Paraphrase: Restating a phrase or passage, providing the same meaning, but in a different form without attribution to the original author.
  4. Insufficient acknowledgment: Noting the original source of only part of what is borrowed or failing to cite the source material in such a way that a reader will know what is original and what is borrowed."

Source: American Medical Association (AMA). (1998). Manual of Style, 9th Ed., p. 104. Baltimore, MD: Williams & Wilkins

### ***III.3 Selected Reference Formats for the International Committee of Medical Journal Editors (ICMJE) (Vancouver Group)***

References should be numbered consecutively in the order in which they are first mentioned in the text. Identify references in text, tables, and legends by Arabic numerals in parentheses.

#### **1. Standard journal article: List the first six authors followed by et al.**

Vega KJ, Pina I, Krevsky B. Heart transplantation is associated with an increased risk for pancreatobiliary disease. *Ann Intern Med* 1996;124(11):980-3.

More than six authors:

Parkin DM, Clayton D, Black RJ, Masuyer E, Friedl HP, Ivanov E, et al. Childhood leukaemia in Europe after Chernobyl: 5 year follow-up. *Br J Cancer* 1996;73:1006-12.

#### **2. Journal article with organization as author:**

The Cardiac Society of Australia and New Zealand. Clinical exercise stress testing. Safety and performance guidelines. *Med J Aust* 1996;164:282-4.

#### **5. Journal article in volume with supplement:**

Shen HM, Zhang QF. Risk assessment of nickel carcinogenicity and occupational lung cancer. *Environ Health Perspect* 1994;102 Suppl 1:275-82.

#### **16. Book with personal author(s):**

Ringsven MK, Bond D. Gerontology and leadership skills for nurses. 2nd ed. Albany (NY): Delmar Publishers; 1996.

#### **17. Book with editor(s), compiler(s) as author:**

Norman IJ, Redfern SJ, editors. Mental health care for elderly people. New York: Churchill Livingstone; 1996.

#### **18. Book with organization as author and publisher:**

Institute of Medicine (US). Looking at the future of the Medicaid program. Washington: The Institute; 1992.

#### **19. Chapter in a book:**

Phillips SJ, Whisnant JP. Hypertension and stroke. In: Laragh JH, Brenner BM, editors. Hypertension: pathophysiology, diagnosis, and management. 2nd ed. New York: Raven Press; 1995. p. 465-78.

#### **22. Scientific or technical report issued by performing agency:**

Field MJ, Tranquada RE, Feasley JC, editors. Health services research: work force and educational issues. Washington: National Academy Press; 1995. Contract No.: AHCPR282942008. Sponsored by the Agency for Health Care Policy and Research.

## **25. Newspaper article:**

Lee G. Hospitalizations tied to ozone pollution: study estimates 50,000 admissions annually. The Washington Post 1996 Jun 21;Sect. A:3 (col. 5).

## **33. Journal article in electronic format:**

Morse SS. Factors in the emergence of infectious diseases. Emerg Infect Dis [serial online] 1995 Jan-Mar [cited 1996 Jun 5]; 1(1):[24 screens]. Available from: URL: <http://www.cdc.gov/ncidod/EID/eid.htm>

## **Electronic reference formats recommended by the American Psychological Association**

Full description of standards for referencing of internet sources can be found at the American Psychological Association (APA) Web site: <http://www.apastyle.org/elecref.html>

### ***III.4 Late Assignments***

- ❖ No late assignments accepted without prior permission from instructor.
- ❖ Assignments submitted late (after September 25 or October 24) without granting of an extension from the instructor will have 5% of the grade subtracted for each day the assignment is overdue.
- ❖ The absolute final day for submission of late assignments, for which an extension was granted (unless illness or personal catastrophe is involved), is November 1, 2003. Assignments submitted after November 1, 2003 will not be graded until the first week of 4th term, and will receive a maximum grade of B.
- ❖ Do not attach late assignments to e-mail messages sent to the instructor. Only hard copies are accepted. Assignments submitted as e-mail attachments will not be graded.
- ❖ Late assignments should be placed in the course mailbox outside Room E5527 or mailed to:

Ms. LaKeisha Hicks, Room E5527  
Department of International Health  
Johns Hopkins Bloomberg School of Public Health  
615 North Wolfe Street, Baltimore MD 21205

## IV. Instructions for Assignment One

1. Select a country of your choice.
2. Look up population, health, and nutrition data from the Web sites described below (and from other sources)
3. Produce the tables and exercises.
4. Answer the questions for the assignment.

When researching via the Internet, please use with caution any data found whose source is not specified. **Students are discouraged from using the Internet as their sole source of information.** A typical assignment will have 5–10 citations from scientific journals (peer reviewed).

Length: Up to 10 double-spaced pages, not including tables, references and cover page.

### *IV.1 Tables 1 to 4: Health and population indicators*

Make sure you have completed the following seven tables before answering the Questions for Assignment One. Please do not submit additional tables and figures beyond the seven mentioned above unless they support a point you are making and are referred to and discussed in the text.

#### **Table #1 Health and Population Indicators**

Create a table containing the basic health and population indicators for the country you have selected. Not all will be available for every country. The table has five columns:

- ❖ Name of the indicator or statistic
- ❖ Latest year reported
- ❖ Value for your country
- ❖ Source of the estimate of this indicator. Include name of the source (e.g. UNICEF, WorldBank, WHO, etc.)
- ❖ Reference: a) Electronic reference: URL and date accessed; and b) Standard reference: Name of publication and year

| Indicators  | Sources of data   |
|---|---|
| <p><b>General Health and Population Indicators</b></p> <p>Total population</p> <p>Percent of population living in urban areas</p> <p>Infant Mortality Rate (IMR)</p> <p>Child Mortality Rate (CMR)</p> <p>Under 5 Mortality Rate (&lt; 5MR)</p> <p>Neonatal Mortality Rate</p> <p>Neonatal mortality as proportion of all under-five mortality</p> <p>Percent of babies born with low birth weight</p> <p>Life Expectancy at Birth</p> <p>% underfives with moderate and severe wasting</p> <p>% underfives with moderate and severe stunting</p> <p>Measles immunization rate in children 12-23 months of age</p> <p>Total Fertility Rate</p> <p>Crude Death Rate</p> <p>Crude Birth Rate</p> <p>Contraceptive Prevalence</p> <p>% deliveries attended by Skilled Attendant</p> <p>Maternal Mortality Ratio*</p> <p>Percent of pregnant women immunized against tetanus</p> <p>Total adult literacy rate</p> <p>Prevalence of cigarette smoking in adult males and females</p> | <p><a href="http://www.phnip.com/dolphn/">http://www.phnip.com/dolphn/</a></p> <p><a href="http://www.measuredhs.com/">http://www.measuredhs.com/</a></p> <p><a href="http://devdata.worldbank.org/hnpstats/">http://devdata.worldbank.org/hnpstats/</a></p> <p><a href="http://www.unicef.org/sowc03/contents/index.html">http://www.unicef.org/sowc03/contents/index.html</a></p> <p>Neonatal mortality rate, maternal mortality ratio and low birth weight:</p> <p><a href="http://www.savethechildren.org/mothers/newborns/appendix2.shtml">http://www.savethechildren.org/mothers/newborns/appendix2.shtml</a></p> |
| <p><b>HIV/AIDS Indicators</b></p> <p>Estimated number of adults living with HIV/AIDS</p> <p>Estimated number of children living with HIV/AIDS</p> <p>Estimated number of annual deaths due to HIV/AIDS</p> <p>Estimated current living orphans</p>  | <p><a href="http://www.unaids.org/hivaidsinfo/statistics/fact_sheets/index_en.htm">http://www.unaids.org/hivaidsinfo/statistics/fact_sheets/index_en.htm</a></p> <p><a href="http://www.census.gov/ipc/www/hivctry.html">http://www.census.gov/ipc/www/hivctry.html</a></p> <p><a href="http://www.measuredhs.com/hivdata/start.cfm">http://www.measuredhs.com/hivdata/start.cfm</a></p>  |

\* Although commonly referred to as a rate, this measure is actually a ratio because the unit of measurement of the numerator (women) is different than that of the denominator (births).

## Table or Graph #2

## Evolution of Child Mortality and Fertility

Create a table or a graph showing the changes for your country between 1960 (or 1970 or earliest date data are available) and 2000 (or most recent data available) in a) Under-5 Mortality Rate, b) Infant Mortality Rate, c) Infant mortality as a proportion of all Under-5 Mortality at each point in time (1960, 1970, 1980..), and d) Total Fertility Rate.

### STEPS:

1. Go to: <http://devdata.worldbank.org/hnpstats/>
2. Select "Data-query" under Time Series Data
3. Go to Country, choose your country, then click Select
4. Go to Series, choose
  - Mortality rate, infant (per 1000 live births)
  - Mortality rate, under-5 (per 1000 live births)
  - Fertility rate, total (births per woman)then click Select
5. Go to Years, choose all the years from 1970 to present, then click Select
6. Go to Results, change the decimal places (top right corner) from 0 to 0.0
7. Make a table or graph of the results. The graph you can produce automatically is hard to read and interpret. It is recommended that you make your own table or graph.
8. See also Table 9 "The Rate of Progress" in the UNICEF 2003 State of the World's Children report (at the end of this manual), or you may also try <http://www.phnip.com/dolphn/>

## Table #3 Regional Comparison of Health Statistics

Create a table comparing the most recent values for the following indicators with the values for 5 other countries found in the same region (e.g. Latin America, South Asia, West Africa), and if available also mean values for the region as a whole. Try to select your countries so there is a wide range of values for each indicator. Indicators to compare are:

Neonatal Mortality Rate (NMR)  
Infant Mortality Rate (IMR)  
Under 5 Mortality Rate (<5MR)  
Life Expectancy at Birth  
Total Fertility Rate  
Contraceptive Prevalence Rate

HIV prevalence  
Maternal Mortality Ratio  
Measles immunization rate in children 12-23 months of age  
Percent of pregnant women immunized against tetanus

## **Table or figure #4      Population Pyramid**

Produce a population pyramid for your country  
<http://www.census.gov/ipc/www/idbpyr.html>

### ***IV.2 Tables 1 to 4: Sources of data on Health and Population Indicators***

#### **Data Online for Population, Health and Nutrition (DOLPHN) database**

Website: <http://www.phnip.com/dolphn/>

In early 2003 the Population, Health and Nutrition Information Project (PHNIP) released the prototype of its new Data Online for Population, Health and Nutrition (DOLPHN) database. DOLPHN was created to provide quick and easy access to a select group of commonly used demographic and health data relevant to the management of USAID global health programs. While most of these data are accessible from other Web sites, DOLPHN's principal advantage is to bring specifically filtered data from various sources together in one place to facilitate comparative and trend analyses. Other advantages to USAID users include grouping indicators by USAID focus areas and providing country classifications for sorting purposes. Students may find this database to be of limited usefulness for countries where USAID does not have health programs.

#### **Demographic and Health Surveys (MEASURE Project)**

Home page: <http://www.measuredhs.com/>

Data from Demographic and Health Surveys (DHS) are the preferred source of population information, if a DHS survey has been done in the country, as these surveys are conducted on a representative sample of the national population. For some countries it is possible to download data from DHS surveys, but that is not required for this assignment, and it will be easier for you to get your data from the devdata website described below.

#### **Save the Children/Saving Newborn Lives**

Home page: <http://www.savethechildren.org/mothers/newborns/appendix2.shtml>

Save the Children offers country data showing newborn health status indicators including: Neonatal mortality rate, maternal mortality ratio and low birth weight.

#### **HNPStats/World Bank**

Home page: <http://devdata.worldbank.org/hnpstats/>

HNPStats, short for Health, Nutrition, and Population Statistics, is a component of the Knowledge Management System of the World Bank's Human Development Network. HNPStats offers country data sheets showing summary indicators for health status, health determinants, and health finance.

#### **UNICEF**

Home page: <http://www.unicef.org>

Country Statistics <http://www.unicef.org/statis/>

The State of the World's Children 2001 <http://www.unicef.org/sowc01/>

The State of the World's Children 2002 <http://www.unicef.org/sowc02/>

The State of the World's Children 2003 <http://www.unicef.org/sowc03/contents/index.html>

## **Pan American Health Organization (Data on countries in the Americas)**

Home page: <http://www.paho.org>  
Click on "Country Health Profiles"

### ***IV.3 Table 1: Sources of data on HIV/AIDS Indicators***

#### **UNAIDS**

Home page: <http://www.unaids.org>  
Global surveillance fact sheets by country:  
[http://www.unaids.org/hivaidsinfo/statistics/fact\\_sheets/index\\_en.htm](http://www.unaids.org/hivaidsinfo/statistics/fact_sheets/index_en.htm)

#### **U.S. Census Bureau**

HIV/AIDS surveillance database <http://www.census.gov/ipc/www/hivaidsn.html>  
HIV/AIDS country profiles <http://www.census.gov/ipc/www/hivctry.html>

#### **Demographic and Health Surveys (MEASURE Project)**

Home page: <http://www.measuredhs.com/hivdata/start.cfm>

#### **UNICEF**

Also, if available for your country you can include HIV/AIDS data from Table 8 of the 2003 UNICEF State of the World's Children Report:

<http://www.unicef.org/sowc03/tables/table8.html>

### ***IV.4 Table 5: Malaria and/or tuberculosis map and/or indicators***

#### **Malaria map or table**

Note: This table/figure is optional, as maps are only available for selected African countries.

Go to: <http://www.mara.org.za/>  
Website for "Mapping Malaria Risk in Africa"

Click "Maps"

Click "Download maps"

Click "Updated A4 maps of MARA/ARMA products in bitmap format"

Note: Some days it is impossible to download the maps. If you can't download, then click on "Information on maps" and look at the maps for all of Africa. Also, if available for your country you can include malaria data from Table 8 of the 2003 UNICEF State of the World's Children Report:

- <http://www.unicef.org/sowc03/tables/table8.html>

#### **Tuberculosis table**

This table again is optional. You may also choose to create a table of indicators on tuberculosis, if applicable, with indicators such as estimated incidence, DOTS population coverage and DOTS treatment success rate. See the WHO Profiles of high burden countries:

- [http://www.who.int/gtb/Country\\_info/index.htm](http://www.who.int/gtb/Country_info/index.htm)

#### IV.5 Table 6: Humanitarian, environmental and economic indicators

Create a table of refugee/humanitarian assistance, environmental and hygiene, and economic indicators for your country. The table should have three columns: the name of the indicator or statistic, its value for your country, and the source of the estimate of this indicator. Include the following indicators/statistics. Not all will be available for every country, or relevant to every country. "Number of asylum seekers" is a good example. Many countries either will not keep statistics on asylum seekers, or will not use this term in their immigration services.

| Indicators   | Sources of data   |
|--|---|
| Refugee/Humanitarian Assistance Indicators<br>Estimated number of citizens of the country living as refugees in other countries<br>Estimated number of citizens of other countries living as refugees in the country<br>Estimated number of internally-displaced persons<br>Estimated number of asylum seekers | <a href="http://www.refugees.org/">http://www.refugees.org/</a><br><a href="http://www.unhcr.ch/">http://www.unhcr.ch/</a><br><a href="http://www.reliefweb.int">http://www.reliefweb.int</a>         |
| Environmental and hygiene indicators<br>Percent of population using improved drinking water sources 1999<br>Percent of population using adequate sanitation 1999   | <a href="http://www.unicef.org/sowc01/tables/#">http://www.unicef.org/sowc01/tables/#</a><br>Choose "Table 3: Health"   |
| Environmental Sustainability Index and five Environmental Systems Indicators: Air Quality, Water Quality, Water Quantity, Biodiversity and Terrestrial Systems   | <a href="http://www.ciesin.org/indicators/ESI/downloads.html#report">http://www.ciesin.org/indicators/ESI/downloads.html#report</a>   |
| Total and per-capita carbon dioxide emissions  | <a href="http://cdiac.esd.ornl.gov/trends/emis/em_cont.htm">http://cdiac.esd.ornl.gov/trends/emis/em_cont.htm</a>   |
| Economic Indicators<br>GNP per capita 1998<br>% population below \$1/day<br>% Central government expenditure for health<br>Debt service as % of exports of goods and services  | <a href="http://www.unicef.org/sowc01/tables/#">http://www.unicef.org/sowc01/tables/#</a><br>Choose "Table 6: Economic indicators"  |
| Gini Index (Coefficient) *<br>Percent share of income of poorest 20%<br>Percent share of income of richest 20%   | <a href="http://devdata.worldbank.org/hnpstats/DCselection.asp">http://devdata.worldbank.org/hnpstats/DCselection.asp</a><br>Choose "Distribution of income or consumption" and click "View/Download" |

\* The Gini index and the Gini coefficient are statistical measures of inequality: a value of 0 for either indicates perfect equality (everyone has the same share of the total wealth), while a value of 100 (for the Index) or 1 (for the coefficient) indicates total inequality (one person has all of the wealth).

For an explanation of the Lorenz curve and how the Gini coefficient is calculated, go to  
[http://www.paho.org/English/SHA/be\\_v22n1-Gini.htm](http://www.paho.org/English/SHA/be_v22n1-Gini.htm)

For more on the relation between health and inequality in the United States, go to  
<http://www.inequality.org>

## Table 6: Websites for Refugee/Humanitarian Assistance Indicators

International Federation of Red Cross and Red Crescent Societies, World Disasters Report 2003

<http://www.ifrc.org/publicat/wdr2003/>

U.S. Committee for Refugees (USCR)

Home page

<http://www.refugees.org/>

Go to "Refugee Conditions by Country"

United Nations Office for the Coordination of Humanitarian Affairs (OCHA)

Home page

<http://www.reliefweb.int>

Click on "By Country" in column on left

United Nations High Commission on Refugees (UNHCR)

Home page

<http://www.unhcr.ch/>

Amnesty International

Amnesty International is a world wide campaigning movement that works to promote all human rights enshrined in the Universal Declaration of Human Rights and other international standards. In particular Amnesty International campaigns to free all prisoners of conscience; ensure fair and prompt trials for political prisoners; abolish the death penalty, torture and other cruel treatment of prisoners; end political killings and 'disappearances'. It also opposes human rights abuses by opposition groups.

Home page

<http://www.amnesty.org>

Country information

<http://web.amnesty.org/web/content.nsf/pagesbycountrytitle/gbrcountry+page>

Human Rights Watch

Human Rights Watch is dedicated to protecting the human rights of people around the world. It defends victims and activists, campaigns against discrimination, upholds political freedom, seeks to protect people from inhumane conduct in wartime, and tries to bring offenders to justice. Human Rights Watch investigates and exposes human rights violations and holds abusers accountable. It challenges governments and those who hold power to end abusive practices and respect international human rights law. Finally, Human Rights Watch enlists the public and the international community to support the cause of human rights for all.

Home page

<http://www.hrw.org/>

AIDS and human rights:

<http://www.hrw.org/campaigns/aids/index.php>

## Table 6: Websites for Environmental Data

### Columbia University Center for International Earth Science Information Network (CIESIN)

|   |  |
|---|--|
| Home page   | <a href="http://www.ciesin.org">http://www.ciesin.org</a>  |
| Country data                                      | <a href="http://www.ciesin.org/indicators/ESI/downloads.html#report">http://www.ciesin.org/indicators/ESI/downloads.html#report</a><br>Download Annex #5 "Country Reports" |
| Description of Environmental Sustainability Index | <a href="http://www.ciesin.org/indicators/ESI/">http://www.ciesin.org/indicators/ESI/</a>  |

### United Nations Environment Programme (UNEP)

|                                     |   |
|-------------------------------------|---|
| Home page                           | <a href="http://www.unep.org">http://www.unep.org</a>                                       |
| Global Environmental Outlook portal | <a href="http://www.unep.org/Geo/index.htm">http://www.unep.org/Geo/index.htm</a>           |
| Environmental outlook by region     | <a href="http://www.unep.org/Geo/regreports.htm">http://www.unep.org/Geo/regreports.htm</a> |

### Carbon Dioxide Information Analysis Center (CDIAC) in Oak Ridge, Tennessee

|                                    |   |
|------------------------------------|---|
| Home page                          | <a href="http://cdiac.esd.ornl.gov/">http://cdiac.esd.ornl.gov/</a>   |
| Total and per-capita CO2 emissions | <a href="http://cdiac.esd.ornl.gov/trends/emis/em_cont.htm">http://cdiac.esd.ornl.gov/trends/emis/em_cont.htm</a> |

### Johns Hopkins University Center for a Livable Future (CLF)

|           |   |
|-----------|---|
| Home page | <a href="http://www.jhsph.edu/environment">http://www.jhsph.edu/environment</a> |
|-----------|---|

### Johns Hopkins University Program on Health Effects of Global Environmental Change

|           |   |
|-----------|---|
| Home page | <a href="http://www.jhsph.edu/globalchange/">http://www.jhsph.edu/globalchange/</a> |
|-----------|---|

### Harvard Medical School Center for Health and the Global Environment

|           |   |
|-----------|---|
| Home page | <a href="http://www.med.harvard.edu/chge/">http://www.med.harvard.edu/chge/</a> |
|-----------|---|

### Goddard Institute for Space Studies (Source for maps of environmental problems)

|           |   |
|-----------|---|
| Home page | <a href="http://www.giss.nasa.gov/">http://www.giss.nasa.gov/</a> |
|-----------|---|

#### IV.6 Table 7: Top health problems in your country

This is the part of Assignment One where students often have difficulty. While the previous tables were very structured in terms of what is asked for, Table 7 is not. We do not want you to exactly reproduce the table below for your country. Rather we are asking you to think about what makes sense for your country, what different ways of defining health priorities reflect the reality of the country.

Make a table showing three or more ways that one could define the top three public health problems in the country, the criteria upon which the choices are made, and the source of the data.

An example is given below. You do not need to follow this. Please come up with your own criteria, taking into account availability of information. Note that top direct causes of mortality are unavailable for most countries.

|                                 | Ways of defining top three public health problems in Country X                  |  |  |   |
|---------------------------------|---|--|--|---|
| Criteria* for choosing problems | Top direct causes of mortality right now in year xx                             | Projected top causes of DALY loss at some point in the future e.g. 2020      | Most important behavioral risk factors for disease                             | Social and environmental conditions affecting health and equity   |
| Top three problems              | 1. Cardio-vascular disease<br>2. Malignant neoplasms<br>3. Respiratory diseases | 1. Neuro-psychiatric conditions<br>2. Cardio-vascular disease<br>3. Injuries | 1. Smoking<br>2. High-calorie, high-fat diet<br>3. Alcohol and drug dependence | 1. High rates of imprisonment for ethnic minorities<br>2. Contamination of water by toxic waste<br>3. Lack of human rights for illegal immigrants |
| Sources of information          | Annual report by Ministry of Health based on death certificates (Ref)           | Estimates from WHO Report and World Bank website (Ref)                       | Scientific articles X, Y and Z (Ref)   | Reports by NGOs A and B (Ref)   |

\* Note: These criteria are examples only. You are free to use these criteria, modify them or use totally different criteria.

## IV.7 Questions for Assignment One

1. A. At what stage (or stages) is your country in the demographic transition?  
B. Is there evidence for significant variation by region, social class or ethnic group?

Justify your answers referring to Tables 1, 2 and 4 as well as the dynamic presentation of the population pyramid at [www.census.gov](http://www.census.gov). If your country does not fit neatly into any stage of the demographic transition, state this and explain why. If there are significant “bulges” in the population pyramid, describe these.

2. Burden of disease, epidemiologic transition
  - A. Describe in general terms the patterns of burden of disease in your country. Is the concept of “epidemiologic transition” applicable to your country, and if so at what stage is your country in the epidemiologic transition? What profile of under-five mortality is found in your country?
  - B. Is there direct or indirect evidence that different groups within your country (rich versus poor, ethnic minorities etc.) have distinct patterns of disease burden?

Justify your answers. If your country does not fit neatly into any stage of the epidemiologic transition, state this and explain why. Examples of data to refer to in your justification, if available:

- ❖ Discussion of country typologies (profiles) for the cause structure of child deaths on pp 2231-22 and Figures 4 and 5 in: Black RE, Morris SS and Bryce J (2003). Where and why are 10 million children dying each year? *Lancet* 361: 2226-34.
- ❖ Patterns of mortality in your country, see WHOSIS country-specific Life Tables for 191 countries [http://www3.who.int/whosis/menu.cfm?path=whosis,burden\\_statistics,life&language=english](http://www3.who.int/whosis/menu.cfm?path=whosis,burden_statistics,life&language=english)
- ❖ Deaths by cause for the mortality stratum your country is in
  - See Annex Table 2 of WHO World Health Report 2002
  - [http://www.who.int/whr/2002/whr2002\\_annex2.pdf](http://www.who.int/whr/2002/whr2002_annex2.pdf)
- ❖ Burden of disease is disability-adjusted life years (DALYs) for the mortality stratum of your country
  - See Annex Table 3 of WHO World Health Report 2002
  - [http://www.who.int/whr/2002/whr2002\\_annex3.pdf](http://www.who.int/whr/2002/whr2002_annex3.pdf)
- ❖ HIV prevalence and estimated number of deaths due to HIV/AIDS
  - See UNAIDS website Global Surveillance Fact Sheets
  - [http://www.unaids.org/hivaidsinfo/statistics/fact\\_sheets/index\\_en.htm](http://www.unaids.org/hivaidsinfo/statistics/fact_sheets/index_en.htm)
- ❖ Tuberculosis: Profiles of high-burden countries
  - [http://www.who.int/gtb/Country\\_info/index.htm](http://www.who.int/gtb/Country_info/index.htm)
- ❖ Statistics on tobacco use from WHO Tobacco control country profiles;
  - <http://tobacco.who.int>, then click “Countries”
- ❖ Global Database on Obesity and Body Mass Index (BMI) in Adults (Not yet on-line)
  - [http://www.who.int/nut/db\\_bmi.htm](http://www.who.int/nut/db_bmi.htm)
- ❖ Gini Index/Coefficient and other data on distribution of income or consumption.

3. Comment on the changes in under-five mortality rates, infant mortality rates and total fertility rates between 1960 (or earliest year for which you could find data) and the present for the country you have chosen (Table or Graph #2).

- ❖ In what age group has under-five mortality dropped the most (< 1 month, 1 to 12 months, 1 year to 5 years)?
- ❖ Has the degree of change in child and infant mortality and fertility been large or small?
- ❖ Have the improvements been sustained, or has health status worsened in recent years?
- ❖ To what do you attribute the improvement or lack of improvement?
- ❖ Be specific in terms of both economic, social and political conditions, and the response of the health system to the health problems of the population.

4. In general do other countries in the region have better or worse health status than your country? (Table 3) Select one other country from the region whose indicators for mortality and fertility are significantly higher or significantly lower than those of your country. To what do you attribute your country's good or poor performance relative to this other country? Be as specific as possible in terms of social and economic conditions affecting health, levels of literacy and education, government policies and programs, activities of non-governmental organizations etc.

Note: You might benefit from working together and discussing with someone who has chosen this other country as her/his topic for Assignment One.

5. Referring to Table 7 as well as indicators presented in other Tables and your answers to the previous questions, state which of the ways of defining the top three public health problems you think best captures or summarizes the public health priorities for the country. You might consider in your answer which of the ways of defining the top problems would be most effective in communicating the public health agenda to potential partners, developing a plan of action and putting in place policies and/or programs to address these problems. Explain the reasons for your choice.

## **IV.8 Country-Specific Information for Assignment One**

For academic information about countries, it is better to do a search on "African studies", "Asian studies", "Latin American studies" == > this usually gives you web sites set up by universities rather than information attractive to potential tourists.

### **World Health Organization**

- ❖ Country-specific health info <http://www.who.int/country/en/>

### **African studies Web sites**

- ❖ Stanford Library Africa health <http://www-sul.stanford.edu/depts/ssrg/africa/health.html>
- ❖ University of Wisconsin <http://africafocus.library.wisc.edu/>
- ❖ University of Pennsylvania <http://www.africa.upenn.edu/>
- ❖ Country-specific pages [http://www.sas.upenn.edu/African\\_Studies/Home\\_Page/Country.html](http://www.sas.upenn.edu/African_Studies/Home_Page/Country.html)
- ❖ East African Living Encyclopedia [http://www.sas.upenn.edu/African\\_Studies/NEH/neh.html](http://www.sas.upenn.edu/African_Studies/NEH/neh.html)

### **Middle and Near Eastern Studies Web sites**

- ❖ University of Texas <http://link.lanic.utexas.edu/menic/>
- ❖ Columbia University <http://www.columbia.edu/cu/libraries/indiv/area/MiddleEast/>

### **Latin American Network Information Center at the University of Texas at Austin**

- ❖ Home page <http://lanic.utexas.edu/>
- ❖ Libraries and Reference <http://lanic.utexas.edu/subject/libraries/>

### **Research School of Pacific and Asian Studies, The Australian National University, Canberra, Australia, Asian Studies WWW Virtual Library**

- ❖ Home page <http://coombs.anu.edu.au/WWWVL-AsianStudies.html>

## IV.9 Grading Sheet for Assignment One

Name of student: \_\_\_\_\_

Country: \_\_\_\_\_

| Grade | Question | Description of question                           | Total possible points |
|-------|----------|---|-----------------------|
|       |          | Citation of sources of information                | 10                    |
|       |          | Adherence to length and font guidelines           | 5                     |
|       |          | Quality of literature review                      | 10                    |
|       | 1        | Demographic transition                            | 15                    |
|       | 2        | Burden of disease                                 | 15                    |
|       | 3        | Changes in IMR, <5MR, TFR                         | 15                    |
|       | 4        | Explanation of performance                        | 15                    |
|       | 5        | Justification of selection of top health problems | 15                    |
|       | TOTAL    |   | 100                   |

Note: You receive no points for the tables and figures. We only grade your answers to the questions and discussion of the tables and figures. Please do not submit additional tables and figures beyond the seven mentioned on the previous page *unless* they support a point you are making and are referred to and discussed in the text.

## Criteria for grading (\* = Default grade)

### Citation of sources of information \_\_\_\_\_/10

#### 2 points each for:

- \_ /2 List of references and sources of data included
- \_ /2 All quotes or paraphrasing of text is referenced, quotation marks used where appropriate
- \_ /2 All references in the list of references are cited or discussed at an appropriate place in the paper
- \_ /2 Consistent format for references such as ICMJE
- \_ /2 Web references cited according to APA guidelines

### Adherence to length and font guidelines \_\_\_\_\_/5

- 0 - Paper > 10 double-spaced pages (not counting tables and list of references) OR Font < 12 points OR Text not double-spaced OR Margins < 1"=2.54cm.
- 5 - Paper is 10 double spaced pages or less (not counting tables and list of references) AND Font is 12 points/10 characters per inch or larger AND Text is double-spaced AND Margins are 1"=2.54cm or greater.

### Quality of literature review/supporting data \_\_\_\_\_/10

- \_ /2 Inclusion of information from internet
- \_ /4 Appropriate integration of material from textbook and required readings for the course
- \_ /4 Appropriate integration of material from other sources: articles in scientific journals, books and unpublished reports

### Questions 1 and 2 Q1 \_\_\_\_\_/15

- 0 - Question not answered Q2 \_\_\_\_\_/15
- 6 - Incomplete answer, no data presented to support statements made
- 8 - Incomplete answer, insufficient data presented to support statements made
- 10 - Complete answer with sufficient data, one or more errors in interpretation of data
- \*12 - Complete answer with sufficient data, no errors in interpretation of data
- 15 - Outstanding answer with insightful interpretation of data or novel way of presenting data

### Question 3 \_\_\_\_\_/15

- 0 - Question not answered
- 6 - Incomplete answer: 1960 and 1995/1996 data presented, but no explanation at all of the reasons for improvement or lack of improvement
- 8 - Incomplete answer: 1960 and 1995/1996 data presented, but minimal explanation of the reasons for improvement or lack of improvement
- \*10 - Complete answer, but reasons for improvement or lack of improvement do not go beyond simple citing of statistics, e.g. "IMR went down because GNP went up", no insight into the political, social or economic dynamics in the country that resulted in these changes
- 12 - Complete answer, some insight into the political, social or economic dynamics in the country that resulted in these changes
- 14 - Very good answer, description of changes related to

specific government policies or social or economic changes  
15 - Excellent answer displaying great insight into the political, social and economic dynamics of the country

### Question 4 \_\_\_\_\_/15

- 0 - Question not answered
- 6 - Incomplete answer: data presented, but no explanation at all of the reasons for differences
- 8 - Incomplete answer: data presented, but minimal explanation of the reasons for differences
- \*10 - Complete answer, but reasons for differences do not go beyond simple citing of statistics, e.g. "IMR is lower in country X than country Y because GNP is higher in country X than country Y", no insight into the political, social or economic dynamics in the country that result in these differences
- 12 - Complete answer, some insight into the political, social or economic dynamics in different countries that result in differential health outcomes
- 14 - Very good answer, description of differences related to specific government policies or social or economic changes
- 15 - Excellent answer displaying great insight into the political, social and economic dynamics of the countries involved

### Question 5 \_\_\_\_\_/15

- 0 - Question not answered
- 6 - Incomplete answer: but no justification at all for priorities chosen
- 8 - Incomplete answer: data presented, but minimal justification of the priorities
- \*10 - Complete answer, but justification of priorities does not go beyond simple citing of statistics, e.g. "Cardio-vascular disease is top cause of mortality, therefore it is top health priority, cancer is second cause of mortality, therefore it is second health priority". No reasons given for why this is a better way of defining health priorities than some other way, or why priorities could not be defined at a different level (proximal vs. distal determinants)
- 12 - Complete answer, some justification for why the method chosen of defining priorities might be better than another method, or why some diseases merit more attention than others, or why defining priorities in terms of proximal determinants may be better than in terms of distal determinants
- 14 - Very good answer, justification for both the way of choosing or defining health priorities and of the priorities themselves
- 15 - Excellent answer displaying great insight into the political/policy consequences of defining priorities in one way versus another.

### TOTAL \_\_\_\_\_

**IV.10 Differences between a mediocre and an excellent Assignment One**

|                        | Mediocre assignment   | Excellent assignment  |
|------------------------|---|---|
| Data and indicators    | <ul style="list-style-type: none"> <li>❖ Student invests enormous amount of time tracking down best estimates of each of the indicators... BUT</li> <li>❖ Tremendous amount of data presented, without adequate synthesis or interpretation</li> <li>❖ Because of time spent finding best estimate for each indicator, student runs out of time to write thoughtful answers</li> <li>❖ Assignment has many tables and graphics, but written answers are poorly developed</li> </ul> | <ul style="list-style-type: none"> <li>❖ After one or two evenings of looking up the data, student completes the assignment with what she/he has been able to find and concentrates on writing thoughtful answers</li> <li>❖ More time is spent interpreting the data that are readily available than looking up additional data</li> <li>❖ Excellent synthesis of the data, paper brings the data together to draw conclusions and give the "big picture"</li> </ul> |
| Sources of information | <ul style="list-style-type: none"> <li>❖ Student presents long list of websites, but there are few or no published articles in the list</li> <li>❖ Student does not integrate the assigned readings for the lectures into the answers for the assignment</li> <li>❖ Student cites statements made in the lecture instead of the readings for that lecture, reads the handouts but not the readings</li> </ul>   | <ul style="list-style-type: none"> <li>❖ Sources of information include websites, published articles on the country, chapters from the course textbook and required readings assigned for each lecture</li> <li>❖ Student manages to integrate information from these different sources to build a convincing argument</li> </ul>   |
| Responses to questions | <ul style="list-style-type: none"> <li>❖ Student provides the answers to the questions "Country X is mid-demographic transition" but does not provide the line of reasoning that led to that conclusion</li> <li>❖ Student does not describe possible variation within sub-populations (rich versus poor, ethnic minorities etc.) in the country</li> </ul>   | <ul style="list-style-type: none"> <li>❖ Student describes the line of reasoning behind each of the answers</li> <li>❖ Student describes variation within subpopulations</li> <li>❖ Student describes different perspectives people might have on a given question</li> </ul>   |

## V. Instructions for Assignment Two

### V.1 Scenario for Assignment Two

Assume that you are a public health professional and a citizen of the country you wrote about in Assignment One. You have just been hired as a consultant to make recommendations to the "Country X" Health Foundation (Replace X with the name of your country) (or the Global Fund for AIDS, TB and Malaria [www.globalfundatm.org](http://www.globalfundatm.org)) for how they should invest US \$ 5,000,000. The Foundation has allocated these funds for health-related activities in the country you wrote about in Assignment One, or an area (Region, State/province, District) of that country. According to the rules of the foundation, the US \$ 5,000,000 must be spent within the next three years and must address important health problems facing the country.

Note: You are free to substitute US \$ 5,000,000 with the actual amount of funding your country has received through the Global Fund for AIDS, TB and Malaria, or the actual amount of a recent loan from the World Bank.

The Foundation has asked you to write a report that makes recommendations in four areas:

1. The problem to work on
2. The activities to be carried out to address the problem
3. The institutions or organizations that should be given the money to carry out the activities
4. The indicators that the Foundation can use to monitor implementation of the activities.

The Foundation has specified that you must be able to demonstrate an "improvement." You may choose to define "improvement" either in relation to a health outcome (decreased mortality or morbidity), better functioning of the health system (e.g., efficiency, quality), changes in human behavior or a change in some other factor that affects health (e.g., school enrollment).

**Length:** Up to ten double-spaced single-sided pages, not including cover page, tables and references

### V.2 Tables and figures for Assignment Two

Please do not submit additional tables and figures beyond the five described below unless they support a point you are making and are referred to and discussed in the text.

For some problems a table works better, and for others a diagram works better. So, you have a choice of producing either Table #1 or Table/Figure #2.

#### **Table #1 Table of factors/causes/determinants affecting the problem**

Make a list of factors/causes that contribute to a high incidence or prevalence of the problem you have selected. Classify these factors/causes into groups or levels such as proximate, intermediate and ultimate tiers (Millard 1994), proximate and distal determinants (Mosley and Chen 1984), behavioral and environmental (non-behavioral) factors, or some other type of grouping you feel is appropriate for the problem you have selected. Finally, list potential activities the Foundation might choose to fund to

address the factors you have identified. Create a table to present this information. Below is an example of one way of making the table, based on the Millard model.

| Tier in Millard's model | Factors affecting the problem at this tier in the model | Potential interventions or activities to address these factors |
|-------------------------|---|--|
| Ultimate                |   |  |
| Intermediate            |   |  |
| Proximate               |   |  |
| All three tiers         |   |  |

### Table/Figure #2 Diagram of factors/causes/determinants affecting the problem

Represent in a diagram your understanding of the key factors/causes/determinants of the problem, indicate points in the diagram where a program can intervene, and the types of interventions/activities that can be carried out. Examples of this kind of diagram are:

- ❖ Web of factors related to obstructed labor
  - Figure 3-5, page 121 in: Menken J and Rahman MO (2001) Reproductive Health (Chapter 3), section on Maternal Health, pp 114-130. In: Michael H. Merson, Robert E. Black, Anne J. Mills. (Eds.) International Public Health: Diseases, Programs, Systems and Policies. Gaithersburg MD: Aspen.
- ❖ Pathway to Survival for child mortality
  - <http://www.basics.org/technical/pathway/pathway.htm>
- ❖ Three delays model for maternal mortality
  - Barnes-Josiah D, Myntti C, Augustin A (1998). The "three delays" as a framework for examining maternal mortality in Haiti. Soc Sci Med 46(8):981-93.

### Table #3 Recommended activities

Indicate which activities you recommend be carried out during the three-year project, and the relative amount of effort or funding that you would assign to each one. Indicate the geographical scope of your activities or interventions (national, regional, district, village). Below is a sample table:

| Brief description of activity | Approximate proportion of funding/effort to be allocated to this activity | Level at which implementation occurs (Central, state/provincial, district, community) and areas where activity will be implemented |
|-------------------------------|---|--|
|                               |   |  |
|                               |   |  |
|                               |   |  |
|                               |   |  |

## **Table #4 Potential institutions and organizations to carry out the activities**

This table should refer only to the activity or activities you recommend that the Foundation support in Table #3. The table should have four columns: the name or a brief description of each potential institution or organization to involve in implementation, the role that each might play in implementation, the strengths of involving that institution or organization, and the disadvantages of involving that institution or organization. Institutions and organizations that you might want to evaluate as part of your consultancy include:

- ❖ Ministry of Health at the central level;
- ❖ Ministry of Health at the state/province level;
- ❖ Ministry of Health at the district level;
- ❖ Other government ministries e.g. ministries responsible for local government, agriculture, water or education;
- ❖ Public and private hospitals and clinics;
- ❖ Universities and research institutions;
- ❖ Professional associations and unions e.g. Physicians' syndicate or association, association of pharmacists, association of traditional healers;
- ❖ Women's associations;
- ❖ Local grassroots NGOs;
- ❖ Large national NGOs e.g. BRAC in Bangladesh ([www.brac.net](http://www.brac.net));
- ❖ Microcredit institutions e.g. Grameen Bank in Bangladesh;
- ❖ International NGOs e.g. OXFAM, Médecins sans Frontières, World Vision, CARE, PLAN International, Save the Children;
- ❖ Religious institutions;
- ❖ UN agencies at central or country levels e.g. WHO, UNICEF, UNHCR, UNFPA, UNDP;
- ❖ Development banks e.g. World Bank, Asian Development Bank, African Development Bank; and
- ❖ Private organizations that implement large health projects e.g. JSI, MSH, AED.

You should not include all of these institutions and organizations in your table, only those who have a potential role to play in the implementation of the activities you are recommending.

## **Table #5 Indicators to evaluate implementation of activities**

Select at least three indicators that you think would be most appropriate and useful for monitoring and evaluating your activities. Make a table with six columns:

1. name of indicator
2. activity that this indicator measures
3. level of indicator (input, process, output, outcome, impact)
4. numerator
5. denominator
6. method used to collect data to measure the indicator (household survey, vital events registration system etc)

### ***V.3 Questions for Assignment Two***

1. Describe in up to one page the problem of interest. In selecting a problem you might find it useful to make reference to the United Nations Millennium Development Goals, see:

- ❖ <http://www.developmentgoals.org/>
- ❖ <http://www.undp.org/mdg/>
- ❖ <http://www.un.org/millenniumgoals/>

Your problem definition for Question 1 should:

- ❖ Contain a specific definition of the issue or problem of interest (What is the problem?) State the problem or issue of interest in terms of specific aspects or dimensions affected (for example: morbidity, mortality, quality of life, access to health, health inequalities, etc.) The use of a qualifier (for example, "high" incidence) may help to focus the problem of interest. In general it is not sufficient to just select a disease or health issue and a country, so problem statements such as "HIV/AIDS in Zimbabwe", "malaria in Nigeria" or "tuberculosis in Peru" are not sufficient. The statement has to refer to a specific dimension of the problem, for example for HIV/AIDS one might specify: continuing high incidence of HIV/AIDS in spite of on-going behavior change interventions, low access to treatment to prevent mother-to-child transmission, lack of or inadequate surveillance systems, high levels of discrimination and social stigma, poor access to health services and low school enrollment among orphans, or low awareness and low availability of condoms.
- ❖ Reflect the public health nature of the problem. (Is this a public health problem?)
- ❖ Specify the population affected by the problem (Who is affected by the problem?) Brief mention of the population affected: General population? sub-population? vulnerable population? Ethnic minority? specific age-group?
- ❖ Specify the geographical distribution of the problem in general terms (national, regional, district, village, etc.)
- ❖ Not suggest cause(s). The discussion of causes and critical factors is part of the analysis of key determinants of the problem. Causal factors should not be included in the problem statement.

2. Explain why a focus on this specific problem rather than others is the most appropriate investment of the Foundation's (or the Global Fund's) resources.

3. Explain and describe briefly the activities you recommend be carried out during the three-year project, and the relative amount of effort or funding that you would assign to each one. This explanation should be linked to your analysis of the key determinants of the problem (Table or Figure #2).

4. Other people may disagree with your choice of activities or interventions, and favor other options.
- A. What disadvantages or weaknesses might they attribute to the intervention you have chosen?
  - B. How would you defend your choice to them? Why are the activities/interventions you have chosen the most appropriate ones at this time for this country?
5. Partners for implementation
- A. Explain which of the different institutions listed in Table #3 you recommend to be designated as the lead institution. The lead institution would administer the funds and ensure that the funds are appropriately used.
  - B. What other institutions or organizations do you recommend for involvement in the project, and what would their roles be?
  - C. Explain why your recommendations make sense both in terms of short-term practical considerations (how best to get the work done), and as part of a long-term strategy for building local capacity to address health problems.
6. Referring to Table #5, select three indicators that you think would be most appropriate and useful for monitoring and evaluating your activities. Briefly explain why you have selected these indicators.

## V.4 Grading Sheet for Assignment Two

Name of student: \_\_\_\_\_

Country: \_\_\_\_\_

| Grade | Question | Description of question   | Total possible points |
|-------|----------|---|-----------------------|
|       |          | Citation of sources of information  | 5                     |
|       |          | Adherence to length and font guidelines   | 5                     |
|       |          | Quality of literature review  | 10                    |
|       | 1        | Problem statement   | 10                    |
|       | 2        | Justification for selection of problem  | 10                    |
|       | 3        | Description of activities to be carried out, linkage to key determinants of the problem | 5                     |
|       | 4A       | Identification of weaknesses  | 10                    |
|       | 4B       | Rationale for activities selected, response to weaknesses identified by your critics    | 20                    |
|       | 5C       | Justification for selection of partners (Q5A and Q5B not graded)                        | 15                    |
|       | 6        | Selection of indicators and indicator table (Table 5)                                   | 10                    |

### Final grade for the course

\_\_\_\_\_ Grade on Assignment One \_\_\_\_\_ x 0.40 Up to 40 points

\_\_\_\_\_ Grade on Assignment Two \_\_\_\_\_ x 0.60 Up to 60 points

\_\_\_\_\_ Deduction for lack of attendance or participation in discussion groups Up to -15 points  
(If student does not attend discussion group sessions or does not contribute to assigned sub-group task)

\_\_\_\_\_ Final grade in course (A = 89.5 or above, B = 79.5-89.4, C = 79.4 or below)

## Criteria for grading Assignment #2

(\* = Default grade)

### Citation of sources of information \_\_\_\_\_/5

1 point each for:

- \_/1 List of references and sources of data included
- \_/1 All quotes or paraphrasing of text is referenced, quotation marks used where appropriate
- \_/1 All references in the list of references are cited or discussed at an appropriate place in the paper
- \_/1 Consistent format for references such as ICMJE
- \_/1 Web references cited according to APA guidelines

### Adherence to length and font guidelines \_\_\_\_\_/5

0 - Paper > 10 double-spaced pages (not counting tables and list of references) OR Font < 12 points OR Text not double-spaced OR Margins < 1" = 2.54cm.

5 - Paper is 10 double spaced pages or less (not counting tables and list of references) AND Font is 12 points/10 characters per inch or larger AND Text is double-spaced AND Margins are 1" = 2.54cm or greater.

### Quality of literature review \_\_\_\_\_/10

- \_/2 Inclusion of information from internet
- \_/4 Appropriate integration of material from textbook and required readings for the course
- \_/4 Appropriate integration of material from other sources: articles in scientific journals, books and unpublished reports

### Question #1: Problem statement \_\_\_\_\_/10

Varying number of points for:

- \_/6 Definition of issue or problem is sufficiently specific
- \_/1 Statement reflects public health nature of problem
- \_/1 Specifies population affected by the problem
- \_/1 Specifies geographical distribution of the problem
- \_/1 Statement does not suggest cause(s)

### Question #2: Explanation for selection of health problem \_\_\_\_\_/10

- 0 - No explanation for choice of health problem
- 2 - Minimal explanation, does not indicate clearly why this type of health problem was chosen over others
- 4 - Fair explanation
- \*6 - Adequate explanation, indicates why this health problem was chosen over others
- 7 - Good explanation, but not convincing
- 8 - Very good explanation, somewhat convincing
- 10 - Excellent and extremely convincing explanation

### Question #3: Description of activities \_\_\_\_\_/5

- 0 - No description of activities
- 2 - Minimal description
- 3 - Fair description
- \*4 - Adequate description, some linking to key determinants
- 5 - Very good description, good linking to key determinants

### Question #4A: Identification of disadvantages or weakness of your intervention: \_\_\_\_\_/10

- 0 - No disadvantages or weaknesses identified
- 4 - Disadvantages or weaknesses identified, but we don't gain any understanding of why others might disagree with this choice of intervention
- \*6 - Disadvantages or weaknesses identified, we gain fair understanding of why others might disagree
- 7 - Disadvantages or weaknesses identified, we gain good understanding of why others might disagree
- 9 - Disadvantages or weaknesses identified, we gain very good understanding of why others might disagree
- 10 - Disadvantages or weaknesses identified, we gain an excellent understanding of why others might disagree

### Question #4B: Justification of activities and defense of choices made \_\_\_\_\_/20

- 0 - No justification for choice of activities/interventions
- 8 - Minimal justification
- 12 - Fair justification, some defense of the choice, but does not respond to the weaknesses others might attribute to it
- \*14 - Adequate justification, responds to some of the weaknesses others attribute to it, not convincing
- 16 - Good justification, somewhat convincing, responds to most of the weaknesses others attribute to it
- 18 - Very good justification, responds to all of the weaknesses others attribute to it, somewhat convincingly
- 20 - Excellent and extremely convincing justification, responds convincingly to all the weaknesses identified

### Question #5C: Justification of choice of institutions \_\_\_\_\_/15

- 0 - No explanation of choice of institutions/organizations
- 2 - Minimal explanation, does not indicate clearly why these institutions were chosen over others
- 10 - Fair explanation
- \*12 - Adequate explanation, indicates why these institutions were chosen over others, not convincing
- 13 - Good explanation, somewhat convincing
- 14 - Very good explanation, very convincing
- 15 - Excellent and extremely convincing explanation

### Question #5: Indicators \_\_\_\_\_/10

Up to Two points for each of the following:

- \_\_\_\_\_ Indicators correspond to activities in Q #3
- \_\_\_\_\_ All indicators can be expected to change as a result of the activity or intervention
- \_\_\_\_\_ Appropriate numerators and denominators given for the indicators selected
- \_\_\_\_\_ Appropriate data collection method for each of the indicators selected
- \_\_\_\_\_ Explanation for selection of indicators

**Final grade on Assignment #2 \_\_\_\_\_ / 100**

## VI. International Health Resources on the Internet

### VI.1 *Generally Useful Web sites on International Health*

- ❖ USAID List of International Health Resources on the Web  
[http://www.usaid.gov/pop\\_health/resource/phnlinks.htm](http://www.usaid.gov/pop_health/resource/phnlinks.htm)
- ❖ Global Health Council: <http://www.globalhealth.org>  
The Global Health Council (formerly NCIH) is a US-based, non-profit membership organization that was created 27 years ago to identify priority health problems and to report on them to the US public, Congress, international and domestic government agencies, academic institutions, and the global health community
- ❖ The Global Fund to Fight AIDS, Tuberculosis & Malaria: [www.globalfundatm.org](http://www.globalfundatm.org)
- ❖ Other sites with information on the Global Fund:  
<http://www.iatld.org> (International Union against Tuberculosis and Lung Disease)  
<http://www.globalhealth.org>  
<http://www.unaids.org>  
<http://www.synergyaids.org/>  
<http://www.ccih.org> (Christian Connections for International Health)

### VI.2 *Web Sites for Multilateral Organizations*

- ❖ World Health Organization (WHO): <http://www.who.int/>
- ❖ Pan American Health Organization (PAHO): <http://www.paho.org/>
- ❖ World Bank: <http://www.worldbank.org/>
  - Info on health programs: <http://www1.worldbank.org/hnp/>
- ❖ United Nations International Children's Emergency Fund (UNICEF): <http://www.unicef.org/>
  - UNICEF country profiles: <http://www.unicef.org/statistics/index.html>
- ❖ United Nations Development Program (UNDP): <http://www.undp.org/>

### VI.3 *Web Sites for Bilateral Organizations*

- ❖ United States Agency for International Development (USAID): <http://www.usaid.gov/>
  - Info on health programs: [http://www.usaid.gov/our\\_work/global\\_health/](http://www.usaid.gov/our_work/global_health/)
- ❖ Centers for Disease Control and Prevention (CDC): <http://www.cdc.gov/>
- ❖ Morbidity and Mortality Reports: <http://www.cdc.gov/mmwr/>
- ❖ Department for International Development (DfID) (United Kingdom): <http://www.dfid.gov.uk/>
- ❖ Gemeinschaft für Technische Zusammenarbeit (GTZ) (Germany): <http://www.gtz.de/english/>
- ❖ Canadian International Development Agency (CIDA): <http://www.acdi-cida.gc.ca/>
- ❖ Japan International Cooperation Agency (JICA): <http://www.jica.go.jp/>

#### ***VI.4 Web Sites for Non-Governmental Organizations (NGOs) working in International Health and Development***

- ❖ InterAction: American Council for Voluntary International Action—A consortium of 150 American PVOs working in international development and humanitarian assistance:  
<http://www.interaction.org/>
- ❖ Links to Private Voluntary Organizations (PVOs) working on health with USAID funding:  
<http://www.childsurvival.com/images/pvos.cfm>
- ❖ CORE Group (Group of US PVOs working on health): <http://www.coregroup.org/>
- ❖ Doctors Without Borders USA (Medecins Sans Frontieres USA):  
<http://www.doctorswithoutborders.org/>
- ❖ Save the Children: <http://www.savethechildren.org/>
- ❖ CARE: <http://www.care.org/>
- ❖ OXFAM: <http://www.oxfam.org.uk/>
- ❖ Africare: <http://www.africare.org/>
- ❖ World Vision International: <http://www.wvi.org/>
- ❖ BRAC (Bangladesh Rural Advancement Committee): <http://www.brac.net>

#### ***VI.5 Web Sites for Health and Human Rights***

- ❖ Office of the United Nations High Commissioner for Human Rights: <http://www.unhchr.ch/>
- ❖ Universal Declaration of Human Rights (UDHR) in over 300 languages:  
<http://www.unhchr.ch/udhr/index.htm>
- ❖ Status of ratifications of the principal international human rights treaties as of Dec, 2002:  
<http://www.unhchr.ch/pdf/report.pdf>
- ❖ Human Rights Internet: <http://www.hri.ca/welcome.asp>
- ❖ Physicians for Human Rights: <http://www.phrusa.org/>
- ❖ Amnesty International Online: <http://www.amnesty.org/>
- ❖ Human Rights Watch: <http://www.hrw.org/>

## **VII. Module One: Describing the Health Priorities of a Country**

### ***VII.1 Overview of the Module***

This module introduces the tools and concepts necessary to complete Assignment One, including demographic transition, epidemiologic transition, child mortality, maternal mortality and levels of causality. During this module you will select a country that will be the subject of Assignments One and Two. You will complete a series of tables to describe the social, economic and health conditions in your country. The tables will be submitted as separate exercises, and will also be included when you submit Assignment One.

### ***VII.2 Class I, Hour 2: Maternal, perinatal and under-five mortality, regional mortality trends***

#### **Lecturer**

Gary L. Darmstadt

Assistant Professor, Health Systems Program, Department of International Health

#### **Learning objectives:**

1. Define the principal indicators used to summarize health status of mothers and young children, including under-five mortality rate, child mortality rate, neonatal mortality rate, perinatal mortality rate and maternal mortality ratio.
2. Describe global patterns in under-five mortality (See Table 1 & Figure 1 in article by Black et al.).
3. List the principal causes of neonatal, post-neonatal and child mortality (See Figures 3 and 5 in article by Black et al.).
4. Describe global patterns in maternal mortality (See especially Table 3-13 page 118 in chapter by Menken and Rahman).
5. List the principal causes of maternal mortality (See especially Table 3-14, pages 119 and Figure 3-5 page 121 in chapter by Menken and Rahman)
6. State inferences that can be made about likely social and economic conditions and state of the health system in a country based on the absolute levels of under-five and maternal mortality, and the proportion of under-five mortality that occurs in the first month or first year of life.

#### **Required readings:**

- ❖ Black RE, Morris SS and Bryce J (2003). Where and why are 10 million children dying each year? *Lancet* 361: 2226-34.
- ❖ Darmstadt GL, Lawn JE and Costello A (2003). Advancing the state of the world's newborns. *Bulletin of the World Health Organization* 81(3): 224-225.

- ❖ Menken J and Rahman MO (2001) Reproductive Health (Chapter 3), section on Maternal Health, pp 114-130. In: Michael H. Merson, Robert E. Black, Anne J. Mills. (Eds.) International Public Health: Diseases, Programs, Systems and Policies. Gaithersburg MD: Aspen.

What do we mean by required readings? Required readings refer to the core content covered in the lecture. Also, there is an expectation that the required readings will be cited when appropriate in Assignments One and Two.

### **Optional readings on maternal health:**

- ❖ AbouZahr C and Wardlaw T (2001). Maternal mortality at the end of a decade: signs of progress? Bulletin of the World Health Organization. 79 (6):561-8.
  - <http://www.who.int/bulletin/pdf/2001/issue6/vol.79.no.6.561-573.pdf>
- ❖ Hill K, AbouZahr C and Wardlaw T (2001). Estimates of maternal mortality for 1995. Bulletin of the World Health Organization. 79 (3): 182-193.
  - <http://www.who.int/bulletin/pdf/2001/issue3/vol79.no.3.182-193.pdf>
- ❖ Koblinsky MA, Campbell O, and Heichelheim J (1999). Organizing delivery care: what works for safe motherhood? Bulletin of the World Health Organization. 77 (5): 399-406.
  - <http://www.who.int/bulletin/pdf/issue5/bu0004.pdf>
- ❖ Sloan NL, Langer A, Hernandez B, Romero M, and Winikoff, B (2001). The etiology of maternal mortality in developing countries: what do verbal autopsies tell us? Bulletin of the World Health Organization. 79 (9): 805-10.
  - <http://www.who.int/bulletin/pdf/2001/issue9/bu0739.pdf>

### **Optional readings on child survival and under-five mortality:**

- ❖ Jones G, Steketee RW, Black RE, Bhutta ZA, Morris SS and the Bellagio Child Survival Study Group (2003). How many child deaths can we prevent this year? *Lancet* 362: 65-71.
- ❖ Bryce J, el Arifeen S, Pariyo G, Lanata CF, Gwatkin D, Habicht JP and the Multi-Country Evaluation of IMCI Study Group (2003). Reducing child mortality: can public health deliver? *Lancet* 362: 159-64.
- ❖ Adetunji J (2000). Trends in under-5 mortality rates and the HIV/AIDS epidemic. Bulletin of the World Health Organization. 78 (10): 1200-1206.
  - <http://www.who.int/bulletin/pdf/2000/issue10/bu0746.pdf>
- ❖ Ahmad OB, Lopez AD, Inoue M (2000). The decline in child mortality: a reappraisal. Bulletin of the World Health Organization. 78 (10): 1175-1191.
  - <http://www.who.int/bulletin/pdf/2000/issue10/bu0792.pdf>
- ❖ Claeson M. and Waldman RJ (2000). The evolution of child health programmes in developing countries: from targeting diseases to targeting people. Bulletin of the World Health Organization. 78 (10): 1234-1245.
  - <http://www.who.int/bulletin/pdf/2000/issue10/bu0762.pdf>
- ❖ Rice AL, Sacco L, Hyder A, Black RE (2000). Malnutrition as an underlying cause of childhood deaths associated with infectious diseases in developing countries. Bulletin of the World Health Organization. 78 (10): 1207-1221.

- <http://www.who.int/bulletin/pdf/2000/issue10/bu0748.pdf>

### **Optional readings on neonatal health and neonatal mortality:**

- ❖ State of the World's Newborns Report
  - From Saving Newborn Lives, Save the Children/USA
  - <http://www.savethechildren.org/mothers/newborns/contents.shtml>
- ❖ Darmstadt GL, Black RE, Santosham M (2000). Research priorities and postpartum care strategies for the prevention and optimal management of neonatal infections in less developed countries. *Pediatr Infect Dis J.* 9(8):739-50.
- ❖ Marsh DR, Darmstadt GL, Moore J, Daly P, Oot D, Tinker A (2002). Advancing newborn health and survival in developing countries: a conceptual framework. *J Perinatol* 22(7):572-6
  - <http://www.nature.com/cgi-taf/DynaPage.taf?file=/jp/journal/v22/n7/full/7210793a.html&filetype=pdf>

### ***VII.3 Class II, Hour 1: Population pyramids, fertility indicators, demographic transition***

#### **Lecturer**

Peter J. Winch

Associate Professor, Social and Behavioral Interventions Program and Health Systems Program,  
Department of International Health

#### **Learning objectives:**

1. Define demographic transition and describe the stages in a typical demographic transition.
2. Assess the stage of the demographic transition a country is in based on fertility and mortality indicators.
3. Download and use population pyramids for assessing the demographic situation in a country.
4. Describe the impact of HIV/AIDS on population pyramids in high prevalence countries.

#### **Required Reading:**

- ❖ Menken J. and Rahman M.O. Reproductive Health (Chapter 3), pp 79-87 (First section of chapter only). In: Michael H. Merson, Robert E. Black, Anne J. Mills. (Eds.) International Public Health: Diseases, Programs, Systems and Policies. Gaithersburg MD, 2001.

#### **Optional Reading:**

- ❖ Caldwell JC (2001). Population health in transition. Bulletin of the World Health Organization. 79(2): 159-160.
  - <http://www.who.int/bulletin/pdf/2001/issue2/vol.79no.2.159-170.pdf>

## ***VII.4 Class II, Hour 2: Epidemiologic transition, burden of disease/DALYs, HIV trends***

### **Lecturer**

Peter J. Winch

Associate Professor, Social and Behavioral Interventions Program and Health Systems Program,  
Department of International Health

### **Learning objectives:**

1. Describe variation in the principal health indicators between low, middle and high-income countries.
2. Define epidemiologic transition and describe its limitations for countries with complex patterns of disease burden.
3. Explain the concept of burden of disease.
4. Use data on disability-adjusted life years (DALYs) for a country or region to assess where a country is in the epidemiologic transition.

### **Required Readings**

- ❖ Hyder AA and Morrow, RH (2001). Disease Burden Measurement and Trends (Chapter 1), pp 1-23 , 42-51. In: Michael H. Merson, Robert E. Black, Anne J. Mills. (Eds.) International Public Health: Diseases, Programs, Systems and Policies. Gaithersburg MD: Aspen.
- ❖ Omran AR (2001). The epidemiologic transition. A theory of the epidemiology of population change. Bulletin of the World Health Organization. 79 (2): 161-170.
  - <http://www.who.int/bulletin/pdf/2001/issue2/vol.79no.2.159-170.pdf>

### **Optional Reading**

- ❖ Caldwell JC (2001). Population health in transition. Bulletin of the World Health Organization. 79(2): 159-160.
  - <http://www.who.int/bulletin/pdf/2001/issue2/vol.79no.2.159-170.pdf>

## ***VII.5 Class III, Discussion Group 1: Regional comparisons of health and development indicators***

### **Assignments for preparation of discussion group sessions**

There are 16 two hour sessions in the course. For 5 of the 16 sessions, you will meet in discussion groups. Each group will have 18 to 20 members. The first time the discussion group meets on Tuesday September 9, each student will be assigned to one of the following tasks:

#### Task #1                    Microcredit case studies

- ❖ organize discussion group session #2 on Tuesday September 23
- ❖ attend preview of video on Thursday September 11, 12:45, B-D Auditorium
- ❖ serve as resource on issues related to microcredit as well as social and economic development

#### Task #2                    Donka Hospital, Conakry, Guinea

- ❖ organize discussion group session #3 on Tuesday September 30
- ❖ attend preview of video on Tuesday September 16, 12:15, B-D Auditorium
- ❖ serve as resource on issues related to organization and management of hospitals in Africa

#### Task #3                    Prevention and control of childhood diarrhea in Angola

- ❖ serve as a resource during discussion group sessions #4 and #5
- ❖ be familiar with methods of prevention and control for diarrhea in children
- ❖ be familiar with social, political and health conditions in Angola

#### Task #4                    Tobacco-related disease in Sri Lanka

- ❖ serve as a resource during discussion group sessions #4 and #5
- ❖ be familiar with methods of prevention and control of tobacco-related disease
- ❖ be familiar with social, political and health conditions in Sri Lanka

#### Task #5                    Children affected by HIV/AIDS in Zimbabwe

- ❖ serve as a resource during discussion group sessions #4 and #5
- ❖ be familiar with problems of AIDS orphans and children whose parents or other relatives are living with AIDS
- ❖ be familiar with social, political and health conditions in Zimbabwe

### **Assignment of students to tasks**

Students will be allocated to tasks when the groups meet for the first time on Tuesday September 10. The average group will have 18 students taking the course for credit, and 2 students auditing. The

auditing students will generally not be assigned a task. Typically 2 to 3 students will be assigned to each of Tasks 3, 4 and 5, while 4 to 5 students will be assigned to each of Tasks 1 and 2. Each student should only be assigned to one task.

| Task   | Students assigned |
|--|-------------------|
| Task #1: Microcredit case studies                  |                   |
| Task #2: Donka Hospital case study                 |                   |
| Task #3: Diarrhea in Angola                        |                   |
| Task #4: Tobacco in Sri Lanka                      |                   |
| Task #5: Children affected by HIV/AIDS in Zimbabwe |                   |

### Participation in discussion groups

Your participation in discussion groups is a requirement of the course. Points will be deducted for students who miss discussion group sessions without notifying the facilitator for your discussion group.

### Organization of discussion group sessions #2 and #3

For each of these sessions, the members of the sub-group will be responsible for organizing a discussion or debate lasting 90 minutes. The first 30 minutes will be in Becton-Dickinson auditorium where the class will see a video on the topic of the discussion. The videos will be shown in advance also so that sub-groups can prepare for their presentations. Each group of students assigned to the session should prepare a list of questions or issues to be discussed or debated. The discussion itself can be organized in any of these ways:

- ❖ an informal discussion with the entire group;
- ❖ divide the group into two or three smaller groups, each of which must defend a given position or point of view;
- ❖ stage a mock meeting, and assign different members of the group roles such as representatives of donor agencies, ministry of health, health workers, community members etc. If this is done, people should be made aware of their roles ahead of time so they can prepare.

## Questions for Discussion Group #1:

### Regional comparisons of health and development indicators

1. Each room for the discussion groups will have 18-20 people. Each person will already be assigned to one of the tasks described on the previous 2 pages during the first minutes of the discussion group session.
2. The discussion group will be divided into sub-groups according to the first four of the five "country profiles" described on page 2232 and shown in the map on page 2231 of the article: Black RE, Morris SS and Bryce J (2003). Where and why are 10 million children dying each year? Lancet 361: 2226-34. Each sub-group will be assigned 4-5 students, and each sub-group should then select three countries from their "Profile".

| Subgroup | Profiles assigned  | Students assigned to the sub-group | Three countries selected |
|----------|--|------------------------------------|--------------------------|
| 1        | Profile 1: Malaria and AIDS each account for fewer than 10% of under-five deaths and neonatal causes for fewer than 40% of under-five deaths |                                    |                          |
| 2        | Profile 2: Malaria accounts for at least 10% of under-five deaths, but AIDS accounts for fewer than 10%                                      |                                    |                          |
| 3        | Profile 3: Malaria and AIDS each account for fewer than 10% and neonatal for at least 40% of under-five deaths                               |                                    |                          |
| 4        | Profile 4: Both malaria and AIDS account for at least 10% of under-five deaths   |                                    |                          |

3. Complete Tables 1, 2 and 3 below. If time allows, Table 2 can also be graphed.

**Table 1 Basic indicators from UNICEF State of the World's Children 2003**

| Indicator  | Table in SOWC 2003                        | Country #1 | Country #2 | Country #3 |
|--|---|------------|------------|------------|
| Neonatal mortality rate                                      | See State of the World's Newborns report* |            |            |            |
| Infant mortality rate  | 1   |            |            |            |
| Child mortality rate   | Must be calculated                        |            |            |            |
| Under-five mortality rate                                    | 1   |            |            |            |
| Neonatal mortality as proportion of all under-five mortality | Must be calculated                        |            |            |            |
| Life expectancy at birth                                     | 1   |            |            |            |
| % underfives with moderate and severe wasting                | 2   |            |            |            |
| % underfives with moderate and severe stunting               | 2   |            |            |            |
| % 1-year of children immunized for measles                   | 3   |            |            |            |
| Adult HIV prevalence rate                                    | 3 **                                      |            |            |            |
| Total Fertility Rate   | 5   |            |            |            |
| Crude Death Rate   | 5   |            |            |            |
| Crude Birth Rate   | 5   |            |            |            |
| Contraceptive Prevalence                                     | 7   |            |            |            |
| Skilled Attendant at delivery                                | 7   |            |            |            |
| Maternal Mortality Ratio                                     | 7   |            |            |            |

\* Neonatal mortality rates from State of the World's Newborns report:

- o <http://www.savethechildren.org/mothers/newborns/appendix2.shtml>

\*\* Other sources for HIV prevalence estimates:

- ❖ UNAIDS Global surveillance fact sheets by country:
  - o [http://www.unaids.org/hivaidinfo/statistics/fact\\_sheets/index\\_en.htm](http://www.unaids.org/hivaidinfo/statistics/fact_sheets/index_en.htm)
- ❖ U.S. Census Bureau HIV/AIDS surveillance database
  - o <http://www.census.gov/ipc/www/hivctry.html>
- ❖ Measure-DHS HIV database <http://www.measuredhs.com/hivdata/start.cfm>

**Table 2      Change in basic indicators from UNICEF State of the World's Children 2003, Table 9**

| Indicator              | Years | Country #1 | Country #2 | Country #3 |
|------------------------|-------|------------|------------|------------|
| Under-5 mortality rate | 1960  |            |            |            |
|                        | 1990  |            |            |            |
|                        | 2001  |            |            |            |
| Total fertility rate   | 1960  |            |            |            |
|                        | 1990  |            |            |            |
|                        | 2001  |            |            |            |

**Table 3 Burden of disease by WHO mortality stratum, WHR 2002 Annex Table 3**

- ❖ To find out what WHO Region and Mortality Stratum your country is in, see annexes of this manual or go to:
  - <http://www.who.int/whr/2002/en/MembersETC.pdf>
- ❖ For data on burden of disease in DALYs, see annexes of this manual or go to:
  - [http://www.who.int/whr/2002/en/whr2002\\_annex3.pdf](http://www.who.int/whr/2002/en/whr2002_annex3.pdf)
- ❖ If all three countries are in the same stratum, then fill out one column only

|  | Country #1 | Country #2 | Country #3 |
|--|------------|------------|------------|
| WHO Region   |            |            |            |
| Mortality stratum (A to E)                                       |            |            |            |
| Population of all countries in the mortality stratum             |            |            |            |
| TOTAL DALYs lost   |            |            |            |
| I. DALYs lost to communicable, maternal, perinatal & nutritional |            |            |            |
| % DALYs lost to communicable, maternal, perinatal & nutritional  |            |            |            |
| II. DALYs lost to noncommunicable                                |            |            |            |
| % DALYs lost to noncommunicable                                  |            |            |            |
| III. DALYs lost to injuries                                      |            |            |            |
| % DALYs lost to injuries   |            |            |            |

4. Based on the data in the tables 1, 2 and 3, where do you think your countries are in the demographic and epidemiologic transitions? Place an **X** in the appropriate box for each row. Justify your answer. Take into account that data for the mortality stratum as a whole may misrepresent the epidemiologic situation in your specific country, especially where there is a high prevalence of HIV/AIDS. What effect is HIV/AIDS having on the epidemiologic transition in each country?

| Country | Type of transition | Does transition concept make sense for this country? | Pre | In transition |        |      | Post |
|---------|--------------------|--|-----|---------------|--------|------|------|
|         |                    |  |     | Beginning     | Middle | Late |      |
| #1      | Demographic        |  |     |               |        |      |      |
|         | Epidemiologic      |  |     |               |        |      |      |
| #2      | Demographic        |  |     |               |        |      |      |
|         | Epidemiologic      |  |     |               |        |      |      |
| #3      | Demographic        |  |     |               |        |      |      |
|         | Epidemiologic      |  |     |               |        |      |      |

5. Comment on the changes in under five mortality rates and total fertility rates for the country you have chosen. Have the improvements been large or small? Why? Is your country doing better or worse than the other countries in the mortality stratum/region? Why?
6. Prepare to present the following topics.
- ❖ Where are your countries in the demographic and epidemiologic transition and why.
  - ❖ Describe the burden of disease in your three countries.
  - ❖ What have been the changes in under five mortality and total fertility rates and why.

## VII.6 Class IV, First Part: Economic and equity indicators

### Lecturer

Peter J. Winch

Associate Professor, Social and Behavioral Interventions Program and Health Systems Program,  
Department of International Health

### Learning objectives:

1. Describe a Lorenz curve is and state what it indicates about the distribution of wealth in a country.
2. Know how the Gini Coefficient or Gini Index are calculated from a Lorenz curve.
3. Articulate how the Gini Coefficient or Gini Index can contribute to your explanations for health status and changes in health indicators in Questions 1 to 4 in Assignment One.

### Required Reading:

The Gini index and the Gini coefficient are statistical measures of inequality: a value of 0 for either indicates perfect equality (everyone has the same share of the total wealth), while a value of 100 (for the Index) or 1 (for the coefficient) indicates total inequality (one person has all of the wealth). For an explanation of the Lorenz curve and how the Gini coefficient is calculated from an article in *Epidemiological Bulletin* (of the Pan American Health Organization), Vol. 22 No. 1, March 2001, go to: [http://www.paho.org/English/SHA/be\\_v22n1-Gini.htm](http://www.paho.org/English/SHA/be_v22n1-Gini.htm)

### Optional Readings:

- ❖ Gwatkin DR (2000). Health inequalities and the health of the poor: What do we know? What can we do? *Bulletin of the World Health Organization*. **78** (1): 3-18.
  - <http://www.who.int/bulletin/pdf/2000/issue1/bu0287.pdf>
- ❖ Ruger, JP, Jamison, DT, Bloom, DE (2001) Health and the Economy (Chapter 12), pp 617-666. In: Michael H. Merson, Robert E. Black, Anne J. Mills. (Eds.) *International Public Health: Diseases, Programs, Systems and Policies*. Gaithersburg MD: Aspen.
- ❖ Victora CG, Wagstaff A, Armstrong Schellenberg J, Gwatkin D, Claeson M and Habicht JP (2003). Applying an equity lens to child health and mortality: more of the same is not enough. *Lancet* 362: 233-41.
- ❖ Makinen M, Waters H, Rauch M, Almagambetova N, Bitran R, Gilson L, McIntyre D, Pannarunothai S, Prieto AL, Ubilla G and Ram S (2000). Inequalities in health care use and expenditures: empirical data from eight developing countries and countries in transition. *Bulletin of the World Health Organization*. **78** (1): 55-65.
  - <http://www.who.int/bulletin/pdf/2000/issue1/bu0267.pdf>
- ❖ For more on the relation between health and inequality in the United States, go to:
  - <http://www.inequality.org>

## **VII.7 Class IV, Second Part: Development banks, structural adjustment**

### **Lecturer**

Peter J. Winch

Associate Professor, Social and Behavioral Interventions Program and Health Systems Program,  
Department of International Health

### **Learning objectives:**

1. Describe what development banks are, and explain the importance of banks and their policies for international health.
2. State the principal differences between the International Bank for Reconstruction and Development (IBRD) and the International Development Association (IDA), and explain the differences between IBRD loans and IDA credits.
3. Describe the different constituencies the World Bank needs to respond to, and the conflicts the Bank faces in trying to respond to each simultaneously.
4. Define structural adjustment, describe the economic conditions which led to the development of structural adjustment policies and state the principal justifications and critiques offered by different groups regarding structural adjustment.
5. Articulate the main reasons the World Bank has become increasingly involved in health over the past 15 years, and describe the influence of the 1993 World Bank World Development Report on World Bank policies.

### **Required readings:**

- ❖ Abbasi K (1999). The World Bank and World Health: Changing sides. *BMJ*. **318**: 865-869.
  - <http://bmj.com/cgi/reprint/318/7187/865.pdf>
- ❖ Abbasi K (1999). The World Bank and World Health: Under Fire. *BMJ*. **318**: 1003-1006.
  - <http://bmj.com/cgi/reprint/318/7189/1003.pdf>
- ❖ Gupta S, Clements B, Guin-Siu MT and Leruth L (2002). Debt relief and public health spending in heavily indebted poor countries. *Bulletin of the World Health Organization*. **80** (2): 151-7.
  - [http://www.who.int/bulletin/pdf/2002/bul-2-E-2002/80\(2\)151-157.pdf](http://www.who.int/bulletin/pdf/2002/bul-2-E-2002/80(2)151-157.pdf)

## Optional Readings:

- ❖ For more on the relation between health and inequality in the United States, go to:
  - <http://www.inequality.org>
- ❖ Baru R and Jessani A (2000). The role of the World Bank in international health: renewed commitment and partnership. *Social Science and Medicine*. **50**: 183-4.
  - [http://www.sciencedirect.com/science?\\_ob=MIimg&\\_imagekey=B6VBF-3XMGN5S-6-1&\\_cdi=5925&\\_orig=browse&\\_coverDate=01%2F31%2F2000&\\_sk=999499997&wchp=dGLbVlb-ISzBS&\\_acct=C000006078&\\_version=1&\\_userid=75682&md5=713f4d6ce8c3f1772dbc45317b9234f7&ie=f.pdf](http://www.sciencedirect.com/science?_ob=MIimg&_imagekey=B6VBF-3XMGN5S-6-1&_cdi=5925&_orig=browse&_coverDate=01%2F31%2F2000&_sk=999499997&wchp=dGLbVlb-ISzBS&_acct=C000006078&_version=1&_userid=75682&md5=713f4d6ce8c3f1772dbc45317b9234f7&ie=f.pdf)
- ❖ Buse K. and Walt G. (2000). Role conflict? The World Bank and the world's health. *Social Science and Medicine*. **50**: 177-9.
  - [http://www.sciencedirect.com/science?\\_ob=MIimg&\\_imagekey=B6VBF-3XMGN5S-4-1&\\_cdi=5925&\\_orig=browse&\\_coverDate=01%2F31%2F2000&\\_sk=999499997&wchp=dGLbVlb-ISzBS&\\_acct=C000006078&\\_version=1&\\_userid=75682&md5=6fbf1bace7a995c8cfb67c7ca065bd94&ie=f.pdf](http://www.sciencedirect.com/science?_ob=MIimg&_imagekey=B6VBF-3XMGN5S-4-1&_cdi=5925&_orig=browse&_coverDate=01%2F31%2F2000&_sk=999499997&wchp=dGLbVlb-ISzBS&_acct=C000006078&_version=1&_userid=75682&md5=6fbf1bace7a995c8cfb67c7ca065bd94&ie=f.pdf)
- ❖ de Beyer JA, Preker AS and Feachem RG (2000). The role of the World Bank in international health: renewed commitment and partnership. *Social Science and Medicine*. **50**: 169-76.
  - [http://www.sciencedirect.com/science?\\_ob=MIimg&\\_imagekey=B6VBF-3XMGN5S-3-5&\\_cdi=5925&\\_orig=browse&\\_coverDate=01%2F31%2F2000&\\_sk=999499997&wchp=dGLbVlb-ISzBS&\\_acct=C000006078&\\_version=1&\\_userid=75682&md5=e1db9cac9e1e13286adacb9299227c53&ie=f.pdf](http://www.sciencedirect.com/science?_ob=MIimg&_imagekey=B6VBF-3XMGN5S-3-5&_cdi=5925&_orig=browse&_coverDate=01%2F31%2F2000&_sk=999499997&wchp=dGLbVlb-ISzBS&_acct=C000006078&_version=1&_userid=75682&md5=e1db9cac9e1e13286adacb9299227c53&ie=f.pdf)
- ❖ Lurie P, Hintzen P, and Lowe RA (1995). Socioeconomic obstacles to HIV prevention and treatment in developing countries: the roles of the International Monetary Fund and the World Bank. *AIDS*. **9**: 539-546.
- ❖ Pavignani E (2000). Can the World Bank be an effective leader in international health? *Social Science and Medicine*. **50**: 181-2.
  - [http://www.sciencedirect.com/science?\\_ob=MIimg&\\_imagekey=B6VBF-3XMGN5S-5-1&\\_cdi=5925&\\_orig=browse&\\_coverDate=01%2F31%2F2000&\\_sk=999499997&wchp=dGLbVlb-ISzBS&\\_acct=C000006078&\\_version=1&\\_userid=75682&md5=93b9929a997e06446180db78e3b3e2cf&ie=f.pdf](http://www.sciencedirect.com/science?_ob=MIimg&_imagekey=B6VBF-3XMGN5S-5-1&_cdi=5925&_orig=browse&_coverDate=01%2F31%2F2000&_sk=999499997&wchp=dGLbVlb-ISzBS&_acct=C000006078&_version=1&_userid=75682&md5=93b9929a997e06446180db78e3b3e2cf&ie=f.pdf)

## **VII.8 Class V, Levels of causality, human rights and environmental indicators, setting health priorities**

### **Lecturer**

Peter J. Winch

Associate Professor, Social and Behavioral Interventions Program and Health Systems Program,  
Department of International Health

### **Learning objectives:**

1. Articulate the types of explanations that can be used to account for trends in health indicators for a country, or regional differences in health indicators.
2. List different criteria that can be used for setting public health priorities in a country.
3. Apply the concept of levels of causality to analyzing different ways of setting public health priorities.
4. List the principal social and economic determinants of health status.
5. Describe human rights as a framework for analyzing variations in health status and identifying interventions to improve health.
6. State common indicators used to summarize environmental problems in a country, and discuss the limitation of national borders when analyzing environmental indicators.

### **Required Readings:**

- ❖ Millard AV (1994). A causal model of high rates of child mortality. *Social Science and Medicine*. **38**(2): 253-268.
  - [http://www.sciencedirect.com/science?\\_ob=MIimg&\\_imagekey=B6VBF-46958BK-B1-2&\\_cdi=5925&\\_orig=browse&\\_coverDate=01%2F31%2F1994&\\_sk=999619997&wchp=dGLbVlz-ISztb&\\_acct=C000006078&\\_version=1&\\_userid=75682&md5=fb44734c5eb9602805751d27bea06513&ie=f.pdf](http://www.sciencedirect.com/science?_ob=MIimg&_imagekey=B6VBF-46958BK-B1-2&_cdi=5925&_orig=browse&_coverDate=01%2F31%2F1994&_sk=999619997&wchp=dGLbVlz-ISztb&_acct=C000006078&_version=1&_userid=75682&md5=fb44734c5eb9602805751d27bea06513&ie=f.pdf)
- ❖ Mosley WH and Chen LC (1984). An analytical framework for the study of child survival in developing countries. In: *Child Survival: Strategies for Research*. Mosley, W.H. and Chen L.C. (Eds.) *Population and Development Review* (Suppl.) **10**: 25-45.
  - Introduction to reprint of article:
  - [http://www.who.int/bulletin/pdf/2003/bul-2-E-2003/81\(2\)138-139.pdf](http://www.who.int/bulletin/pdf/2003/bul-2-E-2003/81(2)138-139.pdf)
  - Article itself: [http://www.who.int/bulletin/pdf/2003/bul-2-E-2003/81\(2\)140-145.pdf](http://www.who.int/bulletin/pdf/2003/bul-2-E-2003/81(2)140-145.pdf)
- ❖ Sen A (1999). Health in development. *Bulletin of the World Health Organization*. **77** (8): 619-623.
  - <http://www.who.int/bulletin/pdf/issue8/critical.pdf>

## Optional articles on health , human rights, and environmental degradation

- ❖ Donohoe M (2003) Causes and health consequences of environmental degradation and social injustice. *Social Science & Medicine*, **56**(3): 573-587
  - [http://www.sciencedirect.com/science?\\_ob=MIimg&\\_imagekey=B6VBF-45MWKCM-6-1&\\_cdi=5925&\\_orig=search&\\_coverDate=02%2F28%2F2003&\\_sk=999439996&wchp=dGLbVlb-ISzBk&\\_acct=C000006078&\\_version=1&\\_userid=75682&md5=556b8aff7ae4e9d255662df04608b232&ie=f.pdf](http://www.sciencedirect.com/science?_ob=MIimg&_imagekey=B6VBF-45MWKCM-6-1&_cdi=5925&_orig=search&_coverDate=02%2F28%2F2003&_sk=999439996&wchp=dGLbVlb-ISzBk&_acct=C000006078&_version=1&_userid=75682&md5=556b8aff7ae4e9d255662df04608b232&ie=f.pdf)
  
- ❖ Easley CE, Marks SP, Morgan RE (2001) The Challenge and Place of International Human Rights in Public Health (Editorial) *American Journal of Public Health*, **91**: 1922-1925
  - <http://www.ajph.org/cgi/reprint/91/12/1922.pdf>

## VII.9 Class VI: Economic development, microcredit and grassroots organizations

### Lecturer

Corinne Whitaker

Program Officer, International Women's Health Coalition (IWHC), New York NY and Associate, Department of International Health

### Learning objectives:

1. Articulate at least 2 examples of the potential impact of non-health sector interventions--particularly economic interventions--on health sector functioning and health outcomes.
2. Articulate at least 2 broad-based approaches to economic development pursued by the international community during the last 50 years and developments within the health sector paralleling these approaches.
3. Describe the essential elements, advantages and disadvantages of the Grameen Bank Group Guaranteed Loans Model.
4. Provide 3 examples of some of the unintended consequences of an intervention on women's household health decision-making using microcredit.
5. Describe 2 of the challenges of working with young people.
6. Describe 2 elements of the livelihoods approach to work with young people.

### Required Readings:

- ❖ Bhuiya A, and Chowdhury M. (2002) Beneficial effects of a woman-focused development programme on child survival: evidence from rural Bangladesh. *Social Sciences and Medicine*. Nov; **55**(9):1553-60.
  - [http://www.sciencedirect.com/science?\\_ob=MIimg&\\_imagekey=B6VBF-46SW158-6-1X&\\_cdi=5925&\\_orig=browse&\\_coverDate=11%2F30%2F2002&\\_sk=999449990&wchp=dGLbVzz-ISztA&\\_acct=C000006078&\\_version=1&\\_userid=75682&md5=b325290f5f86499eaa8f48a2dde35c35&ie=f.pdf](http://www.sciencedirect.com/science?_ob=MIimg&_imagekey=B6VBF-46SW158-6-1X&_cdi=5925&_orig=browse&_coverDate=11%2F30%2F2002&_sk=999449990&wchp=dGLbVzz-ISztA&_acct=C000006078&_version=1&_userid=75682&md5=b325290f5f86499eaa8f48a2dde35c35&ie=f.pdf)
- ❖ Hadi A (2002) Integrating prevention of acute respiratory infections with micro-credit programme: experience of BRAC, Bangladesh. *Public Health*. Jul; **116**(4):238-44.
  - <http://www.nature.com/cgi-taf/DynaPage.taf?file=/ph/journal/v116/n4/full/1900863a.html&filetype=pdf>

## Optional articles on economic development and microcredit

- ❖ Hadi A (2001) Promoting health knowledge through micro-credit programmes: experience of BRAC in Bangladesh. *Health Promot Internation*. **16**(3):219-27
  - <http://heapro.oupjournals.org/cgi/reprint/16/3/219.pdf>
- ❖ Nanda P (1999) Women's participation in rural credit programmes in Bangladesh and their demand for formal health care: is there a positive impact? *Health Econ*. **8**(5):415-28.
  - <http://www3.interscience.wiley.com/cgi-bin/fulltext?ID=62501867&PLACEBO=IE.pdf>
- ❖ Schuler SR, Hashemi SM. (1994) Credit programs, women's empowerment, and contraceptive use in rural Bangladesh. *Stud Fam Plann*. 1994 Mar-Apr;25(2):65-76.
  - <http://links.jstor.org/sici?sici=0039-3665%28199403%2F04%2925%3A2%3C65%3ACPWEAC%3E2.0.CO%3B2-F>

## **VII.10      *Class VII, Discussion Group 2: Microcredit interventions***

### **Information on the video “Faces of microcredit”**

The video presented five 6-minute stories about women around the world who gained access to microcredit loans. The full video is 30 minutes in length.

Producer of the video: Rooy Media LLC

Source of the video:

Sally Jones  
Rooy Media  
7407 Hilltop Drive  
Fredrick, MD 21702 USA  
E-mail: sally@rooymedia.com  
Tel: +1-301-473-8797  
Fax: +1-301-473-8695

### **Instructions**

Sub-group 1 of each discussion groups is to organize an exercise or discussion related to the issues brought up in this video, and in the readings on microcredit and microenterprise. Examples of questions that might be discussed are:

- ❖ What differences do you see between the way microcredit is described in articles and the way it appears in the video?
- ❖ What do the women in the video consider to be the advantages of microcredit?
- ❖ What other advantages are mentioned by the narrator?
- ❖ What links do you see between microcredit and health, based on the video?
- ❖ What do you consider to be the most important strength of the Grameen Bank’s Group Guaranteed Lending Model? Why?
- ❖ What do you consider to be the most important weakness of this model? Why?
- ❖ If you have any personal experience with microcredit programs, please describe similarities and differences between this experience and the material presented in the lecture, the video and the readings?
- ❖ What points made in the readings do you feel were most informative or relevant to the debate on microcredit and health?
- ❖ How much emphasis should be placed on microcredit and microenterprise, relative to other approaches to improve health and promote economic and social development?

## VIII. Module Two: Health Systems

### VIII.1 Overview of the Module

In Assignment Two you need to establish a set of health priorities for your country and describe how you would invest \$5 million over three years to address one of these priorities. In this module an alternative way of defining health priorities is presented that is based on the Health System framework. Analysis of critical gaps in the health system of a country is one way of completing Assignment Two. A video on a hospital in the West African country of Guinea (Conakry) is used to illustrate the challenges facing health systems in low income countries.

### VIII.2 Class VIII: Improving the organization and management of health systems

#### Lecturer

David Peters

Assistant Professor, Health Systems Program, Department of International Health

#### Learning objectives:

1. Define health system, and explain why it is important to study health systems.
2. Articulate common criteria for measuring health system performance.
3. List important considerations when planning how to effect change in a health system.
4. Understand the ethical and political issues that must be considered when planning interventions to improve health systems.

#### Required Reading:

- ❖ Mills, AJ and Ranson, MK (2001). The Design of Health Systems (Chapter 10), pp 515-530. In: Michael H. Merson, Robert E. Black, Anne J. Mills. (Eds.) *International Public Health: Diseases, Programs, Systems and Policies*. Gaithersburg MD: Aspen.

#### Optional Readings:

- ❖ Feachem RG (2000). Health systems: more evidence, more debate. *Bulletin of the World Health Organization*. **78** (6): 715.
  - <http://www.who.int/bulletin/pdf/2000/issue6/Editorial.pdf>
- ❖ Murray CJ and Frenk J (2000). A framework for assessing the performance of health systems. *Bulletin of the World Health Organization*. **78** (6): 717-31.
  - <http://www.who.int/bulletin/pdf/2000/issue6/bu0542.pdf>
- ❖ Peters DH, Elmendorf, AE, Kandola K and Chellaraj G. (2000). Benchmarks for health expenditures, services and outcomes in Africa during the 1990s. *Bulletin of the World Health Organization*. **78** (6): 761-769.
  - <http://www.who.int/bulletin/pdf/2000/issue6/bu0700.pdf>
- ❖ WHO (2000). World Health Report 2000 Chapter 1: Why Do Health Systems Matter? Geneva: WHO
  - <http://www.who.int/whr2001/2001/archives/2000/en/pdf/chapter1.pdf>

### **VIII.3 Class IX, Discussion Group 3: Case study on organization and management – Donka Hospital, Conakry, Guinea**

#### **Information on the video “Donka X-ray of an African Hospital”**

Donka: X-ray of an African Hospital investigates the state of the continent’s hospital system, and illustrates the challenges faced by health care workers trying to deliver services in under-financed health facilities. The hospital practices a paying health care policy designed to cover running costs. The financial strategy, now a hospital priority, is rigorously applied and has a variety of consequences for the users of the hospital. The video is 59 minutes long.

Producer of the video: Thierry Michel

Source of the video:

Alexandra Adams  
First Run ICARUS films  
32 Court Street 21<sup>st</sup> Flr  
Brooklyn, New York 11201 USA  
E-mail: mail@frif.com  
Website: www.frif.com  
Tel: +1- 718-488-8900  
Fax: +1-718-488-8642

#### **Required article**

- ❖ McKee, M. and Healy, J. 2000. The role of the hospital in a changing environment. *Bulletin of the World Health Organization*. **78** (6): 803-810.
  - <http://www.who.int/docstore/bulletin/pdf/2000/issue6/bu0665.pdf>

#### **Optional article**

- ❖ Van Lerberghe W., de Bethune, X. and De Brouwere V. 1997. Hospitals in sub-Saharan Africa: why we need more of what does not work as it should. *Tropical Medicine and International Health*. **2**(8): 799-808.

#### **Potential topics and questions**

(Sub-groups organizing this session can use any or all)

- ❖ Describe the factors contributing to poor health outcomes in the patients at the Donka Hospital? How has Guinea’s colonial and post-independence history influenced the current health system?

- ❖ Of the approaches described in the lecture on September 25, which do you think offer the most potential benefit to the Donka Hospital and its patients?
- ❖ How have the problems facing the Donka Hospital affected the hospital staff? What methods has the hospital administration used to improve staff morale?
- ❖ In many African countries, analysis of the budget of the Ministry of Health show that one or two large hospitals located in the capital city account for a large proportion, sometimes even greater than 50%, of the overall budget. The most effective and cost-effective ways to spend scarce resources, in terms of DALYs gained per dollar spent, are frequently found to be nation-wide implementation of interventions such as childhood immunization, Vitamin A distribution, family planning, ORT for treatment of acute diarrhea, and early treatment of lower respiratory tract infections with antibiotics.

If a Ministry of Health insists that its first priority is installing a new back-up system for power generation, purchasing additional surgical and laboratory equipment, hiring additional nurses and increasing the pay of the current employees at the central hospital in the capital city,

- Is this a reasonable course of action?
- Does a multilateral or bilateral donor have the right to insist that the country divert its spending to more cost-effective interventions, as a condition for the granting of new loans or grants to the Ministry of Health?
- If the Ministry of Health insists on spending money to improve the hospital in the capital city, should aid donors give their money to NGOs who are implementing maternal and child health interventions in periurban shantytowns and in rural areas?
- Are there alternatives to expanding Donka Hospital which would be more cost effective?
- Should the role of cost sharing be encouraged as a co-financing method?
- Should the hospital be providing drugs directly rather than using private pharmacies?
- ❖ Some would argue that the first priority in a country like Guinea is to improve the transport and communications infrastructure (roads, railroads, port of Conakry, telephones), and that improving this infrastructure will allow economic expansion that will make it possible for the country to fund the Donka Hospital in a sustainable manner through increased tax revenue from exports. What justification is there for spending any money at all on health, rather than on transport and communications infrastructure?

- ❖ A donor decides to make a large grant to the Donka Hospital to improve its services. What are the strengths and weaknesses of each of the following ways of spending the money?
  - Build a completely new hospital;
  - Purchase diagnostic, laboratory and surgical equipment;
  - Establish a fund to improve the pay of key personnel so that they will not leave to work in Europe -- Each year the interest earned would be used to improve the salary of key medical specialists;
  - Consultancy by a health economist: Review of the finances of the hospital and revision of the cost recovery policy, including establishment of some new fees, to ensure that the hospital is profitable, implementation of a new accounting system;
  - Long-term technical assistance on Quality assurance management methods: Analysis of the quality of existing services, formation of "quality assurance teams" in each of the different units of the hospital to analyze the current level of service quality and work to find ways to improve it.
  - Build a fee-for-services wing for "VIPs" where the well off could pay full rates, and thus subsidize the other parts of the hospital.
  
- ❖ Most of the population of Guinea does not have access to Donka Hospital because they live in rural areas, or find that the costs of transport to the hospital and the user fees are prohibitive. What should the role of the Donka Hospital be within the national health care system? If it is decided to increase the amount of spending on health services for rural and periurban areas, and decrease the budget for Donka Hospital, how and where would patients with oesophageal fistulae or extensive burns be treated?

## **IX. Module Three: Selecting Interventions and Partners**

### ***IX.1 Overview of the Module***

This module presents the tools and concepts necessary to complete Assignment Two, including prioritization of health problems, multilateral and bilateral organizations, and indicators for measuring the process and outcomes of health programs. You will complete tables to characterize the health problem that will be your focus for Assignment Two and identify its key determinants and key stakeholders. Finally, in this module you will take a critical look at the role of foreign aid in health, and learn the importance of taking history into account when designing new health initiatives.

### ***IX.2 Class X, Hour 1: Selecting the health problem and activities to address it in relation to country situation analysis and Millennium Development Goals***

#### **Lecturer**

Gary L. Darmstadt

Assistant Professor, Health Systems Program, Department of International Health

#### **Learning objectives:**

1. Describe some of the major current initiatives in global health.
2. Articulate five types of moral arguments that can be used when setting health priorities.
3. Describe common types of district and national level health projects.
4. List commonly-used criteria for prioritizing health interventions.

#### **Required Readings:**

- ❖ Walt, G. Global Cooperation in International Public Health (Chapter 13), pp 667-699. In: Michael H. Merson, Robert E. Black, Anne J. Mills. (Eds.) International Public Health: Diseases, Programs, Systems and Policies. Gaithersburg MD, 2001.
- ❖ Jones G, Steketee RW, Black RE, Bhutta ZA, Morris SS and the Bellagio Child Survival Study Group (2003). How many child deaths can we prevent this year? Lancet 362: 65-71.
- ❖ Bryce J, el Arifeen S, Pariyo G, Lanata CF, Gwatkin D, Habicht JP and the Multi-Country Evaluation of IMCI Study Group (2003). Reducing child mortality: can public health deliver? Lancet 362: 159-164.
- ❖ Moss W, Darmstadt GL, Marsh DR, Black RE and Santosham M (2002). Research priorities for the reduction of perinatal and neonatal morbidity and mortality in developing country communities. Journal of Perinatology 22(6):484-95.
- ❖ Also be familiar with the United Nations Millenium Development Goals:
  - <http://www.developmentgoals.org/>
  - <http://www.undp.org/mdg/>
  - <http://www.un.org/millenniumgoals/>

### ***IX.3 Class X, Hour 2: Partners for implementation and indicators***

#### **Lecturer**

Peter J. Winch

Associate Professor, Social and Behavioral Interventions Program and Health Systems Program,  
Department of International Health

#### **Learning objectives:**

1. Explain the importance of selecting appropriate partner organizations for the implementation of health interventions, and discuss the strengths and limitations of different kinds of partners.
2. Explain what is meant by an indicator, and why indicators need to be established for monitoring and evaluating health programs.
3. Define and distinguish between indicators at five different levels: Input, Process, Output, Outcome and Impact.

#### **Required readings**

- ❖ Bryce J, Rounou JB et al. 1994. Evaluation of national malaria control programmes in Africa. *Bulletin of the World Health Organization*. 72(3): 371-381

#### **Sources of information on indicators**

- ❖ Indicators for HIV/AIDS programs
  - [http://www.measuredhs.com/hivdata/ind\\_tbl.cfm](http://www.measuredhs.com/hivdata/ind_tbl.cfm)
  - <http://www.childsurvival.com/documents/CSTS/QUICKGUIDEHIV-AIDS.doc>
  - <http://www.fhi.org/en/HIVAIDS/Publications/Archive/evalchap/evalchap10.htm>
- ❖ Indicators for child health and survival programs
  - [http://www.childsurvival.com/kpc2000/rapidcatch\\_tab.pdf](http://www.childsurvival.com/kpc2000/rapidcatch_tab.pdf)
- ❖ Indicators for Roll Back Malaria
  - [http://mosquito.who.int/cm\\_upload/0/000/015/362/RBMInfosheet\\_11.pdf](http://mosquito.who.int/cm_upload/0/000/015/362/RBMInfosheet_11.pdf)

## IX.4 Class XI, Discussion Group 4: Selection and justification of activities

### The Three Case Scenarios

During this discussion group exercise and the following one on Tuesday October 14 on indicators, the group will be divided into three and assigned one of three case scenarios: diarrhea in Angola, children affected by HIV/AIDS (parents have died or are sick) in Zimbabwe or tobacco use in Sri Lanka. During this discussion group you will be examining factors that contribute to the problem, and evaluate which are subject to change. In the following discussion group, you will create indicators to evaluate interventions directed against these same problems.

| Case Scenario   | Childhood diarrhea in Angola                    | Tobacco-related diseases in Sri Lanka                 | Children affected by HIV/AIDS in Zimbabwe |
|-----------------|---|---|---|
| Type of problem | Pre-epidemiologic transition infectious disease | Post-epidemiologic transition non-infectious diseases | Emerging infectious disease               |

### Instructions for all three sub-groups

Prior to the discussion group exercise: Read the case scenario below for the case you have been assigned, as well as 1-2 additional articles that will provide you with the necessary technical background. Articles and websites are suggested for each case scenario.

During the discussion group exercise:

1. In your group, decide who will be the facilitator/presenter for this assignment. The facilitator should help keep the group on track and record key points for presentation to the other groups.
2. Identify factors that contribute to the problem.

For Diarrhea/Angola, use these categories:

| Category                                   | Examples  |
|--|---|
| Ultimate tier/Environmental and structural | May contribute morbidity and mortality directly (e.g. contaminated water supply) or influence behaviors (e.g. poor access to health clinics, lack of essential drugs at clinics, laws and regulations) or have broader social and economic impacts (foreign debt, unemployment) |
| Intermediate tier/Behavioral               | Hand-washing, boiling water, breast-feeding, treatment of infections  |
| Proximate tier/Biological                  | Co-existing or previous conditions or diseases that can influence transmission (Malnutrition, other infections), immunity in the population   |

For HIV-affected children in Zimbabwe and tobacco-related diseases, you should use the categories of socioeconomic determinants listed in the article by Mosley and Chen (See Class V):

| Category         | Examples   |
|------------------|--|
| Community-level  | Ecological setting, political economy, health system                                     |
| Household-level  | Income/wealth, attitude of family members toward smoking or children of parents with HIV |
| Individual-level | Knowledge, attitudes, education  |

For HIV-affected children in Zimbabwe, you are examining a range of adverse consequences related to their parents living with or dying from HIV/AIDS including poor nutrition, inability to go to school, and child labor under dangerous conditions that together could be termed as consequences of their increased vulnerability. You want to identify interventions that decrease their vulnerability to these adverse events.

3. Categorize the factors that your group identified above by *importance* (clearly linked to the health problem and is a common or emerging factor) and *changeability* (factor is susceptible to change by a tested and cost-effective intervention). Use Table 1 to categorize these factors.
4. Taking into account your analysis of the importance and changeability of the different factors affecting your problem, describe how you might spend \$5 million to produce a significant improvement in this problem. Which factors would be addressed by your plan for the money?
5. Other people may disagree with your choice of activities or interventions, and favor other options.
  - ❖ What disadvantages or weaknesses might they attribute to the intervention you have chosen?
  - ❖ How would you defend your choice to them?
6. When called upon, the facilitator/presenter will present the following to other groups:
  - ❖ The causal factors selected as priority for health programs or research (5 minutes)
  - ❖ Ideas for how you might spend \$5 million to change these factors, and which factors would be addressed (5 minutes)
  - ❖ Weaknesses others might point out and how you would defend your choice (5 min.)
  - ❖ (15 minutes each group)

**Table 1: 2x2 Table for Categorizing Factors**

| <i>Changeability</i> | <i>Importance</i>       |   |
|----------------------|-------------------------|---|
|                      | +                       | -   |
| +                    | Priority for Programs   | Only if needed to show change, have success |
| -                    | Priorities for Research | Ignore                                      |

**Table #2 Description of activities**

| Brief description of activity | Proportion of funding allocated to this activity | Level at which implementation occurs (Central, state/provincial, district, community) and areas where activity will be implemented |
|-------------------------------|--|--|
|                               |  |  |
|                               |  |  |
|                               |  |  |
|                               |  |  |

**Table #3 Defending your choice of activities**

| Disadvantages or weaknesses people may attribute to the activities you have chosen | Your response to these points |
|--|-------------------------------|
|  |                               |
|  |                               |
|  |                               |
|  |                               |

## Scenario #1

### Pre-epidemiologic transition health problems: Diarrhea in young children in Angola

**Note:** The information in the case study below is based as much as possible on reported national data as well as studies from an ongoing health project in the province of Cuanza Sul. However, much data is unavailable for the country and subregions. Where data is unavailable, especially for subregions, we extrapolated from what is reported for the region and/or the country. This case study also does not reflect the official priorities of the government of Angola or USAID. More information about Angola can be obtained from [www.angola.org](http://www.angola.org).

USAID is planning to give US\$5 million for a four-year project to reduce infant and child mortality upon receipt and approval of a project proposal. The project can be of national scope or at the level of a USAID priority region or at a level within a priority region (e.g. district level). Cuanza Sul is USAID's priority region within this case study country. The Ministry of Health's number one priority is to reduce childhood deaths from diarrhea. The USAID health, population and nutrition (HPN) officer in the country who will approve the project prefers not to support water and sanitation projects because she believes they are too costly. She is also concerned about the sustainability of health projects because the country's health budget affords only \$2.14 per person per year. The USAID HPN officer expects that USAID funding for health activities in the province will cease after this project.

### Angola Country Information

Total country population is 10.8 million with a land area of 486,213 square miles. The capital city is Luanda. The common languages are Portuguese (official), Umbundu, Kimbundu, Kikongo, Tchokwe, and Ovambo. The climate is tropical in the north and subtropical in the south. Major exports are oil, diamonds, minerals, coffee, fish and timber. Major imports include food, beverages, vegetable products, capital goods, transportation and electrical equipment. GNP US \$ 1,180 per capita. Government expenditures are about 39.5% of GNP. The health budget of the country is six percent of government expenditures. The country was involved in a civil war of varying intensity for thirty years between the government and UNITA forces. As of the summer of 2003, peace has held for about one year. UNITA forces have been demobilized and UNITA is acting primarily as a political party. Camps that were set up to house former UNITA soldiers and their families have been mostly disbanded. Large numbers of refugees and internally displaced persons are in the process of resettling into areas that have had few or no health services for over 20 years. The government along with NGOs are trying to establish health services in areas that were previously inaccessible for many years. These efforts are hindered in some areas by the presence of land mines.

Diarrhea is estimated to cause 60 deaths per 1000 children less than five years per year and is the leading cause of death in children under five years of age. On average, children under five years of age experience 6-7 episodes of diarrhea per year. It is also estimated that diarrhea is the leading cause of disability-adjusted life years (DALYs) in the country although pneumonia is the leading cause of DALYs for

other nearby countries. This estimate is based on the fact that, relative to other nearby countries, fewer people have access to potable water and sanitation, handwashing and breastfeeding practices are poorer, and the use of oral rehydration therapy (ORT) is lower.

## Sub-Region Information

Cuanza Sul has a total population of 800,000 located in five districts each with approximately a 150 to 200 thousand population. It is mostly rural (about 90% of the population is rural). Cuanza Sul contained one of the boundaries between opposing sides in the civil war that recently ended. There is currently a famine in many parts of the country (see <http://www.doctorswithoutborders.org>). While farming conditions are favorable for the population, chronic conflict has displaced entire villages, killed animals herds and destroyed infrastructure. The majority of displaced persons were living in and around administrative centers in the more secure districts. Water systems, schools, and health services were available to these displaced populations only at administrative centers. In general, health services are still mostly available only in administrative centers. Now, these displaced persons are moving back to their traditional communities that are often far from these administrative centers. NGOs supporting health and development efforts in Cuanza Sul include Africare, Catholic Relief Services (via a local NGO, Caritas), and Save the Children.

The findings of a qualitative study carried out in rural communities in August 1998 are instructive. Communities in Cuanza Sul commonly recognize four types of diarrhea: watery diarrhea, diarrhea with frequent vomiting, bloody diarrhea, and diarrhea with mucous. Watery diarrhea and diarrhea with vomiting are considered dangerous because "they both kill children rapidly." Bloody diarrhea is not considered very dangerous. Commonly mentioned causes of diarrhea are "dirty things" like dirty water, unclean or poorly prepared foods, putting dirty things in the mouth. Worms are also a commonly perceived cause of diarrhea.

Most caretakers treat childhood diarrheas with teas made from roots, leaves and tree bark. *Garapa* a drink made from boiling the root of the *muchily* plant is commonly given to children to prevent or treat weakness. A tea made from the bark of the mango tree is often given to children to stop the diarrhea or relieve symptoms like abdomen pain (1-2 teaspoons a day). Few persons use ORS. Few caretakers sought treatment from medical providers for diarrhea with danger signs (blood in stool, vomiting frequently, weakness) although many people had geographic access to functioning clinics in 1998. Reasons for not seeking medical treatment for diarrhea in 1998 included a lack of drugs at government clinics (provided free of charge), high cost of drugs in the market, beliefs that herbal remedies are effective, and beliefs that bloody diarrhea is not dangerous.

Caretakers usually continue trying to feed, breastfeed and provide other fluids to children during diarrhea although they often report giving less than usual due to reduced appetite or vomiting. Special fluids, especially *Garapa* which is sweet and liked by most children, is often substituted for food if the child refuses to eat. Caretakers say they are concerned about weakness in children with diarrhea and food and

drink prevent weakness. Many caretakers report giving more foods than usual after diarrhea because the child "is very hungry."

Few, if any, mothers breastfeed their infants exclusively for the first four to six months of life. Mothers commonly give the infant water during the first week of life and *matete*, a porridge made corn meal or cassava meal, by the end of the first month of life. Most infants are fed the regular family foods by the third month of life. Handwashing after defecation or after handling a baby's feces is not common practice. Either soap or ash for washing hands is commonly available and a sufficient quantity of water is available for handwashing. Almost no households currently have latrines. A small number of households previously had latrines that were destroyed in the war. Only about a third of communities use drinking water from a source that is protected from fecal contamination. However, since nearly every community has a natural spring nearby, it would not take a great investment to protect at least one water source in every community. Note that even in communities with access to a protected water source, unprotected water is frequently used as a source for drinking water because of convenience (distance, waiting times).

Many children are not fully immunized in their first year of life. Immunizations are given at most health facilities in administrative areas and occasionally by mobile vaccination teams during national immunization days. Children of resettling families who move away from administrative areas are much less likely to be vaccinated. Health education about vaccination is given by radio and during centralized meetings with administrative and traditional leaders, and by volunteers (activistas) in communities supported by NGOs. Little health education is being carried out in communities not covered by NGOs; the reason given is that health ministry officials do not have the funding to support community health education (personnel, vehicles, fuel). The key messages given are for parents to bring their child to clinics for vaccination.

The results from a hypothetical household survey and a hypothetical facility survey are presented below. Some of the information is based on actual studies. However, much of the data is not available for Cuanza Sul or for the national level.

**Table 1. Hypothetical Results from Household Survey in Cuanza Sul and Comparison to Nationally Reported Levels**

| Indicator  | Cuanza Sul (%) | National Level (%) |
|--|----------------|--------------------|
| Exclusive Breastfeeding during the 1st 6 months of life  | 3              | 5                  |
| Families with low socioeconomic status:  |                |                    |
| Low income   | 90             | 80                 |
| Living in a one-room house   | 30             | 25                 |
| Living in a house with earthen floor   | 95             | 65                 |
| Female literacy  | 2              | 9                  |
| Access to potable water  | 30             | 40 (rural)         |
| Access to sanitation   | 3              | 30 (rural)         |
| Undernutrition: low weight for age in under fives  | 60             | 53                 |
| DPT3 vaccination coverage – 12-23 months of age  | 15             | 41                 |
| Oral rehydration therapy (ORT) during diarrhea   | 28             | 48                 |
| Knowledge of importance of increased feeding after diarrhea  | 22             | 31                 |
| Care seeking for diarrhea with danger sign (blood in stool, vomiting frequently, or lasting > 2 weeks) | 21             | 57                 |
| Handwashing practices:   |                |                    |
| after defecation   | 14             | 37                 |
| after handling babies feces  | 8              | 33                 |
| before feeding or preparing food   | 65             | 66                 |
| Percent of diarrheal deaths due to:  |                |                    |
| dehydration  | 80             | 56                 |
| dysentery  | 15             | 35                 |
| persistent diarrhea  | 5              | 9                  |
| Two week period prevalence of diarrhea in < 5s (per 100 children)                                      | 32             | 23                 |
| Deliveries by a health professional  | 5              | 24                 |
| Access to medical care (< 10 kilometers)   |                |                    |
| Any facility   | 30             | 75                 |
| Any hospital   | 10             | 35                 |
| Baby friendly hospital (promoting breastfeeding)   | 0              | 0                  |

**Table 2. Hypothetical Results from Health Facility Survey in Cuanza Sul**

| <b>Indicators</b>  | <b>Number</b> | <b>Percent</b> |
|--|---------------|----------------|
| Facilities with at least one health worker trained in standard case management of diarrhea or childhood illness  | 1             | 8              |
| Facilities out of antibiotics > 1 time in the last three months  | 11            | 92             |
| Facilities out of oral rehydration salts (ORS) > 1 time in the last three months   | 11            | 92             |
| Facilities with a section for giving health education/demonstrations about oral rehydration therapy (ORT) for diarrhea   | 1             | 8              |
| Facilities with wall charts for standard case management of diarrhea or childhood illness  | 0             | 0              |
| Children under five who came to a health facility with diarrhea and received appropriate case management (out of children who came to health facility with diarrhea on day of survey)  | 3             | 7              |
| Children under five who came to a health facility with diarrhea and were managed by a person trained in standard case management of diarrhea or childhood illness (out of children who came to health facility with diarrhea on day of survey) | 5             | 11             |

## Scenario #2

### Post-epidemiologic transition health problems: Tobacco-related disease in Sri Lanka

#### Articles

- ❖ Charles W. Warren, Leanne Riley, Samira Asma, Michael P. Eriksen, Lawrence Green, Curtis Blanton, Cliff Loo, Scott Batchelor, & Derek Yach. 2000. Tobacco use by youth: a surveillance report from the Global Youth Tobacco Survey Project. *Bulletin of the World Health Organization* **78** (7): 868-876.
  - <http://www.who.int/docstore/bulletin/pdf/2000/issue7/bu0703.pdf>
- ❖ Seimon T, Mehl GL. 1998. Strategic marketing of cigarettes to young people in Sri Lanka: "go ahead-- I want to see you smoke it now". *Tobacco Control*. 7(4):429-33.
  - <http://tc.bmjournals.com/cgi/reprint/7/4/429>
- ❖ Mehl GL, Seimon T, Winch PJ. 1999. Funerals, big matches and jolly trips: "Contextual spaces" of smoking risk for Sri Lankan adolescents. *Anthropology and Medicine*. 6(3): 337-357.

#### Websites

- ❖ WHO Tobacco Free Initiative <http://www.who.int/tobacco/en/>
- ❖ TOBACCOpedia online tobacco encyclopedia <http://www.tobaccopedia.org/>
- ❖ Campaign for Tobacco Free Kids <http://www.tobaccofreekids.org/>
- ❖ WHO Tobacco control country profiles [http://www.who.int/tobacco/statistics/country\\_profiles/en/](http://www.who.int/tobacco/statistics/country_profiles/en/)

Situated off the southeastern tip of India, Sri Lanka has done well for a South Asian country. Despite a low per capita gross national product (GNP), Sri Lanka exhibits impressive health indicators, more like those of far wealthier nations: very high life expectancy, low infant mortality, high male *and* female literacy.<sup>1</sup> Despite these promising statistics, daily life for Sri Lankans is difficult. Since 1983, the country has been locked in civil war, draining the economy and constraining individual potential. At least 55,000 people are reported killed in the war to date; this statistic is surpassed by the number of suicides during the same period.<sup>2</sup> For many young people, the military is the only employment option: full-time jobs are in scant supply, even for those with advanced qualifications and education.<sup>3</sup> Further complicating the situation is the fact that for males alcohol consumption rates are some of the highest in the world.

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<sup>1</sup> World Bank statistics from the World Wide Web, June 1998:  
GNP per capita, 1996 (US \$): Sri Lanka, 740; United States, 28,020; India, 380  
Life expectancy at birth (years): Sri Lanka, 73; United States, 77; India 63  
Infant mortality (per 1000 live births): Sri Lanka, 15; United States, 7; India, 65  
Illiteracy (% of population age 15+): Sri Lanka, 10; United States, not available; India, 48

<sup>2</sup> Sri Lanka's suicide rate is 2nd highest in the world. La Vecchia, C. et al. *Acta Psychiatr Scand*, 90 (1), pp. 53-64, 1994

<sup>3</sup> Figures released by the Sri Lanka Department of Census and Statistics on June 27, 1998 show a decline in Sri Lanka's unemployment rate from 13.1 percent in 1994 to 10.3 percent in 1997. However, more than 80 percent of the unemployed are aged 18-29, and unemployment is highest among those with the

Smoking prevalence among middle-aged males is high (roughly 55%), though rates among younger men appear to have declined in recent years. Fewer than 1% of Sri Lankan women smoke; only Afghanistan has a lower female smoking rate. Facing an intensifying anti-tobacco climate within the United States and Europe, British American Tobacco (BAT), like other multinational tobacco corporations, has shifted its focus to the vast markets of developing countries, including Sri Lanka. In Sri Lanka, BAT's subsidiary Ceylon Tobacco Company (CTC) uses discos, music shows, free giveaways, powerboat races, attractive employment packages and other pointed measures to draw smokers.

Sri Lanka's unemployed youth spend their days looking for work, playing sports and watching television. Eager to tap this latent consumer pool, CTC uses images of fun-filled, adventurous, affluent "Western lifestyles" in promoting its premium and elite brands.<sup>4</sup> Recent campaigns for Players Gold Leaf cigarettes, for example, feature huge billboards depicting rugged sailors on gorgeous ocean-going yachts, with a skyscraper skyline in the background. Posters from the same series are found in thousands of restaurants and snack shops, including those frequented primarily by schoolchildren. Movies from India, and the United States are popular.

Since 1979, the Sri Lanka Government has introduced various measures to control smoking (See page 56). However, some laws have been difficult to enforce. Health warnings must appear on all packets of cigarettes in the three languages used in Sri Lanka. There is a ban on tobacco advertising on radio and television. In 1997, a law came into effect that banned all depictions of smoking and drinking on Sri Lankan television – images are blacked out when these images are part of older programs. Indirect advertising continues (such as sponsorship of sports). In 1999, the government banned all forms of advertising. All cigarette advertisements must carry health warnings, and a health warning must also follow all tobacco advertisements in cinemas. The sale of tobacco is forbidden to persons under the age of 18. Although smoking is prohibited in hospitals and in public transport, these laws are not strictly enforced. Administrative measures have also created smoke-free areas in elevators, theatres, cinemas, workplaces, and government premises.

School children are the target of well-organized anti-smoking programs in schools, and even school textbooks include information on the hazards of smoking. With cooperation from media authorities and funding from private organizations, information on the hazards of smoking has appeared in the media. Additionally, the state run broadcasting and television corporations have refused to accept cigarette advertisements. The Sri Lanka Medical Association is also involved in producing television and radio programs on smoking. Other medical associations, consumer organizations, religious organizations, youth groups, social and welfare agencies are also actively involved in tobacco control efforts.

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General Certificate of Education (Ordinary Level), a high school degree.

<sup>4</sup> CTC's major cigarette brands are Bristol (the popular brand); John Player Gold Leaf (the premium brand); and Benson & Hedges (the elite, upmarket brand)





### Example #3

### Children affected by HIV/AIDS in Zimbabwe

#### Data on the internet

- ❖ Children on the Brink report 2002 (Presented at Barcelona AIDS conference July/02)
  - <http://www.unaids.org/barcelona/presskit/childrenonthebrink.html>
- ❖ UNAIDS publications, including "Investing in Our Future: Psychosocial Support for Children Affected by HIV/AIDS, A Case Study in Zimbabwe and the United Republic of Tanzania"
  - <http://www.unaids.org/youngpeople/index.html> (Near the bottom)
- ❖ UNAIDS Fact Sheet on STDs and AIDS in Zimbabwe
  - [http://www.unaids.org/hivaidsinfo/statistics/fact\\_sheets/pdfs/Zimbabwe\\_en.pdf](http://www.unaids.org/hivaidsinfo/statistics/fact_sheets/pdfs/Zimbabwe_en.pdf)
- ❖ Information on HIV and children: <http://www.pedhivaids.org/global/>
- ❖ USAID-funded Synergy Project = <http://www.synergyaids.com>

#### Introduction: Children Affected by AIDS in Zimbabwe

Extracted from this document:

Background Paper on Children Affected by AIDS in Zimbabwe. USAID, 2000. 81 pages.

Over two-thirds of all the people now living with HIV in the world live in Africa south of the Sahara desert, and fully 83% of the world's AIDS deaths have been in this region. Since the very start of the epidemic, HIV in sub-Saharan Africa has mostly spread through sex between men and women. This means that women are more heavily affected in Africa than in other regions, where the virus initially spread most quickly among men by male-to-male sex or drug injecting. Four out of five HIV-positive women in the world live in Africa.

Projections from Zimbabwe's National AIDS Control Program (NACP) estimate that 670,000 children (1 in 6 under 18) will be maternal or double orphans by the year 2000, due to AIDS. The HIV/AIDS epidemic is leaving increasing numbers of vulnerable children in need of special care and protection. Children are affected by AIDS in many ways, from the burdens of caring for sick parents and younger siblings, to the absence of a mother who is caring for a family member in another household, to the loss of income and work as adults become ill and die, to the loss of capital expended on medications and funerals.

The specter of increased numbers of children growing up who are highly susceptible to HIV infection hangs over this generation: of hundreds of thousands of children living on the streets or in destitute, child-headed households; of teenage orphan girls providing survival sex favors in exchange for money or food; of children leaving school to work alongside adults in a neighbor's fields or leaving the family to work as a domestic; or of young unsupervised children being abused or exploited.

## Factors affecting vulnerability of children in Zimbabwe

Children under 5 are particularly vulnerable if their mother is sick or has died, especially if they are in the care of an elderly or adolescent caregiver. Large numbers of orphans live with elderly guardians, many of whom have become dependent upon the children in their care. Increasingly, orphans are taken to live in families with large numbers of children, sometimes consisting of orphans from two or three families. Since disability is common within the community, the added disadvantage of orphanhood means that orphans with disabilities are particularly vulnerable.

In addition, children are vulnerable because they live with a sick guardian, usually a parent dying of AIDS. Zimbabwe has more than 100,000 adult deaths per annum due to AIDS. It is likely that at least 200,000 children per annum experience the death of a parent. In addition, large numbers of children who are not orphans are vulnerable because they live in female-headed households (>30 percent in Zimbabwe) or in extremely poor households (91 percent of the population on communal lands were reported by a 1995 Property Survey to be "poor" or "very poor").

For this discussion group we are concentrating on the needs of children whose parents are living with or have died from AIDS (Children affected by HIV/AIDS). A related issue is children who themselves are HIV positive (Children infected with HIV). A high proportion of the children living with HIV in the world are in Africa - an estimated 87%. There are a number of reasons for this. First, more women of childbearing age are HIV-infected in Africa than elsewhere. Secondly, African women have more children on average than those in other continents, so one infected woman may pass the virus on to a higher than average number of children. Thirdly, nearly all children in Africa are breastfed. Breastfeeding is thought to account for between a third and half of all HIV transmission from mother to child. Finally, new drugs which help reduce transmission from mother to child before and around childbirth are far less readily available in developing countries, including those in Africa, than in the industrialized world.

## Services provided to children affected by HIV

Approximately 100 community-based organizations (CBOs) have been established in Zimbabwe to assist children affected by AIDS. Community groups are working in rural, urban, and commercial farm sectors. Responses are focused on all orphans, not only on children orphaned by AIDS, and support is normally provided to other vulnerable children as well.

In 1997, 1,753 children lived in 39 institutions (children's homes or orphanages) in Zimbabwe. Less than 50 percent of them were orphans, compared with an estimated 1.2 million paternal and maternal orphans under 15 from all causes throughout Zimbabwe. In Harare, there

were an estimated 1500 street children, 67 percent of whom were on the streets each day to beg and work, while 33 percent were off the street, with little contact with their families. About one half as many were estimated to be on the street outside Harare.

Community-based initiatives provide support to children affected by AIDS through the following mechanisms:

- ❖ Identifying and monitoring the most vulnerable children through household visiting;
- ❖ Providing care and psychosocial support;
- ❖ Supporting community coping mechanisms through material support;
- ❖ Supporting income-generated activities, gardens, and revolving credit funds;
- ❖ Providing practical help and livelihood assistance;
- ❖ Providing household training;
- ❖ Supporting recreational activities;
- ❖ Developing creche and child-minding facilities;
- ❖ Creating community foster homes;
- ❖ Supporting HIV prevention activities;
- ❖ Providing volunteer training and motivation;
- ❖ Developing registration systems; and,
- ❖ Establishing child welfare forums.

### **Summary of HIV/AIDS indicators for Zimbabwe from [www.unaids.org](http://www.unaids.org)**

The first country in Africa to respond actively to a massive national HIV/AIDS burden was Uganda. The government engaged religious and traditional leaders and other sectors of society in a vigorous debate that helped forge consensus around the need to attack the problem of HIV. Active prevention programmes, focused on delaying sexual relations and negotiating safe behaviour, were brought into schools. Community groups were set up to counsel people and families living with the virus. The efforts of the government and people of Uganda seem to be paying off. At both rural and urban surveillance sites infection rates are falling. The improvement has been particularly marked in the younger age groups. This is in line with behaviour studies showing that young people nowadays are adopting safer sexual behaviour - later sexual initiation, fewer partners, more condom use - than was common a decade ago. First signs of falling infection rates in young people are also being seen in neighbouring Tanzania, in areas with active prevention programmes. In women aged 15-24 in the urban area of Bukoba, prevalence fell from 28% in 1987 to 11% in 1993. In the surrounding rural area, prevalence among women in the same age group fell from almost 10% in 1987 to 3% in 1996.

## **Background on Zimbabwe:**

In 2001, the population of Zimbabwe was estimated to be 12,852,000. The average annual growth in the population reached a peak of 3.5 percent in 1951 and 1961, then dropped to 3.0 percent in 1982, and further to 1.26% in 1997. Zimbabwe has a relatively young population; 45 percent of the 1992 census population were below age 15 while about 3 percent were 65 years and over. Access to health services is available for 80% of the population. The female adult literacy is 80%, whereas the adult literacy for males is 90%.

The Ministry of Health and Child Welfare (MOH&CW) has made significant progress in ensuring access to health care services for rural communities through increasing the number of health facilities in rural areas. The past decade has seen an expansion of the water and sanitation program as a strategy to control diarrhoeal diseases; the expansion of the immunization program for children under 5 and expectant mothers aimed at improving the health status of mothers and children; the provision of free health care services for those earning less than \$Z400 a month, who make up the majority of the population; and the training of traditional midwives in order to improve the quality of care for mothers who do not deliver at health facilities. The importance which the MOH&CW attaches to MCH services is evidenced by the establishment of an MCH department in the Ministry of Health. The department designs and implements integrated health programs aimed at improving the health status of mothers and children. The department also identifies and prioritizes health problems of mothers and children and formulates strategies to alleviate the problems.

## Data from the 1999 Zimbabwe Demographic and Health Survey (ZDHS)

| Indicator   |         | Urban | Rural |
|---|---------|-------|-------|
| Has not heard of AIDS   |         | 0.5%  | 1.2%  |
| Does not know a way to avoid AIDS   |         | 4.2%  | 9.7%  |
| Ways to avoid AIDS mentioned by respondent:   |         |       |       |
| Abstain from sexual relations   |         | 44.8% | 18.6% |
| Use condom  |         | 77.8% | 74.7% |
| Limit number of sexual partners   |         | 75.3% | 64.4% |
| Healthy looking person can have AIDS  | Females | 86.5% | 69.0% |
|   | Males   | 93.0% | 79.7% |
| AIDS can be transmitted mother to child   | Females | 89.5% | 89.5% |
|   | Males   | 89.9% | 85.2% |
| Know someone with AIDS or   | Females | 66.4% | 55.8% |
| who has died from AIDS  | Males   | 72.1% | 57.6% |
| Used condom during last episode of sexual intercourse with spouse or cohabiting partner |         |       |       |
|   | Females | 4.7%  | 4.1%  |
|   | Males   | 5.8%  | 7.0%  |
| Used condom during last episode of sexual intercourse with non-cohabiting partner       |         |       |       |
|   | Females | 50.0% | 53.8% |
|   | Males   | 80.1% | 61.4% |
| Uses condoms with commercial sex workers  | Males   | 98.2% | 62.5% |
| Willing to care for relative with AIDS at home  | Females | 89.3% | 89.3% |
|   | Males   | 86.5% | 89.8% |
| Believe children 12-14 years should   | Females | 42.9% | 33.6% |
| be taught how to use condom   | Males   | 47.6% | 51.1% |

## **IX.5 Class XII: The Role of History in International Health**

### **Lecturer**

Randall Packard

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### **Learning objectives**

1. Explain why knowledge of what has gone before can be important in choosing and designing health interventions.
2. Articulate the need to understand broader historical processes that have shaped recent history of region and its people, and changing social and economic conditions, in order to evaluate past programs
3. Describe the roles of the major multilateral and bilateral organization in international health (Readings, not lecture).
4. Describe the key challenges faced by the World Health Organization as it tries to redefine its role (Readings by Walt and Godlee, not lecture).

### **Required reading**

- ❖ Walt, G. (2001) Global Cooperation in International Public Health (Chapter 13), pp 667-699. In: Michael H. Merson, Robert E. Black, Anne J. Mills. (Eds.) *International Public Health: Diseases, Programs, Systems and Policies*. Gaithersburg MD: Aspen.

### **Optional readings**

- ❖ Buse K (1999). Keeping a tight grip on the reins: donor control over aid coordination and management in Bangladesh. *Health Policy and Planning*. **14**, 219-28.
  - <http://heapol.oupjournals.org/cgi/reprint/14/3/219.pdf>
- ❖ Godlee F (1995). WHO's special programmes: undermining from above. *BMJ* 310:178-182.
  - <http://bmj.com/cgi/content/full/310/6973/178/a>
- ❖ Walt G, Pavignani E, Gilson L and Buse K (1999). Managing external resources in the health sector: are there lessons for SWAps (sector-wide approaches)? *Health Policy and Planning*. **14**: 273-84
  - <http://heapol.oupjournals.org/cgi/reprint/14/3/273.pdf>

## ***IX.6 Class XIII, Discussion Group 5: Defining indicators for your program and partners for implementation***

### **The Three Case Scenarios**

During this discussion group exercises you will continue working on the case scenarios: Diarrhea in Angola, children affected by HIV/AIDS in Zimbabwe and Tobacco in Sri Lanka. In this exercise, an intervention and a possible intervention activity have been selected for you. During this discussion group you will be creating indicators to evaluate an assigned intervention directed against these problems, and selecting institutions or organizations to be your partners in implementation. [Note that for the purposes of this exercise, you will create indicators to evaluate only one of the possible activities that can be carried out for the assigned intervention].

| <b>Case Scenario</b> | <b>Childhood diarrhea in Angola</b>        | <b>Tobacco-related diseases in Sri Lanka</b>              | <b>Children affected by HIV/AIDS in Zimbabwe</b> |
|----------------------|--|---|--|
| <b>Intervention</b>  | Increase ORT use in the home by caretakers | Decrease smoking among youth                              | Provide care for orphans by using volunteers     |
| <b>Activity</b>      | Educate caretakers in ORT use              | Training of school groups/clubs in anti-tobacco education | Training and support of volunteers               |

### **Instructions for all three sub-groups**

Prior to the discussion group exercise: Read the Bryce J. article on evaluation of national malaria control programmes in Africa in the assigned readings. Read also the attached example framework for defining indicators for a malaria control activity. Then, read the background for your specific discussion group assignment.

During the discussion group exercise:

1. In your group, decide who will be the facilitator for this assignment. The facilitator should help keep the group on track and record key points for presentation to the other groups. The facilitator of last week is not automatically the same as in the previous exercise
2. Given your assigned intervention activity, make a list of indicators at the input, process, output, outcomes and impact levels to measure an "improvement" of the problem by

filling out Table #1. To complete this exercise in the time we have given you, select only one or two indicators for each level.

3. From the list above, select the two or three indicators that are most appropriate and useful for monitoring and evaluating your activities. What advantages do they have over the others? How would you defend your choice to the group?
4. A. Fill out Table #2, potential institutions/organizations to carry out the activities.  
B. Explain which of the different institutions listed in Table #2 you recommend to be designated as the lead institution. The lead institution would administer the funds and ensure that the funds are appropriately used.  
C. What other institutions or organizations do you recommend for involvement in the project, and what would their roles be?  
D. Explain why your recommendations make sense both in terms of short-term practical considerations (how best to get the work done), and as part of a long-term strategy for building local capacity to address health problems.
5. When called upon, the facilitator/presenter will present the following to the other groups:
  - ❖ Assigned intervention and activity
  - ❖ Two to three most useful indicators for monitoring the intervention/activity
  - ❖ Advantages these two or three indicators have over the other indicators on your list.
  - ❖ Institutions or organizations that would carry out the activities

### Some general comments on indicators

Indicators serve a variety of purposes. They can be used to provide feedback to those who provide money on the implementation of the project: Did the project actually happen? Was the project a success?. They also can be used to provide feedback to those implementing the project on whether goals are being met. We will be operating with the following definitions for today's exercise:

|                  |   |
|------------------|---|
| <b>Goal</b>      | The overall aim of the project  |
| <b>Objective</b> | A statement of a specific and quantifiable accomplishment to be attained in a given time-frame.   |
| <b>Indicator</b> | A measure (marker) to assess inputs, processes, outputs, outcomes and impact. (Indicators are often expressed as percentages, rates or ratios). |

|                 |  |
|-----------------|--|
| <b>Input</b>    | Resources, such as personnel, equipment, supplies and finances, used to carry out project activities.  |
| <b>Process</b>  | Activities implemented using the inputs to achieve desired changes, e.g. nutrition surveillance, training.   |
| <b>Outputs</b>  | Immediate results achieved as a consequence of the processes carried out, usually expressed as units of service, e.g., number of persons trained, number of persons supervised, number of equipped & functioning clinics. Outputs are “two steps before” what we really want to change: e.g. health workers trained in giving immunizations or in maintaining the cold chain in one step before children immunized against measles, which in turn is one step before decreased incidence of measles in young children or decreased mortality from measles in young children. |
| <b>Outcomes</b> | Measurable health changes achieved among the project population, the health care services or in the community. Compared to impact, outcomes are more immediate and observable. Examples of outcomes are increased knowledge, children fully immunized, increased quality of services. Outcomes are “one step before ” what we really want to change: e.g. children immunized against measles is one step before decreased incidence of measles in young children or decreased mortality from measles in young children.  |
| <b>Impact</b>   | Long-term effect on the health status of the population. The expected impact of a project is closely related to the project goal, and in some cases may be the same. Disease incidence and prevalence, case fatality rates and mortality rates are all examples of impacts.  |

In general it is better to have indicators as far down the scale towards impact as possible, however measurement of impact (e.g. mortality) is expensive and time consuming, may mean less time and money for delivery of services.

## SMART indicators

The last question of Assignment #2 asks you to select a limited number of indicators that are most appropriate for monitoring and evaluating your activities. One way to approach this question is to a) ensure that each indicator corresponds to a specific objective of the project and b) ensure that the objectives themselves meet the SMART criteria:

**S** Specific: the objective and its corresponding indicator measure a phenomenon that will change as a result of project activities

Example: "Incidence of diarrhea" should not be an indicator for a program promoting the use of oral rehydration therapy, because ORT use has no effect on diarrhea incidence

**M** Measurable: the objective and its corresponding indicator are quantifiable. Some objectives are so vague that they are impossible to quantify e.g. "Health workers will have more self-confidence". Others are meaningless because no denominator is specified, e.g. Intervention = Immunization Indicator = Number of children fully immunized. In general all outcome and impact indicators must have a denominator specified. For immunization indicators, denominators can be very complex, for example:

Percent of children 12 to 23 months who have received DPT3

Numerator = # children aged 12 to 23 months whose immunization card shows they have received DPT3 (3 doses of Diphtheria-Pertussis-Tetanus vaccine)

Denominator = # total number of children in the survey aged 12 to 23 months including those without a card

**A** Attainable: the objective addresses appropriate targets.

**R** Realistic: the objective is doable within the given time frame and with the available resources.

Example: If your activity addresses more distal determinants of disease (income, education, transport), it may not be realistic to expect changes in impact indicators (mortality, incidence) within the period of the project. The impact of increased female literacy or of an income generation project on child mortality may not be observable during the course of a short project.

**T** Time-bound: the objective is time limited.

## Example framework for defining malaria control indicators

The information is based on the Bryce J. article "Evaluation of national malaria control programs in Africa", from Module Three from the course material. The article discusses the usefulness of using evaluation as a management tool for the improvement of the efficiency and effectiveness of malaria control programs. One example "Correct disease management" is used from the article. Only a few indicators (per category) are mentioned, more can be found in the article. The comments in italic in the table are common definitions used to describe each indicator

Project: Strengthening of program evaluation to improve the efficiency and effectiveness of malaria control programs.

Goal: To improve the efficiency and effectiveness of malaria control programs

Intervention: Improve case management of children presenting with fever to a first-level health facility. (WHO has guidelines for standard case management of childhood illness for first level health facilities).

### Framework for indicators:

| Activities   | Indicators  |   |   |  |   |
|--|---|---|---|--|---|
|  | Input   | Process   | Output  | Outcomes   | Impact  |
| <i>Project activities carried out to accomplish the purpose</i>  | <i>Resources used to carry out project activities</i>   | <i>Activities implemented using the inputs to achieve desired changes</i>   | <i>Immediate results achieved as a consequence of the processes carried out</i> | <i>Measurable health changes achieved among the project population, the health care services or in the community</i>   | <i>Long-term effect on the health status of the population</i>                            |
| Provide training to health workers at 1 <sup>st</sup> level health facilities in standard case management of children presenting with fever (assume endemic malaria in the project area) | Number of training courses provided for health workers at 1 <sup>st</sup> level health facilities | Proportion of training courses for health workers where health workers have at least three days practical experience in a hospital outpatient clinic managing sick children.<br><br>Proportion of health workers who had at least three days practical experience in a hospital outpatient clinic managing sick children with supervision/ feedback for at least five cases of fever. | 36 staff fully trained in standard case management of sick children             | Proportion of children presenting with fever to a health facility who receive standard case management<br><br>Proportion of children presenting to a health facility who are managed by a health worker trained in standard case management of sick children | Case-fatality rates among children presenting with fever to health facilities over 1 year |

## Scenario #1 Framework (LogFrame) for evaluating a home management of diarrhea intervention in Cuanza Sul, Angola

- Project: Strengthening of program evaluation to improve the efficiency and effectiveness of a diarrhea control program in Cuanza Sul, Angola.
- Goal: To reduce mortality from diarrhea in Cuanza Sul, Angola.
- Intervention: Increase use of oral rehydration therapy (ORT) in the home by caretakers of children with diarrhea. (Oral rehydration therapy includes the correct use of oral rehydration salts (ORS) or an appropriate home available fluid).
- Intervention activity: Educate caretakers in ORT use for home management of diarrhea.

Increased use of ORT in the home was selected as an intervention because it is cost-effective in this setting. This intervention relies less on the poorly functioning health system and more on the capacity of families to participate in their own health. It is a proven intervention to reduce mortality from acute watery diarrhea by preventing dehydration in children with diarrhea. This intervention does not rely on the availability of trained health workers or a supply of drugs (ORS) at the health post; families can use appropriate home-available fluids if ORS is not available or accessible. *Garapa*, a drink made from boiling the root of the *muchily* plant, was identified as one appropriate home-available fluid for ORT in Cuanza Sul. Develop indicators for the assigned intervention activity: Educate caretakers in ORT use for home management of diarrhea. Develop input, process, output, outcome and impact indicators. Use the attached framework to help you develop indicators. Select two or three that are most appropriate and useful for monitoring and evaluating the activity.

## **Scenario #2 Framework (LogFrame) for evaluating a anti-tobacco education intervention in Sri Lanka**

- Project: Use of school groups and clubs to reduce prevalence of smoking among youth.
- Goal: Decrease rates of smoking initiation among youth who do not smoke, and to decrease the amount of cigarettes smoked and promote smoking cessation among current smokers.
- Intervention: Train school groups or clubs that conduct tobacco education.
- Intervention activity: Training of youth trainers: negotiating skills to refuse cigarettes when offered by their peers.

The World Health Organization will be providing a grant to an institution or organization in Kandy to provide training for school groups or clubs that conduct tobacco education. A number of school groups are already conducting this type of education in Colombo. This grant aims to expand such activities into other parts of the country, while building on the expertise of the groups currently operating in Colombo. The ultimate goal of the grant is to decrease rates of smoking initiation among youth who do not smoke, and to decrease the amount of cigarettes smoked and promote smoking cessation among current smokers. The grant will not provide any funds directly to the school groups. The institution or organization will identify between 30 and 50 school groups that might be interested in this activity in different parts of the country. Training workshops will then be held in different parts of the country that will provide training for 5 to 10 groups at a time. The institution or organization will collaborate with groups currently conducting tobacco education in Colombo and local health workers to organize the workshops. The following are some of the activities of the intervention (e.g. groups will be trained on how to):

1. Create alternative social environments/events where smoking is not the norm, to counteract efforts of tobacco companies to make tobacco an integral part of all forms of entertainment;
2. Teach youth how to refuse cigarettes when offered by their peers (The focus of today's lab exercise);
3. Sensitize youth to the motives and tactics used by tobacco companies, and urge them to be skeptical of their motives; and
4. Sensitize youth to the environmental damage that results from tobacco production, and the fact that tobacco production in a country like Sri Lanka may have more disadvantages than advantages.

### **Scenario #3 Framework (LogFrame) for evaluating a program to support orphans and other vulnerable children in Zimbabwe**

Project: Program to support children affected by HIV/AIDS

Goal: To improve health, well-being and school attendance among children affected by HIV/AIDS in rural Zimbabwe

Intervention: Provide care for orphans by using volunteers

Intervention activity: Training and support of volunteers

The objective will be to provide care and support for orphans and other children affected by HIV/AIDS in a rural area near Harare. Workshops will be held with community leaders and potential volunteers. Volunteers will be recruited based on their concern for orphans. They will be responsible for identifying orphans in their villages; and as members of the community, they will be more easily able to ascertain the status of the children. The names of these orphans will then be placed in a register. Volunteers will make household visits, and will be trained to keep a record of each of the household they visit, whom they talk to, what are the needs they observe and discuss, what action is needed for the particular household, and what the volunteer does in her/his personal capacity (such as sweep the house, bathe the children, counsel a child, etc). Based on needs identified, basic material support will be provided and barriers to attending school will be addressed. This recorded information will be discussed in a monthly meeting with the site supervisor and program coordinator, attended by local community leaders. The meetings will be held to promote community ownership of each of the projects in each community, to reduce dependence on the organization coordinating the program and to identify new or emerging problems that orphans are facing.

(This description is based on a actual on-going program in Zimbabwe.)

**Table 1 Framework for indicators**

| Activities   | Indicators  |   |   |  |  |
|--|---|---|---|--|--|
|  | Input   | Process   | Output  | Outcomes   | Impact   |
| <i>Project activities carried out to accomplish the purpose</i>  | <i>Resources used to carry out project activities</i> | <i>Activities implemented using the inputs to achieve desired changes</i> | <i>Immediate results achieved as a consequence of the processes carried out</i> | <i>Measurable health changes achieved among the project population, the health care services or in the community</i> | <i>Long-term effect on the health status of the population</i> |
| <p>Angola group:<br/>Educate caretakers in ORT use</p> <p>Sri Lanka group:<br/>Teach youth how to refuse cigarettes when offered by their peers</p> <p>Zimbabwe group:<br/>Provide support to HIV-affected children through volunteers</p> |   |   |   |  |  |

**Table #2 Institutions/organizations to implement the activities**

| Institution or organization | Potential role in implementation | Strengths of the institution for carrying out these activities | Weaknesses of the institution for carrying out these activities |
|-----------------------------|----------------------------------|--|---|
|                             |                                  |  |   |
|                             |                                  |  |   |
|                             |                                  |  |   |
|                             |                                  |  |   |
|                             |                                  |  |   |

Institutions/organizations to consider:

1. Ministry of Health at the central level;
2. Ministry of Health at the state/province level;
3. Ministry of Health at the district level;
4. Other government ministries e.g. ministries responsible for local government, agriculture, water or education;
5. Public and private hospitals and clinics;
6. Universities and research institutions;
7. Professional associations and unions e.g. Physicians' syndicate or association, association of pharmacists, association of traditional healers;
8. Women's associations;
9. Local grassroots NGOs;
10. Large national NGOs e.g. BRAC in Bangladesh ([www.brac.net](http://www.brac.net));
11. Microcredit institutions e.g. Grameen Bank in Bangladesh;
12. International NGOs e.g. OXFAM, Médecins sans Frontières, World Vision, CARE, PLAN International, Save the Children;
13. Religious institutions;
14. UN agencies at central or country levels e.g. WHO, UNICEF, UNHCR, UNFPA, UNDP;
15. Development banks e.g. World Bank, Asian Development Bank, African Development Bank; and
16. Private organizations that implement large health projects e.g. JSI, MSH, AED.

## ***IX.7 Class XIV: Financing of health care in low and middle-income countries***

### **Lecturer:**

Hugh Waters

Assistant Professor, Health Systems Program, Department of International Health

### **Learning objectives:**

1. Define common indicators of health expenditure, and how some of these indicators vary between low, middle and high income countries.
2. Articulate the principal roles of governments in the health sector: Providing and subsidizing public goods; Providing and subsidizing private goods with externalities; Protecting against risk; Promoting equity; Targeting and subsidizing health care for the poor; Establish risk-pooling; Health education and Regulation.
3. Explain the four main levers for intervention in a health system.
4. Describe what is meant by health system reform, and list common approaches to effecting health system reform.

### **Required Readings**

- ❖ Mills, AJ, Ranson, MK (2001) The Design of Health Systems (Chapter 10), pp 530-558. In: Michael H. Merson, Robert E. Black, Anne J. Mills. (Eds.) *International Public Health: Diseases, Programs, Systems and Policies*. Gaithersburg MD: Aspen.
- ❖ Ruger JP, Jamison DT, Bloom DE (2001) Health and the Economy (Chapter 12), pp 637-614 and 646-650. In: Michael H. Merson, Robert E. Black, Anne J. Mills. (Eds.) *International Public Health: Diseases, Programs, Systems and Policies*. Gaithersburg MD: Aspen.

### **Optional Readings**

- ❖ Victora CG, Wagstaff A, Armstrong Schellenberg J, Gwatkin D, Claeson M and Habicht JP (2003). Applying an equity lens to child health and mortality: more of the same is not enough. *Lancet* 362: 233-41.
- ❖ Castro-Leal F, Dayton J, Demery L and Mehra K. (2000). Public spending on health care in Africa: do the poor benefit? *Bulletin of the World Health Organization*. **78**: 66-74.
  - <http://www.who.int/bulletin/pdf/2000/issue1/bu0201.pdf>
- ❖ Musgrove P, Zeramdini R and Carrin G (2002). Basic patterns in national health expenditure. *Bulletin of the World Health Organization*. **80** (2): 134-142.
  - [http://www.who.int/bulletin/pdf/2002/bul-2-E-2002/80\(2\)134-142.pdf](http://www.who.int/bulletin/pdf/2002/bul-2-E-2002/80(2)134-142.pdf)
- ❖ Peters DH, Elmendorf AE, Kandola K. and Chellaraj G. (2000). Benchmarks for health expenditures, services and outcomes in Africa during the 1990s. *Bulletin of the World Health Organization*. **78**: 761-9.
  - <http://www.who.int/bulletin/pdf/2000/issue6/bu0700.pdf>
- ❖ WHO (2000) World Health Report 2000. Chapter 5. Who Pays for Health Systems? Geneva: WHO
  - <http://www.who.int/whr2001/2001/archives/2000/en/pdf/chapter5.pdf>

## ***IX.8 Class XV: Communities as partners for health and environmental interventions***

### **Lecturer:**

Carl E. Taylor

Professor Emeritus, Health Systems Program, Department of International Health

### **Learning objectives:**

1. Characterize the debate between the merits of top down and bottom up approaches (vertical vs. horizontal) to primary health care in low income countries.
2. Articulate the paradigm of community based social development and its implications for health programs.
3. Explain the critical importance of developing approaches to scaling up health interventions and programs, and describe several case studies of rapid scaling up of community based primary health care programs and initiatives.

### **Required Readings**

- ❖ Community-based Sustainable Human Development. *Primary Environmental Care (PEC) Discussion Papers*. No. 1, February 1995. pp 8-33.
  - <http://www.future.org/DOWNLOAD/greenbook.pdf>
- ❖ WHO/UNICEF. The Declaration of Alma-Ata. Primary health care is the key to health for all. WHO/UNICEF, 1978.
  - <http://www.who.int/hpr/archive/docs/almaata.html>
- ❖ Website for "Future Generations"
  - <http://www.future.org/>

### **Optional Reading**

- ❖ Taylor-Ide D and Taylor CE. (2002). *Just and Lasting Change - When Communities Own Their Futures*. Baltimore, MD: Johns Hopkins University Press.

## ***IX.9 Class XVI: Concluding remarks, career planning, course selection***

### **Lecturers**

Gary L. Darmstadt and Peter J. Winch  
Health Systems Program and Social and Behavioral Interventions Program, Department of  
International Health

### **Learning objectives:**

1. Know the main career tracks pursued by graduates of Johns Hopkins University working in international public health.
2. Distinguish between the career tracks, and know the differences in training and experience that are needed to prepare for a career in each track.

### **Readings:**

There are no readings for this lecture.

Statistical Tables from

UNICEF State of the World's  
Children Report 2003

# STATISTICAL TABLES

Economic and social statistics on the countries and territories of the world, with particular reference to children's well-being.

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## General note on the data

The data presented in the following statistical tables are accompanied by definitions, sources and explanations of symbols. Data from the responsible United Nations agency have been used whenever possible. Where such internationally standardized estimates do not exist, the tables draw on other sources, particularly data received from the appropriate UNICEF field office. Where possible, only comprehensive or representative national data have been used.

Data quality is likely to be adversely affected for countries that have recently suffered from man-made or natural disasters. This is particularly so where basic country infrastructure has been fragmented or major population movements have occurred.

Several of the indicators, such as the data for life expectancy, total fertility rates and crude birth and death rates, are part of the regular work on estimates and projections undertaken by the United Nations Population Division. These and other internationally produced estimates are revised periodically, which explains why some of the data will differ from those found in earlier UNICEF publications.

## Explanation of symbols

Since the aim of this statistics chapter is to provide a broad picture of the situation of children and women worldwide, detailed data qualifications and footnotes are seen as more appropriate for inclusion elsewhere. The following symbols are common across all tables; symbols specific to a particular table are included in the table footnotes:

A new statistical table has been introduced this year that provides data on HIV/AIDS and malaria. On HIV/AIDS, the table includes the prevalence and number of people living with HIV/AIDS, AIDS prevention and orphans. On malaria, the table includes the use of bednets and insecticide-treated bednets, as well as treatment of fever with appropriate anti-malarial drugs. Only countries where adult prevalence of HIV/AIDS is 1 per cent or higher and/or where 50 per cent or more of the population lives in malaria endemic areas are included.

In addition, changes have been made to tables 2 and 3. To better reflect the recommendation of exclusive breastfeeding for the first 6 months of life, as stated in the *World Fit for Children* goal on infant feeding, the exclusive breastfeeding rates in table 2 have been recalculated for infants aged 0 to 6 months of age. Because these data include older infants, and exclusive breastfeeding tends to decline with age, the levels are lower than those previously reported for the younger, 0-to-4 months age range.

Data on immunization coverage for hepatitis B have been added to table 3. By 2002, 80 per cent of countries with adequate delivery systems are expected to have introduced the hepatitis B vaccine, and all countries by 2007.

- Indicates data are not available.
- x Indicates data that refer to years or periods other than those specified in the column heading, differ from the standard definition, or refer to only part of a country. Such data are not included in the regional averages or totals.
- \* Data refer to the most recent year available during the period specified in the column heading.

## Under-five mortality rankings

The following list ranks countries and territories in descending order of their estimated 2001 under-five mortality rate (U5MR), a critical indicator of the well-being of children. Countries and territories are listed alphabetically in the tables that follow. Note that East Timor officially changed its name to Timor-Leste after these tables were prepared.

|                                   | Under-5 mortality rate |      |   | Under-5 mortality rate |      |                        | Under-5 mortality rate |      |
|-----------------------------------|------------------------|------|---|------------------------|------|------------------------|------------------------|------|
|                                   | Value                  | Rank |   | Value                  | Rank |                        | Value                  | Rank |
| Sierra Leone                      | 316                    | 1    | South Africa                              | 71                     | 66   | Libyan Arab Jamahiriya | 19                     | 130  |
| Niger                             | 265                    | 2    | Kiribati                                  | 69                     | 67   | Mauritius              | 19                     | 130  |
| Angola                            | 260                    | 3    | Uzbekistan                                | 68                     | 68   | Saint Lucia            | 19                     | 130  |
| Afghanistan                       | 257                    | 4    | Namibia                                   | 67                     | 69   | Sri Lanka              | 19                     | 130  |
| Liberia                           | 235                    | 5    | Marshall Islands                          | 66                     | 70   | Yugoslavia             | 19                     | 130  |
| Mali                              | 231                    | 6    | Kyrgyzstan                                | 61                     | 71   | Bosnia and Herzegovina | 18                     | 136  |
| Somalia                           | 225                    | 7    | Guatemala                                 | 58                     | 72   | Seychelles             | 17                     | 137  |
| Guinea-Bissau                     | 211                    | 8    | Korea, Democratic People's Republic of    | 55                     | 73   | Bahamas                | 16                     | 138  |
| Congo, Democratic Republic of the | 205                    | 9    | Tuvalu                                    | 52                     | 74   | Bahrain                | 16                     | 138  |
| Zambia                            | 202                    | 10   | Algeria                                   | 49                     | 75   | Bulgaria               | 16                     | 138  |
| Chad                              | 200                    | 11   | Dominican Republic                        | 47                     | 76   | Qatar                  | 16                     | 138  |
| Burkina Faso                      | 197                    | 12   | Indonesia                                 | 45                     | 77   | Uruguay                | 16                     | 138  |
| Mozambique                        | 197                    | 12   | Morocco                                   | 44                     | 78   | Dominica               | 15                     | 143  |
| Burundi                           | 190                    | 14   | Nicaragua                                 | 43                     | 79   | Antigua and Barbuda    | 14                     | 144  |
| Malawi                            | 183                    | 15   | Turkey                                    | 43                     | 79   | Barbados               | 14                     | 144  |
| Mauritania                        | 183                    | 15   | Iran (Islamic Republic of)                | 42                     | 81   | Oman                   | 13                     | 146  |
| Nigeria                           | 183                    | 15   | Vanuatu                                   | 42                     | 81   | Chile                  | 12                     | 147  |
| Rwanda                            | 183                    | 15   | Egypt                                     | 41                     | 83   | Estonia                | 12                     | 147  |
| Central African Republic          | 180                    | 19   | Belize                                    | 40                     | 84   | Costa Rica             | 11                     | 149  |
| Côte d'Ivoire                     | 175                    | 20   | China                                     | 39                     | 85   | Liechtenstein          | 11                     | 149  |
| Ethiopia                          | 172                    | 21   | El Salvador                               | 39                     | 85   | Kuwait                 | 10                     | 151  |
| Guinea                            | 169                    | 22   | Peru                                      | 39                     | 85   | Cuba                   | 9                      | 152  |
| Tanzania, United Republic of      | 165                    | 23   | Cape Verde                                | 38                     | 88   | Hungary                | 9                      | 152  |
| Benin                             | 158                    | 24   | Honduras                                  | 38                     | 88   | Lithuania              | 9                      | 152  |
| Cameroon                          | 155                    | 25   | Philippines                               | 38                     | 88   | Poland                 | 9                      | 152  |
| Equatorial Guinea                 | 153                    | 26   | Viet Nam                                  | 38                     | 88   | Slovakia               | 9                      | 152  |
| Swaziland                         | 149                    | 27   | Brazil                                    | 36                     | 92   | United Arab Emirates   | 9                      | 152  |
| Djibouti                          | 143                    | 28   | Armenia                                   | 35                     | 93   | Croatia                | 8                      | 158  |
| Togo                              | 141                    | 29   | Jordan                                    | 33                     | 94   | Malaysia               | 8                      | 158  |
| Cambodia                          | 138                    | 30   | Lebanon                                   | 32                     | 95   | United States          | 8                      | 158  |
| Senegal                           | 138                    | 30   | Moldova, Republic of                      | 32                     | 95   | Andorra                | 7                      | 161  |
| Madagascar                        | 136                    | 32   | Suriname                                  | 32                     | 95   | Canada                 | 7                      | 161  |
| Iraq                              | 133                    | 33   | Albania                                   | 30                     | 98   | United Kingdom         | 7                      | 161  |
| Lesotho                           | 132                    | 34   | Ecuador                                   | 30                     | 98   | Australia              | 6                      | 164  |
| Gambia                            | 126                    | 35   | Nauru                                     | 30                     | 98   | Belgium                | 6                      | 164  |
| Timor-Leste (East Timor)          | 124                    | 36   | Paraguay                                  | 30                     | 98   | Brunei Darussalam      | 6                      | 164  |
| Uganda                            | 124                    | 36   | Georgia                                   | 29                     | 102  | Cyprus                 | 6                      | 164  |
| Haiti                             | 123                    | 38   | Mexico                                    | 29                     | 102  | France                 | 6                      | 164  |
| Zimbabwe                          | 123                    | 38   | Palau                                     | 29                     | 102  | Ireland                | 6                      | 164  |
| Kenya                             | 122                    | 40   | Saudi Arabia                              | 28                     | 105  | Israel                 | 6                      | 164  |
| Eritrea                           | 111                    | 41   | Syrian Arab Republic                      | 28                     | 105  | Italy                  | 6                      | 164  |
| Botswana                          | 110                    | 42   | Thailand                                  | 28                     | 105  | Netherlands            | 6                      | 164  |
| Myanmar                           | 109                    | 43   | Tunisia                                   | 27                     | 108  | New Zealand            | 6                      | 164  |
| Pakistan                          | 109                    | 43   | The former Yugoslav Republic of Macedonia | 26                     | 109  | Portugal               | 6                      | 164  |
| Congo                             | 108                    | 45   | Grenada                                   | 25                     | 110  | San Marino             | 6                      | 164  |
| Sudan                             | 107                    | 46   | Panama                                    | 25                     | 110  | Spain                  | 6                      | 164  |
| Yemen                             | 107                    | 46   | Saint Vincent and the Grenadines          | 25                     | 110  | Switzerland            | 6                      | 164  |
| Azerbaijan                        | 105                    | 48   | Samoa                                     | 25                     | 110  | Austria                | 5                      | 178  |
| Ghana                             | 100                    | 49   | Micronesia (Federated States of)          | 24                     | 114  | Czech Republic         | 5                      | 178  |
| Lao People's Democratic Republic  | 100                    | 49   | Occupied Palestinian Territory            | 24                     | 114  | Finland                | 5                      | 178  |
| Turkmenistan                      | 99                     | 51   | Saint Kitts and Nevis                     | 24                     | 114  | Germany                | 5                      | 178  |
| Bhutan                            | 95                     | 52   | Solomon Islands                           | 24                     | 114  | Greece                 | 5                      | 178  |
| Papua New Guinea                  | 94                     | 53   | Colombia                                  | 23                     | 118  | Japan                  | 5                      | 178  |
| India                             | 93                     | 54   | Cook Islands                              | 23                     | 118  | Korea, Republic of     | 5                      | 178  |
| Nepal                             | 91                     | 55   | Venezuela                                 | 22                     | 120  | Luxembourg             | 5                      | 178  |
| Gabon                             | 90                     | 56   | Fiji                                      | 21                     | 121  | Malta                  | 5                      | 178  |
| Comoros                           | 79                     | 57   | Latvia                                    | 21                     | 121  | Monaco                 | 5                      | 178  |
| Bangladesh                        | 77                     | 58   | Romania                                   | 21                     | 121  | Slovenia               | 5                      | 178  |
| Bolivia                           | 77                     | 58   | Russian Federation                        | 21                     | 121  | Denmark                | 4                      | 189  |
| Maldives                          | 77                     | 58   | Belarus                                   | 20                     | 125  | Iceland                | 4                      | 189  |
| Kazakhstan                        | 76                     | 61   | Jamaica                                   | 20                     | 125  | Norway                 | 4                      | 189  |
| Mongolia                          | 76                     | 61   | Tonga                                     | 20                     | 125  | Singapore              | 4                      | 189  |
| Sao Tome and Principe             | 74                     | 63   | Trinidad and Tobago                       | 20                     | 125  | Sweden                 | 3                      | 193  |
| Guyana                            | 72                     | 64   | Ukraine                                   | 20                     | 125  | Holy See               | no data                | -    |
| Tajikistan                        | 72                     | 64   | Argentina                                 | 19                     | 130  | Niue                   | no data                | -    |

# TABLE 1. BASIC INDICATORS

| Countries and territories         | Under-5 mortality rank | Under-5 mortality rate |      | Infant mortality rate (under 1) |      | Total population (thousands) 2001 | Annual no. of births (thousands) 2001 | Annual no. of under-5 deaths (thousands) 2001 | GNI per capita (US\$) 2001 | Life expectancy at birth (years) 2001 | Total adult literacy rate 2000 | Net primary school enrolment/attendance (%) 1995-2001* | % share of household income 1990-2000* |             |
|-----------------------------------|------------------------|------------------------|------|---------------------------------|------|-----------------------------------|---------------------------------------|---|----------------------------|---------------------------------------|--------------------------------|--|--|-------------|
|                                   |                        | 1960                   | 2001 | 1960                            | 2001 |                                   |                                       |   |                            |                                       |                                |  | lowest 40%                             | highest 20% |
|                                   |                        |                        |      |                                 |      |                                   |                                       |   |                            |                                       |                                |  |  |             |
| Afghanistan                       | 4                      | 360                    | 257  | 215                             | 165  | 22474                             | 1078                                  | 277   | 250x                       | 43                                    | 36                             | 24   | -                                      | -           |
| Albania                           | 98                     | 151                    | 30   | 112                             | 26   | 3145                              | 59                                    | 2   | 1230                       | 73                                    | -                              | 90   | -                                      | -           |
| Algeria                           | 75                     | 280                    | 49   | 164                             | 39   | 30841                             | 750                                   | 37  | 1630                       | 70                                    | 63                             | 97   | 19                                     | 43          |
| Andorra                           | 161                    | -                      | 7    | -                               | 6    | 90                                | 1                                     | 0   | d                          | -                                     | -                              | -  | -                                      | -           |
| Angola                            | 3                      | 345                    | 260  | 208                             | 154  | 13527                             | 697                                   | 181   | 500                        | 45                                    | -                              | 64   | -                                      | -           |
| Antigua and Barbuda               | 144                    | -                      | 14   | -                               | 12   | 65                                | 1                                     | 0   | 9070                       | -                                     | 82x                            | 98   | -                                      | -           |
| Argentina                         | 130                    | 72                     | 19   | 60                              | 16   | 37488                             | 724                                   | 14  | 6960                       | 74                                    | 97                             | 100  | -                                      | -           |
| Armenia                           | 93                     | -                      | 35   | -                               | 31   | 3788                              | 36                                    | 1   | 560                        | 73                                    | 99x                            | -  | 15                                     | 51          |
| Australia                         | 164                    | 24                     | 6    | 20                              | 6    | 19338                             | 249                                   | 1   | 19770                      | 79                                    | -                              | 95   | 18                                     | 41          |
| Austria                           | 178                    | 43                     | 5    | 37                              | 5    | 8075                              | 71                                    | 0   | 23940                      | 78                                    | -                              | 91   | 20                                     | 38          |
| Azerbaijan                        | 48                     | -                      | 105  | -                               | 74   | 8096                              | 107                                   | 11  | 650                        | 72                                    | 97x                            | 91   | 18                                     | 43          |
| Bahamas                           | 138                    | 68                     | 16   | 51                              | 13   | 308                               | 6                                     | 0   | 14960x                     | 69                                    | 96                             | 88   | -                                      | -           |
| Bahrain                           | 138                    | 160                    | 16   | 110                             | 13   | 652                               | 11                                    | 0   | 9370x                      | 74                                    | 88                             | 84   | -                                      | -           |
| Bangladesh                        | 58                     | 248                    | 77   | 149                             | 51   | 140369                            | 4284                                  | 330   | 370                        | 60                                    | 41                             | 79   | 21                                     | 43          |
| Barbados                          | 144                    | 90                     | 14   | 74                              | 12   | 268                               | 3                                     | 0   | 9250x                      | 77                                    | 98                             | 90   | -                                      | -           |
| Belarus                           | 125                    | 47                     | 20   | 37                              | 17   | 10147                             | 91                                    | 2   | 1190                       | 69                                    | 99                             | 85x  | 27                                     | 33          |
| Belgium                           | 164                    | 35                     | 6    | 31                              | 5    | 10264                             | 102                                   | 1   | 23340                      | 79                                    | -                              | 100  | 22                                     | 37          |
| Belize                            | 84                     | 104                    | 40   | 74                              | 34   | 231                               | 6                                     | 0   | 2910                       | 74                                    | 80x                            | 100  | -                                      | -           |
| Benin                             | 24                     | 296                    | 158  | 176                             | 94   | 6446                              | 269                                   | 43  | 360                        | 54                                    | 37                             | 70   | -                                      | -           |
| Bhutan                            | 52                     | 300                    | 95   | 175                             | 74   | 2141                              | 75                                    | 7   | 640                        | 62                                    | 47                             | 53   | -                                      | -           |
| Bolivia                           | 58                     | 255                    | 77   | 152                             | 60   | 8516                              | 267                                   | 21  | 940                        | 63                                    | 86                             | 91   | 13                                     | 49          |
| Bosnia and Herzegovina            | 136                    | 160                    | 18   | 105                             | 15   | 4067                              | 39                                    | 1   | 1240                       | 74                                    | 93x                            | 98   | -                                      | -           |
| Botswana                          | 42                     | 173                    | 110  | 118                             | 80   | 1554                              | 49                                    | 5   | 3630                       | 39                                    | 77                             | 84   | -                                      | -           |
| Brazil                            | 92                     | 177                    | 36   | 115                             | 31   | 172559                            | 3363                                  | 121   | 3060                       | 68                                    | 85                             | 97   | 8                                      | 64          |
| Brunei Darussalam                 | 164                    | 87                     | 6    | 63                              | 6    | 335                               | 7                                     | 0   | 24630x                     | 76                                    | 92                             | 91x  | -                                      | -           |
| Bulgaria                          | 138                    | 70                     | 16   | 49                              | 14   | 7867                              | 62                                    | 1   | 1560                       | 71                                    | 99                             | 95   | 24                                     | 37          |
| Burkina Faso                      | 12                     | 315                    | 197  | 181                             | 104  | 11856                             | 558                                   | 110   | 210                        | 47                                    | 23                             | 35   | 12                                     | 60          |
| Burundi                           | 14                     | 250                    | 190  | 148                             | 114  | 6502                              | 284                                   | 54  | 100                        | 41                                    | 48                             | 47   | 15                                     | 48          |
| Cambodia                          | 30                     | -                      | 138  | -                               | 97   | 13441                             | 479                                   | 66  | 270                        | 56                                    | 68x                            | 65   | 18                                     | 48          |
| Cameroon                          | 25                     | 255                    | 155  | 151                             | 96   | 15203                             | 558                                   | 86  | 570                        | 50                                    | 75                             | 74   | 13                                     | 53          |
| Canada                            | 161                    | 33                     | 7    | 28                              | 5    | 31015                             | 342                                   | 2   | 21340                      | 79                                    | -                              | 99   | 20                                     | 39          |
| Cape Verde                        | 88                     | -                      | 38   | -                               | 29   | 437                               | 13                                    | 0   | 1310                       | 70                                    | 73                             | 99   | -                                      | -           |
| Central African Republic          | 19                     | 327                    | 180  | 187                             | 115  | 3782                              | 144                                   | 26  | 270                        | 44                                    | 46                             | 43   | 7                                      | 65          |
| Chad                              | 11                     | -                      | 200  | -                               | 117  | 8135                              | 396                                   | 79  | 200                        | 46                                    | 54                             | 39   | -                                      | -           |
| Chile                             | 147                    | 155                    | 12   | 118                             | 10   | 15402                             | 287                                   | 3   | 4350                       | 75                                    | 96                             | 89   | 10                                     | 61          |
| China                             | 85                     | 225                    | 39   | 150                             | 31   | 1284972                           | 18841                                 | 735   | 890                        | 71                                    | 85                             | 93   | 16                                     | 47          |
| Colombia                          | 118                    | 125                    | 23   | 79                              | 19   | 42803                             | 979                                   | 23  | 1910                       | 71                                    | 92                             | 90   | 10                                     | 61          |
| Comoros                           | 57                     | 265                    | 79   | 200                             | 59   | 727                               | 28                                    | 2   | 380                        | 60                                    | 74x                            | 34   | -                                      | -           |
| Congo                             | 45                     | 220                    | 108  | 143                             | 81   | 3110                              | 139                                   | 15  | 700                        | 51                                    | 81                             | 96x  | -                                      | -           |
| Congo, Democratic Republic of the | 9                      | 302                    | 205  | 174                             | 129  | 52522                             | 2507                                  | 514   | 100x                       | 52                                    | 67x                            | 51   | -                                      | -           |
| Cook Islands                      | 118                    | -                      | 23   | -                               | 19   | 20                                | 0                                     | 0   | -                          | -                                     | -                              | 98   | -                                      | -           |
| Costa Rica                        | 149                    | 123                    | 11   | 87                              | 9    | 4112                              | 92                                    | 1   | 3950                       | 77                                    | 96                             | 91   | 13                                     | 51          |
| Côte d'Ivoire                     | 20                     | 290                    | 175  | 195                             | 102  | 16349                             | 581                                   | 102   | 630                        | 48                                    | 47                             | 57   | 18                                     | 44          |
| Croatia                           | 158                    | 98                     | 8    | 70                              | 7    | 4655                              | 54                                    | 0   | 4650                       | 74                                    | 98                             | 72   | 22                                     | 38          |
| Cuba                              | 152                    | 54                     | 9    | 39                              | 7    | 11237                             | 134                                   | 1   | 1170x                      | 76                                    | 96                             | 99   | -                                      | -           |
| Cyprus                            | 164                    | 36                     | 6    | 30                              | 5    | 790                               | 11                                    | 0   | 12370x                     | 78                                    | 97                             | 81   | -                                      | -           |
| Czech Republic                    | 178                    | 25                     | 5    | 22                              | 4    | 10260                             | 90                                    | 0   | 5270                       | 75                                    | -                              | 90   | 25                                     | 36          |
| Denmark                           | 189                    | 25                     | 4    | 22                              | 4    | 5333                              | 61                                    | 0   | 31090                      | 76                                    | -                              | 99   | 25                                     | 35          |
| Djibouti                          | 28                     | 289                    | 143  | 186                             | 100  | 644                               | 25                                    | 4   | 890                        | 42                                    | 51                             | 31   | -                                      | -           |
| Dominica                          | 143                    | -                      | 15   | -                               | 14   | 71                                | 1                                     | 0   | 3060                       | -                                     | -                              | 89   | -                                      | -           |
| Dominican Republic                | 76                     | 149                    | 47   | 102                             | 41   | 8507                              | 201                                   | 9   | 2230                       | 67                                    | 84                             | 92   | 14                                     | 53          |
| East Timor                        | 36                     | -                      | 124  | -                               | 85   | 750                               | 20                                    | 2   | -                          | 49                                    | -                              | -  | -                                      | -           |
| Ecuador                           | 98                     | 178                    | 30   | 107                             | 24   | 12880                             | 308                                   | 9   | 1240                       | 70                                    | 92                             | 98   | 15                                     | 50          |
| Egypt                             | 83                     | 282                    | 41   | 189                             | 35   | 69080                             | 1672                                  | 69  | 1530                       | 68                                    | 55                             | 86   | 23                                     | 39          |
| El Salvador                       | 85                     | 191                    | 39   | 130                             | 33   | 6400                              | 167                                   | 7   | 2050                       | 70                                    | 79                             | 81   | 11                                     | 56          |
| Equatorial Guinea                 | 26                     | 316                    | 153  | 188                             | 101  | 470                               | 20                                    | 3   | 700                        | 51                                    | 83                             | 38   | -                                      | -           |
| Eritrea                           | 41                     | -                      | 111  | -                               | 72   | 3816                              | 152                                   | 17  | 190                        | 52                                    | 30x                            | 40   | -                                      | -           |
| Estonia                           | 147                    | 52                     | 12   | 40                              | 11   | 1377                              | 12                                    | 0   | 3880                       | 71                                    | 98x                            | 98   | 18                                     | 45          |
| Ethiopia                          | 21                     | 269                    | 172  | 180                             | 116  | 64459                             | 2848                                  | 490   | 100                        | 44                                    | 39                             | 30   | 18                                     | 48          |

|  | Under-5 mortality rank | Under-5 mortality rate |      | Infant mortality rate (under 1) |      | Total population (thousands) 2001 | Annual no. of births (thousands) 2001 | Annual no. of under-5 deaths (thousands) 2001 | GNI per capita (US\$) 2001 | Life expectancy at birth (years) 2001 | Total adult literacy rate 2000 | Net primary school enrolment/attendance (%) 1995-2001* | % share of household income 1990-2000* |             |
|--|------------------------|------------------------|------|---------------------------------|------|-----------------------------------|---------------------------------------|---|----------------------------|---------------------------------------|--------------------------------|--|--|-------------|
|  |                        | 1960                   | 2001 | 1960                            | 2001 |                                   |                                       |   |                            |                                       |                                |  | lowest 40%                             | highest 20% |
| Fiji                                   | 121                    | 97                     | 21   | 71                              | 18   | 823                               | 20                                    | 0   | 2130                       | 69                                    | 93                             | 99   | -                                      | -           |
| Finland                                | 178                    | 28                     | 5    | 22                              | 4    | 5178                              | 52                                    | 0   | 23940                      | 78                                    | -                              | 100  | 24                                     | 36          |
| France                                 | 164                    | 34                     | 6    | 29                              | 4    | 59453                             | 733                                   | 4   | 22690                      | 79                                    | -                              | 100  | 20                                     | 40          |
| Gabon                                  | 56                     | -                      | 90   | -                               | 60   | 1262                              | 48                                    | 4   | 3160                       | 53                                    | 71                             | 93   | -                                      | -           |
| Gambia                                 | 35                     | 364                    | 126  | 207                             | 91   | 1337                              | 51                                    | 6   | 330                        | 47                                    | 37                             | 46   | 12                                     | 55          |
| Georgia                                | 102                    | 70                     | 29   | 52                              | 24   | 5239                              | 56                                    | 2   | 620                        | 73                                    | 100x                           | 98   | 18                                     | 44          |
| Germany                                | 178                    | 40                     | 5    | 34                              | 4    | 82007                             | 697                                   | 3   | 23700                      | 78                                    | -                              | 87   | 21                                     | 39          |
| Ghana                                  | 49                     | 215                    | 100  | 126                             | 57   | 19734                             | 653                                   | 65  | 290                        | 57                                    | 70                             | 50   | 16                                     | 47          |
| Greece                                 | 178                    | 64                     | 5    | 53                              | 5    | 10623                             | 96                                    | 0   | 11780                      | 78                                    | 97                             | 97   | 20                                     | 40          |
| Grenada                                | 110                    | -                      | 25   | -                               | 20   | 94                                | 2                                     | 0   | 3720                       | -                                     | -                              | 98   | -                                      | -           |
| Guatemala                              | 72                     | 202                    | 58   | 136                             | 43   | 11687                             | 409                                   | 24  | 1670                       | 65                                    | 69                             | 81   | 11                                     | 61          |
| Guinea                                 | 22                     | 380                    | 169  | 215                             | 109  | 8274                              | 365                                   | 62  | 400                        | 48                                    | 41                             | 49   | 17                                     | 47          |
| Guinea-Bissau                          | 8                      | -                      | 211  | -                               | 130  | 1227                              | 55                                    | 12  | 160                        | 45                                    | 37                             | 41   | 9                                      | 59          |
| Guyana                                 | 64                     | 126                    | 72   | 100                             | 54   | 763                               | 17                                    | 1   | 840                        | 63                                    | 98                             | 97   | 17                                     | 47          |
| Haiti                                  | 38                     | 253                    | 123  | 169                             | 79   | 8270                              | 256                                   | 31  | 480                        | 53                                    | 49                             | 54   | -                                      | -           |
| Holy See                               | -                      | -                      | -    | -                               | -    | -                                 | -                                     | -   | -                          | -                                     | -                              | -  | -                                      | -           |
| Honduras                               | 88                     | 204                    | 38   | 137                             | 31   | 6575                              | 204                                   | 8   | 900                        | 66                                    | 81x                            | 86   | 9                                      | 59          |
| Hungary                                | 152                    | 57                     | 9    | 51                              | 8    | 9917                              | 89                                    | 1   | 4800                       | 72                                    | 99                             | 90   | 25                                     | 34          |
| Iceland                                | 189                    | 22                     | 4    | 17                              | 3    | 281                               | 4                                     | 0   | 28880                      | 79                                    | -                              | 100  | -                                      | -           |
| India                                  | 54                     | 242                    | 93   | 146                             | 67   | 1025096                           | 25112                                 | 2335  | 460                        | 64                                    | 56                             | 76   | 20                                     | 46          |
| Indonesia                              | 77                     | 216                    | 45   | 128                             | 33   | 214840                            | 4440                                  | 200   | 680                        | 67                                    | 87                             | 91   | 21                                     | 41          |
| Iran (Islamic Republic of)             | 81                     | 281                    | 42   | 164                             | 35   | 71369                             | 1592                                  | 67  | 1750                       | 69                                    | 77                             | 97   | -                                      | -           |
| Iraq                                   | 33                     | 171                    | 133  | 117                             | 107  | 23584                             | 823                                   | 109   | 2170x                      | 63                                    | 58x                            | 93   | -                                      | -           |
| Ireland                                | 164                    | 36                     | 6    | 31                              | 6    | 3841                              | 57                                    | 0   | 23060                      | 77                                    | -                              | 90   | 18x                                    | 43x         |
| Israel                                 | 164                    | 39                     | 6    | 32                              | 6    | 6172                              | 126                                   | 1   | 16710x                     | 79                                    | 96                             | 100  | 17                                     | 44          |
| Italy                                  | 164                    | 50                     | 6    | 44                              | 4    | 57503                             | 505                                   | 3   | 19470                      | 79                                    | 98                             | 100  | 23                                     | 36          |
| Jamaica                                | 125                    | 74                     | 20   | 56                              | 17   | 2598                              | 54                                    | 1   | 2720                       | 75                                    | 87                             | 94   | 17                                     | 46          |
| Japan                                  | 178                    | 40                     | 5    | 31                              | 3    | 127335                            | 1192                                  | 6   | 35990                      | 81                                    | -                              | 100  | 25                                     | 36          |
| Jordan                                 | 94                     | 139                    | 33   | 97                              | 27   | 5051                              | 169                                   | 6   | 1750                       | 71                                    | 90                             | 94   | 19                                     | 44          |
| Kazakhstan                             | 61                     | -                      | 76   | -                               | 61   | 16095                             | 263                                   | 20  | 1360                       | 65                                    | 98x                            | 88   | 18                                     | 42          |
| Kenya                                  | 40                     | 205                    | 122  | 122                             | 78   | 31293                             | 1080                                  | 132   | 340                        | 50                                    | 82                             | 74   | 15                                     | 51          |
| Kiribati                               | 67                     | -                      | 69   | -                               | 51   | 84                                | 3                                     | 0   | 830                        | -                                     | -                              | 71   | -                                      | -           |
| Korea, Democratic People's Republic of | 73                     | 120                    | 55   | 85                              | 42   | 22428                             | 387                                   | 21  | a                          | 65                                    | 100x                           | -  | -                                      | -           |
| Korea, Republic of                     | 178                    | 127                    | 5    | 90                              | 5    | 47069                             | 611                                   | 3   | 9400                       | 75                                    | 98                             | 97   | 20                                     | 39          |
| Kuwait                                 | 151                    | 128                    | 10   | 89                              | 9    | 1971                              | 35                                    | 0   | 18030x                     | 76                                    | 82                             | 66   | -                                      | -           |
| Kyrgyzstan                             | 71                     | 180                    | 61   | 135                             | 52   | 4986                              | 101                                   | 6   | 280                        | 68                                    | 97x                            | 82   | 19                                     | 43          |
| Lao People's Democratic Republic       | 49                     | 235                    | 100  | 155                             | 87   | 5403                              | 197                                   | 20  | 310                        | 54                                    | 62                             | 69   | 19                                     | 45          |
| Latvia                                 | 121                    | 44                     | 21   | 35                              | 17   | 2406                              | 18                                    | 0   | 3300                       | 71                                    | 100                            | 93   | 21                                     | 40          |
| Lebanon                                | 95                     | 85                     | 32   | 65                              | 28   | 3556                              | 69                                    | 2   | 4010                       | 73                                    | 86                             | 90   | -                                      | -           |
| Lesotho                                | 34                     | 203                    | 132  | 137                             | 91   | 2057                              | 68                                    | 9   | 550                        | 44                                    | 84                             | 65   | 9x                                     | 60x         |
| Liberia                                | 5                      | 288                    | 235  | 190                             | 157  | 3108                              | 172                                   | 40  | 490x                       | 53                                    | 53                             | 83   | -                                      | -           |
| Libyan Arab Jamahiriya                 | 130                    | 270                    | 19   | 159                             | 16   | 5408                              | 146                                   | 3   | 5540x                      | 71                                    | 80                             | 96   | -                                      | -           |
| Liechtenstein                          | 149                    | -                      | 11   | -                               | 10   | 33                                | 0                                     | 0   | d                          | -                                     | -                              | -  | -                                      | -           |
| Lithuania                              | 152                    | 70                     | 9    | 52                              | 8    | 3689                              | 33                                    | 0   | 3270                       | 72                                    | 100                            | 94   | 21                                     | 40          |
| Luxembourg                             | 178                    | 41                     | 5    | 33                              | 5    | 442                               | 5                                     | 0   | 41770                      | 78                                    | -                              | 96   | 23                                     | 37          |
| Madagascar                             | 32                     | 186                    | 136  | 112                             | 84   | 16437                             | 696                                   | 95  | 260                        | 53                                    | 47x                            | 52   | 17                                     | 45          |
| Malawi                                 | 15                     | 361                    | 183  | 205                             | 114  | 11572                             | 525                                   | 96  | 170                        | 40                                    | 60                             | 78   | -                                      | -           |
| Malaysia                               | 158                    | 105                    | 8    | 73                              | 8    | 22633                             | 522                                   | 4   | 3640                       | 73                                    | 88                             | 94   | 13                                     | 54          |
| Maldives                               | 58                     | 300                    | 77   | 180                             | 58   | 300                               | 11                                    | 1   | 2040                       | 67                                    | 96                             | 98   | -                                      | -           |
| Mali                                   | 6                      | 517                    | 231  | 293                             | 141  | 11677                             | 583                                   | 135   | 210                        | 52                                    | 40                             | 43   | 13                                     | 56          |
| Malta                                  | 178                    | 42                     | 5    | 37                              | 5    | 392                               | 5                                     | 0   | 9120x                      | 78                                    | 92                             | 99   | -                                      | -           |
| Marshall Islands                       | 70                     | -                      | 66   | -                               | 54   | 52                                | 2                                     | 0   | 2190                       | -                                     | -                              | 100  | -                                      | -           |
| Mauritania                             | 15                     | 310                    | 183  | 180                             | 120  | 2747                              | 120                                   | 22  | 350                        | 52                                    | 40                             | 61   | 18                                     | 44          |
| Mauritius                              | 130                    | 92                     | 19   | 67                              | 17   | 1171                              | 19                                    | 0   | 3830                       | 72                                    | 84                             | 94   | -                                      | -           |
| Mexico                                 | 102                    | 134                    | 29   | 94                              | 24   | 100368                            | 2295                                  | 67  | 5540                       | 73                                    | 91                             | 100  | 11                                     | 57          |
| Micronesia (Federated States of)       | 114                    | -                      | 24   | -                               | 20   | 126                               | 4                                     | 0   | 2150                       | -                                     | -                              | -  | -                                      | -           |
| Moldova, Republic of                   | 95                     | 88                     | 32   | 64                              | 27   | 4285                              | 50                                    | 2   | 380                        | 67                                    | 99                             | 86   | 16                                     | 47          |

# TABLE 1. BASIC INDICATORS

|                                  | Under-5 mortality rank | Under-5 mortality rate |      | Infant mortality rate (under 1) |      | Total population (thousands) 2001 | Annual no. of births (thousands) 2001 | Annual no. of under-5 deaths (thousands) 2001 | GNI per capita (US\$) 2001 | Life expectancy at birth (years) 2001 | Total adult literacy rate 2000 | Net primary school enrolment/attendance (%) 1995-2001* | % share of household income 1990-2000* |             |
|----------------------------------|------------------------|------------------------|------|---------------------------------|------|-----------------------------------|---------------------------------------|---|----------------------------|---------------------------------------|--------------------------------|--|--|-------------|
|                                  |                        | 1960                   | 2001 | 1960                            | 2001 |                                   |                                       |   |                            |                                       |                                |  | lowest 40%                             | highest 20% |
|                                  |                        |                        |      |                                 |      |                                   |                                       |   |                            |                                       |                                |  |  |             |
| Monaco                           | 178                    | -                      | 5    | -                               | 4    | 34                                | 0                                     | 0   | d                          | -                                     | -                              | -  | -                                      | -           |
| Mongolia                         | 61                     | -                      | 76   | -                               | 61   | 2559                              | 57                                    | 4   | 400                        | 63                                    | 99                             | 85   | 20                                     | 41          |
| Morocco                          | 78                     | 211                    | 44   | 132                             | 39   | 30430                             | 775                                   | 34  | 1180                       | 68                                    | 49                             | 74   | 17                                     | 47          |
| Mozambique                       | 12                     | 313                    | 197  | 180                             | 125  | 18644                             | 795                                   | 157   | 210                        | 39                                    | 44                             | 50   | 17                                     | 47          |
| Myanmar                          | 43                     | 252                    | 109  | 169                             | 77   | 48364                             | 1173                                  | 128   | 220x                       | 56                                    | 85                             | 68   | -                                      | -           |
| Namibia                          | 69                     | 206                    | 67   | 129                             | 55   | 1788                              | 63                                    | 4   | 1960                       | 45                                    | 82                             | 80   | -                                      | -           |
| Nauru                            | 98                     | -                      | 30   | -                               | 25   | 13                                | 0                                     | 0   | -                          | -                                     | 95x                            | 98   | -                                      | -           |
| Nepal                            | 55                     | 315                    | 91   | 212                             | 66   | 23593                             | 821                                   | 75  | 250                        | 59                                    | 41                             | 66   | 19                                     | 45          |
| Netherlands                      | 164                    | 22                     | 6    | 18                              | 5    | 15930                             | 175                                   | 1   | 24040                      | 78                                    | -                              | 100  | 20                                     | 40          |
| New Zealand                      | 164                    | 26                     | 6    | 22                              | 6    | 3808                              | 53                                    | 0   | 12380                      | 78                                    | -                              | 100  | -                                      | -           |
| Nicaragua                        | 79                     | 193                    | 43   | 130                             | 36   | 5208                              | 173                                   | 7   | 420x                       | 69                                    | 64                             | 80   | 8                                      | 64          |
| Niger                            | 2                      | 354                    | 265  | 211                             | 156  | 11227                             | 625                                   | 166   | 170                        | 46                                    | 16                             | 30   | 10                                     | 53          |
| Nigeria                          | 15                     | 207                    | 183  | 123                             | 110  | 116929                            | 4702                                  | 860   | 290                        | 52                                    | 64                             | 56   | 13                                     | 56          |
| Niue                             | -                      | -                      | -    | -                               | -    | 2                                 | 0                                     | 0   | -                          | -                                     | -                              | 100  | -                                      | -           |
| Norway                           | 189                    | 23                     | 4    | 19                              | 4    | 4488                              | 53                                    | 0   | 35530                      | 79                                    | -                              | 100  | 24                                     | 36          |
| Occupied Palestinian Territory   | 114                    | -                      | 24   | -                               | 21   | 3311                              | 132                                   | 3   | 1350                       | 72                                    | -                              | 94   | -                                      | -           |
| Oman                             | 146                    | 280                    | 13   | 164                             | 12   | 2622                              | 94                                    | 1   | 4940x                      | 71                                    | 72                             | 65   | -                                      | -           |
| Pakistan                         | 43                     | 227                    | 109  | 139                             | 84   | 144971                            | 5340                                  | 582   | 420                        | 60                                    | 43                             | 46   | 22                                     | 41          |
| Palau                            | 102                    | -                      | 29   | -                               | 24   | 20                                | 1                                     | 0   | 6730                       | -                                     | -                              | -  | -                                      | -           |
| Panama                           | 110                    | 88                     | 25   | 58                              | 19   | 2899                              | 61                                    | 2   | 3290                       | 74                                    | 92                             | 98   | 12                                     | 53          |
| Papua New Guinea                 | 53                     | 214                    | 94   | 143                             | 70   | 4920                              | 160                                   | 15  | 580                        | 57                                    | 76                             | 84   | 12                                     | 57          |
| Paraguay                         | 98                     | 90                     | 30   | 66                              | 26   | 5636                              | 170                                   | 5   | 1300                       | 70                                    | 93                             | 91   | 8                                      | 61          |
| Peru                             | 85                     | 234                    | 39   | 142                             | 30   | 26093                             | 606                                   | 24  | 2000                       | 69                                    | 90                             | 100  | 13                                     | 51          |
| Philippines                      | 88                     | 110                    | 38   | 80                              | 29   | 77131                             | 2065                                  | 78  | 1040x                      | 70                                    | 95                             | 96   | 14                                     | 52          |
| Poland                           | 152                    | 70                     | 9    | 62                              | 8    | 38577                             | 370                                   | 3   | 4240                       | 74                                    | 100                            | 97   | 21                                     | 40          |
| Portugal                         | 164                    | 112                    | 6    | 81                              | 5    | 10033                             | 113                                   | 1   | 10670                      | 76                                    | 92                             | 100  | 19                                     | 43          |
| Qatar                            | 138                    | 140                    | 16   | 94                              | 11   | 575                               | 10                                    | 0   | 12000x                     | 70                                    | 81                             | 95   | -                                      | -           |
| Romania                          | 121                    | 82                     | 21   | 69                              | 19   | 22388                             | 233                                   | 5   | 1710                       | 70                                    | 98                             | 93   | 21                                     | 40          |
| Russian Federation               | 121                    | 64                     | 21   | 48                              | 18   | 144664                            | 1230                                  | 26  | 1750                       | 66                                    | 99                             | 93x  | 13                                     | 54          |
| Rwanda                           | 15                     | 206                    | 183  | 122                             | 96   | 7949                              | 320                                   | 59  | 220                        | 40                                    | 67                             | 68   | 23x                                    | 39x         |
| Saint Kitts and Nevis            | 114                    | -                      | 24   | -                               | 20   | 38                                | 1                                     | 0   | 6880                       | -                                     | -                              | 89   | -                                      | -           |
| Saint Lucia                      | 130                    | -                      | 19   | -                               | 17   | 149                               | 3                                     | 0   | 3970                       | 74                                    | -                              | 96   | 15                                     | 48          |
| Saint Vincent and the Grenadines | 110                    | -                      | 25   | -                               | 22   | 114                               | 2                                     | 0   | 2690                       | -                                     | -                              | 84   | -                                      | -           |
| Samoa                            | 110                    | 210                    | 25   | 134                             | 20   | 159                               | 4                                     | 0   | 1520                       | 70                                    | -                              | 97   | -                                      | -           |
| San Marino                       | 164                    | -                      | 6    | -                               | 4    | 27                                | 0                                     | 0   | d                          | -                                     | -                              | -  | -                                      | -           |
| Sao Tome and Principe            | 63                     | -                      | 74   | -                               | 57   | 140                               | 6                                     | 0   | 280                        | -                                     | -                              | 74   | -                                      | -           |
| Saudi Arabia                     | 105                    | 250                    | 28   | 170                             | 23   | 21028                             | 715                                   | 20  | 7230x                      | 72                                    | 77                             | 58   | -                                      | -           |
| Senegal                          | 30                     | 300                    | 138  | 173                             | 79   | 9662                              | 369                                   | 51  | 480                        | 54                                    | 37                             | 47   | 17                                     | 48          |
| Seychelles                       | 137                    | -                      | 17   | -                               | 13   | 81                                | 3                                     | 0   | 7050x                      | -                                     | 88x                            | 100  | -                                      | -           |
| Sierra Leone                     | 1                      | 390                    | 316  | 220                             | 182  | 4587                              | 232                                   | 73  | 140                        | 40                                    | 36                             | 37   | 3x                                     | 63x         |
| Singapore                        | 189                    | 40                     | 4    | 31                              | 3    | 4108                              | 48                                    | 0   | 24740x                     | 78                                    | 92                             | 93   | -                                      | -           |
| Slovakia                         | 152                    | 40                     | 9    | 33                              | 8    | 5403                              | 55                                    | 0   | 3700                       | 73                                    | 100                            | -  | 28                                     | 31          |
| Slovenia                         | 178                    | 45                     | 5    | 37                              | 4    | 1985                              | 17                                    | 0   | 9780                       | 76                                    | 100x                           | 94   | 23                                     | 38          |
| Solomon Islands                  | 114                    | 185                    | 24   | 120                             | 20   | 463                               | 18                                    | 0   | 580                        | 69                                    | -                              | -  | -                                      | -           |
| Somalia                          | 7                      | -                      | 225  | -                               | 133  | 9157                              | 481                                   | 108   | 120x                       | 48                                    | -                              | 12   | -                                      | -           |
| South Africa                     | 66                     | 130                    | 71   | 89                              | 56   | 43792                             | 1105                                  | 78  | 2900                       | 50                                    | 85                             | 95   | 8                                      | 65          |
| Spain                            | 164                    | 57                     | 6    | 46                              | 4    | 39921                             | 359                                   | 2   | 14860                      | 79                                    | 98                             | 100  | 20                                     | 40          |
| Sri Lanka                        | 130                    | 133                    | 19   | 83                              | 17   | 19104                             | 332                                   | 6   | 830                        | 72                                    | 92                             | 97   | 20                                     | 43          |
| Sudan                            | 46                     | 208                    | 107  | 123                             | 65   | 31809                             | 1098                                  | 117   | 330                        | 56                                    | 57                             | 45   | -                                      | -           |
| Suriname                         | 95                     | 98                     | 32   | 70                              | 26   | 419                               | 8                                     | 0   | 1690                       | 71                                    | 94                             | 89   | -                                      | -           |
| Swaziland                        | 27                     | 225                    | 149  | 150                             | 106  | 938                               | 32                                    | 5   | 1300                       | 42                                    | 80                             | 71   | 9                                      | 64          |
| Sweden                           | 193                    | 20                     | 3    | 16                              | 3    | 8833                              | 75                                    | 0   | 25400                      | 80                                    | -                              | 100  | 24                                     | 35          |
| Switzerland                      | 164                    | 27                     | 6    | 22                              | 5    | 7170                              | 65                                    | 0   | 36970                      | 79                                    | -                              | 99   | 20                                     | 40          |
| Syrian Arab Republic             | 105                    | 201                    | 28   | 136                             | 23   | 16610                             | 495                                   | 14  | 1000                       | 71                                    | 74                             | 99   | -                                      | -           |
| Tajikistan                       | 64                     | 140                    | 72   | 95                              | 53   | 6135                              | 149                                   | 11  | 170                        | 68                                    | 99                             | 84   | 21                                     | 40          |
| Tanzania, United Republic of     | 23                     | 241                    | 165  | 142                             | 104  | 35965                             | 1393                                  | 230   | 270                        | 51                                    | 75                             | 47   | 18                                     | 46          |
| Thailand                         | 105                    | 148                    | 28   | 103                             | 24   | 63584                             | 1170                                  | 33  | 1970                       | 70                                    | 96                             | 81   | 16                                     | 48          |

|                       | Under-5 mortality rank | Under-5 mortality rate |      | Infant mortality rate (under 1) |      | Total population (thousands) 2001 | Annual no. of births (thousands) 2001 | Annual no. of under-5 deaths (thousands) 2001 | GNI per capita (US\$) 2001 | Life expectancy at birth (years) 2001 | Total adult literacy rate 2000 | Net primary school enrolment/attendance (%) 1995-2001* | % share of household income 1990-2000* |             |
|-----------------------|------------------------|------------------------|------|---------------------------------|------|-----------------------------------|---------------------------------------|---|----------------------------|---------------------------------------|--------------------------------|--|--|-------------|
|                       |                        | 1960                   | 2001 | 1960                            | 2001 |                                   |                                       |   |                            |                                       |                                |  | lowest 40%                             | highest 20% |
| The former Yugoslav   |                        |                        |      |                                 |      |                                   |                                       |   |                            |                                       |                                |  |  |             |
| Republic of Macedonia | 109                    | 177                    | 26   | 120                             | 22   | 2044                              | 25                                    | 1   | 1690                       | 73                                    | -                              | 94   | -                                      | -           |
| Togo                  | 29                     | 267                    | 141  | 158                             | 79   | 4657                              | 182                                   | 26  | 270                        | 52                                    | 57                             | 63   | -                                      | -           |
| Tonga                 | 125                    | -                      | 20   | -                               | 17   | 99                                | 2                                     | 0   | 1530                       | -                                     | 99x                            | 95   | -                                      | -           |
| Trinidad and Tobago   | 125                    | 73                     | 20   | 61                              | 17   | 1300                              | 17                                    | 0   | 5540                       | 75                                    | 98                             | 93   | 16                                     | 46          |
| Tunisia               | 108                    | 254                    | 27   | 170                             | 21   | 9562                              | 176                                   | 5   | 2070                       | 70                                    | 71                             | 94   | 16                                     | 48          |
| Turkey                | 79                     | 219                    | 43   | 163                             | 36   | 67632                             | 1424                                  | 61  | 2540                       | 70                                    | 85                             | 88   | 16                                     | 48          |
| Turkmenistan          | 51                     | -                      | 99   | -                               | 76   | 4835                              | 127                                   | 13  | 990                        | 67                                    | -                              | 80   | 16                                     | 48          |
| Tuvalu                | 74                     | -                      | 52   | -                               | 38   | 10                                | 0                                     | 0   | -                          | -                                     | 98x                            | 100  | -                                      | -           |
| Uganda                | 36                     | 224                    | 124  | 133                             | 79   | 24023                             | 1222                                  | 152   | 280                        | 45                                    | 67                             | 87   | 18                                     | 45          |
| Ukraine               | 125                    | 53                     | 20   | 41                              | 17   | 49112                             | 400                                   | 8   | 720                        | 68                                    | 99x                            | -  | 22                                     | 38          |
| United Arab Emirates  | 152                    | 223                    | 9    | 149                             | 8    | 2654                              | 41                                    | 0   | 18060x                     | 75                                    | 87x                            | 78   | -                                      | -           |
| United Kingdom        | 161                    | 27                     | 7    | 23                              | 6    | 59542                             | 653                                   | 5   | 24230                      | 78                                    | -                              | 99   | 18                                     | 43          |
| United States         | 158                    | 30                     | 8    | 26                              | 7    | 285926                            | 3827                                  | 31  | 34870                      | 77                                    | -                              | 95   | 16                                     | 46          |
| Uruguay               | 138                    | 56                     | 16   | 48                              | 14   | 3361                              | 58                                    | 1   | 5670                       | 75                                    | 98                             | 94   | 15x                                    | 48x         |
| Uzbekistan            | 68                     | -                      | 68   | -                               | 52   | 25257                             | 533                                   | 36  | 550                        | 69                                    | 99x                            | 78   | 14                                     | 49          |
| Vanuatu               | 81                     | 225                    | 42   | 141                             | 34   | 202                               | 6                                     | 0   | 1050                       | 68                                    | -                              | 96   | -                                      | -           |
| Venezuela             | 120                    | 75                     | 22   | 56                              | 19   | 24632                             | 577                                   | 13  | 4760                       | 73                                    | 93                             | 88   | 11                                     | 53          |
| Viet Nam              | 88                     | 219                    | 38   | 147                             | 30   | 79175                             | 1586                                  | 60  | 410                        | 69                                    | 93                             | 94   | 19                                     | 45          |
| Yemen                 | 46                     | 340                    | 107  | 220                             | 79   | 19114                             | 953                                   | 102   | 460                        | 61                                    | 46                             | 61   | 20                                     | 41          |
| Yugoslavia            | 130                    | 120                    | 19   | 87                              | 17   | 10538                             | 120                                   | 2   | 940x                       | 73                                    | 98x                            | 97   | -                                      | -           |
| Zambia                | 10                     | 213                    | 202  | 126                             | 112  | 10649                             | 448                                   | 90  | 320                        | 42                                    | 78                             | 66   | 11                                     | 57          |
| Zimbabwe              | 38                     | 159                    | 123  | 97                              | 76   | 12852                             | 459                                   | 56  | 480                        | 43                                    | 93                             | 80   | 13                                     | 56          |

## REGIONAL SUMMARIES

|                              |     |     |     |     |         |        |       |       |    |    |    |    |    |
|------------------------------|-----|-----|-----|-----|---------|--------|-------|-------|----|----|----|----|----|
| Sub-Saharan Africa           | 253 | 173 | 152 | 107 | 633831  | 26115  | 4518  | 519   | 48 | 61 | 57 | 11 | 59 |
| Middle East and North Africa | 250 | 61  | 157 | 47  | 350661  | 9792   | 597   | 1375  | 67 | 65 | 80 | 20 | 43 |
| South Asia                   | 244 | 98  | 148 | 70  | 1378048 | 37053  | 3631  | 449   | 62 | 53 | 71 | 20 | 45 |
| East Asia and Pacific        | 212 | 43  | 140 | 33  | 1893785 | 31823  | 1368  | 1140  | 69 | 87 | 91 | 18 | 45 |
| Latin America and Caribbean  | 153 | 34  | 102 | 28  | 521051  | 11452  | 389   | 3610  | 70 | 88 | 95 | 9  | 60 |
| CEE/CIS and Baltic States    | 103 | 37  | 78  | 30  | 476604  | 5826   | 216   | 1980  | 69 | 97 | 89 | 18 | 45 |
| Industrialized countries     | 37  | 7   | 31  | 5   | 965071  | 109687 | 68    | 28210 | 78 | -  | 97 | 20 | 41 |
| Developing countries         | 223 | 89  | 141 | 62  | 4925611 | 119157 | 10605 | 1159  | 62 | 74 | 79 | 15 | 50 |
| Least developed countries    | 278 | 157 | 170 | 100 | 684615  | 27105  | 4255  | 295   | 51 | 51 | 56 | 18 | 46 |
| World                        | 197 | 82  | 126 | 57  | 6219051 | 231748 | 10803 | 5228  | 64 | 79 | 81 | 19 | 43 |

Countries in each region are listed on page 114.

## DEFINITIONS OF THE INDICATORS

**Under-five mortality rate** – Probability of dying between birth and exactly five years of age expressed per 1,000 live births.

**Infant mortality rate** – Probability of dying between birth and exactly one year of age expressed per 1,000 live births.

**GNI per capita** – Gross national income (GNI) is the sum of value added by all resident producers plus any product taxes (less subsidies) not included in the valuation of output plus net receipts of primary income (compensation of employees and property income) from abroad. GNI per capita is gross national income divided by mid-year population. GNI per capita in US dollars is converted using the World Bank Atlas method.

**Life expectancy at birth** – The number of years newborn children would live if subject to the mortality risks prevailing for the cross-section of population at the time of their birth.

**Adult literacy rate** – Percentage of persons aged 15 and over who can read and write.

**Net primary school enrolment/attendance** – Derived from net primary school enrolment rates as reported by UNESCO and from national household survey reports of attendance at primary school.

**Income share** – Percentage of income received by the 20 per cent of households with the highest income and by the 40 per cent of households with the lowest income.

## MAIN DATA SOURCES

**Under-five and infant mortality rates** – UNICEF, United Nations Population Division and United Nations Statistics Division.

**Total population** – United Nations Population Division.

**Births** – United Nations Population Division.

**Under-five deaths** – UNICEF.

**GNI per capita** – World Bank.

**Life expectancy** – United Nations Population Division.

**Adult literacy** – United Nations Educational, Scientific and Cultural Organization (UNESCO), including the Education for All 2000 Assessment.

**School enrolment/attendance** – UNESCO, including the Education for All 2000 Assessment, Multiple Indicator Cluster Surveys (MICS) and Demographic and Health Surveys (DHS).

**Household income** – World Bank.

## NOTES

a: Range \$745 or less.

b: Range \$746 to \$2975.

c: Range \$2976 to \$9205.

d: Range \$9206 or more.

- Data not available.

x Indicates data that refer to years or periods other than those specified in the column heading, differ from the standard definition, or refer to only part of a country.

\* Data refer to the most recent year available during the period specified in the column heading.

# TABLE 2. NUTRITION

| Countries and territories         | Under-5 mortality rank | % of infants with low birthweight 1995-2000* | % of children (1995-2001*) who are: |  |                                    | % of under-fives (1995-2001*) suffering from: |                    |                           |                            | Vitamin A supplementation coverage rate (6-59 months) 2000 | % of households consuming iodized salt 1997-2002* |
|-----------------------------------|------------------------|--|-------------------------------------|--|------------------------------------|---|--------------------|---------------------------|----------------------------|--|---|
|                                   |                        |  | exclusively breastfed (<6 months)   | breastfed with complementary food (6-9 months) | still breastfeeding (20-23 months) | underweight moderate & severe                 | underweight severe | wasting moderate & severe | stunting moderate & severe |  |   |
| Afghanistan                       | 4                      | -  | -                                   | -  | -                                  | 48  | -                  | 25                        | 52                         | 70   | -   |
| Albania                           | 98                     | 5  | 6                                   | 24   | 6                                  | 14  | 4                  | 11                        | 32                         | -  | 56  |
| Algeria                           | 75                     | 7  | 13                                  | 38   | 22                                 | 6   | 1                  | 3                         | 18                         | -  | 69  |
| Andorra                           | 161                    | -  | -                                   | -  | -                                  | -   | -                  | -                         | -                          | -  | -   |
| Angola                            | 3                      | -  | 11                                  | 77   | 37                                 | -   | -                  | -                         | -                          | 100  | 10x   |
| Antigua and Barbuda               | 144                    | 8  | -                                   | -  | -                                  | 10x   | 4x                 | 10x                       | 7x                         | -  | -   |
| Argentina                         | 130                    | 7  | -                                   | -  | -                                  | 5   | 1                  | 3                         | 12                         | -  | 90x   |
| Armenia                           | 93                     | 9  | 30                                  | 51   | 13                                 | 3   | 0                  | 2                         | 13                         | -  | 84  |
| Australia                         | 164                    | 7  | -                                   | -  | -                                  | -   | -                  | -                         | -                          | -  | -   |
| Austria                           | 178                    | 7  | -                                   | -  | -                                  | -   | -                  | -                         | -                          | -  | -   |
| Azerbaijan                        | 48                     | 10   | 7                                   | 39   | 16                                 | 17  | 4                  | 8                         | 20                         | -  | 41  |
| Bahamas                           | 138                    | -  | -                                   | -  | -                                  | -   | -                  | -                         | -                          | -  | -   |
| Bahrain                           | 138                    | 10   | 34k                                 | 65   | 41                                 | 9   | 2                  | 5                         | 10                         | -  | -   |
| Bangladesh                        | 58                     | 30   | 46                                  | -  | 87                                 | 48  | 13                 | 10                        | 45                         | 85   | 70  |
| Barbados                          | 144                    | 10   | -                                   | -  | -                                  | 6x  | 1x                 | 5x                        | 7x                         | -  | -   |
| Belarus                           | 125                    | 5  | -                                   | -  | -                                  | -   | -                  | -                         | -                          | -  | 37x   |
| Belgium                           | 164                    | 8  | -                                   | -  | -                                  | -   | -                  | -                         | -                          | -  | -   |
| Belize                            | 84                     | 4  | 24k                                 | 54   | 23                                 | 6x  | 1x                 | -                         | -                          | -  | 90x   |
| Benin                             | 24                     | 15   | 38                                  | 66   | 62                                 | 23  | 5                  | 8                         | 31                         | 96   | 72  |
| Bhutan                            | 52                     | 15   | -                                   | -  | -                                  | 19  | 3                  | 3                         | 40                         | 93   | 82x   |
| Bolivia                           | 58                     | 8  | 29                                  | 76   | 36                                 | 10  | 2                  | 2                         | 26                         | 73   | 63  |
| Bosnia and Herzegovina            | 136                    | 4  | -                                   | -  | -                                  | 4   | 1                  | 6                         | 10                         | -  | -   |
| Botswana                          | 42                     | 11   | 34                                  | 57   | 11                                 | 13  | 2                  | 5                         | 23                         | -  | 66  |
| Brazil                            | 92                     | 9  | -                                   | 30   | 17                                 | 6   | 1                  | 2                         | 11                         | 11   | 95x   |
| Brunei Darussalam                 | 164                    | -  | -                                   | -  | -                                  | -   | -                  | -                         | -                          | -  | -   |
| Bulgaria                          | 138                    | 9  | -                                   | -  | -                                  | -   | -                  | -                         | -                          | -  | -   |
| Burkina Faso                      | 12                     | 18   | 6                                   | 49   | 87                                 | 34  | 12                 | 13                        | 37                         | 93   | 23x   |
| Burundi                           | 14                     | 16x  | 62                                  | 46   | 85                                 | 45  | 13                 | 8                         | 57                         | 96   | 68  |
| Cambodia                          | 30                     | 9  | 12                                  | 72   | 59                                 | 45  | 13                 | 15                        | 45                         | 63   | 14  |
| Cameroon                          | 25                     | 10   | 12                                  | 72   | 29                                 | 21  | 4                  | 5                         | 35                         | 100  | 84  |
| Canada                            | 161                    | 6  | -                                   | -  | -                                  | -   | -                  | -                         | -                          | -  | -   |
| Cape Verde                        | 88                     | 13   | 57k                                 | 64   | 13                                 | 14x   | 2x                 | 6x                        | 16x                        | -  | 0x  |
| Central African Republic          | 19                     | 13x  | 17                                  | 78   | 53                                 | 24  | 6                  | 9                         | 39                         | 100  | 87  |
| Chad                              | 11                     | 24   | 10                                  | 68   | 51                                 | 28  | 10                 | 12                        | 28                         | 99   | 58  |
| Chile                             | 147                    | 5  | 73k                                 | -  | -                                  | 1   | -                  | 0                         | 2                          | -  | 100   |
| China                             | 85                     | 6  | 67k                                 | -  | -                                  | 10  | -                  | 3                         | 17                         | -  | 91  |
| Colombia                          | 118                    | 7  | 32                                  | 58   | 25                                 | 7   | 1                  | 1                         | 14                         | -  | 92  |
| Comoros                           | 57                     | 18   | 21                                  | 34   | 45                                 | 25  | 9                  | 12                        | 42                         | 6  | 83  |
| Congo                             | 45                     | -  | 4k                                  | 94   | 13                                 | 14x   | 3x                 | 4x                        | 19x                        | 100  | -   |
| Congo, Democratic Republic of the | 9                      | 15   | 24                                  | 79   | 52                                 | 31  | 9                  | 13                        | 38                         | 93   | 72  |
| Cook Islands                      | 118                    | 1x   | 19k                                 | -  | -                                  | -   | -                  | -                         | -                          | -  | -   |
| Costa Rica                        | 149                    | 6  | 35x,k                               | 47x  | 12x                                | 5   | 0                  | 2                         | 6                          | -  | 97x   |
| Côte d'Ivoire                     | 20                     | 17   | 10                                  | 54   | 42                                 | 21  | 5                  | 8                         | 25                         | 16   | 31  |
| Croatia                           | 158                    | 6  | 23                                  | -  | -                                  | 1   | -                  | 1                         | 1                          | -  | 90  |
| Cuba                              | 152                    | 6  | 41                                  | 42   | 9                                  | 4   | 0                  | 2                         | 5                          | -  | 0   |
| Cyprus                            | 164                    | -  | -                                   | -  | -                                  | -   | -                  | -                         | -                          | -  | -   |
| Czech Republic                    | 178                    | 6  | -                                   | -  | -                                  | 1x  | 0x                 | 2x                        | 2x                         | -  | -   |
| Denmark                           | 189                    | 6  | -                                   | -  | -                                  | -   | -                  | -                         | -                          | -  | -   |
| Djibouti                          | 28                     | -  | -                                   | -  | -                                  | 18  | 6                  | 13                        | 26                         | -  | -   |
| Dominica                          | 143                    | 8x   | -                                   | -  | -                                  | 5x  | 0x                 | 2x                        | 6x                         | -  | -   |
| Dominican Republic                | 76                     | 13   | 11                                  | 26   | 6                                  | 5   | 1                  | 2                         | 6                          | 9  | 18  |
| East Timor                        | 36                     | -  | -                                   | -  | -                                  | -   | -                  | -                         | -                          | -  | -   |
| Ecuador                           | 98                     | 16   | 29x,k                               | 52x  | 34x                                | 15  | 2                  | -                         | 27                         | 25   | 99  |
| Egypt                             | 83                     | 10   | 57                                  | 71   | 30                                 | 4   | 1                  | 3                         | 19                         | -  | 28  |
| El Salvador                       | 85                     | 13   | 16                                  | 77   | 40                                 | 12  | 1                  | 1                         | 23                         | -  | 91x   |
| Equatorial Guinea                 | 26                     | -  | 24                                  | -  | -                                  | -   | -                  | -                         | -                          | -  | 20x   |
| Eritrea                           | 41                     | 14   | 59                                  | 45   | 60                                 | 44  | 17                 | 16                        | 38                         | 74   | 97  |
| Estonia                           | 147                    | 5  | -                                   | -  | -                                  | -   | -                  | -                         | -                          | -  | -   |
| Ethiopia                          | 21                     | 12   | 55                                  | 43   | 77                                 | 47  | 16                 | 11                        | 52                         | 65   | 28  |

|  | Under-5 mortality rank | % of infants with low birthweight 1995-2000* | % of children (1995-2001*) who are: |  |                                    | % of under-fives (1995-2001*) suffering from: |                    |                           |                            | Vitamin A supplementation coverage rate (6-59 months) 2000 | % of households consuming iodized salt 1997-2002* |
|--|------------------------|--|-------------------------------------|--|------------------------------------|---|--------------------|---------------------------|----------------------------|--|---|
|  |                        |  | exclusively breastfed (<6 months)   | breastfed with complementary food (6-9 months) | still breastfeeding (20-23 months) | underweight moderate & severe                 | underweight severe | wasting moderate & severe | stunting moderate & severe |  |   |
| Fiji                                   | 121                    | 12x  | -                                   | -  | -                                  | 8x  | 1x                 | 8x                        | 3x                         | -  | 31x   |
| Finland                                | 178                    | 6  | -                                   | -  | -                                  | -   | -                  | -                         | -                          | -  | -   |
| France                                 | 164                    | 6  | -                                   | -  | -                                  | -   | -                  | -                         | -                          | -  | -   |
| Gabon                                  | 56                     | -  | 6                                   | 62   | 9                                  | 12  | 2                  | 3                         | 21                         | 100  | 15  |
| Gambia                                 | 35                     | 14   | 26                                  | 37   | 54                                 | 17  | 4                  | 9                         | 19                         | 87   | 8   |
| Georgia                                | 102                    | 6  | 18k                                 | 12   | 12                                 | 3   | 0                  | 2                         | 12                         | -  | 8   |
| Germany                                | 178                    | 7  | -                                   | -  | -                                  | -   | -                  | -                         | -                          | -  | -   |
| Ghana                                  | 49                     | 9  | 31                                  | 70   | 57                                 | 25  | 5                  | 10                        | 26                         | 89   | 28  |
| Greece                                 | 178                    | 7  | -                                   | -  | -                                  | -   | -                  | -                         | -                          | -  | -   |
| Grenada                                | 110                    | 11x  | 39k                                 | -  | -                                  | -   | -                  | -                         | -                          | -  | -   |
| Guatemala                              | 72                     | 12   | 39                                  | 76   | 45                                 | 24  | 5                  | 3                         | 46                         | -  | 49  |
| Guinea                                 | 22                     | 10   | 11                                  | 28   | 73                                 | 23  | 5                  | 9                         | 26                         | 99   | 12  |
| Guinea-Bissau                          | 8                      | 20   | 37                                  | 36   | 67                                 | 23  | 5                  | 10                        | 28                         | 91   | 2   |
| Guyana                                 | 64                     | 14   | -                                   | -  | -                                  | 12  | -                  | 12                        | 10                         | -  | -   |
| Haiti                                  | 38                     | 28x  | 24                                  | 73   | 30                                 | 17  | 4                  | 5                         | 23                         | 32   | 11  |
| Holy See                               | -                      | -  | -                                   | -  | -                                  | -   | -                  | -                         | -                          | -  | -   |
| Honduras                               | 88                     | 6  | 42k                                 | 69   | 45                                 | 25  | 4                  | 2                         | 39                         | 60   | 80  |
| Hungary                                | 152                    | 9  | -                                   | -  | -                                  | 2x  | 0x                 | 2x                        | 3x                         | -  | -   |
| Iceland                                | 189                    | 4  | -                                   | -  | -                                  | -   | -                  | -                         | -                          | -  | -   |
| India                                  | 54                     | 26   | 37k                                 | 44   | 66                                 | 47  | 18                 | 16                        | 46                         | 22   | 49  |
| Indonesia                              | 77                     | 9  | 42                                  | 81   | 65                                 | 26  | 8                  | -                         | -                          | 71   | 64  |
| Iran (Islamic Republic of)             | 81                     | 7  | 66k                                 | 96   | 41                                 | 11  | 2                  | 5                         | 15                         | -  | 94  |
| Iraq                                   | 33                     | 23   | -                                   | -  | 25                                 | 16  | -                  | -                         | 22                         | -  | 40  |
| Ireland                                | 164                    | 4x   | -                                   | -  | -                                  | -   | -                  | -                         | -                          | -  | -   |
| Israel                                 | 164                    | 8  | -                                   | -  | -                                  | -   | -                  | -                         | -                          | -  | -   |
| Italy                                  | 164                    | 6  | -                                   | -  | -                                  | -   | -                  | -                         | -                          | -  | -   |
| Jamaica                                | 125                    | 11   | -                                   | -  | -                                  | 4   | -                  | 4                         | 3                          | -  | 100   |
| Japan                                  | 178                    | 7x   | -                                   | -  | -                                  | -   | -                  | -                         | -                          | -  | -   |
| Jordan                                 | 94                     | 10   | 11                                  | 68   | 12                                 | 5   | 1                  | 2                         | 8                          | -  | 88  |
| Kazakhstan                             | 61                     | 6  | 36                                  | 73   | 17                                 | 4   | 0                  | 2                         | 10                         | -  | 20  |
| Kenya                                  | 40                     | 9  | 5                                   | 67   | 24                                 | 23  | 7                  | 6                         | 37                         | 90   | 91  |
| Kiribati                               | 67                     | 3x   | -                                   | -  | -                                  | 13x   | -                  | 11x                       | 28x                        | 61   | -   |
| Korea, Democratic People's Republic of | 73                     | -  | 97k                                 | -  | -                                  | 60  | -                  | 19                        | 60                         | 96   | -   |
| Korea, Republic of                     | 178                    | -  | -                                   | -  | -                                  | -   | -                  | -                         | -                          | -  | -   |
| Kuwait                                 | 151                    | 7  | 12k                                 | 26   | 9                                  | 10  | 3                  | 11                        | 24                         | -  | -   |
| Kyrgyzstan                             | 71                     | 6  | 24                                  | 77   | 21                                 | 11  | 2                  | 3                         | 25                         | -  | 27  |
| Lao People's Democratic Republic       | 49                     | -  | 23                                  | 10   | 47                                 | 40  | 13                 | 15                        | 41                         | 58   | 76  |
| Latvia                                 | 121                    | 5  | -                                   | -  | -                                  | -   | -                  | -                         | -                          | -  | -   |
| Lebanon                                | 95                     | 6  | 27k                                 | 35   | 11                                 | 3   | 0                  | 3                         | 12                         | -  | 87  |
| Lesotho                                | 34                     | -  | 16                                  | 47   | 52                                 | 16  | 4                  | 5                         | 44                         | 17   | 69  |
| Liberia                                | 5                      | -  | 73k                                 | -  | 28                                 | 20x   | -                  | 3x                        | 37x                        | 83   | -   |
| Libyan Arab Jamahiriya                 | 130                    | 7x   | -                                   | -  | 23                                 | 5   | 1                  | 3                         | 15                         | -  | 90x   |
| Liechtenstein                          | 149                    | -  | -                                   | -  | -                                  | -   | -                  | -                         | -                          | -  | -   |
| Lithuania                              | 152                    | 4  | -                                   | -  | -                                  | -   | -                  | -                         | -                          | -  | -   |
| Luxembourg                             | 178                    | 4  | -                                   | -  | -                                  | -   | -                  | -                         | -                          | -  | -   |
| Madagascar                             | 32                     | 15   | 41                                  | 82   | 43                                 | 33  | 11                 | 14                        | 49                         | 58   | 76  |
| Malawi                                 | 15                     | 13x  | 44                                  | 93   | 77                                 | 25  | 6                  | 6                         | 49                         | 54   | 49  |
| Malaysia                               | 158                    | 9  | -                                   | -  | -                                  | 18  | 1                  | -                         | -                          | -  | -   |
| Maldives                               | 58                     | 12   | 10                                  | 85   | -                                  | 30  | 7                  | 13                        | 25                         | 93   | 44  |
| Mali                                   | 6                      | 16   | 8                                   | 33   | 60                                 | 43  | -                  | -                         | -                          | 70   | 9x  |
| Malta                                  | 178                    | 7  | -                                   | -  | -                                  | -   | -                  | -                         | -                          | -  | -   |
| Marshall Islands                       | 70                     | 14x  | -                                   | -  | -                                  | -   | -                  | -                         | -                          | 83   | -   |
| Mauritania                             | 15                     | -  | 28k                                 | 78   | 57                                 | 32  | 10                 | 13                        | 35                         | 81   | 2   |
| Mauritius                              | 130                    | 13   | 16x,k                               | 29x  | -                                  | 16  | 2                  | 15                        | 10                         | -  | 0x  |
| Mexico                                 | 102                    | 9  | 38x,k                               | 36x  | 21x                                | 8   | 1                  | 2                         | 18                         | -  | 90  |
| Micronesia (Federated States of)       | 114                    | 9x   | -                                   | -  | -                                  | -   | -                  | -                         | -                          | 72   | -   |
| Moldova, Republic of                   | 95                     | 7  | -                                   | -  | -                                  | 3   | -                  | 3                         | 10                         | -  | 33  |

# TABLE 2. NUTRITION

|                                  | Under-5 mortality rank | % of infants with low birthweight 1995-2000* | % of children (1995-2001*) who are: |  |                                    | % of under-fives (1995-2001*) suffering from: |                    |                           |                            | Vitamin A supplementation coverage rate (6-59 months) 2000 | % of households consuming iodized salt 1997-2002* |
|----------------------------------|------------------------|--|-------------------------------------|--|------------------------------------|---|--------------------|---------------------------|----------------------------|--|---|
|                                  |                        |  | exclusively breastfed (<6 months)   | breastfed with complementary food (6-9 months) | still breastfeeding (20-23 months) | underweight moderate & severe                 | underweight severe | wasting moderate & severe | stunting moderate & severe |  |   |
| Monaco                           | 178                    | -  | -                                   | -  | -                                  | -   | -                  | -                         | -                          | -  | -   |
| Mongolia                         | 61                     | 6  | 51                                  | 54   | 57                                 | 13  | 3                  | 6                         | 25                         | 87   | 68  |
| Morocco                          | 78                     | 9x   | 31k                                 | 33   | 20                                 | 9x  | 2x                 | 2x                        | 23x                        | -  | -   |
| Mozambique                       | 12                     | 13   | 30                                  | 87   | 58                                 | 26  | 9                  | 8                         | 36                         | 92   | 62x   |
| Myanmar                          | 43                     | 16   | 11                                  | 66   | 59                                 | 36  | 9                  | 10                        | 37                         | 67   | 46  |
| Namibia                          | 69                     | 15x  | 14x                                 | 65x  | 23x                                | 24  | 5                  | 9                         | 24                         | 81   | 63  |
| Nauru                            | 98                     | -  | -                                   | -  | -                                  | -   | -                  | -                         | -                          | -  | -   |
| Nepal                            | 55                     | 21   | 69                                  | 66   | 92                                 | 48  | 13                 | 10                        | 51                         | 82   | 63  |
| Netherlands                      | 164                    | -  | -                                   | -  | -                                  | -   | -                  | -                         | -                          | -  | -   |
| New Zealand                      | 164                    | 6  | -                                   | -  | -                                  | -   | -                  | -                         | -                          | -  | 83  |
| Nicaragua                        | 79                     | 13   | 22                                  | 65   | 29                                 | 12  | 2                  | 2                         | 25                         | -  | 86  |
| Niger                            | 2                      | 12   | 1                                   | 56   | 61                                 | 40  | 14                 | 14                        | 40                         | 92   | 44  |
| Nigeria                          | 15                     | 9  | 17                                  | -  | 35                                 | 27  | 11                 | 12                        | 46                         | 79   | 98  |
| Niue                             | -                      | -  | -                                   | -  | -                                  | -   | -                  | -                         | -                          | -  | -   |
| Norway                           | 189                    | 5  | -                                   | -  | -                                  | -   | -                  | -                         | -                          | -  | -   |
| Occupied Palestinian Territory   | 114                    | 9  | 29k                                 | 78   | 11                                 | 3   | 0                  | 1                         | 8                          | 16   | 37  |
| Oman                             | 146                    | 8  | 31k                                 | -  | -                                  | 24  | 4                  | 13                        | 23                         | -  | 61  |
| Pakistan                         | 43                     | 21x  | 16k                                 | 31   | 56                                 | 38  | 13                 | -                         | -                          | 95   | 19x   |
| Palau                            | 102                    | 8x   | 59k                                 | -  | -                                  | -   | -                  | -                         | -                          | -  | -   |
| Panama                           | 110                    | 10   | 25                                  | 38   | 21                                 | 7   | -                  | 1                         | 14                         | -  | 95  |
| Papua New Guinea                 | 53                     | -  | 59                                  | 74   | 66                                 | 35x   | -                  | -                         | -                          | -  | -   |
| Paraguay                         | 98                     | 9  | 7k                                  | 59   | 15                                 | 5   | -                  | 1                         | 11                         | -  | 83  |
| Peru                             | 85                     | 10   | 71                                  | 76   | 49                                 | 7   | 1                  | 1                         | 25                         | -  | 93  |
| Philippines                      | 88                     | 18   | 37                                  | 57   | 23                                 | 28  | -                  | 6                         | 30                         | 90   | 22  |
| Poland                           | 152                    | 6  | -                                   | -  | -                                  | -   | -                  | -                         | -                          | -  | -   |
| Portugal                         | 164                    | 7  | -                                   | -  | -                                  | -   | -                  | -                         | -                          | -  | -   |
| Qatar                            | 138                    | 10   | 12k                                 | 48   | 21                                 | 6   | -                  | 2                         | 8                          | -  | -   |
| Romania                          | 121                    | 9  | -                                   | -  | -                                  | 6x  | 1x                 | 3x                        | 8x                         | -  | -   |
| Russian Federation               | 121                    | 7  | -                                   | -  | -                                  | 3   | 1                  | 4                         | 13                         | -  | 30x   |
| Rwanda                           | 15                     | 12x  | 84                                  | 79   | 71                                 | 24  | 5                  | 7                         | 43                         | 59   | 82  |
| Saint Kitts and Nevis            | 114                    | 13x  | 56k                                 | -  | -                                  | -   | -                  | -                         | -                          | -  | 100   |
| Saint Lucia                      | 130                    | 8x   | -                                   | -  | -                                  | 14x   | -                  | 6x                        | 11x                        | -  | -   |
| Saint Vincent and the Grenadines | 110                    | 10   | -                                   | -  | -                                  | -   | -                  | -                         | -                          | -  | -   |
| Samoa                            | 110                    | -  | -                                   | -  | -                                  | -   | -                  | -                         | -                          | -  | -   |
| San Marino                       | 164                    | -  | -                                   | -  | -                                  | -   | -                  | -                         | -                          | -  | -   |
| Sao Tome and Principe            | 63                     | 7x   | 56                                  | -  | -                                  | 16  | 5                  | 5                         | 26                         | 3  | 41  |
| Saudi Arabia                     | 105                    | 3  | 31k                                 | 60   | 30                                 | 14  | 3                  | 11                        | 20                         | -  | -   |
| Senegal                          | 30                     | 12   | 24k                                 | 64   | 49                                 | 18  | 4                  | 8                         | 19                         | 93   | 31  |
| Seychelles                       | 137                    | 10x  | -                                   | -  | -                                  | 6x  | 0x                 | 2x                        | 5x                         | -  | -   |
| Sierra Leone                     | 1                      | 22   | 4                                   | 53   | 51                                 | 27  | 9                  | 10                        | 34                         | 77   | 23  |
| Singapore                        | 189                    | 8  | -                                   | -  | -                                  | 14x   | -                  | 4x                        | 11x                        | -  | -   |
| Slovakia                         | 152                    | 7  | -                                   | -  | -                                  | -   | -                  | -                         | -                          | -  | -   |
| Slovenia                         | 178                    | 6  | -                                   | -  | -                                  | -   | -                  | -                         | -                          | -  | -   |
| Solomon Islands                  | 114                    | -  | -                                   | -  | -                                  | 21x   | 4x                 | 7x                        | 27x                        | -  | -   |
| Somalia                          | 7                      | -  | 9                                   | 13   | 8                                  | 26  | 7                  | 17                        | 23                         | 100  | -   |
| South Africa                     | 66                     | -  | 6                                   | 46   | -                                  | 12  | 2                  | 3                         | 25                         | -  | 62  |
| Spain                            | 164                    | 6  | -                                   | -  | -                                  | -   | -                  | -                         | -                          | -  | -   |
| Sri Lanka                        | 130                    | 17   | 54k                                 | -  | 62                                 | 29  | -                  | 14                        | 14                         | -  | 88  |
| Sudan                            | 46                     | -  | 13x                                 | 45x  | 44x                                | 17  | 7                  | -                         | -                          | 99   | 1   |
| Suriname                         | 95                     | 11   | 9                                   | 25   | 11                                 | -   | -                  | -                         | -                          | -  | -   |
| Swaziland                        | 27                     | -  | 24                                  | 60   | 25                                 | 10  | 2                  | 1                         | 30                         | -  | 54  |
| Sweden                           | 193                    | 4  | -                                   | -  | -                                  | -   | -                  | -                         | -                          | -  | -   |
| Switzerland                      | 164                    | 6  | -                                   | -  | -                                  | -   | -                  | -                         | -                          | -  | -   |
| Syrian Arab Republic             | 105                    | 6  | -                                   | 50x  | -                                  | 13  | 4                  | 9                         | 21                         | 7  | 40  |
| Tajikistan                       | 64                     | 13   | 14                                  | 35   | 35                                 | -   | -                  | -                         | -                          | -  | 20  |
| Tanzania, United Republic of     | 23                     | 11   | 32                                  | 64   | 48                                 | 29  | 7                  | 5                         | 44                         | 45   | 67  |
| Thailand                         | 105                    | 7  | 4k                                  | 71   | 27                                 | 19x   | -                  | 6x                        | 16x                        | -  | 74  |

|                       | Under-5 mortality rank | % of infants with low birthweight 1995-2000* | % of children (1995-2001*) who are: |  |                                    | % of under-fives (1995-2001*) suffering from: |                    |                           |                            | Vitamin A supplementation coverage rate (6-59 months) 2000 | % of households consuming iodized salt 1997-2002* |
|-----------------------|------------------------|--|-------------------------------------|--|------------------------------------|---|--------------------|---------------------------|----------------------------|--|---|
|                       |                        |  | exclusively breastfed (<6 months)   | breastfed with complementary food (6-9 months) | still breastfeeding (20-23 months) | underweight moderate & severe                 | underweight severe | wasting moderate & severe | stunting moderate & severe |  |   |
| The former Yugoslavia |                        |  |                                     |  |                                    |   |                    |                           |                            |  |   |
| Republic of Macedonia | 109                    | 6  | 37                                  | 8  | 10                                 | 6   | 1                  | 4                         | 7                          | -  | 100   |
| Togo                  | 29                     | 13   | 18                                  | 65   | 65                                 | 25  | 7                  | 12                        | 22                         | 100  | 67  |
| Tonga                 | 125                    | 2x   | -                                   | -  | -                                  | -   | -                  | -                         | -                          | -  | -   |
| Trinidad and Tobago   | 125                    | -  | 2                                   | -  | -                                  | 7x  | -                  | 4x                        | 4x                         | -  | 1   |
| Tunisia               | 108                    | 5  | 12x,k                               | -  | 16x                                | 4   | 1                  | 2                         | 12                         | -  | 97  |
| Turkey                | 79                     | 15   | 7                                   | 34   | 21                                 | 8   | 1                  | 2                         | 16                         | -  | 64  |
| Turkmenistan          | 51                     | 5  | 13                                  | 71   | 27                                 | 12  | 2                  | 6                         | 22                         | -  | 75  |
| Tuvalu                | 74                     | 3x   | -                                   | -  | -                                  | -   | -                  | -                         | -                          | -  | -   |
| Uganda                | 36                     | 13   | 65                                  | 75   | 50                                 | 23  | 5                  | 4                         | 39                         | 42   | 95  |
| Ukraine               | 125                    | 6  | -                                   | 46   | 10                                 | 3   | 1                  | 6                         | 15                         | -  | 5   |
| United Arab Emirates  | 152                    | -  | 34k                                 | 52   | 29                                 | 14  | 3                  | 15                        | 17                         | -  | -   |
| United Kingdom        | 161                    | 8  | -                                   | -  | -                                  | -   | -                  | -                         | -                          | -  | -   |
| United States         | 158                    | 8  | -                                   | -  | -                                  | 1x  | 0x                 | 1x                        | 2x                         | -  | -   |
| Uruguay               | 138                    | -  | -                                   | -  | -                                  | 5   | 1                  | 1                         | 8                          | -  | -   |
| Uzbekistan            | 68                     | 6  | 16                                  | 45   | 36                                 | 19  | 5                  | 12                        | 31                         | -  | 19  |
| Vanuatu               | 81                     | 7x   | -                                   | -  | -                                  | 20x   | -                  | -                         | 19x                        | -  | -   |
| Venezuela             | 120                    | 6  | 7k                                  | 50   | 31                                 | 5   | 1                  | 3                         | 14                         | -  | 90  |
| Viet Nam              | 88                     | 9  | 31k                                 | 52   | 21                                 | 33  | 6                  | 6                         | 36                         | 61   | 40  |
| Yemen                 | 46                     | 26   | 18                                  | 79   | 41                                 | 46  | 15                 | 13                        | 52                         | 95   | 39  |
| Yugoslavia            | 130                    | 5  | 11k                                 | 33   | 11                                 | 2   | 0                  | 4                         | 5                          | -  | 73  |
| Zambia                | 10                     | 11   | 11k                                 | -  | 39                                 | 25  | -                  | 4                         | 59                         | 86   | 54  |
| Zimbabwe              | 38                     | 10   | 33                                  | 90   | 35                                 | 13  | 2                  | 6                         | 27                         | -  | 93  |

## REGIONAL SUMMARIES

|                              |    |    |    |    |    |    |    |    |    |    |
|------------------------------|----|----|----|----|----|----|----|----|----|----|
| Sub-Saharan Africa           | 12 | 27 | 63 | 50 | 29 | 9  | 10 | 40 | 77 | 67 |
| Middle East and North Africa | 11 | 41 | 68 | 30 | 14 | 4  | 6  | 22 | -  | 53 |
| South Asia                   | 26 | 36 | 42 | 67 | 46 | 17 | 15 | 45 | 42 | 53 |
| East Asia and Pacific        | 8  | 54 | -  | -  | 17 | -  | 4  | 21 | -  | 80 |
| Latin America and Caribbean  | 9  | -  | 48 | 25 | 8  | 1  | 2  | 16 | -  | 81 |
| CEE/CIS and Baltic States    | 9  | 13 | 42 | 21 | 7  | 2  | 4  | 16 | -  | 39 |
| Industrialized countries     | 7  | -  | -  | -  | -  | -  | -  | -  | -  | -  |
| Developing countries         | 14 | 39 | 54 | 52 | 27 | 10 | 8  | 32 | 56 | 68 |
| Least developed countries    | 18 | 34 | 63 | 63 | 36 | 10 | 11 | 43 | 78 | 54 |
| World                        | 14 | 39 | 54 | 52 | 27 | 10 | 8  | 32 | 56 | 67 |

Countries in each region are listed on page 114.

## DEFINITIONS OF THE INDICATORS

**Low birthweight** – Less than 2,500 grams.

**Underweight** – Moderate and severe – below minus two standard deviations from median weight for age of reference population; severe – below minus three standard deviations from median weight for age of reference population.

**Wasting** – Moderate and severe – below minus two standard deviations from median weight for height of reference population.

**Stunting** – Moderate and severe – below minus two standard deviations from median height for age of reference population.

**Vitamin A** – Percentage of children aged 6-59 months who have received at least one high dose of vitamin A capsules in 2000.

## MAIN DATA SOURCES

**Low birthweight** – UNICEF, Demographic and Health Surveys (DHS), Multiple Indicator Cluster Surveys (MICS) and World Health Organization (WHO).

**Breastfeeding** – DHS, MICS and UNICEF.

**Underweight, wasting and stunting** – DHS, MICS, WHO and UNICEF.

**Salt iodization** – MICS, DHS and UNICEF.

**Vitamin A** – UNICEF field offices and WHO.

## NOTES

- Data not available.
- x Indicates data that refer to years or periods other than those specified in the column heading, differ from the standard definition, or refer to only part of a country.
- k Refers to exclusive breastfeeding for less than 4 months.
- \* Data refer to the most recent year available during the period specified in the column heading.

# TABLE 3. HEALTH

| Countries and territories         | Under-5 mortality rank | % of population using improved drinking water sources 2000 |       |       | % of population using adequate sanitation facilities 2000 |       |       | % of routine EPI vaccines financed by government 2001 | % immunized 2001    |      |        |         |       | (%<br>Adult HIV prevalence rate (15-49 years) 2001 | Oral rehydration rate (%) 1994-2000* |
|-----------------------------------|------------------------|--|-------|-------|---|-------|-------|---|---------------------|------|--------|---------|-------|--|--------------------------------------|
|                                   |                        | total  | urban | rural | total   | urban | rural |   | 1-year-old children |      |        |         |       |  |                                      |
|                                   |                        |  |       |       |   |       |       |   | TB                  | DPT3 | polio3 | measles | hepB3 |  |                                      |
| Afghanistan                       | 4                      | 13   | 19    | 11    | 12  | 25    | 8     | 0x  | 54                  | 44   | 45     | 46      | -     | -  | 40                                   |
| Albania                           | 98                     | 97   | 99    | 95    | 91  | 99    | 85    | 15x   | 93                  | 97   | 97     | 95      | 96    | -  | 48                                   |
| Algeria                           | 75                     | 89   | 94    | 82    | 92  | 99    | 81    | 100   | 97                  | 89   | 89     | 83      | -     | 0.1  | 62                                   |
| Andorra                           | 161                    | 100  | 100   | 100   | 100   | 100   | 100   | -   | -                   | 90   | 90     | 90      | 75    | -  | -                                    |
| Angola                            | 3                      | 38   | 34    | 40    | 44  | 70    | 30    | 13  | 74                  | 41   | 44     | 72      | -     | 5.5  | -                                    |
| Antigua and Barbuda               | 144                    | 91   | 95    | 89    | 95  | 98    | 94    | 100   | -                   | 98   | 99     | 97      | 96    | -  | -                                    |
| Argentina                         | 130                    | -  | -     | -     | -   | -     | -     | 100   | 99                  | 82   | 88     | 94      | -     | 0.69   | -                                    |
| Armenia                           | 93                     | -  | -     | -     | -   | -     | -     | 0   | 97                  | 94   | 97     | 93      | 69    | 0.15   | 30                                   |
| Australia                         | 164                    | 100  | 100   | 100   | 100   | 100   | 100   | 100   | -                   | 92   | 92     | 93      | 94    | 0.07   | -                                    |
| Austria                           | 178                    | 100  | 100   | 100   | 100   | 100   | 100   | 100   | -                   | 84   | 83     | 79      | -     | 0.24   | -                                    |
| Azerbaijan                        | 48                     | 78   | 93    | 58    | 81  | 90    | 70    | 10  | 98                  | 98   | 99     | 99      | -     | <0.1   | 27                                   |
| Bahamas                           | 138                    | 97   | 98    | 86    | 100   | 100   | 100   | 100x  | -                   | 99   | 91     | 93      | -     | 3.5  | -                                    |
| Bahrain                           | 138                    | -  | -     | -     | -   | -     | -     | 100x  | -                   | 97   | 97     | 98      | 97    | 0.26   | -                                    |
| Bangladesh                        | 58                     | 97   | 99    | 97    | 48  | 71    | 41    | 100   | 94                  | 83   | 83     | 76      | -     | <0.1   | -                                    |
| Barbados                          | 144                    | 100  | 100   | 100   | 100   | 100   | 100   | 100   | -                   | 84   | 86     | 92      | 17    | 1.2  | -                                    |
| Belarus                           | 125                    | 100  | 100   | 100   | -   | -     | -     | 100   | 99                  | 99   | 99     | 99      | 93    | 0.27   | -                                    |
| Belgium                           | 164                    | -  | -     | -     | -   | -     | -     | -   | -                   | 96   | 96     | 83      | 60    | 0.16   | -                                    |
| Belize                            | 84                     | 92   | 100   | 82    | 50  | 71    | 25    | 100x  | 95                  | 89   | 89     | 96      | 75    | 2.0  | -                                    |
| Benin                             | 24                     | 63   | 74    | 55    | 23  | 46    | 6     | 55  | 94                  | 76   | 75     | 65      | -     | 3.6  | 18                                   |
| Bhutan                            | 52                     | 62   | 86    | 60    | 70  | 65    | 70    | 0x  | 81                  | 88   | 88     | 78      | 89    | <0.1   | -                                    |
| Bolivia                           | 58                     | 83   | 95    | 64    | 70  | 86    | 42    | 60  | 94                  | 81   | 79     | 79      | -     | 0.10   | 40                                   |
| Bosnia and Herzegovina            | 136                    | -  | -     | -     | -   | -     | -     | -   | 95                  | 91   | 92     | 92      | -     | <0.1   | 11                                   |
| Botswana                          | 42                     | 95   | 100   | 90    | 66  | 88    | 43    | 100   | 99                  | 87   | 87     | 83      | 64    | 38.8   | -                                    |
| Brazil                            | 92                     | 87   | 95    | 53    | 76  | 84    | 43    | 100   | 99                  | 97   | 99     | 99      | 95    | 0.65   | 18                                   |
| Brunei Darussalam                 | 164                    | -  | -     | -     | -   | -     | -     | 100   | 99                  | 99   | 99     | 99      | 99    | -  | -                                    |
| Bulgaria                          | 138                    | 100  | 100   | 100   | 100   | 100   | 100   | -   | 98                  | 94   | 94     | 90      | 93    | <0.1   | -                                    |
| Burkina Faso                      | 12                     | 42   | 66    | 37    | 29  | 39    | 27    | 0   | 72                  | 41   | 42     | 46      | -     | 6.5  | 37                                   |
| Burundi                           | 14                     | 78   | 91    | 77    | 88  | 68    | 90    | 6   | 84                  | 74   | 69     | 75      | -     | 8.3  | 10                                   |
| Cambodia                          | 30                     | 30   | 54    | 26    | 17  | 56    | 10    | 7   | 64                  | 60   | 59     | 59      | -     | 2.7  | -                                    |
| Cameroon                          | 25                     | 58   | 78    | 39    | 79  | 92    | 66    | 35  | 77                  | 43   | 43     | 62      | -     | 11.8   | 23                                   |
| Canada                            | 161                    | 100  | 100   | 99    | 100   | 100   | 99    | -   | -                   | 97   | 89     | 96      | -     | 0.31   | -                                    |
| Cape Verde                        | 88                     | 74   | 64    | 89    | 71  | 95    | 32    | 100   | 84                  | 78   | 77     | 72      | -     | -  | -                                    |
| Central African Republic          | 19                     | 70   | 89    | 57    | 25  | 38    | 16    | 0x  | 38                  | 23   | 22     | 29      | -     | 12.9   | 34                                   |
| Chad                              | 11                     | 27   | 31    | 26    | 29  | 81    | 13    | 100   | 44                  | 27   | 24     | 36      | -     | 3.6  | 36                                   |
| Chile                             | 147                    | 93   | 99    | 58    | 96  | 96    | 97    | 100x  | 97                  | 97   | 98     | 97      | -     | 0.30   | -                                    |
| China                             | 85                     | 75   | 94    | 66    | 40  | 69    | 27    | 100   | 77                  | 79   | 79     | 79      | -     | 0.11   | 29                                   |
| Colombia                          | 118                    | 91   | 99    | 70    | 86  | 96    | 56    | 100x  | 86                  | 74   | 78     | 75      | 74    | 0.40   | -                                    |
| Comoros                           | 57                     | 96   | 98    | 95    | 98  | 98    | 98    | -   | 90                  | 70   | 70     | 70      | -     | -  | 22                                   |
| Congo                             | 45                     | 51   | 71    | 17    | -   | 14    | -     | 0   | 53                  | 31   | 32     | 35      | -     | 7.2  | 13                                   |
| Congo, Democratic Republic of the | 9                      | 45   | 89    | 26    | 21  | 54    | 6     | 0   | 57                  | 40   | 42     | 46      | -     | 4.9  | -                                    |
| Cook Islands                      | 118                    | 100  | 100   | 100   | 100   | 100   | 100   | -   | 99                  | 92   | 92     | 84      | 92    | -  | -                                    |
| Costa Rica                        | 149                    | 95   | 99    | 92    | 93  | 89    | 97    | 0x  | 92                  | 88   | 80     | 82      | 89    | 0.55   | -                                    |
| Côte d'Ivoire                     | 20                     | 81   | 92    | 72    | 52  | 71    | 35    | 65  | 72                  | 57   | 57     | 61      | -     | 9.7  | 25                                   |
| Croatia                           | 158                    | -  | -     | -     | -   | -     | -     | 100   | 97                  | 94   | 94     | 94      | 98    | <0.1   | -                                    |
| Cuba                              | 152                    | 91   | 95    | 77    | 98  | 99    | 95    | 99  | 99                  | 99   | 99     | 99      | 99    | <0.1   | -                                    |
| Cyprus                            | 164                    | 100  | 100   | 100   | 100   | 100   | 100   | -   | -                   | -    | -      | -       | -     | 0.25   | -                                    |
| Czech Republic                    | 178                    | -  | -     | -     | -   | -     | -     | -   | -                   | -    | -      | -       | -     | <0.1   | -                                    |
| Denmark                           | 189                    | 100  | 100   | 100   | -   | -     | -     | 100   | -                   | 97   | 97     | 94      | -     | 0.15   | -                                    |
| Djibouti                          | 28                     | 100  | 100   | 100   | 91  | 99    | 50    | 85  | 38                  | 49   | 49     | 49      | -     | -  | -                                    |
| Dominica                          | 143                    | 97   | 100   | 90    | 83  | 86    | 75    | 100   | 99                  | 99   | 99     | 99      | -     | -  | -                                    |
| Dominican Republic                | 76                     | 86   | 90    | 78    | 67  | 70    | 60    | 85  | 96                  | 62   | 74     | 98      | 66    | 2.5  | 22                                   |
| East Timor                        | 36                     | -  | -     | -     | -   | -     | -     | 0   | 72                  | 35   | 34     | -       | -     | -  | -                                    |
| Ecuador                           | 98                     | 85   | 90    | 75    | 86  | 92    | 74    | 100   | 99                  | 90   | 92     | 99      | 71    | 0.30   | -                                    |
| Egypt                             | 83                     | 97   | 99    | 96    | 98  | 100   | 96    | 100   | 98                  | 99   | 99     | 97      | 99    | <0.1   | -                                    |
| El Salvador                       | 85                     | 77   | 91    | 64    | 82  | 89    | 76    | 100x  | 99                  | 99   | 98     | 97      | 99    | 0.60   | -                                    |
| Equatorial Guinea                 | 26                     | 44   | 45    | 42    | 53  | 60    | 46    | 0x  | 34                  | 32   | 40     | 19      | -     | 3.4  | -                                    |
| Eritrea                           | 41                     | 46   | 63    | 42    | 13  | 66    | 1     | 0x  | 98                  | 93   | 93     | 88      | -     | 2.8  | -                                    |
| Estonia                           | 147                    | -  | -     | -     | -   | 93    | -     | 100   | 99                  | 94   | 94     | 95      | 90    | 1.0  | -                                    |
| Ethiopia                          | 21                     | 24   | 81    | 12    | 12  | 33    | 7     | 18x   | 76                  | 56   | 57     | 52      | -     | 6.4  | -                                    |

|  | Under-5 mortality rank | % of population using improved drinking water sources 2000 |       |       | % of population using adequate sanitation facilities 2000 |       |       | % of routine EPI vaccines financed by government 2001 | % immunized 2001    |      |        |         |       | (%<br>Adult HIV prevalence rate (15-49 years) 2001 | Oral rehydration rate (%) 1994-2000* |
|--|------------------------|--|-------|-------|---|-------|-------|---|---------------------|------|--------|---------|-------|--|--------------------------------------|
|  |                        | total  | urban | rural | total   | urban | rural |   | 1-year-old children |      |        |         |       |  |                                      |
|  |                        |  |       |       |   |       |       |   | TB                  | DPT3 | polio3 | measles | hepB3 |  |                                      |
| Fiji                                   | 121                    | 47   | 43    | 51    | 43  | 75    | 12    | 100   | 99                  | 90   | 99     | 90      | 93    | 0.07   | -                                    |
| Finland                                | 178                    | 100  | 100   | 100   | 100   | 100   | 100   | 100   | 99                  | 99   | 95     | 96      | -     | <0.1   | -                                    |
| France                                 | 164                    | -  | -     | -     | -   | -     | -     | -   | 84                  | 98   | 97     | 84      | -     | 0.33   | -                                    |
| Gabon                                  | 56                     | 86   | 95    | 47    | 53  | 55    | 43    | 100   | 89                  | 38   | 31     | 55      | -     | -  | -                                    |
| Gambia                                 | 35                     | 62   | 80    | 53    | 37  | 41    | 35    | 57  | 99                  | 96   | 87     | 90      | 84    | 1.6  | 26                                   |
| Georgia                                | 102                    | 79   | 90    | 61    | 100   | 100   | 99    | 0   | 97                  | 86   | 81     | 73      | 61    | <0.1   | 33                                   |
| Germany                                | 178                    | -  | -     | -     | -   | -     | -     | -   | -                   | 97   | 95     | 89      | 29    | 0.10   | -                                    |
| Ghana                                  | 49                     | 73   | 91    | 62    | 72  | 74    | 70    | 100   | 91                  | 80   | 80     | 81      | -     | 3.0  | 22                                   |
| Greece                                 | 178                    | -  | -     | -     | -   | -     | -     | -   | 88                  | 88   | 87     | 88      | 88    | 0.17   | -                                    |
| Grenada                                | 110                    | 95   | 97    | 93    | 97  | 96    | 97    | 100   | -                   | 96   | 99     | 96      | -     | -  | -                                    |
| Guatemala                              | 72                     | 92   | 98    | 88    | 81  | 83    | 79    | 100   | 92                  | 82   | 82     | 90      | -     | 1.0  | 15                                   |
| Guinea                                 | 22                     | 48   | 72    | 36    | 58  | 94    | 41    | 20x   | 71                  | 43   | 43     | 52      | -     | -  | 21                                   |
| Guinea-Bissau                          | 8                      | 56   | 79    | 49    | 56  | 95    | 44    | 0   | 70                  | 47   | 52     | 48      | -     | 2.8  | 13                                   |
| Guyana                                 | 64                     | 94   | 98    | 91    | 87  | 97    | 81    | 90  | 95                  | 85   | 90     | 92      | -     | 2.7  | 7                                    |
| Haiti                                  | 38                     | 46   | 49    | 45    | 28  | 50    | 16    | 30x   | 71                  | 43   | 43     | 53      | -     | 6.1  | -                                    |
| Holy See                               | -                      | -  | -     | -     | -   | -     | -     | -   | -                   | -    | -      | -       | -     | -  | -                                    |
| Honduras                               | 88                     | 88   | 95    | 81    | 75  | 93    | 55    | 100   | 99                  | 95   | 95     | 95      | -     | 1.6  | -                                    |
| Hungary                                | 152                    | 99   | 100   | 98    | 99  | 100   | 98    | 100   | 99                  | 99   | 99     | 99      | -     | 0.06   | -                                    |
| Iceland                                | 189                    | -  | -     | -     | -   | -     | -     | 100   | -                   | 92   | 91     | 88      | -     | 0.15   | -                                    |
| India                                  | 54                     | 84   | 95    | 79    | 28  | 61    | 15    | 100   | 73                  | 64   | 70     | 56      | -     | 0.79   | -                                    |
| Indonesia                              | 77                     | 78   | 90    | 69    | 55  | 69    | 46    | 100   | 65                  | 60   | 70     | 59      | 44    | 0.10   | 18                                   |
| Iran (Islamic Republic of)             | 81                     | 92   | 98    | 83    | 83  | 86    | 79    | 100   | 93                  | 95   | 95     | 96      | 94    | <0.1   | -                                    |
| Iraq                                   | 33                     | 85   | 96    | 48    | 79  | 93    | 31    | 100   | 93                  | 81   | 84     | 90      | 70    | <0.1   | 37                                   |
| Ireland                                | 164                    | -  | -     | -     | -   | -     | -     | 100   | -                   | 84   | 84     | 73      | -     | 0.11   | -                                    |
| Israel                                 | 164                    | -  | -     | -     | -   | -     | -     | 100   | -                   | 95   | 92     | 94      | 96    | 0.10   | -                                    |
| Italy                                  | 164                    | -  | -     | -     | -   | -     | -     | -   | -                   | 95   | 96     | 70      | 95    | 0.37   | -                                    |
| Jamaica                                | 125                    | 92   | 98    | 85    | 99  | 99    | 99    | 100   | 96                  | 90   | 91     | 85      | -     | 1.2  | -                                    |
| Japan                                  | 178                    | -  | -     | -     | -   | -     | -     | -   | -                   | 85   | 99     | 96      | -     | <0.1   | -                                    |
| Jordan                                 | 94                     | 96   | 100   | 84    | 99  | 100   | 98    | 100   | -                   | 99   | 97     | 99      | 97    | <0.1   | -                                    |
| Kazakhstan                             | 61                     | 91   | 98    | 82    | 99  | 100   | 98    | 100   | 96                  | 96   | 96     | 96      | 96    | 0.07   | 20                                   |
| Kenya                                  | 40                     | 57   | 88    | 42    | 87  | 96    | 82    | 3   | 91                  | 76   | 73     | 76      | -     | 15.0   | 30                                   |
| Kiribati                               | 67                     | 48   | 82    | 25    | 48  | 54    | 44    | -   | 85                  | 85   | 88     | 76      | 85    | -  | -                                    |
| Korea, Democratic People's Republic of | 73                     | 100  | 100   | 100   | 99  | 99    | 100   | -   | -                   | -    | -      | -       | -     | -  | 18                                   |
| Korea, Republic of                     | 178                    | 92   | 97    | 71    | 63  | 76    | 4     | 40x   | 89                  | 99   | 98     | 97      | 89    | <0.1   | -                                    |
| Kuwait                                 | 151                    | -  | -     | -     | -   | -     | -     | 100x  | 95                  | 98   | 94     | 99      | -     | -  | -                                    |
| Kyrgyzstan                             | 71                     | 77   | 98    | 66    | 100   | 100   | 100   | 11  | 99                  | 99   | 99     | 99      | 57    | <0.1   | 13                                   |
| Lao People's Democratic Republic       | 49                     | 37   | 61    | 29    | 30  | 67    | 19    | 0   | 60                  | 40   | 55     | 50      | -     | <0.1   | 20                                   |
| Latvia                                 | 121                    | -  | -     | -     | -   | -     | -     | 100   | 99                  | 97   | 97     | 98      | 96    | 0.40   | -                                    |
| Lebanon                                | 95                     | 100  | 100   | 100   | 99  | 100   | 87    | 49  | -                   | 93   | 93     | 94      | 70    | -  | 30                                   |
| Lesotho                                | 34                     | 78   | 88    | 74    | 49  | 72    | 40    | 39  | 92                  | 85   | 84     | 77      | -     | 31.0   | -                                    |
| Liberia                                | 5                      | -  | -     | -     | -   | -     | -     | 0   | 77                  | 62   | 61     | 78      | -     | -  | 26                                   |
| Libyan Arab Jamahiriya                 | 130                    | 72   | 72    | 68    | 97  | 97    | 96    | 2x  | 99                  | 94   | 94     | 93      | 93    | 0.24   | -                                    |
| Liechtenstein                          | 149                    | -  | -     | -     | -   | -     | -     | -   | -                   | -    | -      | -       | -     | 0.07   | -                                    |
| Lithuania                              | 152                    | -  | -     | -     | -   | -     | -     | 100   | 99                  | 95   | 97     | 97      | 95    | -  | -                                    |
| Luxembourg                             | 178                    | -  | -     | -     | -   | -     | -     | -   | -                   | 98   | 98     | 91      | 49    | 0.16   | -                                    |
| Madagascar                             | 32                     | 47   | 85    | 31    | 42  | 70    | 30    | 16  | 72                  | 55   | 58     | 55      | -     | 0.29   | 16                                   |
| Malawi                                 | 15                     | 57   | 95    | 44    | 76  | 96    | 70    | 2x  | 93                  | 90   | 86     | 82      | -     | 15.0   | -                                    |
| Malaysia                               | 158                    | -  | -     | 94    | -   | -     | 98    | 100   | 99                  | 97   | 97     | 92      | 95    | 0.35   | -                                    |
| Maldives                               | 58                     | 100  | 100   | 100   | 56  | 100   | 41    | 100x  | 99                  | 98   | 98     | 99      | 96    | 0.06   | -                                    |
| Mali                                   | 6                      | 65   | 74    | 61    | 69  | 93    | 58    | 100   | 68                  | 51   | 51     | 37      | -     | 1.7  | 22                                   |
| Malta                                  | 178                    | 100  | 100   | 100   | 100   | 100   | 100   | -   | -                   | 95   | 95     | 65      | -     | 0.13   | -                                    |
| Marshall Islands                       | 70                     | -  | -     | -     | -   | -     | -     | -   | -                   | -    | -      | -       | -     | -  | -                                    |
| Mauritania                             | 15                     | 37   | 34    | 40    | 33  | 44    | 19    | 100   | 70                  | 61   | 58     | 58      | -     | -  | -                                    |
| Mauritius                              | 130                    | 100  | 100   | 100   | 99  | 100   | 99    | 100   | 89                  | 92   | 93     | 90      | 92    | 0.10   | -                                    |
| Mexico                                 | 102                    | 88   | 95    | 69    | 74  | 88    | 34    | 100   | 99                  | 97   | 89     | 97      | -     | 0.28   | -                                    |
| Micronesia (Federated States of)       | 114                    | -  | -     | -     | -   | -     | -     | 5   | 39                  | 75   | 79     | 84      | 81    | -  | -                                    |
| Moldova, Republic of                   | 95                     | 92   | 97    | 88    | 99  | 100   | 98    | 26  | 98                  | 90   | 93     | 81      | 84    | 0.24   | 19                                   |

# TABLE 3. HEALTH

|                                  | Under-5 mortality rank | % of population using improved drinking water sources 2000 |       |       | % of population using adequate sanitation facilities 2000 |       |       | % of routine EPI vaccines financed by government 2001 | % immunized 2001 |                     |      |        |         | (%<br>Adult HIV prevalence rate (15-49 years) 2001 | Oral rehydration rate (%) 1994-2000* |       |
|----------------------------------|------------------------|--|-------|-------|---|-------|-------|---|------------------|---------------------|------|--------|---------|--|--------------------------------------|-------|
|                                  |                        | total  | urban | rural | total   | urban | rural |   | total            | 1-year-old children |      |        |         |  |                                      |       |
|                                  |                        |  |       |       |   |       |       |   |                  | TB                  | DPT3 | polio3 | measles |  |                                      | hepB3 |
| Monaco                           | 178                    | 100  | 100   | 100   | 100   | 100   | 100   | -   | 99               | 99                  | 99   | 99     | -       | -  | -                                    |       |
| Mongolia                         | 61                     | 60   | 77    | 30    | 30  | 46    | 2     | 20x   | 98               | 95                  | 95   | 95     | 95      | <0.1   | 32                                   |       |
| Morocco                          | 78                     | 80   | 98    | 56    | 68  | 86    | 44    | 100   | 93               | 96                  | 93   | 96     | 84      | 0.08   | -                                    |       |
| Mozambique                       | 12                     | 57   | 81    | 41    | 43  | 68    | 26    | 10x   | 97               | 80                  | 71   | 92     | 25      | 13.0   | 27                                   |       |
| Myanmar                          | 43                     | 72   | 89    | 66    | 64  | 84    | 57    | 0   | 70               | 72                  | 71   | 73     | 0       | -  | 24                                   |       |
| Namibia                          | 69                     | 77   | 100   | 67    | 41  | 96    | 17    | 100   | 69               | 63                  | 64   | 58     | -       | 22.5   | -                                    |       |
| Nauru                            | 98                     | -  | -     | -     | -   | -     | -     | 100   | 99               | 95                  | 99   | 95     | 95      | -  | -                                    |       |
| Nepal                            | 55                     | 88   | 94    | 87    | 28  | 73    | 22    | 60  | 84               | 72                  | 92   | 71     | -       | 0.49   | 11                                   |       |
| Netherlands                      | 164                    | 100  | 100   | 100   | 100   | 100   | 100   | -   | -                | 97                  | 97   | 96     | -       | 0.21   | -                                    |       |
| New Zealand                      | 164                    | -  | 100   | -     | -   | -     | -     | 100   | -                | 90                  | 82   | 85     | 90      | 0.06   | -                                    |       |
| Nicaragua                        | 79                     | 77   | 91    | 59    | 85  | 95    | 72    | 55  | 98               | 92                  | 92   | 99     | -       | 0.20   | 18                                   |       |
| Niger                            | 2                      | 59   | 70    | 56    | 20  | 79    | 5     | 33x   | 49               | 31                  | 30   | 51     | -       | -  | 38                                   |       |
| Nigeria                          | 15                     | 62   | 78    | 49    | 54  | 66    | 45    | 100   | 54               | 26                  | 25   | 40     | -       | 5.8  | 24                                   |       |
| Niue                             | -                      | 100  | 100   | 100   | 100   | 100   | 100   | 100   | 99               | 99                  | 99   | 99     | 99      | -  | -                                    |       |
| Norway                           | 189                    | 100  | 100   | 100   | -   | -     | -     | 100   | 92               | 95                  | 95   | 93     | -       | 0.08   | -                                    |       |
| Occupied Palestinian Territory   | 114                    | 86   | 97    | 86    | 100   | 100   | 100   | -   | -                | -                   | -    | -      | -       | -  | 43                                   |       |
| Oman                             | 146                    | 39   | 41    | 30    | 92  | 98    | 61    | 100   | 98               | 99                  | 99   | 99     | 99      | 0.11   | 88                                   |       |
| Pakistan                         | 43                     | 90   | 95    | 87    | 62  | 95    | 43    | 100   | 78               | 56                  | 58   | 54     | -       | 0.11   | 19                                   |       |
| Palau                            | 102                    | 79   | 100   | 20    | 100   | 100   | 100   | -   | -                | -                   | -    | -      | -       | -  | -                                    |       |
| Panama                           | 110                    | 90   | 99    | 79    | 92  | 99    | 83    | 100   | 99               | 98                  | 99   | 97     | -       | 1.5  | 7                                    |       |
| Papua New Guinea                 | 53                     | 42   | 88    | 32    | 82  | 92    | 80    | 100x  | 74               | 56                  | 33   | 58     | 42      | 0.65   | -                                    |       |
| Paraguay                         | 98                     | 78   | 93    | 59    | 94  | 94    | 93    | 100x  | 51               | 66                  | 63   | 77     | -       | -  | -                                    |       |
| Peru                             | 85                     | 80   | 87    | 62    | 71  | 79    | 49    | 99  | 88               | 85                  | 88   | 97     | 92      | 0.35   | 29                                   |       |
| Philippines                      | 88                     | 86   | 91    | 79    | 83  | 93    | 69    | 100   | 45               | 70                  | 85   | 75     | 80      | <0.1   | 28                                   |       |
| Poland                           | 152                    | -  | -     | -     | -   | -     | -     | -   | 95               | 98                  | 98   | 97     | 99      | 0.1  | -                                    |       |
| Portugal                         | 164                    | -  | -     | -     | -   | -     | -     | -   | 82               | 96                  | 96   | 87     | 58      | 0.52   | -                                    |       |
| Qatar                            | 138                    | -  | -     | -     | -   | -     | -     | 100x  | 99               | 93                  | 90   | 92     | 99      | -  | -                                    |       |
| Romania                          | 121                    | 58   | 91    | 16    | 53  | 86    | 10    | 100   | 99               | 99                  | 99   | 98     | 98      | <0.1   | -                                    |       |
| Russian Federation               | 121                    | 99   | 100   | 96    | -   | -     | -     | 100x  | 97               | 96                  | 97   | 98     | 46      | 0.90   | -                                    |       |
| Rwanda                           | 15                     | 41   | 60    | 40    | 8   | 12    | 8     | 0   | 74               | 86                  | 84   | 78     | -       | 8.9  | 4                                    |       |
| Saint Kitts and Nevis            | 114                    | 98   | -     | -     | 96  | -     | -     | 97  | 97               | 99                  | 99   | 94     | 99      | -  | -                                    |       |
| Saint Lucia                      | 130                    | 98   | -     | -     | 89  | -     | -     | 100   | 99               | 99                  | 99   | 89     | -       | -  | -                                    |       |
| Saint Vincent and the Grenadines | 110                    | 93   | -     | -     | 96  | -     | -     | 100   | 99               | 99                  | 99   | 98     | -       | -  | -                                    |       |
| Samoa                            | 110                    | 99   | 95    | 100   | 99  | 95    | 100   | -   | 98               | 93                  | 92   | 92     | 98      | -  | -                                    |       |
| San Marino                       | 164                    | -  | -     | -     | -   | -     | -     | -   | -                | -                   | -    | -      | -       | -  | -                                    |       |
| Sao Tome and Principe            | 63                     | -  | -     | -     | -   | -     | -     | -   | 81               | 82                  | 87   | 69     | -       | -  | 25                                   |       |
| Saudi Arabia                     | 105                    | 95   | 100   | 64    | 100   | 100   | 100   | 100   | 94               | 97                  | 97   | 94     | 95      | -  | -                                    |       |
| Senegal                          | 30                     | 78   | 92    | 65    | 70  | 94    | 48    | 100   | 89               | 52                  | 49   | 48     | -       | 0.50   | 4                                    |       |
| Seychelles                       | 137                    | -  | -     | -     | -   | -     | -     | 100   | 99               | 96                  | 96   | 95     | 95      | -  | -                                    |       |
| Sierra Leone                     | 1                      | 57   | 75    | 46    | 66  | 88    | 53    | 0   | 74               | 44                  | 46   | 37     | -       | 7.0  | 28                                   |       |
| Singapore                        | 189                    | 100  | 100   | -     | 100   | 100   | -     | 100   | 97               | 92                  | 91   | 89     | 91      | 0.20   | -                                    |       |
| Slovakia                         | 152                    | 100  | 100   | 100   | 100   | 100   | 100   | 100   | 93               | 99                  | 99   | 99     | 99      | <0.1   | -                                    |       |
| Slovenia                         | 178                    | 100  | 100   | 100   | -   | -     | -     | -   | 96               | 92                  | 93   | 98     | -       | <0.1   | -                                    |       |
| Solomon Islands                  | 114                    | 71   | 94    | 65    | 34  | 98    | 18    | -   | 85               | 78                  | 80   | -      | 78      | -  | -                                    |       |
| Somalia                          | 7                      | -  | -     | -     | -   | -     | -     | 0x  | 70               | 33                  | 33   | 38     | -       | 1.0  | -                                    |       |
| South Africa                     | 66                     | 86   | 99    | 73    | 87  | 93    | 80    | 100   | 87               | 81                  | 80   | 72     | 80      | 20.1   | -                                    |       |
| Spain                            | 164                    | -  | -     | -     | -   | -     | -     | -   | -                | 95                  | 95   | 94     | 80      | 0.50   | -                                    |       |
| Sri Lanka                        | 130                    | 77   | 98    | 70    | 94  | 97    | 93    | 100   | 99               | 99                  | 99   | 99     | -       | <0.1   | -                                    |       |
| Sudan                            | 46                     | 75   | 86    | 69    | 62  | 87    | 48    | 25x   | 51               | 46                  | 47   | 67     | -       | 2.6  | 21                                   |       |
| Suriname                         | 95                     | 82   | 93    | 50    | 93  | 99    | 75    | 100   | -                | 80                  | 80   | 90     | -       | 1.2  | 24                                   |       |
| Swaziland                        | 27                     | -  | -     | -     | -   | -     | -     | 100x  | 95               | 77                  | 76   | 72     | 78      | 33.4   | 7                                    |       |
| Sweden                           | 193                    | 100  | 100   | 100   | 100   | 100   | 100   | -   | -                | 99                  | 99   | 94     | 98      | 0.08   | -                                    |       |
| Switzerland                      | 164                    | 100  | 100   | 100   | 100   | 100   | 100   | -   | -                | 95                  | 95   | 81     | -       | 0.50   | -                                    |       |
| Syrian Arab Republic             | 105                    | 80   | 94    | 64    | 90  | 98    | 81    | 100x  | 99               | 92                  | 92   | 93     | 89      | -  | -                                    |       |
| Tajikistan                       | 64                     | 60   | 93    | 47    | 90  | 97    | 88    | 0   | 97               | 83                  | 85   | 86     | -       | <0.1   | 20                                   |       |
| Tanzania, United Republic of     | 23                     | 68   | 90    | 57    | 90  | 99    | 86    | 10x   | 89               | 85                  | 62   | 83     | -       | 7.8  | 21                                   |       |
| Thailand                         | 105                    | 84   | 95    | 81    | 96  | 96    | 96    | 100   | 99               | 96                  | 97   | 94     | 95      | 1.8  | -                                    |       |

|   | Under-5 mortality rank | % of population using improved drinking water sources 2000 |       |       | % of population using adequate sanitation facilities 2000 |       |       | % of routine EPI vaccines financed by government 2001 | % immunized 2001    |      |        |         |       | (%<br>Adult HIV prevalence rate (15-49 years) 2001 | Oral rehydration rate (%) 1994-2000* |
|---|------------------------|--|-------|-------|---|-------|-------|---|---------------------|------|--------|---------|-------|--|--------------------------------------|
|   |                        | total  | urban | rural | total   | urban | rural |   | 1-year-old children |      |        |         |       |  |                                      |
|   |                        |  |       |       |   |       |       |   | TB                  | DPT3 | polio3 | measles | hepB3 |  |                                      |
| The former Yugoslav Republic of Macedonia | 109                    | -  | -     | -     | -   | -     | -     | 100x  | 97                  | 90   | 91     | 92      | -     | <0.1   | -                                    |
| Togo                                      | 29                     | 54   | 85    | 38    | 34  | 69    | 17    | 0x  | 84                  | 64   | 63     | 58      | -     | 6.0  | 23                                   |
| Tonga                                     | 125                    | 100  | 100   | 100   | -   | -     | -     | 100   | 91                  | 94   | 95     | 93      | 96    | -  | -                                    |
| Trinidad and Tobago                       | 125                    | 90   | -     | -     | 99  | -     | -     | 100   | -                   | 91   | 91     | 91      | -     | 2.5  | 17x                                  |
| Tunisia                                   | 108                    | 80   | 92    | 58    | 84  | 96    | 62    | 100   | 97                  | 96   | 96     | 92      | 94    | -  | -                                    |
| Turkey                                    | 79                     | 82   | 81    | 86    | 90  | 97    | 70    | 100   | 89                  | 88   | 88     | 90      | 77    | <0.1   | 15                                   |
| Turkmenistan                              | 51                     | -  | -     | -     | -   | -     | -     | 100   | 99                  | 95   | 98     | 98      | -     | <0.1   | 31                                   |
| Tuvalu                                    | 74                     | 100  | 100   | 100   | 100   | 100   | 100   | 100   | 99                  | 96   | 96     | 99      | 99    | 5.0  | -                                    |
| Uganda                                    | 36                     | 52   | 80    | 47    | 79  | 93    | 77    | 75  | 81                  | 60   | 60     | 61      | -     | 1.0  | -                                    |
| Ukraine                                   | 125                    | 98   | 100   | 94    | 99  | 100   | 98    | 100   | 98                  | 99   | 99     | 99      | 7     | -  | -                                    |
| United Arab Emirates                      | 152                    | -  | -     | -     | -   | -     | -     | 100x  | 98                  | 94   | 94     | 94      | 92    | -  | -                                    |
| United Kingdom                            | 161                    | 100  | 100   | 100   | 100   | 100   | 100   | -   | -                   | 94   | 94     | 85      | -     | 0.10   | -                                    |
| United States                             | 158                    | 100  | 100   | 100   | 100   | 100   | 100   | -   | -                   | 94   | 90     | 91      | 90    | 0.61   | -                                    |
| Uruguay                                   | 138                    | 98   | 98    | 93    | 94  | 95    | 85    | 100   | 99                  | 94   | 94     | 94      | 94    | 0.30   | -                                    |
| Uzbekistan                                | 68                     | 85   | 94    | 79    | 89  | 97    | 85    | 11  | 98                  | 97   | 99     | 99      | 8     | <0.1   | 19                                   |
| Vanuatu                                   | 81                     | 88   | 63    | 94    | 100   | 100   | 100   | 100   | 90                  | 93   | 87     | 94      | 69    | -  | -                                    |
| Venezuela                                 | 120                    | 83   | 85    | 70    | 68  | 71    | 48    | 100   | 94                  | 70   | 88     | 49      | 54    | 0.5  | -                                    |
| Viet Nam                                  | 88                     | 77   | 95    | 72    | 47  | 82    | 38    | 70  | 99                  | 98   | 97     | 97      | 96    | 0.30   | 20                                   |
| Yemen                                     | 46                     | 69   | 74    | 68    | 38  | 89    | 21    | 38  | 73                  | 76   | 76     | 79      | 21    | 0.12   | -                                    |
| Yugoslavia                                | 130                    | 98   | 99    | 97    | 100   | 100   | 99    | -   | 99                  | 93   | 93     | 90      | -     | 0.19   | -                                    |
| Zambia                                    | 10                     | 64   | 88    | 48    | 78  | 99    | 64    | 0x  | 92                  | 78   | 79     | 85      | -     | 21.5   | 8                                    |
| Zimbabwe                                  | 38                     | 83   | 100   | 73    | 62  | 71    | 57    | 100   | 80                  | 75   | 75     | 68      | 75    | 33.7   | 50                                   |

## REGIONAL SUMMARIES

|                              |     |     |     |     |     |     |    |    |    |    |    |    |      |    |
|------------------------------|-----|-----|-----|-----|-----|-----|----|----|----|----|----|----|------|----|
| Sub-Saharan Africa           | 57  | 83  | 44  | 53  | 73  | 43  | 58 | 73 | 54 | 52 | 58 | 6  | 8.6  | 24 |
| Middle East and North Africa | 87  | 95  | 77  | 83  | 93  | 70  | 92 | 88 | 87 | 87 | 89 | 66 | 0.30 | -  |
| South Asia                   | 85  | 94  | 80  | 34  | 67  | 22  | 99 | 76 | 65 | 70 | 59 | -  | 0.63 | -  |
| East Asia and Pacific        | 76  | 93  | 67  | 48  | 73  | 35  | 93 | 75 | 77 | 79 | 77 | 23 | 0.19 | 26 |
| Latin America and Caribbean  | 86  | 94  | 66  | 77  | 86  | 52  | 98 | 95 | 89 | 89 | 91 | 49 | 0.63 | -  |
| CEE/CIS and Baltic States    | 91  | 95  | 82  | 91  | 97  | 81  | 75 | 95 | 94 | 95 | 95 | 57 | 0.44 | 19 |
| Industrialized countries     | 100 | 100 | 100 | 100 | 100 | 100 | -  | 85 | 94 | 93 | 90 | 82 | 0.35 | -  |
| Developing countries         | 78  | 92  | 69  | 52  | 77  | 35  | 89 | 78 | 71 | 73 | 70 | 20 | 1.3  | 25 |
| Least developed countries    | 62  | 82  | 55  | 44  | 71  | 35  | 49 | 76 | 62 | 61 | 63 | 2  | 3.5  | -  |
| World                        | 82  | 95  | 71  | 61  | 85  | 40  | -  | 79 | 73 | 75 | 72 | 24 | 1.2  | -  |

Countries in each region are listed on page 114.

## DEFINITIONS OF THE INDICATORS

**Government funding of vaccines** – Percentage of vaccines routinely administered in a country to protect children that are financed by the national government (including loans).

**EPI** – Expanded Programme on Immunization: The immunizations in this programme include those against TB, DPT, polio and measles, as well as protecting babies against neonatal tetanus by vaccination of pregnant women. Other vaccines (e.g., against hepatitis B or yellow fever) may be included in the programme in some countries.

**DPT** – Diphtheria, pertussis (whooping cough) and tetanus.

**HepB3** – Percentage of infants that received three doses of hepatitis B vaccine.

**Adult HIV prevalence** – The estimated number of adults living with HIV/AIDS at the end of 2001 was divided by the 2001 adult population (aged 15-49).

**Oral rehydration rate** – Percentage of children under five with diarrhoea in the last two weeks who received increased fluids and continued feeding during the episode.

## MAIN DATA SOURCES

**Use of improved drinking water sources and adequate sanitation facilities** – UNICEF, World Health Organization (WHO), Multiple Indicator Cluster Surveys (MICS) and Demographic and Health Surveys (DHS).

**Government funding of vaccines** – UNICEF and WHO.

**Immunization** – UNICEF and WHO.

**Adult HIV prevalence** – Joint United Nations Programme on HIV/AIDS (UNAIDS).

**Oral rehydration** – UNICEF, MICS and DHS.

**NOTES** - Data not available.

x Indicates data that refer to years or periods other than those specified in the column heading, differ from the standard definition or refer to only part of a country.

\* Data refer to the most recent year available during the period specified in the column heading.

# TABLE 4. EDUCATION

| Countries and territories         | Under-5 mortality rank | Adult literacy rate |        |      |        | No. of sets per 1000 population 1997 |            | Primary school enrolment ratio |        |                |        | Net primary school attendance (%) (1992-2001*) |        | % of primary school entrants reaching grade 5 1995-99* | Secondary school enrolment ratio 1995-99* (gross) |        |
|-----------------------------------|------------------------|---------------------|--------|------|--------|--------------------------------------|------------|--------------------------------|--------|----------------|--------|--|--------|--|---|--------|
|                                   |                        | 1990                |        | 2000 |        | radio                                | television | 1995-99* (gross)               |        | 1995-99* (net) |        | male   | female |  | male  | female |
|                                   |                        | male                | female | male | female |                                      |            | male                           | female | male           | female |  |        |  |   |        |
| Afghanistan                       | 4                      | 40                  | 12     | 51   | 21     | 132                                  | 13         | 53                             | 5      | 42x            | 15x    | 36   | 11     | 49   | 32  | 11     |
| Albania                           | 98                     | -                   | -      | -    | -      | 259                                  | 129        | 110                            | 109    | 100            | 100    | 90   | 90     | 82x  | 75  | 77     |
| Algeria                           | 75                     | 66                  | 39     | 75   | 51     | 242                                  | 105        | 119                            | 110    | 99             | 96     | 98   | 96     | 95   | 65  | 69     |
| Andorra                           | 161                    | -                   | -      | -    | -      | 227                                  | 391        | -                              | -      | -              | -      | -  | -      | -  | -   | -      |
| Angola                            | 3                      | 56x                 | 29x    | -    | -      | 54                                   | 13         | 97                             | 81     | 60             | 52     | 64   | 65     | 4  | 18  | 13     |
| Antigua and Barbuda               | 144                    | 90                  | 87     | 80x  | 83x    | 542                                  | 463        | -                              | -      | -              | -      | -  | -      | -  | -   | -      |
| Argentina                         | 130                    | 96                  | 96     | 97   | 97     | 681                                  | 223        | 119                            | 119    | 100            | 100    | -  | -      | 95   | 91  | 97     |
| Armenia                           | 93                     | -                   | -      | 100x | 99x    | 239                                  | 232        | 92                             | 98     | -              | -      | -  | -      | -  | 85x   | 91x    |
| Australia                         | 164                    | -                   | -      | -    | -      | 1391                                 | 554        | 101                            | 101    | 95             | 95     | -  | -      | 99x  | 156   | 157    |
| Austria                           | 178                    | -                   | -      | -    | -      | 751                                  | 525        | 104                            | 103    | 90             | 91     | -  | -      | 96   | 101   | 97     |
| Azerbaijan                        | 48                     | 99                  | 96     | 99x  | 96x    | 23                                   | 22         | 97                             | 96     | 89             | 90     | 91   | 91     | 98   | 80  | 80     |
| Bahamas                           | 138                    | 94                  | 96     | 95   | 97     | 739                                  | 230        | 95                             | 92     | 88             | 88     | -  | -      | 78   | 88x   | 91x    |
| Bahrain                           | 138                    | 87                  | 75     | 91   | 83     | 580                                  | 472        | 102                            | 103    | 93             | 95     | 85   | 84     | 96   | 99  | 105    |
| Bangladesh                        | 58                     | 46                  | 23     | 52   | 29     | 50                                   | 6          | 98                             | 95     | 80             | 83     | 78   | 80     | 70   | 52  | 56     |
| Barbados                          | 144                    | 98                  | 96     | 98   | 97     | 888                                  | 285        | 109                            | 108    | 89             | 90     | -  | -      | -  | 99  | 103    |
| Belarus                           | 125                    | 99                  | 97     | 100  | 99     | 292                                  | 243        | 101                            | 96     | 87x            | 84x    | -  | -      | 96   | 96  | 93     |
| Belgium                           | 164                    | -                   | -      | -    | -      | 797                                  | 466        | 105                            | 104    | 100            | 100    | -  | -      | -  | 138   | 153    |
| Belize                            | 84                     | 70x                 | 70x    | 80x  | 80x    | 591                                  | 183        | 130                            | 125    | 100            | 100    | 92   | 90     | 78   | 72  | 72     |
| Benin                             | 24                     | 38                  | 16     | 52   | 24     | 110                                  | 11         | 103                            | 69     | 83             | 57     | 52   | 34     | 64   | 30  | 14     |
| Bhutan                            | 52                     | 51                  | 23     | 61   | 34     | 19                                   | 6          | 82                             | 62     | 58             | 47     | -  | -      | 87   | 7x  | 2x     |
| Bolivia                           | 58                     | 87                  | 70     | 92   | 79     | 675                                  | 116        | 115                            | 112    | 97             | 97     | 92   | 90     | 82   | 81  | 76     |
| Bosnia and Herzegovina            | 136                    | 92                  | 85     | 98x  | 89x    | 267                                  | 0          | 100                            | 100    | 100            | 100    | 98   | 98     | -  | -   | -      |
| Botswana                          | 42                     | 66                  | 70     | 74   | 80     | 154                                  | 20         | 109                            | 109    | 82             | 85     | 82   | 85     | 88   | 78  | 85     |
| Brazil                            | 92                     | 82                  | 81     | 85   | 85     | 434                                  | 223        | 170                            | 162    | 100            | 93     | 95   | 95     | 66   | 98  | 109    |
| Brunei Darussalam                 | 164                    | 91                  | 79     | 95   | 88     | 302                                  | 250        | 109                            | 104    | 90x            | 91x    | -  | -      | 95   | 105   | 116    |
| Bulgaria                          | 138                    | 98                  | 96     | 99   | 98     | 537                                  | 394        | 105                            | 102    | 96             | 94     | -  | -      | 91   | 93  | 91     |
| Burkina Faso                      | 12                     | 25                  | 8      | 33   | 13     | 34                                   | 9          | 51                             | 35     | 41             | 28     | 32   | 22     | 68   | 12  | 8      |
| Burundi                           | 14                     | 49                  | 28     | 56   | 41     | 69                                   | 4          | 69                             | 56     | 49             | 40     | 49   | 44     | 74x  | 8   | 6      |
| Cambodia                          | 30                     | -                   | -      | 79x  | 58x    | 128                                  | 9          | 109                            | 95     | 94             | 83     | 66   | 65     | 45   | 22  | 12     |
| Cameroon                          | 25                     | 72                  | 53     | 82   | 69     | 163                                  | 32         | 88                             | 74     | 81x            | 71x    | 76   | 71     | 51x  | 22  | 17     |
| Canada                            | 161                    | -                   | -      | -    | -      | 1067                                 | 710        | 98                             | 99     | 98             | 99     | -  | -      | 99x  | 102   | 103    |
| Cape Verde                        | 88                     | 75                  | 53     | 84   | 65     | 183                                  | 4          | 145                            | 143    | 98             | 99     | -  | -      | 91   | 54  | 56     |
| Central African Republic          | 19                     | 47                  | 21     | 60   | 35     | 83                                   | 5          | 68                             | 45     | 63             | 42     | 47   | 39     | 24x  | 15x   | 6x     |
| Chad                              | 11                     | 57                  | 29     | 67   | 41     | 236                                  | 1          | 87                             | 53     | 69             | 45     | 46   | 33     | 55   | 18  | 5      |
| Chile                             | 147                    | 94                  | 94     | 96   | 96     | 354                                  | 215        | 109                            | 105    | 89             | 88     | 90   | 89     | 100  | 87  | 88     |
| China                             | 85                     | 87                  | 68     | 92   | 77     | 335                                  | 321        | 105                            | 108    | 92             | 95     | 99   | 99     | 97   | 66  | 60     |
| Colombia                          | 118                    | 89                  | 88     | 92   | 92     | 524                                  | 115        | 113                            | 112    | 88             | 88     | 90   | 90     | 69   | 67  | 75     |
| Comoros                           | 57                     | 63x                 | 47x    | 78x  | 70x    | 141                                  | 2          | 91                             | 76     | 60             | 50     | 34   | 34     | 48   | 23  | 18     |
| Congo                             | 45                     | 77                  | 58     | 88   | 74     | 126                                  | 12         | 82                             | 75     | 99x            | 93x    | -  | -      | 55   | 62  | 45     |
| Congo, Democratic Republic of the | 9                      | -                   | -      | 83x  | 54x    | 376                                  | 135        | 49                             | 44     | 33             | 32     | 55   | 48     | 64   | 24  | 13     |
| Cook Islands                      | 118                    | -                   | -      | -    | -      | 711                                  | 193        | 113                            | 110    | 99             | 97     | -  | -      | 51   | -   | -      |
| Costa Rica                        | 149                    | 94                  | 94     | 95   | 96     | 261                                  | 140        | 109                            | 106    | 91             | 91     | 92   | 91     | 89   | 48  | 54     |
| Côte d'Ivoire                     | 20                     | 43                  | 23     | 55   | 38     | 161                                  | 64         | 88                             | 66     | 67             | 50     | 61   | 52     | 70   | 28  | 15     |
| Croatia                           | 158                    | 99                  | 94     | 99   | 97     | 337                                  | 272        | 91                             | 89     | 72             | 72     | -  | -      | 98x  | 83  | 86     |
| Cuba                              | 152                    | 95                  | 95     | 96   | 96     | 352                                  | 239        | 106                            | 102    | 100            | 99     | 93   | 95     | 95   | 80  | 84     |
| Cyprus                            | 164                    | 98                  | 90     | 99   | 95     | 406                                  | 325        | 82                             | 83     | 81             | 82     | -  | -      | 100  | 81  | 85     |
| Czech Republic                    | 178                    | -                   | -      | -    | -      | 803                                  | 531        | 104                            | 104    | 90             | 90     | -  | -      | 98   | 87  | 89     |
| Denmark                           | 189                    | -                   | -      | -    | -      | 1145                                 | 594        | 102                            | 102    | 99             | 99     | -  | -      | 100x   | 125   | 131    |
| Djibouti                          | 28                     | 55                  | 27     | 65   | 38     | 84                                   | 45         | 43                             | 31     | 35             | 26     | 73y  | 62y    | 77   | 13  | 17     |
| Dominica                          | 143                    | -                   | -      | -    | -      | 647                                  | 78         | 93                             | 105    | 89             | 89     | -  | -      | 91   | -   | -      |
| Dominican Republic                | 76                     | 80                  | 79     | 84   | 84     | 178                                  | 95         | 126                            | 123    | 90             | 91     | 91   | 92     | 84   | 60  | 73     |
| East Timor                        | 36                     | -                   | -      | -    | -      | -                                    | -          | -                              | -      | -              | -      | -  | -      | -  | -   | -      |
| Ecuador                           | 98                     | 91                  | 86     | 94   | 90     | 348                                  | 130        | 114                            | 114    | 97             | 98     | 90   | 90     | 72   | 56  | 57     |
| Egypt                             | 83                     | 60                  | 34     | 67   | 44     | 317                                  | 119        | 104                            | 96     | 95             | 90     | 88   | 84     | 92   | 86  | 81     |
| El Salvador                       | 85                     | 76                  | 69     | 82   | 76     | 465                                  | 677        | 113                            | 109    | 74             | 87     | -  | -      | 77   | 50  | 50     |
| Equatorial Guinea                 | 26                     | 85                  | 61     | 92   | 75     | 428                                  | 10         | 137                            | 112    | 88             | 70     | 38   | 38     | 16   | 43  | 19     |
| Eritrea                           | 41                     | -                   | -      | -    | -      | 100                                  | 0          | 67                             | 55     | 43             | 37     | 39y  | 35y    | 95   | 33  | 23     |
| Estonia                           | 147                    | -                   | -      | 98x  | 98x    | 698                                  | 418        | 105                            | 101    | 98             | 97     | -  | -      | 96x  | 105   | 108    |
| Ethiopia                          | 21                     | 36                  | 21     | 44   | 33     | 202                                  | 6          | 85                             | 57     | 34             | 28     | 33   | 28     | 51   | 6   | 4      |

|  | Under-5 mortality rank | Adult literacy rate |        |      |        | No. of sets per 1000 population 1997 |            | Primary school enrolment ratio |        |                |        | Net primary school attendance (%) (1992-2001*) |        | % of primary school entrants reaching grade 5 1995-99* | Secondary school enrolment ratio 1995-99* (gross) |        |
|--|------------------------|---------------------|--------|------|--------|--------------------------------------|------------|--------------------------------|--------|----------------|--------|--|--------|--|---|--------|
|  |                        | 1990                |        | 2000 |        | radio                                | television | 1995-99* (gross)               |        | 1995-99* (net) |        | male   | female |  | male  | female |
|  |                        | male                | female | male | female |                                      |            | male                           | female | male           | female |  |        |  |   |        |
| Fiji                                   | 121                    | 92                  | 86     | 95   | 91     | 636                                  | 27         | 111                            | 110    | 99             | 100    | -  | -      | 92   | 64x   | 65x    |
| Finland                                | 178                    | -                   | -      | -    | -      | 1498                                 | 622        | 101                            | 100    | 100            | 100    | -  | -      | 100  | 119   | 130    |
| France                                 | 164                    | -                   | -      | -    | -      | 946                                  | 595        | 106                            | 105    | 100            | 100    | -  | -      | 98   | 109   | 109    |
| Gabon                                  | 56                     | 68                  | 45     | 80   | 62     | 183                                  | 55         | 134                            | 130    | 82             | 83     | 93   | 93     | 59   | 58  | 51     |
| Gambia                                 | 35                     | 32                  | 20     | 44   | 30     | 165                                  | 4          | 79                             | 71     | 75             | 65     | 49   | 44     | 74   | 31  | 23     |
| Georgia                                | 102                    | 100                 | 98     | 100x | 99x    | 590                                  | 502        | 95                             | 95     | 95             | 95     | 98   | 98     | 98   | 77  | 78     |
| Germany                                | 178                    | -                   | -      | -    | -      | 948                                  | 567        | 106                            | 105    | 86             | 87     | -  | -      | 100x   | 100   | 99     |
| Ghana                                  | 49                     | 69                  | 46     | 79   | 61     | 236                                  | 93         | 82                             | 74     | 51             | 50     | 75   | 74     | 80x  | 45x   | 29x    |
| Greece                                 | 178                    | 98                  | 92     | 99   | 96     | 475                                  | 240        | 99                             | 99     | 97             | 97     | -  | -      | 100x   | 93  | 96     |
| Grenada                                | 110                    | -                   | -      | -    | -      | 615                                  | 353        | 133                            | 118    | 98             | 97     | -  | -      | -  | -   | -      |
| Guatemala                              | 72                     | 69                  | 54     | 76   | 61     | 79                                   | 61         | 105                            | 94     | 83             | 79     | 80   | 75     | 51   | 35  | 30     |
| Guinea                                 | 22                     | 45                  | 18     | 55   | 27     | 49                                   | 12         | 75                             | 51     | 56             | 41     | 46   | 33     | 87   | 20  | 7      |
| Guinea-Bissau                          | 8                      | 42                  | 12     | 53   | 21     | 43                                   | -          | 99                             | 66     | 63             | 45     | 44   | 38     | 20x  | 26  | 14     |
| Guyana                                 | 64                     | 98                  | 96     | 99   | 98     | 498                                  | 55         | 117                            | 115    | 100            | 94     | 97   | 92     | 91   | 80  | 82     |
| Haiti                                  | 38                     | 42                  | 37     | 51   | 46     | 53                                   | 5          | 153                            | 155    | 78             | 83     | 52   | 57     | 41   | 21x   | 20x    |
| Holy See                               | -                      | -                   | -      | -    | -      | -                                    | -          | -                              | -      | -              | -      | -  | -      | -  | -   | -      |
| Honduras                               | 88                     | 74                  | 76     | 78x  | 85x    | 410                                  | 95         | 96                             | 98     | 85             | 86     | -  | -      | 58   | 29x   | 37x    |
| Hungary                                | 152                    | 99                  | 99     | 100  | 99     | 690                                  | 435        | 104                            | 103    | 90             | 90     | -  | -      | 98x  | 98  | 99     |
| Iceland                                | 189                    | -                   | -      | -    | -      | 950                                  | 358        | 102                            | 101    | 100            | 100    | -  | -      | 99x  | 105   | 113    |
| India                                  | 54                     | 62                  | 34     | 69   | 42     | 120                                  | 65         | 99                             | 82     | 78             | 64     | 79   | 73     | 60   | 59  | 39     |
| Indonesia                              | 77                     | 88                  | 75     | 92   | 82     | 155                                  | 68         | 110                            | 106    | 93             | 90     | 93   | 93     | 90   | 56  | 54     |
| Iran (Islamic Republic of)             | 81                     | 73                  | 55     | 84   | 70     | 263                                  | 71         | 89                             | 86     | 75             | 74     | 99   | 96     | 98   | 83  | 77     |
| Iraq                                   | 33                     | -                   | -      | 71x  | 45x    | 229                                  | 83         | 111                            | 91     | 100            | 86     | 88   | 80     | 72x  | 47  | 29     |
| Ireland                                | 164                    | -                   | -      | -    | -      | 697                                  | 402        | 120                            | 119    | 90             | 90     | -  | -      | 95   | 119   | 127    |
| Israel                                 | 164                    | 97                  | 92     | 98   | 94     | 524                                  | 288        | 115                            | 114    | 100            | 100    | -  | -      | 100x   | 93  | 93     |
| Italy                                  | 164                    | 98                  | 97     | 99   | 98     | 880                                  | 528        | 102                            | 101    | 100            | 100    | -  | -      | 99   | 95  | 91     |
| Jamaica                                | 125                    | 78                  | 87     | 83   | 91     | 483                                  | 183        | 96                             | 102    | 94             | 94     | 92   | 94     | 96x  | 85  | 82     |
| Japan                                  | 178                    | -                   | -      | -    | -      | 956                                  | 686        | 101                            | 101    | 100            | 100    | -  | -      | 100x   | 101   | 103    |
| Jordan                                 | 94                     | 90                  | 72     | 95   | 84     | 271                                  | 82         | 101                            | 101    | 93             | 94     | 95   | 94     | 98   | 86  | 89     |
| Kazakhstan                             | 61                     | 98                  | 98     | 98x  | 98x    | 395                                  | 237        | 100                            | 100    | 100            | 100    | 87   | 88     | 92   | 87  | 87     |
| Kenya                                  | 40                     | 81                  | 61     | 89   | 76     | 108                                  | 26         | 89                             | 88     | 92x            | 89x    | 73   | 75     | 68x  | 31  | 28     |
| Kiribati                               | 67                     | -                   | -      | -    | -      | 212                                  | 15         | -                              | -      | -              | -      | -  | -      | 95   | -   | -      |
| Korea, Democratic People's Republic of | 73                     | -                   | -      | 100x | 100x   | 146                                  | 52         | 108x                           | 101x   | -              | -      | -  | -      | 100  | -   | -      |
| Korea, Republic of                     | 178                    | 98                  | 93     | 99   | 96     | 1039                                 | 348        | 98                             | 99     | 97             | 98     | -  | -      | 99   | 98  | 97     |
| Kuwait                                 | 151                    | 80                  | 73     | 84   | 80     | 678                                  | 505        | 85                             | 84     | 68             | 65     | -  | -      | 97   | 65  | 65     |
| Kyrgyzstan                             | 71                     | -                   | -      | 99x  | 95x    | 113                                  | 45         | 103                            | 100    | 82             | 82     | 95   | 95     | 89   | 82  | 84     |
| Lao People's Democratic Republic       | 49                     | 65                  | 39     | 74   | 50     | 145                                  | 10         | 124                            | 106    | 85             | 78     | 71   | 67     | 54   | 42  | 29     |
| Latvia                                 | 121                    | 100                 | 99     | 100  | 100    | 715                                  | 496        | 102                            | 100    | 93             | 93     | -  | -      | 96   | 88  | 90     |
| Lebanon                                | 95                     | 88                  | 73     | 92   | 80     | 907                                  | 375        | 102                            | 98     | 71             | 71     | 90   | 90     | 91   | 75  | 82     |
| Lesotho                                | 34                     | 66                  | 89     | 74   | 94     | 52                                   | 27         | 99                             | 108    | 55             | 62     | 62   | 68     | 68   | 24  | 32     |
| Liberia                                | 5                      | 55                  | 23     | 70   | 37     | 329                                  | 29         | 137                            | 99     | 100            | 64     | 59y  | 53y    | 33   | 27  | 18     |
| Libyan Arab Jamahiriya                 | 130                    | 83                  | 51     | 91   | 68     | 259                                  | 140        | 110x                           | 110x   | 97x            | 96x    | -  | -      | 89x  | 75  | 84     |
| Liechtenstein                          | 149                    | -                   | -      | -    | -      | 658                                  | 364        | -                              | -      | -              | -      | -  | -      | -  | -   | -      |
| Lithuania                              | 152                    | 99                  | 98     | 100  | 99     | 513                                  | 459        | 101                            | 100    | 94             | 94     | -  | -      | 98   | 115   | 71     |
| Luxembourg                             | 178                    | -                   | -      | -    | -      | 683                                  | 391        | 99                             | 101    | 95             | 97     | -  | -      | -  | 93  | 98     |
| Madagascar                             | 32                     | -                   | -      | 50x  | 44x    | 209                                  | 22         | 104                            | 100    | 66             | 67     | 50   | 53     | 51   | 15  | 14     |
| Malawi                                 | 15                     | 69                  | 36     | 75   | 47     | 258                                  | -          | 158                            | 158    | 66             | 71     | 77   | 79     | 34   | 50  | 40     |
| Malaysia                               | 158                    | 87                  | 75     | 91   | 84     | 434                                  | 172        | 102                            | 100    | 100            | 100    | 94   | 94     | 99   | 94  | 104    |
| Maldives                               | 58                     | 94                  | 94     | 96   | 96     | 129                                  | 28         | 133                            | 134    | 100            | 100    | 99   | 97     | 98   | 41  | 44     |
| Mali                                   | 6                      | 32                  | 18     | 48   | 33     | 55                                   | 4          | 65                             | 45     | 51             | 36     | 33   | 25     | 84   | 20  | 10     |
| Malta                                  | 178                    | 88                  | 89     | 91   | 93     | 669                                  | 735        | 106                            | 107    | 99             | 100    | -  | -      | 100  | 95  | 85     |
| Marshall Islands                       | 70                     | -                   | -      | -    | -      | -                                    | -          | 134                            | 133    | 100            | 100    | -  | -      | -  | -   | -      |
| Mauritania                             | 15                     | 46                  | 24     | 51   | 29     | 146                                  | 25         | 87                             | 82     | 63             | 59     | 55   | 53     | 66   | 21  | 15     |
| Mauritius                              | 130                    | 85                  | 75     | 88   | 81     | 371                                  | 228        | 108                            | 109    | 94             | 94     | 97   | 98     | 100  | 108   | 106    |
| Mexico                                 | 102                    | 90                  | 85     | 93   | 89     | 329                                  | 272        | 114                            | 113    | 100            | 100    | 97   | 97     | 85   | 72  | 75     |
| Micronesia (Federated States of)       | 114                    | -                   | -      | -    | -      | -                                    | -          | -                              | -      | -              | -      | -  | -      | -  | -   | -      |
| Moldova, Republic of                   | 95                     | 99                  | 95     | 100  | 98     | 736                                  | 288        | 96                             | 95     | -              | -      | 86   | 87     | 93   | 78  | 81     |

# TABLE 4. EDUCATION

|                                  | Under-5 mortality rank | Adult literacy rate |        |      |        | No. of sets per 1000 population 1997 |            | Primary school enrolment ratio |        |                |        | Net primary school attendance (%) (1992-2001*) |        | % of primary school entrants reaching grade 5 1995-99* | Secondary school enrolment ratio 1995-99* (gross) |        |
|----------------------------------|------------------------|---------------------|--------|------|--------|--------------------------------------|------------|--------------------------------|--------|----------------|--------|--|--------|--|---|--------|
|                                  |                        | 1990                |        | 2000 |        | radio                                | television | 1995-99* (gross)               |        | 1995-99* (net) |        | male   | female |  | male  | female |
|                                  |                        | male                | female | male | female |                                      |            | male                           | female | male           | female |  |        |  |   |        |
| Monaco                           | 178                    | -                   | -      | -    | -      | 1039                                 | 768        | -                              | -      | -              | -      | -  | -      | 98x  | -   | -      |
| Mongolia                         | 61                     | 99                  | 99     | 99   | 99     | 142                                  | 47         | 97                             | 100    | 88             | 91     | 85   | 84     | -  | 58  | 71     |
| Morocco                          | 78                     | 53                  | 25     | 62   | 36     | 247                                  | 115        | 98                             | 83     | 79             | 70     | 65   | 47     | 82   | 44  | 35     |
| Mozambique                       | 12                     | 49                  | 18     | 60   | 28     | 40                                   | 5          | 98                             | 73     | 55             | 46     | 63   | 56     | 46   | 17  | 11     |
| Myanmar                          | 43                     | 87                  | 74     | 89   | 81     | 96                                   | 6          | 91                             | 91     | 84             | 83     | 68   | 69     | 69   | 35  | 35     |
| Namibia                          | 69                     | 77                  | 72     | 83   | 81     | 143                                  | 37         | 112                            | 114    | 77             | 82     | 84   | 87     | 83   | 56  | 63     |
| Nauru                            | 98                     | -                   | -      | 93x  | 96x    | 609                                  | 46         | 104                            | 98     | 99             | 97     | -  | -      | -  | -   | -      |
| Nepal                            | 55                     | 48                  | 14     | 59   | 24     | 38                                   | 6          | 140                            | 104    | 79             | 60     | 71   | 60     | 44   | 62  | 45     |
| Netherlands                      | 164                    | -                   | -      | -    | -      | 980                                  | 519        | 109                            | 107    | 100            | 99     | -  | -      | 96x  | 127   | 122    |
| New Zealand                      | 164                    | -                   | -      | -    | -      | 997                                  | 512        | 101                            | 101    | 100            | 100    | -  | -      | 97   | 110   | 116    |
| Nicaragua                        | 79                     | 61                  | 61     | 64   | 64     | 265                                  | 68         | 104                            | 105    | 79             | 80     | 80   | 80     | 55   | 55  | 65     |
| Niger                            | 2                      | 18                  | 5      | 23   | 8      | 70                                   | 13         | 39                             | 26     | 21             | 22     | 36   | 25     | 61   | 8   | 5      |
| Nigeria                          | 15                     | 59                  | 38     | 72   | 56     | 226                                  | 66         | 75                             | 65     | 38             | 33     | 58   | 54     | 80x  | 33x   | 28x    |
| Niue                             | -                      | -                   | -      | -    | -      | 586                                  | -          | 100                            | 100    | 100            | 100    | -  | -      | -  | -   | -      |
| Norway                           | 189                    | -                   | -      | -    | -      | 917                                  | 462        | 101                            | 101    | 100            | 100    | -  | -      | 100x   | 116   | 118    |
| Occupied Palestinian Territory   | 114                    | -                   | -      | -    | -      | -                                    | -          | 108                            | 109    | 99             | 99     | 93   | 94     | 98   | 78  | 83     |
| Oman                             | 146                    | 68                  | 38     | 80   | 62     | 607                                  | 694        | 75                             | 71     | 66             | 65     | 90   | 88     | 94   | 68  | 67     |
| Pakistan                         | 43                     | 49                  | 20     | 58   | 28     | 94                                   | 22         | 99                             | 69     | 84             | 60     | 50   | 41     | 50   | 46  | 32     |
| Palau                            | 102                    | -                   | -      | -    | -      | 663                                  | 608        | -                              | -      | -              | -      | -  | -      | -  | -   | -      |
| Panama                           | 110                    | 89                  | 88     | 93   | 91     | 299                                  | 187        | 111                            | 108    | 98             | 98     | -  | -      | 92   | 67  | 71     |
| Papua New Guinea                 | 53                     | 78                  | 57     | 84   | 68     | 91                                   | 9          | 88                             | 80     | 88             | 80     | 32y  | 31y    | 60   | 24  | 18     |
| Paraguay                         | 98                     | 92                  | 88     | 94   | 92     | 182                                  | 101        | 115                            | 111    | 91             | 92     | 92   | 80     | 76   | 56  | 58     |
| Peru                             | 85                     | 92                  | 79     | 95   | 85     | 273                                  | 126        | 128                            | 127    | 100            | 100    | 87y  | 87y    | 88   | 83  | 78     |
| Philippines                      | 88                     | 93                  | 92     | 96   | 95     | 161                                  | 52         | 118                            | 119    | 98             | 93     | 89   | 91     | 69   | 73  | 79     |
| Poland                           | 152                    | 100                 | 100    | 100  | 100    | 522                                  | 337        | 102                            | 100    | 97             | 97     | -  | -      | 98x  | 99  | 98     |
| Portugal                         | 164                    | 91                  | 84     | 95   | 90     | 306                                  | 336        | 125                            | 120    | 100            | 100    | -  | -      | 97   | 108   | 116    |
| Qatar                            | 138                    | 77                  | 76     | 80   | 83     | 450                                  | 404        | 108                            | 104    | 95             | 96     | -  | -      | 88   | 78  | 107    |
| Romania                          | 121                    | 99                  | 95     | 99   | 97     | 319                                  | 233        | 103                            | 101    | 93             | 93     | 96   | 96     | 96   | 80  | 81     |
| Russian Federation               | 121                    | 100                 | 97     | 100  | 99     | 417                                  | 410        | 108x                           | 107x   | 93x            | 93x    | -  | -      | -  | 79  | 85     |
| Rwanda                           | 15                     | 63                  | 44     | 74   | 61     | 101                                  | 0          | 124                            | 121    | 97             | 97     | 68   | 68     | 45   | 12  | 12     |
| Saint Kitts and Nevis            | 114                    | -                   | -      | -    | -      | 701                                  | 264        | 101                            | 94     | 92             | 86     | -  | -      | -  | -   | -      |
| Saint Lucia                      | 130                    | -                   | -      | -    | -      | 746                                  | 213        | 117                            | 111    | 95             | 96     | -  | -      | 95x  | 85  | 104    |
| Saint Vincent and the Grenadines | 110                    | -                   | -      | -    | -      | 690                                  | 163        | 99                             | 83     | 90             | 78     | -  | -      | -  | -   | -      |
| Samoa                            | 110                    | -                   | -      | -    | -      | 1035                                 | 61         | 104                            | 101    | 97             | 96     | -  | -      | 83   | 73  | 80     |
| San Marino                       | 164                    | -                   | -      | -    | -      | 620x                                 | 358x       | -                              | -      | -              | -      | -  | -      | 100  | -   | -      |
| Sao Tome and Principe            | 63                     | 85x                 | 62x    | -    | -      | 272                                  | 163        | -                              | -      | -              | -      | 73   | 74     | -  | -   | -      |
| Saudi Arabia                     | 105                    | 78                  | 51     | 84   | 67     | 321                                  | 262        | 70                             | 67     | 60             | 56     | -  | -      | 95   | 72  | 65     |
| Senegal                          | 30                     | 38                  | 19     | 47   | 28     | 141                                  | 41         | 78                             | 68     | 66             | 58     | 51   | 44     | 77   | 24  | 15     |
| Seychelles                       | 137                    | -                   | -      | 87x  | 89x    | 560                                  | 145        | 101                            | 101    | 100            | 100    | -  | -      | 100  | -   | -      |
| Sierra Leone                     | 1                      | 40                  | 14     | 51   | 23     | 253                                  | 12         | 68                             | 63     | 68             | 63     | 39   | 34     | -  | 26  | 22     |
| Singapore                        | 189                    | 95                  | 83     | 96   | 88     | 744                                  | 388        | 95                             | 93     | 93x            | 92x    | -  | -      | 100x   | 70  | 77     |
| Slovakia                         | 152                    | 100                 | 100    | 100  | 100    | 581                                  | 488        | 99                             | 98     | -              | -      | -  | -      | 97x  | 86  | 87     |
| Slovenia                         | 178                    | -                   | -      | 100x | 100x   | 403                                  | 356        | 98                             | 97     | 94             | 93     | -  | -      | 98x  | 97  | 100    |
| Solomon Islands                  | 114                    | -                   | -      | -    | -      | 141                                  | 6          | 104x                           | 90x    | -              | -      | -  | -      | 81   | 21x   | 14x    |
| Somalia                          | 7                      | 36x                 | 14x    | -    | -      | 53                                   | 15         | 18x                            | 9x     | 13x            | 7x     | 13   | 11     | -  | 10x   | 6x     |
| South Africa                     | 66                     | 82                  | 80     | 86   | 84     | 355                                  | 134        | 121                            | 117    | 95             | 96     | -  | -      | 76   | 86  | 95     |
| Spain                            | 164                    | 98                  | 95     | 99   | 97     | 331                                  | 409        | 105                            | 105    | 100            | 100    | -  | -      | 98x  | 110   | 116    |
| Sri Lanka                        | 130                    | 93                  | 85     | 94   | 89     | 211                                  | 84         | 107                            | 104    | 97             | 97     | -  | -      | 97   | 70  | 74     |
| Sudan                            | 46                     | 59                  | 31     | 68   | 46     | 272                                  | 86         | 59                             | 51     | 49             | 41     | 54   | 52     | 87   | 22  | 36     |
| Suriname                         | 95                     | 94                  | 89     | 96   | 93     | 728                                  | 153        | 129x                           | 125x   | 100x           | 100x   | 88   | 91     | 99x  | 50x   | 58x    |
| Swaziland                        | 27                     | 74                  | 70     | 81   | 79     | 168                                  | 23         | 128                            | 121    | 92             | 94     | 71   | 71     | 76   | 60  | 60     |
| Sweden                           | 193                    | -                   | -      | -    | -      | 932                                  | 519        | 108                            | 111    | 100            | 100    | -  | -      | 97   | 135   | 172    |
| Switzerland                      | 164                    | 82x                 | 80x    | -    | -      | 979                                  | 457        | 108                            | 107    | 100            | 99     | -  | -      | 100x   | 103   | 96     |
| Syrian Arab Republic             | 105                    | 82                  | 47     | 88   | 60     | 278                                  | 70         | 108                            | 99     | 96             | 89     | 99   | 98     | 92   | 44  | 39     |
| Tajikistan                       | 64                     | 99                  | 97     | 100  | 99     | 143                                  | 3          | 109                            | 101    | 90             | 83     | 83   | 84     | -  | 82  | 70     |
| Tanzania, United Republic of     | 23                     | 76                  | 51     | 84   | 67     | 280                                  | 3          | 63                             | 63     | 46             | 48     | 47   | 51     | 81   | 6   | 5      |
| Thailand                         | 105                    | 96                  | 91     | 97   | 94     | 234                                  | 254        | 96                             | 91     | 83             | 80     | -  | -      | 97   | 78  | 80     |

|                       | Under-5 mortality rank | Adult literacy rate |        |      |        | No. of sets per 1000 population 1997 |            | Primary school enrolment ratio |        |                |        | Net primary school attendance (%) (1992-2001*) |        | % of primary school entrants reaching grade 5 1995-99* | Secondary school enrolment ratio 1995-99* (gross) |        |
|-----------------------|------------------------|---------------------|--------|------|--------|--------------------------------------|------------|--------------------------------|--------|----------------|--------|--|--------|--|---|--------|
|                       |                        | 1990                |        | 2000 |        | radio                                | television | 1995-99* (gross)               |        | 1995-99* (net) |        | male   | female |  | male  | female |
|                       |                        | male                | female | male | female |                                      |            | male                           | female | male           | female |  |        |  |   |        |
| The former Yugoslav   |                        |                     |        |      |        |                                      |            |                                |        |                |        |  |        |  |   |        |
| Republic of Macedonia | 109                    | 97x                 | 91x    | -    | -      | 206                                  | 257        | 101                            | 100    | 94             | 93     | -  | -      | 95   | 85  | 82     |
| Togo                  | 29                     | 61                  | 29     | 72   | 43     | 219                                  | 17         | 139                            | 109    | 100            | 82     | 67   | 59     | 52   | 50  | 22     |
| Tonga                 | 125                    | -                   | -      | -    | -      | 619                                  | 21         | 124                            | 120    | 98             | 93     | -  | -      | 92   | -   | -      |
| Trinidad and Tobago   | 125                    | 98                  | 96     | 99   | 98     | 533                                  | 333        | 105                            | 103    | 93             | 93     | -  | -      | 96   | 75  | 82     |
| Tunisia               | 108                    | 72                  | 46     | 81   | 60     | 224                                  | 100        | 121                            | 115    | 99             | 97     | 95   | 93     | 92   | 73  | 76     |
| Turkey                | 79                     | 90                  | 69     | 94   | 77     | 178                                  | 330        | 98                             | 86     | 93             | 82     | 73   | 70     | 99   | 67  | 48     |
| Turkmenistan          | 51                     | 99x                 | 97x    | -    | -      | 289                                  | 194        | -                              | -      | -              | -      | 81y  | 80y    | -  | -   | -      |
| Tuvalu                | 74                     | -                   | -      | 98x  | 98x    | 384                                  | -          | 100                            | 100    | 100            | 100    | -  | -      | 96   | -   | -      |
| Uganda                | 36                     | 69                  | 43     | 78   | 57     | 130                                  | 16         | 129                            | 114    | 92             | 83     | 69   | 66     | 45   | 15  | 9      |
| Ukraine               | 125                    | -                   | -      | 98x  | 99x    | 882                                  | 353        | 87x                            | 86x    | -              | -      | -  | -      | 98x  | 87  | 99     |
| United Arab Emirates  | 152                    | 78                  | 84     | 85x  | 93x    | 355                                  | 134        | 95                             | 94     | 78             | 79     | -  | -      | 92   | 70  | 80     |
| United Kingdom        | 161                    | -                   | -      | -    | -      | 1443                                 | 521        | 99                             | 99     | 99             | 99     | -  | -      | -  | 146   | 169    |
| United States         | 158                    | -                   | -      | -    | -      | 2116                                 | 806        | 101                            | 99     | 95             | 95     | -  | -      | 99x  | 94  | 95     |
| Uruguay               | 138                    | 96                  | 97     | 97   | 98     | 603                                  | 239        | 113                            | 111    | 93             | 94     | -  | -      | 86   | 84  | 99     |
| Uzbekistan            | 68                     | 95                  | 95     | 99x  | 99x    | 465                                  | 276        | 100                            | 100    | 87             | 89     | 78   | 78     | -  | 99x   | 87x    |
| Vanuatu               | 81                     | -                   | -      | -    | -      | 350                                  | 14         | 113                            | 122    | 100            | 92     | -  | -      | 65   | 31  | 26     |
| Venezuela             | 120                    | 91                  | 89     | 93   | 93     | 472                                  | 180        | 103                            | 101    | 84             | 92     | -  | -      | 91   | 54  | 65     |
| Viet Nam              | 88                     | 94                  | 85     | 96   | 91     | 107                                  | 47         | 110                            | 107    | 95             | 94     | 94   | 93     | 83   | 68  | 61     |
| Yemen                 | 46                     | 55                  | 13     | 67   | 25     | 64                                   | 29         | 98                             | 56     | 76             | 45     | 75y  | 40y    | 74   | 69  | 25     |
| Yugoslavia            | 130                    | 97x                 | 88x    | 99x  | 97x    | 296                                  | 259        | 65                             | 67     | 50             | 51     | 98   | 96     | 100x   | 59  | 62     |
| Zambia                | 10                     | 79                  | 59     | 85   | 71     | 120                                  | 32         | 81                             | 76     | 67             | 66     | 62   | 62     | 78   | 29  | 22     |
| Zimbabwe              | 38                     | 91                  | 83     | 96   | 90     | 102                                  | 33         | 98                             | 95     | 80             | 80     | 80   | 82     | 73   | 48  | 43     |

## REGIONAL SUMMARIES

|                              |    |    |    |    |      |     |     |     |    |    |    |    |    |     |     |
|------------------------------|----|----|----|----|------|-----|-----|-----|----|----|----|----|----|-----|-----|
| Sub-Saharan Africa           | 60 | 41 | 69 | 54 | 199  | 47  | 85  | 74  | 54 | 49 | 55 | 52 | 61 | 26  | 22  |
| Middle East and North Africa | 67 | 41 | 75 | 54 | 275  | 114 | 94  | 83  | 80 | 73 | 86 | 79 | 91 | 67  | 62  |
| South Asia                   | 60 | 32 | 66 | 40 | 110  | 53  | 99  | 81  | 79 | 66 | 74 | 68 | 59 | 57  | 40  |
| East Asia and Pacific        | 88 | 72 | 93 | 80 | 304  | 252 | 106 | 107 | 92 | 93 | 95 | 95 | 93 | 65  | 61  |
| Latin America and Caribbean  | 87 | 84 | 89 | 87 | 409  | 204 | 134 | 130 | 96 | 94 | 93 | 92 | 76 | 80  | 86  |
| CEE/CIS and Baltic States    | 98 | 93 | 99 | 96 | 442  | 339 | 100 | 95  | 92 | 88 | 81 | 79 | 97 | 81  | 80  |
| Industrialized countries     | -  | -  | -  | -  | 1322 | 641 | 102 | 101 | 97 | 97 | -  | -  | -  | 105 | 108 |
| Developing countries         | 77 | 58 | 82 | 66 | 245  | 157 | 103 | 94  | 82 | 76 | 80 | 77 | 76 | 60  | 53  |
| Least developed countries    | 53 | 31 | 61 | 40 | 142  | 23  | 88  | 74  | 62 | 57 | 57 | 52 | 62 | 31  | 26  |
| World                        | 82 | 69 | 85 | 74 | 417  | 240 | 103 | 95  | 83 | 78 | 81 | 77 | 77 | 66  | 61  |

Countries in each region are listed on page 114.

## DEFINITIONS OF THE INDICATORS

**Adult literacy rate** – Percentage of persons aged 15 and over who can read and write.

**Gross primary or secondary school enrolment ratio** – The number of children enrolled in a level (primary or secondary), regardless of age, divided by the population of the age group that officially corresponds to the same level.

**Net primary school enrolment ratio** – The number of children enrolled in primary school who belong to the age group that officially corresponds to primary schooling, divided by the total population of the same age group.

**Net primary school attendance** – Percentage of children in the age group that officially corresponds to primary schooling who attend primary school. These data come from national household surveys.

**Primary school entrants reaching grade five** – Percentage of the children entering the first grade of primary school who eventually reach grade five.

## MAIN DATA SOURCES

**Adult literacy** – United Nations Educational, Scientific and Cultural Organization (UNESCO), including the Education for All 2000 Assessment.

**Radio and television** – UNESCO.

**Primary and secondary school enrolment** – UNESCO, including the Education for All 2000 Assessment.

**Net primary school attendance** – Demographic and Health Surveys (DHS) and Multiple Indicator Cluster Surveys (MICS).

**Reaching grade five** – UNESCO, including the Education for All 2000 Assessment.

- NOTES**
- Data not available.
  - x Indicates data that refer to years or periods other than those specified in the column heading, differ from the standard definition or refer to only part of a country.
  - y Indicates data that differ from the standard definition or refer to only part of a country, but are included in the calculation of regional and global averages.
  - \* Data refer to the most recent year available during the period specified in the column heading.

# TABLE 5. DEMOGRAPHIC INDICATORS

| Countries and territories         | Under-5 mortality rank | Population (thousands) 2001 |         | Population annual growth rate (%) |           | Crude death rate |      | Crude birth rate |      | Life expectancy |      | Total fertility rate 2001 | % of population urbanized 2001 | Average annual growth rate of urban population (%) |           |
|-----------------------------------|------------------------|-----------------------------|---------|-----------------------------------|-----------|------------------|------|------------------|------|-----------------|------|---------------------------|--------------------------------|--|-----------|
|                                   |                        | under 18                    | under 5 | 1970-90                           | 1990-2001 | 1970             | 2001 | 1970             | 2001 | 1970            | 2001 |                           |                                | 1970-90  | 1990-2001 |
|                                   |                        |                             |         |                                   |           |                  |      |                  |      |                 |      |                           |                                |  |           |
| Afghanistan                       | 4                      | 11219                       | 3928    | 0.4                               | 4.5       | 26               | 22   | 50               | 48   | 38              | 43   | 6.8                       | 23                             | 2.9  | 6.5       |
| Albania                           | 98                     | 1100                        | 300     | 2.2                               | -0.4      | 8                | 5    | 33               | 19   | 67              | 73   | 2.4                       | 43                             | 2.8  | 1.2       |
| Algeria                           | 75                     | 12653                       | 3528    | 3.0                               | 2.0       | 16               | 5    | 49               | 24   | 53              | 70   | 2.9                       | 58                             | 4.3  | 3.0       |
| Andorra                           | 161                    | 17                          | 4       | 5.4                               | 4.8       | -                | -    | -                | -    | -               | -    | -                         | 92                             | 5.1  | 4.6       |
| Angola                            | 3                      | 7412                        | 2678    | 2.7                               | 3.1       | 27               | 20   | 49               | 51   | 37              | 45   | 7.2                       | 35                             | 5.7  | 5.3       |
| Antigua and Barbuda               | 144                    | 23                          | 6       | 0.5                               | 0.3       | -                | -    | -                | -    | -               | -    | -                         | 37                             | 0.7  | 0.8       |
| Argentina                         | 130                    | 12278                       | 3515    | 1.5                               | 1.3       | 9                | 8    | 23               | 19   | 66              | 74   | 2.5                       | 88                             | 2.0  | 1.5       |
| Armenia                           | 93                     | 1083                        | 193     | 1.7                               | 0.6       | 5                | 7    | 24               | 9    | 72              | 73   | 1.2                       | 67                             | 2.3  | 0.6       |
| Australia                         | 164                    | 4750                        | 1259    | 1.5                               | 1.2       | 9                | 7    | 20               | 13   | 71              | 79   | 1.8                       | 91                             | 1.5  | 1.9       |
| Austria                           | 178                    | 1613                        | 391     | 0.2                               | 0.4       | 13               | 10   | 15               | 9    | 70              | 78   | 1.3                       | 67                             | 0.1  | 0.5       |
| Azerbaijan                        | 48                     | 2761                        | 572     | 1.6                               | 1.1       | 7                | 6    | 29               | 13   | 68              | 72   | 1.6                       | 52                             | 2.0  | 0.7       |
| Bahamas                           | 138                    | 108                         | 30      | 2.0                               | 1.7       | 7                | 7    | 31               | 20   | 66              | 69   | 2.3                       | 89                             | 2.8  | 2.3       |
| Bahrain                           | 138                    | 213                         | 55      | 4.0                               | 2.6       | 9                | 4    | 40               | 16   | 62              | 74   | 2.4                       | 92                             | 4.5  | 3.1       |
| Bangladesh                        | 58                     | 63232                       | 18871   | 2.5                               | 2.2       | 21               | 9    | 47               | 31   | 44              | 60   | 3.6                       | 26                             | 7.3  | 4.6       |
| Barbados                          | 144                    | 67                          | 17      | 0.4                               | 0.4       | 9                | 8    | 22               | 12   | 69              | 77   | 1.5                       | 51                             | 1.3  | 1.5       |
| Belarus                           | 125                    | 2332                        | 456     | 0.6                               | -0.1      | 8                | 14   | 16               | 9    | 71              | 69   | 1.2                       | 70                             | 2.7  | 0.3       |
| Belgium                           | 164                    | 2120                        | 539     | 0.2                               | 0.3       | 12               | 10   | 14               | 10   | 71              | 79   | 1.5                       | 97                             | 0.3  | 0.3       |
| Belize                            | 84                     | 103                         | 29      | 2.1                               | 2.0       | 8                | 4    | 40               | 26   | 66              | 74   | 3.0                       | 48                             | 1.8  | 2.0       |
| Benin                             | 24                     | 3432                        | 1131    | 2.7                               | 3.0       | 25               | 13   | 53               | 42   | 42              | 54   | 5.8                       | 43                             | 6.3  | 5.0       |
| Bhutan                            | 52                     | 1052                        | 333     | 2.4                               | 2.1       | 22               | 9    | 42               | 35   | 42              | 62   | 5.2                       | 7                              | 4.9  | 5.4       |
| Bolivia                           | 58                     | 3895                        | 1221    | 2.2                               | 2.4       | 20               | 8    | 45               | 31   | 46              | 63   | 4.1                       | 63                             | 3.9  | 3.5       |
| Bosnia and Herzegovina            | 136                    | 938                         | 205     | 0.9                               | -0.5      | 7                | 8    | 23               | 10   | 66              | 74   | 1.3                       | 43                             | 2.8  | 0.3       |
| Botswana                          | 42                     | 768                         | 223     | 3.3                               | 2.1       | 15               | 23   | 51               | 31   | 52              | 39   | 4.1                       | 49                             | 11.6   | 3.4       |
| Brazil                            | 92                     | 59214                       | 16021   | 2.2                               | 1.4       | 11               | 7    | 35               | 19   | 59              | 68   | 2.2                       | 82                             | 3.6  | 2.2       |
| Brunei Darussalam                 | 164                    | 124                         | 34      | 3.4                               | 2.4       | 7                | 3    | 36               | 20   | 67              | 76   | 2.6                       | 73                             | 3.7  | 3.3       |
| Bulgaria                          | 138                    | 1517                        | 306     | 0.1                               | -0.9      | 9                | 15   | 16               | 8    | 71              | 71   | 1.1                       | 68                             | 1.4  | -0.8      |
| Burkina Faso                      | 12                     | 6631                        | 2276    | 2.5                               | 2.5       | 25               | 17   | 53               | 47   | 40              | 47   | 6.8                       | 17                             | 6.8  | 4.6       |
| Burundi                           | 14                     | 3559                        | 1133    | 2.4                               | 1.3       | 20               | 21   | 44               | 44   | 44              | 41   | 6.8                       | 9                              | 7.2  | 5.0       |
| Cambodia                          | 30                     | 6937                        | 2131    | 1.6                               | 3.0       | 21               | 11   | 42               | 36   | 43              | 56   | 4.9                       | 18                             | 2.0  | 6.0       |
| Cameroon                          | 25                     | 7576                        | 2378    | 2.8                               | 2.4       | 21               | 15   | 45               | 37   | 44              | 50   | 4.8                       | 50                             | 6.2  | 4.4       |
| Canada                            | 161                    | 7087                        | 1766    | 1.2                               | 1.0       | 7                | 8    | 17               | 11   | 73              | 79   | 1.6                       | 79                             | 1.3  | 1.3       |
| Cape Verde                        | 88                     | 200                         | 61      | 1.2                               | 2.3       | 12               | 6    | 41               | 30   | 56              | 70   | 3.3                       | 63                             | 5.3  | 5.5       |
| Central African Republic          | 19                     | 1877                        | 615     | 2.3                               | 2.3       | 23               | 19   | 43               | 38   | 42              | 44   | 5.0                       | 42                             | 3.4  | 3.2       |
| Chad                              | 11                     | 4313                        | 1542    | 2.3                               | 3.0       | 27               | 19   | 48               | 49   | 38              | 46   | 6.7                       | 24                             | 5.2  | 4.3       |
| Chile                             | 147                    | 5134                        | 1433    | 1.6                               | 1.5       | 10               | 6    | 30               | 19   | 62              | 75   | 2.4                       | 86                             | 2.1  | 1.8       |
| China                             | 85                     | 376467                      | 95091   | 1.6                               | 1.0       | 9                | 7    | 33               | 15   | 61              | 71   | 1.8                       | 37                             | 3.9  | 3.6       |
| Colombia                          | 118                    | 16407                       | 4752    | 2.2                               | 1.8       | 9                | 6    | 38               | 23   | 61              | 71   | 2.7                       | 76                             | 3.2  | 2.7       |
| Comoros                           | 57                     | 363                         | 120     | 3.2                               | 2.9       | 18               | 9    | 50               | 38   | 48              | 60   | 5.1                       | 34                             | 5.1  | 4.7       |
| Congo                             | 45                     | 1643                        | 581     | 2.8                               | 3.0       | 20               | 14   | 46               | 45   | 46              | 51   | 6.3                       | 66                             | 5.5  | 4.6       |
| Congo, Democratic Republic of the | 9                      | 29197                       | 10340   | 3.0                               | 3.2       | 20               | 14   | 48               | 48   | 45              | 52   | 6.7                       | 31                             | 2.6  | 4.1       |
| Cook Islands                      | 118                    | 8                           | 2       | -0.8                              | 1.0       | -                | -    | -                | -    | -               | -    | -                         | 59                             | -0.2   | 0.9       |
| Costa Rica                        | 149                    | 1562                        | 446     | 2.8                               | 2.7       | 7                | 4    | 35               | 22   | 67              | 77   | 2.7                       | 60                             | 4.5  | 3.7       |
| Côte d'Ivoire                     | 20                     | 8035                        | 2466    | 4.1                               | 2.4       | 21               | 16   | 51               | 36   | 44              | 48   | 4.8                       | 44                             | 6.0  | 3.3       |
| Croatia                           | 158                    | 1020                        | 269     | 0.4                               | 0.3       | 10               | 11   | 15               | 12   | 69              | 74   | 1.7                       | 58                             | 1.9  | 0.9       |
| Cuba                              | 152                    | 2822                        | 703     | 1.1                               | 0.5       | 7                | 7    | 30               | 12   | 69              | 76   | 1.6                       | 75                             | 2.1  | 0.7       |
| Cyprus                            | 164                    | 218                         | 53      | 0.5                               | 1.3       | 10               | 7    | 20               | 13   | 71              | 78   | 1.9                       | 70                             | 2.8  | 2.1       |
| Czech Republic                    | 178                    | 2033                        | 441     | 0.2                               | 0.0       | 13               | 11   | 16               | 9    | 70              | 75   | 1.2                       | 75                             | 2.1  | -0.1      |
| Denmark                           | 189                    | 1142                        | 322     | 0.2                               | 0.3       | 10               | 11   | 16               | 11   | 73              | 76   | 1.7                       | 85                             | 0.5  | 0.4       |
| Djibouti                          | 28                     | 320                         | 103     | 5.9                               | 2.2       | 25               | 20   | 57               | 38   | 40              | 42   | 5.9                       | 84                             | 7.2  | 2.5       |
| Dominica                          | 143                    | 25                          | 7       | 0.1                               | 0.0       | -                | -    | -                | -    | -               | -    | -                         | 71                             | 1.9  | 0.4       |
| Dominican Republic                | 76                     | 3364                        | 944     | 2.3                               | 1.7       | 11               | 7    | 42               | 24   | 58              | 67   | 2.8                       | 66                             | 4.2  | 2.8       |
| East Timor                        | 36                     | 375                         | 89      | 1.0                               | 0.1       | 24               | 14   | 45               | 27   | 39              | 49   | 4.0                       | 8                              | 0.1  | 0.0       |
| Ecuador                           | 98                     | 5108                        | 1467    | 2.7                               | 2.1       | 12               | 6    | 42               | 24   | 58              | 70   | 2.9                       | 63                             | 4.4  | 3.3       |
| Egypt                             | 83                     | 28708                       | 8014    | 2.3                               | 1.9       | 17               | 6    | 40               | 24   | 51              | 68   | 3.0                       | 43                             | 2.5  | 1.7       |
| El Salvador                       | 85                     | 2651                        | 802     | 1.8                               | 2.0       | 12               | 6    | 44               | 26   | 57              | 70   | 3.0                       | 61                             | 2.9  | 4.1       |
| Equatorial Guinea                 | 26                     | 235                         | 82      | 1.0                               | 2.6       | 25               | 16   | 42               | 43   | 40              | 51   | 5.9                       | 49                             | 2.4  | 5.6       |
| Eritrea                           | 41                     | 1919                        | 638     | 2.6                               | 1.9       | 21               | 14   | 47               | 40   | 43              | 52   | 5.4                       | 19                             | 4.1  | 3.7       |
| Estonia                           | 147                    | 299                         | 59      | 0.7                               | -1.2      | 11               | 13   | 15               | 9    | 70              | 71   | 1.2                       | 69                             | 1.2  | -1.4      |
| Ethiopia                          | 21                     | 33331                       | 11469   | 2.5                               | 2.8       | 23               | 20   | 48               | 44   | 41              | 44   | 6.8                       | 16                             | 4.4  | 4.8       |

|                            | Under-5 mortality rank | Population (thousands) 2001 |         | Population annual growth rate (%) |           | Crude death rate |      | Crude birth rate |      | Life expectancy |      | Total fertility rate 2001 | % of population urbanized 2001 | Average annual growth rate of urban population (%) |           |
|----------------------------|------------------------|-----------------------------|---------|-----------------------------------|-----------|------------------|------|------------------|------|-----------------|------|---------------------------|--------------------------------|--|-----------|
|                            |                        | under 18                    | under 5 | 1970-90                           | 1990-2001 | 1970             | 2001 | 1970             | 2001 | 1970            | 2001 |                           |                                | 1970-90  | 1990-2001 |
|                            |                        |                             |         |                                   |           |                  |      |                  |      |                 |      |                           |                                |  |           |
| Fiji                       | 121                    | 324                         | 97      | 1.7                               | 1.2       | 8                | 5    | 35               | 25   | 60              | 69   | 3.0                       | 50                             | 2.5  | 2.9       |
| Finland                    | 178                    | 1118                        | 281     | 0.4                               | 0.3       | 10               | 10   | 15               | 10   | 70              | 78   | 1.6                       | 59                             | 1.4  | 0.0       |
| France                     | 164                    | 13414                       | 3641    | 0.6                               | 0.4       | 11               | 9    | 17               | 12   | 72              | 79   | 1.8                       | 76                             | 0.8  | 0.6       |
| Gabon                      | 56                     | 582                         | 201     | 3.1                               | 2.7       | 21               | 15   | 32               | 38   | 44              | 53   | 5.4                       | 82                             | 7.0  | 4.4       |
| Gambia                     | 35                     | 615                         | 209     | 3.5                               | 3.3       | 28               | 17   | 50               | 38   | 36              | 47   | 4.9                       | 31                             | 6.0  | 5.4       |
| Georgia                    | 102                    | 1295                        | 289     | 0.7                               | -0.4      | 7                | 10   | 19               | 11   | 68              | 73   | 1.4                       | 56                             | 1.5  | -0.2      |
| Germany                    | 178                    | 15355                       | 3743    | 0.1                               | 0.3       | 12               | 11   | 14               | 9    | 71              | 78   | 1.3                       | 88                             | 0.4  | 0.5       |
| Ghana                      | 49                     | 9410                        | 2857    | 2.8                               | 2.4       | 17               | 11   | 47               | 33   | 49              | 57   | 4.3                       | 36                             | 3.6  | 3.2       |
| Greece                     | 178                    | 1962                        | 496     | 0.7                               | 0.4       | 8                | 10   | 17               | 9    | 72              | 78   | 1.3                       | 60                             | 1.3  | 0.6       |
| Grenada                    | 110                    | 33                          | 9       | -0.2                              | 0.3       | -                | -    | -                | -    | -               | -    | -                         | 38                             | 0.1  | 1.4       |
| Guatemala                  | 72                     | 5877                        | 1874    | 2.6                               | 2.6       | 15               | 7    | 45               | 35   | 52              | 65   | 4.6                       | 40                             | 2.9  | 3.1       |
| Guinea                     | 22                     | 4189                        | 1459    | 2.3                               | 2.7       | 28               | 17   | 52               | 44   | 37              | 48   | 6.0                       | 28                             | 4.9  | 4.3       |
| Guinea-Bissau              | 8                      | 612                         | 215     | 2.4                               | 2.4       | 28               | 20   | 45               | 45   | 36              | 45   | 6.0                       | 33                             | 4.7  | 5.2       |
| Guyana                     | 64                     | 279                         | 81      | 0.2                               | 0.4       | 11               | 9    | 38               | 22   | 60              | 63   | 2.4                       | 37                             | 0.8  | 1.3       |
| Haiti                      | 38                     | 3933                        | 1146    | 2.1                               | 1.6       | 19               | 13   | 39               | 31   | 47              | 53   | 4.1                       | 36                             | 4.1  | 3.6       |
| Holy See                   | -                      | -                           | -       | -                                 | -         | -                | -    | -                | -    | -               | -    | -                         | 100                            | -  | -         |
| Honduras                   | 88                     | 3173                        | 969     | 3.2                               | 2.7       | 15               | 7    | 48               | 31   | 52              | 66   | 3.9                       | 54                             | 5.0  | 5.0       |
| Hungary                    | 152                    | 2012                        | 473     | 0.0                               | -0.4      | 11               | 14   | 15               | 9    | 69              | 72   | 1.3                       | 65                             | 1.2  | 0.0       |
| Iceland                    | 189                    | 78                          | 21      | 1.1                               | 0.9       | 7                | 7    | 22               | 14   | 74              | 79   | 1.9                       | 93                             | 1.4  | 1.1       |
| India                      | 54                     | 402043                      | 116316  | 2.1                               | 1.8       | 17               | 9    | 40               | 25   | 49              | 64   | 3.1                       | 28                             | 3.4  | 2.6       |
| Indonesia                  | 77                     | 78016                       | 21639   | 2.1                               | 1.5       | 17               | 7    | 41               | 21   | 48              | 67   | 2.4                       | 42                             | 5.0  | 4.4       |
| Iran (Islamic Republic of) | 81                     | 31637                       | 7466    | 3.5                               | 1.8       | 15               | 5    | 45               | 22   | 53              | 69   | 2.9                       | 65                             | 5.0  | 3.1       |
| Iraq                       | 33                     | 11340                       | 3637    | 3.1                               | 2.8       | 16               | 8    | 48               | 35   | 55              | 63   | 4.9                       | 68                             | 4.1  | 2.6       |
| Ireland                    | 164                    | 1012                        | 269     | 0.9                               | 0.8       | 11               | 8    | 22               | 15   | 71              | 77   | 2.0                       | 59                             | 1.3  | 1.2       |
| Israel                     | 164                    | 2052                        | 622     | 2.2                               | 2.8       | 7                | 6    | 27               | 20   | 71              | 79   | 2.8                       | 92                             | 2.6  | 3.0       |
| Italy                      | 164                    | 9902                        | 2590    | 0.3                               | 0.1       | 10               | 11   | 17               | 9    | 72              | 79   | 1.2                       | 67                             | 0.4  | 0.2       |
| Jamaica                    | 125                    | 971                         | 261     | 1.2                               | 0.8       | 8                | 6    | 35               | 21   | 68              | 75   | 2.4                       | 57                             | 2.3  | 1.7       |
| Japan                      | 178                    | 22787                       | 6131    | 0.8                               | 0.3       | 7                | 8    | 19               | 9    | 72              | 81   | 1.4                       | 79                             | 1.3  | 0.5       |
| Jordan                     | 94                     | 2348                        | 783     | 3.5                               | 4.0       | 16               | 4    | 51               | 34   | 54              | 71   | 4.4                       | 79                             | 4.7  | 4.8       |
| Kazakhstan                 | 61                     | 5181                        | 1249    | 1.2                               | -0.4      | 9                | 10   | 26               | 16   | 64              | 65   | 2.0                       | 56                             | 1.9  | -0.5      |
| Kenya                      | 40                     | 15867                       | 4770    | 3.6                               | 2.6       | 17               | 13   | 52               | 35   | 50              | 50   | 4.3                       | 34                             | 7.9  | 5.8       |
| Kiribati                   | 67                     | 38                          | 12      | 1.8                               | 1.4       | -                | -    | -                | -    | -               | -    | -                         | 39                             | 3.3  | 2.4       |
| Korea, Democratic          |                        |                             |         |                                   |           |                  |      |                  |      |                 |      |                           |                                |  |           |
| People's Republic of       | 73                     | 7017                        | 1902    | 1.6                               | 1.1       | 9                | 10   | 33               | 17   | 61              | 65   | 2.1                       | 61                             | 2.0  | 1.4       |
| Korea, Republic of         | 178                    | 11846                       | 3067    | 1.5                               | 0.8       | 9                | 6    | 31               | 13   | 60              | 75   | 1.5                       | 82                             | 4.5  | 1.8       |
| Kuwait                     | 151                    | 744                         | 150     | 5.3                               | -0.8      | 6                | 3    | 47               | 18   | 66              | 76   | 2.7                       | 96                             | 6.3  | -0.7      |
| Kyrgyzstan                 | 71                     | 1980                        | 513     | 2.0                               | 1.1       | 11               | 7    | 31               | 20   | 62              | 68   | 2.5                       | 34                             | 2.0  | 0.3       |
| Lao People's               |                        |                             |         |                                   |           |                  |      |                  |      |                 |      |                           |                                |  |           |
| Democratic Republic        | 49                     | 2649                        | 846     | 2.1                               | 2.4       | 23               | 13   | 44               | 36   | 40              | 54   | 5.0                       | 20                             | 4.5  | 4.7       |
| Latvia                     | 121                    | 514                         | 90      | 0.6                               | -0.9      | 11               | 13   | 14               | 8    | 70              | 71   | 1.1                       | 60                             | 1.3  | -2.3      |
| Lebanon                    | 95                     | 1298                        | 333     | 0.5                               | 2.5       | 11               | 5    | 36               | 19   | 64              | 73   | 2.2                       | 90                             | 2.2  | 3.1       |
| Lesotho                    | 34                     | 940                         | 293     | 2.1                               | 1.8       | 18               | 20   | 43               | 33   | 48              | 44   | 4.5                       | 29                             | 6.4  | 5.1       |
| Liberia                    | 5                      | 1555                        | 614     | 2.2                               | 3.4       | 21               | 13   | 49               | 55   | 46              | 53   | 6.8                       | 46                             | 4.6  | 4.1       |
| Libyan Arab Jamahiriya     | 130                    | 2218                        | 664     | 3.9                               | 2.1       | 16               | 5    | 49               | 27   | 52              | 71   | 3.5                       | 88                             | 6.8  | 2.7       |
| Liechtenstein              | 149                    | 7                           | 2       | 1.6                               | 1.2       | -                | -    | -                | -    | -               | -    | -                         | 22                             | 1.7  | 1.6       |
| Lithuania                  | 152                    | 864                         | 178     | 0.9                               | -0.1      | 9                | 11   | 17               | 9    | 71              | 72   | 1.3                       | 69                             | 2.4  | 0.0       |
| Luxembourg                 | 178                    | 98                          | 28      | 0.6                               | 1.3       | 12               | 9    | 13               | 12   | 70              | 78   | 1.7                       | 92                             | 1.8  | 1.9       |
| Madagascar                 | 32                     | 8404                        | 2932    | 2.7                               | 2.9       | 20               | 14   | 46               | 42   | 44              | 53   | 5.8                       | 30                             | 5.3  | 5.2       |
| Malawi                     | 15                     | 6136                        | 2087    | 3.7                               | 1.9       | 25               | 23   | 56               | 45   | 40              | 40   | 6.5                       | 15                             | 6.9  | 4.3       |
| Malaysia                   | 158                    | 9019                        | 2611    | 2.5                               | 2.2       | 10               | 5    | 37               | 23   | 61              | 73   | 3.0                       | 58                             | 4.5  | 3.6       |
| Maldives                   | 58                     | 152                         | 49      | 2.9                               | 3.0       | 17               | 6    | 40               | 36   | 50              | 67   | 5.5                       | 28                             | 6.1  | 3.8       |
| Mali                       | 6                      | 6157                        | 2209    | 2.4                               | 2.6       | 26               | 18   | 51               | 50   | 42              | 52   | 7.0                       | 31                             | 4.9  | 5.0       |
| Malta                      | 178                    | 95                          | 24      | 0.9                               | 0.8       | 9                | 8    | 17               | 12   | 70              | 78   | 1.8                       | 91                             | 1.5  | 1.1       |
| Marshall Islands           | 70                     | 23                          | 7       | 2.8                               | 1.5       | -                | -    | -                | -    | -               | -    | -                         | 66                             | 3.0  | 1.6       |
| Mauritania                 | 15                     | 1394                        | 486     | 2.4                               | 2.9       | 22               | 15   | 45               | 44   | 42              | 52   | 6.0                       | 59                             | 8.3  | 5.6       |
| Mauritius                  | 130                    | 355                         | 93      | 1.2                               | 0.9       | 7                | 7    | 29               | 16   | 62              | 72   | 1.9                       | 42                             | 1.0  | 1.2       |
| Mexico                     | 102                    | 38933                       | 11126   | 2.5                               | 1.7       | 10               | 5    | 44               | 23   | 61              | 73   | 2.6                       | 75                             | 3.5  | 2.0       |
| Micronesia                 |                        |                             |         |                                   |           |                  |      |                  |      |                 |      |                           |                                |  |           |
| (Federated States of)      | 114                    | 56                          | 18      | 1.9                               | 2.7       | -                | -    | -                | -    | -               | -    | -                         | 29                             | 2.4  | 3.4       |
| Moldova, Republic of       | 95                     | 1203                        | 251     | 1.0                               | -0.2      | 10               | 12   | 19               | 12   | 65              | 67   | 1.5                       | 42                             | 2.9  | -1.2      |

# TABLE 5. DEMOGRAPHIC INDICATORS

|                                  | Under-5 mortality rank | Population (thousands) 2001 |         | Population annual growth rate (%) |           | Crude death rate |      | Crude birth rate |      | Life expectancy |      | Total fertility rate 2001 | % of population urbanized 2001 | Average annual growth rate of urban population (%) |           |
|----------------------------------|------------------------|-----------------------------|---------|-----------------------------------|-----------|------------------|------|------------------|------|-----------------|------|---------------------------|--------------------------------|--|-----------|
|                                  |                        | under 18                    | under 5 | 1970-90                           | 1990-2001 | 1970             | 2001 | 1970             | 2001 | 1970            | 2001 |                           |                                | 1970-90  | 1990-2001 |
|                                  |                        | Monaco                      | 178     | 7                                 | 2         | 1.1              | 1.1  | -                | -    | -               | -    | -                         | -                              | -  | 99        |
| Mongolia                         | 61                     | 1054                        | 267     | 2.8                               | 1.3       | 14               | 7    | 42               | 22   | 53              | 63   | 2.4                       | 57                             | 4.0  | 1.3       |
| Morocco                          | 78                     | 12368                       | 3620    | 2.4                               | 1.9       | 17               | 6    | 47               | 25   | 52              | 68   | 3.1                       | 56                             | 4.1  | 3.3       |
| Mozambique                       | 12                     | 9418                        | 3217    | 2.0                               | 2.8       | 22               | 24   | 47               | 43   | 42              | 39   | 6.0                       | 33                             | 8.4  | 7.0       |
| Myanmar                          | 43                     | 18752                       | 5354    | 2.1                               | 1.6       | 18               | 12   | 40               | 24   | 48              | 56   | 3.0                       | 28                             | 2.4  | 2.8       |
| Namibia                          | 69                     | 900                         | 282     | 2.8                               | 2.4       | 18               | 18   | 44               | 35   | 48              | 45   | 5.0                       | 31                             | 4.6  | 3.9       |
| Nauru                            | 98                     | 6                           | 2       | 2.0                               | 3.3       | -                | -    | -                | -    | -               | -    | -                         | 96                             | 1.9  | 2.6       |
| Nepal                            | 55                     | 11161                       | 3620    | 2.1                               | 2.4       | 22               | 10   | 41               | 35   | 42              | 59   | 4.6                       | 12                             | 6.3  | 5.2       |
| Netherlands                      | 164                    | 3457                        | 921     | 0.7                               | 0.6       | 8                | 9    | 17               | 11   | 74              | 78   | 1.5                       | 90                             | 0.8  | 0.7       |
| New Zealand                      | 164                    | 1036                        | 274     | 0.9                               | 1.1       | 9                | 8    | 22               | 14   | 71              | 78   | 2.0                       | 86                             | 1.1  | 1.3       |
| Nicaragua                        | 79                     | 2576                        | 810     | 2.9                               | 2.8       | 14               | 5    | 48               | 33   | 54              | 69   | 4.0                       | 57                             | 3.5  | 3.4       |
| Niger                            | 2                      | 6351                        | 2375    | 3.1                               | 3.4       | 27               | 20   | 56               | 56   | 37              | 46   | 8.0                       | 21                             | 6.3  | 5.9       |
| Nigeria                          | 15                     | 60495                       | 20068   | 2.9                               | 2.8       | 22               | 14   | 48               | 40   | 43              | 52   | 5.6                       | 45                             | 5.7  | 5.1       |
| Niue                             | -                      | 1                           | 0       | -                                 | -         | -                | -    | -                | -    | -               | -    | -                         | 35                             | -2.0   | -0.2      |
| Norway                           | 189                    | 1045                        | 283     | 0.4                               | 0.5       | 10               | 10   | 17               | 12   | 74              | 79   | 1.7                       | 75                             | 0.9  | 0.9       |
| Occupied Palestinian Territory   | 114                    | 1747                        | 614     | 3.4                               | 3.9       | 19               | 4    | 50               | 40   | 54              | 72   | 5.7                       | 67                             | 4.2  | 4.4       |
| Oman                             | 146                    | 1326                        | 416     | 4.5                               | 3.5       | 21               | 4    | 50               | 36   | 47              | 71   | 5.6                       | 77                             | 13.0   | 5.4       |
| Pakistan                         | 43                     | 69782                       | 22651   | 2.9                               | 2.5       | 18               | 10   | 44               | 37   | 48              | 60   | 5.2                       | 34                             | 3.9  | 3.4       |
| Palau                            | 102                    | 9                           | 3       | 2.0                               | 2.6       | -                | -    | -                | -    | -               | -    | -                         | 68                             | 3.2  | 2.3       |
| Panama                           | 110                    | 1062                        | 300     | 2.3                               | 1.7       | 8                | 5    | 37               | 21   | 65              | 74   | 2.5                       | 57                             | 2.9  | 2.2       |
| Papua New Guinea                 | 53                     | 2300                        | 717     | 2.4                               | 2.4       | 19               | 10   | 42               | 33   | 43              | 57   | 4.4                       | 18                             | 4.6  | 3.9       |
| Paraguay                         | 98                     | 2586                        | 784     | 2.9                               | 2.6       | 9                | 5    | 37               | 30   | 65              | 70   | 3.9                       | 57                             | 4.3  | 4.0       |
| Peru                             | 85                     | 10219                       | 2893    | 2.5                               | 1.7       | 14               | 6    | 42               | 23   | 53              | 69   | 2.7                       | 73                             | 3.4  | 2.3       |
| Philippines                      | 88                     | 33699                       | 9858    | 2.6                               | 2.1       | 11               | 5    | 40               | 27   | 57              | 70   | 3.4                       | 59                             | 4.5  | 3.9       |
| Poland                           | 152                    | 9094                        | 1931    | 0.8                               | 0.1       | 8                | 10   | 17               | 10   | 70              | 74   | 1.3                       | 63                             | 1.5  | 0.4       |
| Portugal                         | 164                    | 2033                        | 561     | 0.7                               | 0.1       | 11               | 11   | 21               | 11   | 67              | 76   | 1.5                       | 66                             | 3.6  | 3.2       |
| Qatar                            | 138                    | 179                         | 53      | 7.0                               | 2.2       | 13               | 4    | 34               | 18   | 61              | 70   | 3.4                       | 93                             | 7.6  | 2.5       |
| Romania                          | 121                    | 4946                        | 1137    | 0.7                               | -0.3      | 9                | 13   | 21               | 10   | 68              | 70   | 1.3                       | 55                             | 1.9  | -0.1      |
| Russian Federation               | 121                    | 32171                       | 6229    | 0.6                               | -0.2      | 9                | 15   | 15               | 9    | 70              | 66   | 1.2                       | 73                             | 1.4  | -0.3      |
| Rwanda                           | 15                     | 4094                        | 1340    | 3.0                               | 1.5       | 21               | 19   | 53               | 40   | 44              | 40   | 5.9                       | 6                              | 5.5  | 2.8       |
| Saint Kitts and Nevis            | 114                    | 13                          | 4       | -0.6                              | -0.9      | -                | -    | -                | -    | -               | -    | -                         | 34                             | -0.5   | -0.9      |
| Saint Lucia                      | 130                    | 57                          | 17      | 1.4                               | 1.2       | 8                | 6    | 41               | 23   | 64              | 74   | 2.6                       | 38                             | 1.0  | 1.4       |
| Saint Vincent and the Grenadines | 110                    | 40                          | 11      | 1.0                               | 0.7       | -                | -    | -                | -    | -               | -    | -                         | 56                             | 3.0  | 3.6       |
| Samoa                            | 110                    | 77                          | 21      | 0.6                               | -0.1      | 10               | 6    | 40               | 28   | 55              | 70   | 4.3                       | 22                             | 0.8  | 0.4       |
| San Marino                       | 164                    | 5                           | 1       | 1.2                               | 1.5       | -                | -    | -                | -    | -               | -    | -                         | 90                             | 3.1  | 1.3       |
| Sao Tome and Principe            | 63                     | 75                          | 26      | 2.3                               | 1.8       | -                | -    | -                | -    | -               | -    | -                         | 48                             | 4.8  | 3.6       |
| Saudi Arabia                     | 105                    | 10298                       | 3265    | 4.9                               | 2.8       | 18               | 4    | 48               | 34   | 52              | 72   | 5.7                       | 87                             | 7.3  | 3.8       |
| Senegal                          | 30                     | 4908                        | 1621    | 2.8                               | 2.5       | 25               | 12   | 49               | 38   | 41              | 54   | 5.2                       | 48                             | 3.7  | 4.2       |
| Seychelles                       | 137                    | 42                          | 14      | 1.4                               | 1.3       | -                | -    | -                | -    | -               | -    | -                         | 65                             | 4.9  | 3.2       |
| Sierra Leone                     | 1                      | 2328                        | 845     | 2.1                               | 1.1       | 30               | 25   | 49               | 51   | 34              | 40   | 6.5                       | 38                             | 4.8  | 3.2       |
| Singapore                        | 189                    | 1046                        | 271     | 1.9                               | 2.8       | 5                | 5    | 23               | 12   | 69              | 78   | 1.5                       | 100                            | 1.9  | 2.8       |
| Slovakia                         | 152                    | 1282                        | 282     | 0.7                               | 0.3       | 10               | 10   | 19               | 10   | 70              | 73   | 1.3                       | 58                             | 2.3  | 0.4       |
| Slovenia                         | 178                    | 386                         | 88      | 0.7                               | 0.3       | 10               | 10   | 17               | 8    | 70              | 76   | 1.2                       | 49                             | 2.2  | 0.1       |
| Solomon Islands                  | 114                    | 237                         | 81      | 3.4                               | 3.4       | 10               | 5    | 46               | 38   | 54              | 69   | 5.4                       | 20                             | 5.9  | 6.4       |
| Somalia                          | 7                      | 5003                        | 1874    | 3.4                               | 2.2       | 25               | 17   | 51               | 52   | 40              | 48   | 7.3                       | 28                             | 4.3  | 3.6       |
| South Africa                     | 66                     | 17645                       | 5188    | 2.4                               | 1.7       | 14               | 15   | 38               | 25   | 53              | 50   | 2.9                       | 57                             | 2.5  | 3.2       |
| Spain                            | 164                    | 7186                        | 1801    | 0.8                               | 0.1       | 9                | 10   | 20               | 9    | 72              | 79   | 1.1                       | 78                             | 1.4  | 0.4       |
| Sri Lanka                        | 130                    | 6056                        | 1564    | 1.6                               | 1.0       | 8                | 6    | 29               | 17   | 64              | 72   | 2.1                       | 23                             | 1.5  | 1.8       |
| Sudan                            | 46                     | 14739                       | 4790    | 2.7                               | 2.3       | 22               | 11   | 48               | 35   | 43              | 56   | 4.6                       | 37                             | 5.1  | 5.3       |
| Suriname                         | 95                     | 155                         | 39      | 0.4                               | 0.4       | 8                | 6    | 37               | 19   | 63              | 71   | 2.1                       | 75                             | 2.1  | 1.6       |
| Swaziland                        | 27                     | 451                         | 139     | 3.0                               | 1.8       | 19               | 21   | 47               | 34   | 46              | 42   | 4.5                       | 27                             | 7.5  | 2.8       |
| Sweden                           | 193                    | 1891                        | 415     | 0.3                               | 0.3       | 10               | 11   | 14               | 9    | 74              | 80   | 1.4                       | 83                             | 0.4  | 0.3       |
| Switzerland                      | 164                    | 1420                        | 353     | 0.5                               | 0.4       | 9                | 10   | 16               | 9    | 73              | 79   | 1.4                       | 67                             | 1.0  | 1.5       |
| Syrian Arab Republic             | 105                    | 7916                        | 2285    | 3.4                               | 2.7       | 14               | 4    | 47               | 30   | 55              | 71   | 3.8                       | 52                             | 4.0  | 3.2       |
| Tajikistan                       | 64                     | 2790                        | 749     | 2.9                               | 1.3       | 11               | 6    | 40               | 24   | 63              | 68   | 3.1                       | 28                             | 2.2  | 0.1       |
| Tanzania, United Republic of     | 23                     | 18623                       | 6064    | 3.2                               | 2.9       | 20               | 13   | 50               | 39   | 45              | 51   | 5.2                       | 33                             | 9.1  | 6.9       |
| Thailand                         | 105                    | 20171                       | 5791    | 2.1                               | 1.4       | 10               | 6    | 37               | 18   | 59              | 70   | 2.0                       | 20                             | 3.8  | 2.0       |

|                       | Under-5 mortality rank | Population (thousands) 2001 |         | Population annual growth rate (%) |           | Crude death rate |      | Crude birth rate |      | Life expectancy |      | Total fertility rate 2001 | % of population urbanized 2001 | Average annual growth rate of urban population (%) |           |
|-----------------------|------------------------|-----------------------------|---------|-----------------------------------|-----------|------------------|------|------------------|------|-----------------|------|---------------------------|--------------------------------|--|-----------|
|                       |                        | under 18                    | under 5 | 1970-90                           | 1990-2001 | 1970             | 2001 | 1970             | 2001 | 1970            | 2001 |                           |                                | 1970-90  | 1990-2001 |
|                       |                        |                             |         |                                   |           |                  |      |                  |      |                 |      |                           |                                |  |           |
| The former Yugoslav   |                        |                             |         |                                   |           |                  |      |                  |      |                 |      |                           |                                |  |           |
| Republic of Macedonia | 109                    | 552                         | 140     | 1.0                               | 0.6       | 8                | 8    | 24               | 12   | 66              | 73   | 1.6                       | 59                             | 2.0  | 0.9       |
| Togo                  | 29                     | 2369                        | 784     | 2.7                               | 2.7       | 21               | 13   | 48               | 39   | 44              | 52   | 5.5                       | 34                             | 6.6  | 4.3       |
| Tonga                 | 125                    | 41                          | 11      | 0.8                               | 0.3       | -                | -    | -                | -    | -               | -    | -                         | 33                             | 2.6  | 0.8       |
| Trinidad and Tobago   | 125                    | 399                         | 86      | 1.1                               | 0.6       | 7                | 6    | 28               | 13   | 66              | 75   | 1.6                       | 75                             | 1.6  | 1.3       |
| Tunisia               | 108                    | 3394                        | 829     | 2.3                               | 1.4       | 14               | 7    | 40               | 18   | 54              | 70   | 2.2                       | 66                             | 3.6  | 2.7       |
| Turkey                | 79                     | 24038                       | 7021    | 2.3                               | 1.7       | 13               | 6    | 39               | 21   | 56              | 70   | 2.4                       | 66                             | 4.6  | 2.4       |
| Turkmenistan          | 51                     | 2108                        | 600     | 2.6                               | 2.5       | 11               | 7    | 38               | 26   | 60              | 67   | 3.3                       | 45                             | 2.3  | 2.5       |
| Tuvalu                | 74                     | 4                           | 1       | 2.0                               | 1.0       | -                | -    | -                | -    | -               | -    | -                         | 55                             | 5.4  | 3.9       |
| Uganda                | 36                     | 13496                       | 4858    | 3.0                               | 3.0       | 19               | 18   | 51               | 51   | 46              | 45   | 7.1                       | 15                             | 4.7  | 5.5       |
| Ukraine               | 125                    | 10725                       | 2095    | 0.5                               | -0.5      | 9                | 15   | 16               | 8    | 71              | 68   | 1.1                       | 68                             | 1.5  | -0.3      |
| United Arab Emirates  | 152                    | 815                         | 199     | 11.0                              | 2.5       | 11               | 4    | 36               | 16   | 61              | 75   | 3.0                       | 87                             | 12.7   | 3.3       |
| United Kingdom        | 161                    | 13467                       | 3447    | 0.2                               | 0.3       | 12               | 11   | 16               | 11   | 72              | 78   | 1.6                       | 90                             | 0.2  | 0.4       |
| United States         | 158                    | 73767                       | 19834   | 1.0                               | 1.0       | 9                | 8    | 17               | 13   | 71              | 77   | 2.0                       | 77                             | 1.1  | 1.3       |
| Uruguay               | 138                    | 983                         | 283     | 0.5                               | 0.7       | 10               | 9    | 21               | 17   | 69              | 75   | 2.3                       | 92                             | 0.9  | 1.0       |
| Uzbekistan            | 68                     | 10659                       | 2691    | 2.7                               | 1.9       | 10               | 6    | 37               | 21   | 63              | 69   | 2.5                       | 37                             | 3.1  | 1.1       |
| Vanuatu               | 81                     | 98                          | 30      | 2.7                               | 2.8       | 14               | 6    | 43               | 32   | 53              | 68   | 4.4                       | 22                             | 4.5  | 4.4       |
| Venezuela             | 120                    | 9792                        | 2805    | 3.0                               | 2.1       | 7                | 5    | 38               | 23   | 65              | 73   | 2.8                       | 87                             | 3.8  | 2.5       |
| Viet Nam              | 88                     | 30942                       | 7607    | 2.2                               | 1.6       | 18               | 7    | 41               | 20   | 49              | 69   | 2.3                       | 25                             | 2.7  | 3.4       |
| Yemen                 | 46                     | 10784                       | 4056    | 3.0                               | 4.5       | 23               | 9    | 53               | 50   | 41              | 61   | 7.6                       | 25                             | 5.7  | 5.4       |
| Yugoslavia            | 130                    | 2552                        | 626     | 0.8                               | 0.3       | 9                | 11   | 19               | 11   | 68              | 73   | 1.6                       | 52                             | 2.1  | 0.5       |
| Zambia                | 10                     | 5702                        | 1918    | 3.2                               | 2.5       | 19               | 20   | 51               | 42   | 46              | 42   | 5.8                       | 40                             | 4.6  | 2.7       |
| Zimbabwe              | 38                     | 6741                        | 2065    | 3.4                               | 2.1       | 13               | 18   | 47               | 36   | 55              | 43   | 4.7                       | 36                             | 6.0  | 4.3       |

## REGIONAL SUMMARIES

|                              |         |        |     |     |    |    |    |    |    |    |     |    |     |     |
|------------------------------|---------|--------|-----|-----|----|----|----|----|----|----|-----|----|-----|-----|
| Sub-Saharan Africa           | 325348  | 108836 | 2.9 | 2.6 | 21 | 16 | 48 | 41 | 44 | 48 | 5.6 | 35 | 4.5 | 4.7 |
| Middle East and North Africa | 155263  | 44913  | 3.1 | 2.3 | 17 | 6  | 45 | 28 | 51 | 67 | 3.7 | 57 | 4.2 | 3.1 |
| South Asia                   | 564697  | 167332 | 2.2 | 2.0 | 17 | 9  | 41 | 27 | 48 | 62 | 3.4 | 28 | 3.6 | 3.0 |
| East Asia and Pacific        | 601336  | 157560 | 1.8 | 1.2 | 10 | 7  | 34 | 17 | 58 | 69 | 2.0 | 39 | 3.9 | 3.5 |
| Latin America and Caribbean  | 193842  | 54891  | 2.2 | 1.6 | 11 | 6  | 37 | 22 | 60 | 70 | 2.6 | 76 | 3.2 | 2.3 |
| CEE/CIS and Baltic States    | 127049  | 29345  | 1.0 | 0.3 | 9  | 11 | 20 | 12 | 66 | 69 | 1.6 | 63 | 1.8 | 0.3 |
| Industrialized countries     | 190309  | 50109  | 0.7 | 0.6 | 10 | 9  | 17 | 11 | 72 | 78 | 1.6 | 79 | 0.9 | 0.9 |
| Developing countries         | 1894433 | 548031 | 2.2 | 1.7 | 14 | 9  | 38 | 24 | 53 | 62 | 3.0 | 41 | 3.7 | 3.2 |
| Least developed countries    | 340222  | 112883 | 2.5 | 2.6 | 22 | 14 | 47 | 40 | 43 | 51 | 5.3 | 26 | 4.5 | 4.8 |
| World                        | 2157844 | 612986 | 1.8 | 1.5 | 13 | 9  | 32 | 22 | 56 | 64 | 2.7 | 48 | 2.4 | 2.4 |

Countries in each region are listed on page 114.

## DEFINITIONS OF THE INDICATORS

**Life expectancy at birth** – The number of years newborn children would live if subject to the mortality risks prevailing for the cross-section of population at the time of their birth.

**Crude death rate** – Annual number of deaths per 1,000 population.

**Crude birth rate** – Annual number of births per 1,000 population.

**Total fertility rate** – The number of children that would be born per woman if she were to live to the end of her child-bearing years and bear children at each age in accordance with prevailing age-specific fertility rates.

**Urban population** – Percentage of population living in urban areas as defined according to the national definition used in the most recent population census.

## MAIN DATA SOURCES

**Life expectancy** – United Nations Population Division.

**Child population** – United Nations Population Division.

**Crude death and birth rates** – United Nations Population Division.

**Fertility** – United Nations Population Division.

**Urban population** – United Nations Population Division.

**NOTES** - Data not available.

# TABLE 6. ECONOMIC INDICATORS

| Countries and territories         | Under-5 mortality rank | GNI per capita (US\$) 2001 | GDP per capita average annual growth rate (%) |           | Average annual rate of inflation (%) 1990-2001 | % of population below \$1 a day 1990-99 | % of central government expenditure allocated to: (1992-2001*) |           |         | ODA inflow in millions US\$ 2000 | ODA inflow as a % of recipient GNI 2000 | Debt service as a % of exports of goods and services |      |
|-----------------------------------|------------------------|----------------------------|---|-----------|--|---|--|-----------|---------|----------------------------------|---|--|------|
|                                   |                        |                            | 1960-90                                       | 1990-2001 |  |   | health   | education | defence |                                  |   | 1990   | 2000 |
|                                   |                        |                            | Afghanistan                                   | 4         |  |   | 250x   | 0.1       | -       |                                  |   | -  | -    |
| Albania                           | 98                     | 1230                       | -   | 3.0       | 34   | -                                       | 4  | 2         | 4       | 319                              | 8                                       | 1  | 1    |
| Algeria                           | 75                     | 1630                       | 2.4   | 0.1       | 17   | 2                                       | 4  | 24        | 17      | 162                              | 0                                       | 62   | 19   |
| Andorra                           | 161                    | d                          | -   | -         | -  | -                                       | -  | -         | -       | -                                | -                                       | -  | -    |
| Angola                            | 3                      | 500                        | -   | -1.1      | 659  | -                                       | 6x   | 15x       | 34x     | 307                              | 5                                       | 7  | 15   |
| Antigua and Barbuda               | 144                    | 9070                       | -   | 2.5       | 2  | -                                       | -  | -         | -       | 10                               | 2                                       | -  | -    |
| Argentina                         | 130                    | 6960                       | 0.6   | 2.4       | 4  | -                                       | 2  | 6         | 4       | 76                               | 0                                       | 30   | 63   |
| Armenia                           | 93                     | 560                        | -   | -1.3      | 172  | 8                                       | -  | -         | -       | 216                              | 11                                      | -  | 4    |
| Australia                         | 164                    | 19770                      | 2.1   | 2.8       | 2  | -                                       | 15   | 8         | 7       | -                                | -                                       | -  | -    |
| Austria                           | 178                    | 23940                      | 3.2   | 1.7       | 2  | -                                       | 14   | 9         | 2       | -                                | -                                       | -  | -    |
| Azerbaijan                        | 48                     | 650                        | -   | 1.7       | 59   | 2                                       | 1  | 3         | 11      | 139                              | 3                                       | -  | 5    |
| Bahamas                           | 138                    | 14960x                     | 1.2   | 0.1       | 3  | -                                       | 16   | 20        | 3       | -                                | -                                       | -  | -    |
| Bahrain                           | 138                    | 9370x                      | -   | 1.7       | 0  | -                                       | 8  | 13        | 16      | 49                               | -                                       | -  | -    |
| Bangladesh                        | 58                     | 370                        | 0.5   | 3.1       | 4  | 29                                      | 5x   | 11x       | 10x     | 1171                             | 2                                       | 18   | 8    |
| Barbados                          | 144                    | 9250x                      | 3.0   | 1.7       | 3  | -                                       | -  | -         | -       | 0                                | 0                                       | 14x  | 6x   |
| Belarus                           | 125                    | 1190                       | -   | -0.6      | 318  | 2                                       | 4  | 4         | 4       | -                                | -                                       | -  | 2    |
| Belgium                           | 164                    | 23340                      | 2.9   | 1.8       | 2  | -                                       | 2x   | 12x       | 5x      | -                                | -                                       | -  | -    |
| Belize                            | 84                     | 2910                       | 3.2   | 1.6       | 2  | -                                       | 8  | 20        | 5       | 15                               | 2                                       | 6  | 15   |
| Benin                             | 24                     | 360                        | 0.1   | 1.9       | 8  | -                                       | 6x   | 31x       | 17x     | 239                              | 10                                      | 7  | 10   |
| Bhutan                            | 52                     | 640                        | -   | 3.5       | 9  | -                                       | 10   | 15        | -       | 53                               | 11                                      | 5  | 4    |
| Bolivia                           | 58                     | 940                        | -0.1  | 1.4       | 8  | 14                                      | 10   | 20        | 7       | 477                              | 6                                       | 31   | 36   |
| Bosnia and Herzegovina            | 136                    | 1240                       | -   | 16.2      | 3  | -                                       | -  | -         | -       | 737                              | 15                                      | -  | 20   |
| Botswana                          | 42                     | 3630                       | 8.6   | 2.9       | 9  | 33x                                     | 5  | 26        | 8       | 31                               | 1                                       | 4  | 2    |
| Brazil                            | 92                     | 3060                       | 3.6   | 1.4       | 168  | 12                                      | 6  | 6         | 3       | 322                              | 0                                       | 19   | 78   |
| Brunei Darussalam                 | 164                    | 24630x                     | -1.8  | -0.7      | 1  | -                                       | -  | -         | -       | -                                | -                                       | -  | -    |
| Bulgaria                          | 138                    | 1560                       | -   | -0.9      | 93   | 2                                       | 5  | 4         | 8       | -                                | -                                       | 19   | 13   |
| Burkina Faso                      | 12                     | 210                        | 1.1   | 2.4       | 4  | 61                                      | 7  | 17        | 14      | 336                              | 14                                      | 6  | 14   |
| Burundi                           | 14                     | 100                        | 2.0   | -4.3      | 13   | -                                       | 2  | 15        | 23      | 93                               | 13                                      | 41   | 23   |
| Cambodia                          | 30                     | 270                        | -   | 2.0       | 22   | -                                       | -  | -         | -       | 398                              | 13                                      | -  | 1    |
| Cameroon                          | 25                     | 570                        | 2.5   | -0.3      | 5  | 33                                      | 3  | 12        | 10      | 380                              | 4                                       | 20   | 17   |
| Canada                            | 161                    | 21340                      | 2.3   | 2.0       | 1  | -                                       | 1  | 2         | 6       | -                                | -                                       | -  | -    |
| Cape Verde                        | 88                     | 1310                       | -   | 3.3       | 5  | -                                       | -  | -         | -       | 94                               | 16                                      | 5  | 7    |
| Central African Republic          | 19                     | 270                        | -0.6  | -0.3      | 4  | 67                                      | -  | -         | -       | 76                               | 7                                       | 8  | 8    |
| Chad                              | 11                     | 200                        | -1.2  | -0.5      | 7  | -                                       | 8x   | 8x        | -       | 131                              | 8                                       | 2  | 8    |
| Chile                             | 147                    | 4350                       | 1.2   | 4.8       | 7  | 2                                       | 12   | 18        | 8       | 49                               | 0                                       | 20   | 25   |
| China                             | 85                     | 890                        | 4.8   | 8.9       | 6  | 19                                      | 0  | 2         | 12      | 1736                             | 0                                       | 10   | 7    |
| Colombia                          | 118                    | 1910                       | 2.3   | 0.8       | 20   | 20                                      | 9  | 20        | 13      | 187                              | 0                                       | 39   | 28   |
| Comoros                           | 57                     | 380                        | -   | -2.3      | 5  | -                                       | -  | -         | -       | 19                               | 9                                       | 2  | 3    |
| Congo                             | 45                     | 700                        | 3.1   | -3.1      | 10   | -                                       | -  | -         | -       | 33                               | 2                                       | 32   | 0    |
| Congo, Democratic Republic of the | 9                      | 100x                       | -1.4  | -8.2      | 1423   | -                                       | 0  | 0         | 18      | 184                              | -                                       | 5  | -    |
| Cook Islands                      | 118                    | -                          | -   | -         | -  | -                                       | -  | -         | -       | 4                                | -                                       | -  | -    |
| Costa Rica                        | 149                    | 3950                       | 1.6   | 2.8       | 16   | 13                                      | 22   | 21        | -       | 12                               | 0                                       | 21   | 7    |
| Côte d'Ivoire                     | 20                     | 630                        | 1.0   | 0.1       | 8  | 12                                      | 4x   | 21x       | 4x      | 352                              | 3                                       | 26   | 20   |
| Croatia                           | 158                    | 4650                       | -   | 2.1       | 72   | 2                                       | 15   | 7         | 5       | 66                               | 0                                       | -  | 25   |
| Cuba                              | 152                    | 1170x                      | -   | -         | 1  | -                                       | 23x  | 10x       | -       | 44                               | -                                       | -  | -    |
| Cyprus                            | 164                    | 12370x                     | 6.2   | 3.1       | 4  | -                                       | 6  | 12        | 4       | -                                | -                                       | -  | -    |
| Czech Republic                    | 178                    | 5270                       | -   | 1.1       | 11   | 2                                       | 17   | 9         | 5       | -                                | -                                       | -  | 12   |
| Denmark                           | 189                    | 31090                      | 2.1   | 2.1       | 2  | -                                       | 1  | 13        | 4       | -                                | -                                       | -  | -    |
| Djibouti                          | 28                     | 890                        | -   | -3.6      | 4  | -                                       | -  | -         | -       | 71                               | 13                                      | -  | 4    |
| Dominica                          | 143                    | 3060                       | -   | 1.4       | 3  | -                                       | -  | -         | -       | 15                               | 6                                       | 4  | 6x   |
| Dominican Republic                | 76                     | 2230                       | 3.1   | 4.2       | 9  | 3                                       | 11   | 16        | 4       | 62                               | 0                                       | 7  | 4    |
| East Timor                        | 36                     | -                          | -   | -         | -  | -                                       | -  | -         | -       | 233                              | -                                       | -  | -    |
| Ecuador                           | 98                     | 1240                       | 2.9   | -0.3      | 39   | 20                                      | 11x  | 18x       | 13x     | 147                              | 1                                       | 27   | 17   |
| Egypt                             | 83                     | 1530                       | 3.5   | 2.6       | 8  | 3                                       | 3  | 15        | 9       | 1328                             | 1                                       | 20   | 8    |
| El Salvador                       | 85                     | 2050                       | -0.4  | 2.3       | 7  | 21                                      | 5  | 24        | 7       | 180                              | 1                                       | 14   | 5    |
| Equatorial Guinea                 | 26                     | 700                        | -   | 18.8      | 17   | -                                       | -  | -         | -       | 21                               | 6                                       | 3  | 0    |
| Eritrea                           | 41                     | 190                        | -   | 0.4       | 10   | -                                       | -  | -         | -       | 176                              | 24                                      | -  | 1    |
| Estonia                           | 147                    | 3880                       | -   | 1.7       | 45   | 2                                       | 16   | 10        | 5       | -                                | -                                       | -  | 8    |
| Ethiopia                          | 21                     | 100                        | -   | 2.5       | 6  | 31                                      | 6  | 16        | 9       | 693                              | 10                                      | 30   | 12   |

|  | Under-5 mortality rank | GNI per capita (US\$) 2001 | GDP per capita average annual growth rate (%) |           | Average annual rate of inflation (%) 1990-2001 | % of population below \$1 a day 1990-99 | % of central government expenditure allocated to: (1992-2001*) |           |         | ODA inflow in millions US\$ 2000 | ODA inflow as a % of recipient GNI 2000 | Debt service as a % of exports of goods and services |      |
|--|------------------------|----------------------------|---|-----------|--|---|--|-----------|---------|----------------------------------|---|--|------|
|  |                        |                            | 1960-90                                       | 1990-2001 |  |   | health   | education | defence |                                  |   | 1990   | 2000 |
| Fiji                                   | 121                    | 2130                       | 1.9   | 1.7       | 3  | -                                       | 9  | 18        | 6       | 29                               | 2                                       | 12   | 2    |
| Finland                                | 178                    | 23940                      | 3.4   | 2.6       | 2  | -                                       | 3  | 10        | 4       | -                                | -                                       | -  | -    |
| France                                 | 164                    | 22690                      | 2.9   | 1.4       | 2  | -                                       | 16x  | 7x        | 6x      | -                                | -                                       | -  | -    |
| Gabon                                  | 56                     | 3160                       | 3.1   | -0.1      | 6  | -                                       | -  | -         | -       | 12                               | 0                                       | 4  | 14   |
| Gambia                                 | 35                     | 330                        | 1.1   | 0.0       | 4  | 59                                      | 7x   | 12x       | 4x      | 49                               | 11                                      | 18   | 6    |
| Georgia                                | 102                    | 620                        | -   | -4.9      | 279  | 2                                       | 3  | 4         | 4       | 170                              | 5                                       | -  | 7    |
| Germany                                | 178                    | 23700                      | -   | 1.2       | 2  | -                                       | 17x  | 1x        | 7x      | -                                | -                                       | -  | -    |
| Ghana                                  | 49                     | 290                        | -1.2  | 1.9       | 27   | 45                                      | 7  | 22        | 5       | 609                              | 9                                       | 20   | 16   |
| Greece                                 | 178                    | 11780                      | 3.8   | 2.0       | 9  | -                                       | 7  | 11        | 8       | -                                | -                                       | -  | -    |
| Grenada                                | 110                    | 3720                       | -   | 2.9       | 2  | -                                       | 10   | 17        | -       | 17                               | 5                                       | 3  | 4    |
| Guatemala                              | 72                     | 1670                       | 1.4   | 1.4       | 10   | 10                                      | 11   | 17        | 11      | 264                              | 1                                       | 11   | 8    |
| Guinea                                 | 22                     | 400                        | -   | 1.6       | 5  | -                                       | 3x   | 11x       | 29x     | 153                              | 5                                       | 18   | 13   |
| Guinea-Bissau                          | 8                      | 160                        | -0.5  | -1.3      | 29   | -                                       | 1x   | 3x        | 4x      | 80                               | 37                                      | 21   | 7    |
| Guyana                                 | 64                     | 840                        | -0.3  | 4.4       | 12   | -                                       | -  | -         | -       | 108                              | 17                                      | -  | 16x  |
| Haiti                                  | 38                     | 480                        | 0.1   | -2.5      | 19   | -                                       | -  | -         | -       | 208                              | 5                                       | 4  | 6    |
| Holy See                               | -                      | -                          | -   | -         | -  | -                                       | -  | -         | -       | -                                | -                                       | -  | -    |
| Honduras                               | 88                     | 900                        | 1.1   | 0.3       | 18   | 24                                      | 10x  | 19x       | 7x      | 449                              | 8                                       | 30   | 18   |
| Hungary                                | 152                    | 4800                       | 3.9   | 2.0       | 18   | 2                                       | 4  | 6         | 2       | -                                | -                                       | 30   | 24   |
| Iceland                                | 189                    | 28880                      | 3.6   | 2.0       | 3  | -                                       | 25   | 10        | -       | -                                | -                                       | -  | -    |
| India                                  | 54                     | 460                        | 1.6   | 4.0       | 8  | 44                                      | 2  | 3         | 16      | 1487                             | 0                                       | 25   | 12   |
| Indonesia                              | 77                     | 680                        | 4.3   | 2.1       | 16   | 8                                       | 2  | 6         | 4       | 1731                             | 1                                       | 31   | 23   |
| Iran (Islamic Republic of)             | 81                     | 1750                       | -3.5  | 2.0       | 26   | -                                       | 7  | 19        | 14      | 130                              | 0                                       | 1  | 11   |
| Iraq                                   | 33                     | 2170x                      | -1.1  | -         | 0x   | -                                       | -  | -         | -       | 101                              | -                                       | -  | -    |
| Ireland                                | 164                    | 23060                      | 3.1   | 6.7       | 4  | -                                       | 16   | 14        | 3       | -                                | -                                       | -  | -    |
| Israel                                 | 164                    | 16710x                     | 3.1   | 2.2       | 10   | -                                       | 13   | 14        | 17      | -                                | -                                       | -  | -    |
| Italy                                  | 164                    | 19470                      | 3.2   | 1.5       | 4  | -                                       | 11x  | 8x        | 4x      | -                                | -                                       | -  | -    |
| Jamaica                                | 125                    | 2720                       | 0.1   | -0.3      | 22   | 3                                       | 6  | 14        | 1       | 10                               | 0                                       | 20   | 13   |
| Japan                                  | 178                    | 35990                      | 4.8   | 1.0       | 0  | -                                       | 2  | 6         | 4       | -                                | -                                       | -  | -    |
| Jordan                                 | 94                     | 1750                       | 2.5   | 0.9       | 3  | 2                                       | 10   | 16        | 19      | 552                              | 7                                       | 18   | 10   |
| Kazakhstan                             | 61                     | 1360                       | -   | -1.8      | 169  | 2                                       | 2  | 4         | 4       | 189                              | 1                                       | -  | 12   |
| Kenya                                  | 40                     | 340                        | 2.3   | -0.6      | 13   | 27                                      | 7  | 26        | 6       | 512                              | 5                                       | 26   | 14   |
| Kiribati                               | 67                     | 830                        | -5.5  | 0.6       | 3  | -                                       | -  | -         | -       | 18                               | 21                                      | -  | -    |
| Korea, Democratic People's Republic of | 73                     | a                          | -   | -         | -  | -                                       | -  | -         | -       | 75                               | -                                       | -  | -    |
| Korea, Republic of                     | 178                    | 9400                       | 6.5   | 4.6       | 5  | 2                                       | 1  | 21        | 17      | -55x                             | 0x                                      | 10   | 10   |
| Kuwait                                 | 151                    | 18030x                     | -6.2  | -1.4      | 3  | -                                       | 7  | 15        | 17      | -                                | -                                       | -  | -    |
| Kyrgyzstan                             | 71                     | 280                        | -   | -4.0      | 95   | -                                       | 11   | 20        | 10      | 215                              | 16                                      | -  | 26   |
| Lao People's Democratic Republic       | 49                     | 310                        | -   | 3.8       | 28   | 26                                      | -  | -         | -       | 281                              | 19                                      | 8  | 7    |
| Latvia                                 | 121                    | 3300                       | 4.1   | -1.1      | 42   | 2                                       | 11   | 6         | 3       | -                                | -                                       | -  | 14   |
| Lebanon                                | 95                     | 4010                       | -   | 3.6       | 15   | -                                       | 2  | 7         | 11      | 197                              | 1                                       | 1  | 8x   |
| Lesotho                                | 34                     | 550                        | 3.1   | 2.0       | 10   | 43                                      | 9  | 27        | 7       | 41                               | 3                                       | 4  | 11   |
| Liberia                                | 5                      | 490x                       | -0.6  | -         | -  | -                                       | 5x   | 11x       | 9x      | 68                               | -                                       | -  | -    |
| Libyan Arab Jamahiriya                 | 130                    | 5540x                      | 0.2   | -         | -  | -                                       | -  | -         | -       | 7x                               | -                                       | -  | -    |
| Liechtenstein                          | 149                    | d                          | -   | -         | -  | -                                       | -  | -         | -       | -                                | -                                       | -  | -    |
| Lithuania                              | 152                    | 3270                       | -   | -1.7      | 63   | 2                                       | 16   | 6         | 5       | -                                | -                                       | -  | 15   |
| Luxembourg                             | 178                    | 41770                      | 2.6   | 4.2       | 2  | -                                       | 2  | 10        | 2       | -                                | -                                       | -  | -    |
| Madagascar                             | 32                     | 260                        | -1.3  | -0.6      | 18   | 49                                      | 7  | 9         | 5       | 322                              | 8                                       | 32   | 6    |
| Malawi                                 | 15                     | 170                        | 1.5   | 1.7       | 33   | -                                       | 7x   | 12x       | 5x      | 445                              | 26                                      | 23   | 9    |
| Malaysia                               | 158                    | 3640                       | 4.1   | 3.9       | 4  | -                                       | 6  | 23        | 11      | 45                               | 0                                       | 12   | 5    |
| Maldives                               | 58                     | 2040                       | -   | 5.3       | 5  | -                                       | 10   | 18        | 14      | 19                               | 4                                       | 4  | 4    |
| Mali                                   | 6                      | 210                        | 0.1   | 1.6       | 7  | 73                                      | 2x   | 9x        | 8x      | 360                              | 14                                      | 8  | 9    |
| Malta                                  | 178                    | 9120x                      | 7.1   | 4.0       | 3  | -                                       | 10   | 11        | 2       | 21                               | 1                                       | -  | -    |
| Marshall Islands                       | 70                     | 2190                       | -   | -         | 5  | -                                       | -  | -         | -       | 57                               | 50                                      | -  | -    |
| Mauritania                             | 15                     | 350                        | 0.8   | 1.2       | 6  | 29                                      | 4x   | 23x       | -       | 212                              | 21                                      | 24   | 20   |
| Mauritius                              | 130                    | 3830                       | 2.9   | 3.9       | 6  | -                                       | 8  | 16        | 1       | 20                               | 0                                       | 6  | 20   |
| Mexico                                 | 102                    | 5540                       | 2.4   | 1.5       | 18   | 16                                      | 4  | 26        | 3       | -54                              | 0                                       | 16   | 26   |
| Micronesia (Federated States of)       | 114                    | 2150                       | -   | -1.3      | 3  | -                                       | -  | -         | -       | 102                              | 42                                      | -  | -    |
| Moldova, Republic of                   | 95                     | 380                        | -   | -8.2      | 103  | 11                                      | 3  | 4         | 1       | 123                              | 9                                       | -  | 13   |

# TABLE 6. ECONOMIC INDICATORS

|                                  | Under-5 mortality rank | GNI per capita (US\$) 2001 | GDP per capita average annual growth rate (%) |           | Average annual rate of inflation (%) 1990-2001 | % of population below \$1 a day 1990-99 | % of central government expenditure allocated to: (1992-2001*) |           |         | ODA inflow in millions US\$ 2000 | ODA inflow as a % of recipient GNI 2000 | Debt service as a % of exports of goods and services |      |
|----------------------------------|------------------------|----------------------------|---|-----------|--|---|--|-----------|---------|----------------------------------|---|--|------|
|                                  |                        |                            | 1960-90                                       | 1990-2001 |  |   | health   | education | defence |                                  |   | 1990   | 2000 |
| Monaco                           | 178                    | d                          | -   | -         | -  | -                                       | -  | -         | -       | -                                | -                                       | -  | -    |
| Mongolia                         | 61                     | 400                        | -   | 0.0       | 51   | 14                                      | 6  | 9         | 9       | 217                              | 23                                      | -  | 3    |
| Morocco                          | 78                     | 1180                       | 2.3   | 0.7       | 3  | 2                                       | 3  | 18        | 13      | 419                              | 1                                       | 18   | 26   |
| Mozambique                       | 12                     | 210                        | -   | 5.1       | 29   | 38                                      | 5x   | 10x       | 35x     | 876                              | 21                                      | 21   | 6    |
| Myanmar                          | 43                     | 220x                       | 1.4   | 5.1x      | 25   | -                                       | 3  | 8         | 29      | 107                              | -                                       | 9  | 4    |
| Namibia                          | 69                     | 1960                       | -   | 1.8       | 9  | 35                                      | 10x  | 22x       | 7x      | 152                              | 4                                       | -  | -    |
| Nauru                            | 98                     | -                          | -   | -         | -  | -                                       | -  | -         | -       | 4                                | -                                       | -  | -    |
| Nepal                            | 55                     | 250                        | 0.5   | 2.5       | 8  | 38                                      | 5  | 15        | 5       | 390                              | 7                                       | 10   | 6    |
| Netherlands                      | 164                    | 24040                      | 2.4   | 2.2       | 2  | -                                       | 15   | 10        | 4       | -                                | -                                       | -  | -    |
| New Zealand                      | 164                    | 12380                      | -   | 1.8       | 2  | -                                       | 17   | 16        | 4       | -                                | -                                       | -  | -    |
| Nicaragua                        | 79                     | 420x                       | -1.5  | -0.1      | 45   | -                                       | 13   | 15        | 6       | 562                              | 34x                                     | 2  | 22   |
| Niger                            | 2                      | 170                        | -2.2  | -0.9      | 6  | 61                                      | -  | -         | -       | 211                              | 11                                      | 12   | 8    |
| Nigeria                          | 15                     | 290                        | 0.4   | -0.3      | 27   | 70                                      | 1x   | 3x        | 3x      | 185                              | 1                                       | 22   | 4    |
| Niue                             | -                      | -                          | -   | -         | -  | -                                       | -  | -         | -       | 3                                | -                                       | -  | -    |
| Norway                           | 189                    | 35530                      | 3.4   | 2.9       | 3  | -                                       | 5  | 7         | 6       | -                                | -                                       | -  | -    |
| Occupied Palestinian Territory   | 114                    | 1350                       | -   | -3.0      | 8  | -                                       | -  | -         | -       | 636                              | 13                                      | -  | -    |
| Oman                             | 146                    | 4940x                      | 7.6   | 0.3x      | -3x  | -                                       | 7  | 15        | 33      | 46                               | -                                       | 12   | 7    |
| Pakistan                         | 43                     | 420                        | 2.9   | 1.2       | 10   | 31                                      | 1  | 1         | 18      | 703                              | 1                                       | 17   | 23   |
| Palau                            | 102                    | 6730                       | -   | -         | 2  | -                                       | -  | -         | -       | 39                               | 29                                      | -  | -    |
| Panama                           | 110                    | 3290                       | 1.8   | 2.1       | 2  | 14                                      | 17   | 4         | 12      | 17                               | 0                                       | 3  | 9    |
| Papua New Guinea                 | 53                     | 580                        | 1.1   | 1.0       | 7  | -                                       | 7  | 22        | 4       | 275                              | 8                                       | 37   | 12   |
| Paraguay                         | 98                     | 1300                       | 3.0   | -0.7      | 12   | 19                                      | 7  | 22        | 11      | 82                               | 1                                       | 12   | 9    |
| Peru                             | 85                     | 2000                       | 0.4   | 2.5       | 23   | 15                                      | 5x   | 16x       | 11x     | 401                              | 1                                       | 6  | 39   |
| Philippines                      | 88                     | 1040x                      | 1.5   | 1.1       | 8  | -                                       | 5  | 19        | 2       | 578                              | 1x                                      | 23   | 13   |
| Poland                           | 152                    | 4240                       | -   | 4.4       | 21   | 2                                       | 2  | 5         | 4       | -                                | -                                       | 4  | 20   |
| Portugal                         | 164                    | 10670                      | 4.0   | 2.5       | 5  | 2                                       | 9x   | 11x       | 6x      | -                                | -                                       | -  | -    |
| Qatar                            | 138                    | 12000x                     | -   | -         | -  | -                                       | -  | -         | -       | -                                | -                                       | -  | -    |
| Romania                          | 121                    | 1710                       | 2.0   | 0.0       | 91   | 3                                       | 14   | 10        | 5       | -                                | -                                       | 0  | 18   |
| Russian Federation               | 121                    | 1750                       | 3.8   | -3.5      | 140  | 7                                       | 1  | 2         | 12      | -                                | -                                       | -  | 6    |
| Rwanda                           | 15                     | 220                        | 1.1   | -1.3      | 13   | 36x                                     | 5x   | 26x       | -       | 322                              | 16                                      | 10   | 15   |
| Saint Kitts and Nevis            | 114                    | 6880                       | 3.7   | 4.7       | 3  | -                                       | -  | -         | -       | 4                                | 1                                       | 3  | 12   |
| Saint Lucia                      | 130                    | 3970                       | -   | 0.6       | 3  | -                                       | -  | -         | -       | 11                               | 2                                       | 2  | 9    |
| Saint Vincent and the Grenadines | 110                    | 2690                       | -   | 2.5       | 2  | -                                       | 12   | 16        | -       | 6                                | 2                                       | 3  | 7    |
| Samoa                            | 110                    | 1520                       | -   | 2.1       | 4  | -                                       | -  | -         | -       | 27                               | 11                                      | 5  | 7    |
| San Marino                       | 164                    | d                          | -   | -         | -  | -                                       | -  | -         | -       | -                                | -                                       | -  | -    |
| Sao Tome and Principe            | 63                     | 280                        | -   | -0.6      | 47   | -                                       | -  | -         | -       | 35                               | 82                                      | 28   | 26   |
| Saudi Arabia                     | 105                    | 7230x                      | 2.2   | -1.2      | 2  | -                                       | 6x   | 14x       | 36x     | 31                               | 0                                       | -  | -    |
| Senegal                          | 30                     | 480                        | -0.6  | 1.1       | 4  | 26                                      | 3  | 14        | 7       | 423                              | 9                                       | 14   | 12   |
| Seychelles                       | 137                    | 7050x                      | 3.1   | 1.1       | 3  | -                                       | 7  | 7         | 3       | 18                               | 3                                       | 8  | 3    |
| Sierra Leone                     | 1                      | 140                        | 0.6   | -5.0      | 27   | 57x                                     | 10x  | 13x       | 10x     | 182                              | 30                                      | 5  | 16   |
| Singapore                        | 189                    | 24740x                     | 6.9   | 4.7       | 1  | -                                       | 5  | 21        | 26      | -                                | -                                       | -  | -    |
| Slovakia                         | 152                    | 3700                       | -   | 2.1       | 10   | 2                                       | 18   | 10        | 5       | -                                | -                                       | -  | 16   |
| Slovenia                         | 178                    | 9780                       | -   | 3.0       | 18   | 2                                       | -  | -         | -       | 61                               | 0                                       | -  | -    |
| Solomon Islands                  | 114                    | 580                        | 2.4   | -1.5      | 8  | -                                       | -  | -         | -       | 68                               | 25                                      | 10   | 7    |
| Somalia                          | 7                      | 120x                       | -1.0  | -         | -  | -                                       | 1x   | 2x        | 38x     | 104                              | -                                       | 10   | -    |
| South Africa                     | 66                     | 2900                       | 1.3   | 0.2       | 9  | 11                                      | -  | -         | -       | 488                              | 0                                       | -  | 9    |
| Spain                            | 164                    | 14860                      | 3.2   | 2.5       | 4  | -                                       | 6  | 4         | 3       | -                                | -                                       | -  | -    |
| Sri Lanka                        | 130                    | 830                        | 2.7   | 3.8       | 9  | 7                                       | 6  | 10        | 18      | 276                              | 2                                       | 10   | 8    |
| Sudan                            | 46                     | 330                        | -0.1  | 5.5       | 55   | -                                       | 1  | 8         | 28      | 225                              | 2                                       | 3  | 0    |
| Suriname                         | 95                     | 1690                       | -0.6  | 2.0       | 84   | -                                       | -  | -         | -       | 34                               | 5                                       | -  | -    |
| Swaziland                        | 27                     | 1300                       | 2.1   | 0.2       | 13   | -                                       | 8  | 20        | 8       | 13                               | 1                                       | 6  | 2    |
| Sweden                           | 193                    | 25400                      | 2.2   | 1.7       | 2  | -                                       | 2  | 7         | 6       | -                                | -                                       | -  | -    |
| Switzerland                      | 164                    | 36970                      | 1.6   | 0.3       | 1  | -                                       | 20   | 2         | 5       | -                                | -                                       | -  | -    |
| Syrian Arab Republic             | 105                    | 1000                       | 2.9   | 2.5       | 6  | -                                       | 3  | 10        | 25      | 158                              | 1                                       | 20   | 3    |
| Tajikistan                       | 64                     | 170                        | -   | -10.0     | 202  | -                                       | 2  | 3         | 10      | 142                              | 13                                      | -  | 9    |
| Tanzania, United Republic of     | 23                     | 270                        | -   | 0.3       | 20   | 20                                      | 6x   | 8x        | 16x     | 1045                             | 12                                      | 25   | 13   |
| Thailand                         | 105                    | 1970                       | 4.6   | 3.0       | 4  | 2                                       | 8  | 22        | 8       | 641                              | 1                                       | 14   | 15   |

|                       | Under-5 mortality rank | GNI per capita (US\$) 2001 | GDP per capita average annual growth rate (%) |           | Average annual rate of inflation (%) 1990-2001 | % of population below \$1 a day 1990-99 | % of central government expenditure allocated to: (1992-2001*) |           |         | ODA inflow in millions US\$ 2000 | ODA inflow as a % of recipient GNI 2000 | Debt service as a % of exports of goods and services |      |
|-----------------------|------------------------|----------------------------|---|-----------|--|---|--|-----------|---------|----------------------------------|---|--|------|
|                       |                        |                            | 1960-90                                       | 1990-2001 |  |   | health   | education | defence |                                  |   | 1990   | 2000 |
| The former Yugoslav   |                        |                            |   |           |  |   |  |           |         |                                  |   |  |      |
| Republic of Macedonia | 109                    | 1690                       | -   | -0.9      | 66   | -                                       | -  | -         | -       | 252                              | 7                                       | -  | 8    |
| Togo                  | 29                     | 270                        | 1.1   | -0.6      | 7  | -                                       | 5x   | 20x       | 11x     | 70                               | 5                                       | 8  | 3    |
| Tonga                 | 125                    | 1530                       | -   | 2.1       | 2  | -                                       | 7x   | 13x       | -       | 19                               | 12                                      | 2  | 11   |
| Trinidad and Tobago   | 125                    | 5540                       | 3.1   | 2.9       | 5  | 12                                      | 9  | 15        | 2       | -2                               | 0                                       | 18   | 9    |
| Tunisia               | 108                    | 2070                       | 3.3   | 3.1       | 4  | 2                                       | 6  | 18        | 5       | 223                              | 1                                       | 22   | 19   |
| Turkey                | 79                     | 2540                       | 2.0   | 1.8       | 74   | 2                                       | 3  | 10        | 8       | 325                              | 0                                       | 27   | 33   |
| Turkmenistan          | 51                     | 990                        | -   | -5.9      | 328  | 12                                      | -  | -         | -       | 32                               | 1                                       | -  | 30x  |
| Tuvalu                | 74                     | -                          | -   | -         | -  | -                                       | -  | -         | -       | 4                                | -                                       | -  | -    |
| Uganda                | 36                     | 280                        | -   | 3.6       | 11   | -                                       | 2x   | 15x       | 26x     | 819                              | 12                                      | 34   | 16   |
| Ukraine               | 125                    | 720                        | -   | -7.4      | 221  | 3                                       | 2  | 6         | 5       | -                                | -                                       | -  | 14   |
| United Arab Emirates  | 152                    | 18060x                     | -5.0  | -1.6      | 2  | -                                       | 7  | 17        | 30      | -                                | -                                       | -  | -    |
| United Kingdom        | 161                    | 24230                      | 2.1   | 2.2       | 3  | -                                       | 15   | 4         | 7       | -                                | -                                       | -  | -    |
| United States         | 158                    | 34870                      | 2.2   | 2.2       | 2  | -                                       | 21   | 2         | 15      | -                                | -                                       | -  | -    |
| Uruguay               | 138                    | 5670                       | 0.9   | 2.1       | 28   | 2x                                      | 6  | 7         | 4       | 17                               | 0                                       | 31   | 26   |
| Uzbekistan            | 68                     | 550                        | -   | -1.8      | 212  | 3                                       | -  | -         | -       | 186                              | 1                                       | -  | 24   |
| Vanuatu               | 81                     | 1050                       | -   | -1.1      | 3  | -                                       | -  | -         | -       | 46                               | 21                                      | 2  | 1    |
| Venezuela             | 120                    | 4760                       | -0.5  | -0.6      | 43   | 23                                      | 7  | 22        | 5       | 77                               | 0                                       | 22   | 14   |
| Viet Nam              | 88                     | 410                        | -   | 5.8       | 14   | -                                       | 4  | 14        | -       | 1700                             | 6                                       | 7  | 7    |
| Yemen                 | 46                     | 460                        | -   | 2.2       | 21   | 16                                      | 4  | 22        | 19      | 265                              | 4                                       | 4  | 2    |
| Yugoslavia            | 130                    | 940x                       | -   | 0.5       | 54   | -                                       | -  | -         | -       | 1135                             | 11                                      | -  | -    |
| Zambia                | 10                     | 320                        | -1.2  | -1.7      | 48   | 64                                      | 13   | 14        | 4       | 795                              | 25                                      | 13   | 18   |
| Zimbabwe              | 38                     | 480                        | 1.4   | -0.2      | 28   | 36                                      | 8  | 24        | 7       | 178                              | 3                                       | 19   | 16   |

## REGIONAL SUMMARIES

|                              |       |     |      |    |    |    |    |    |       |   |    |    |
|------------------------------|-------|-----|------|----|----|----|----|----|-------|---|----|----|
| Sub-Saharan Africa           | 519   | 1.2 | 0.5  | 25 | 43 | -  | -  | -  | 11964 | 4 | 17 | 9  |
| Middle East and North Africa | 1375  | 0.9 | 1.9  | 15 | -  | 5  | 17 | 14 | 4593  | 1 | 20 | 13 |
| South Asia                   | 449   | 1.7 | 3.6  | 8  | 40 | 2  | 3  | 17 | 4240  | 0 | 22 | 12 |
| East Asia and Pacific        | 1140  | 5.1 | 6.1  | 7  | 16 | 2  | 10 | 12 | 8437  | 0 | 14 | 10 |
| Latin America and Caribbean  | 3610  | 2.4 | 1.7  | 79 | 14 | 6  | 13 | 5  | 3807  | 0 | 20 | 34 |
| CEE/CIS and Baltic States    | 1980  | 3.4 | -0.4 | 97 | 4  | 4  | 5  | 8  | -     | - | -  | 16 |
| Industrialized countries     | 28210 | 3.1 | 1.8  | 2  | -  | 12 | 4  | 10 | -     | - | -  | -  |
| Developing countries         | 1159  | 2.9 | 3.5  | 36 | 26 | 3  | 11 | 10 | 34655 | 1 | 18 | 17 |
| Least developed countries    | 295   | 0.0 | 2.2  | 40 | 34 | -  | -  | -  | 12473 | 8 | 11 | 8  |
| World                        | 5228  | 3.1 | 2.0  | 10 | 24 | 10 | 6  | 10 | 37369 | 1 | 17 | 17 |

Countries in each region are listed on page 114.

## DEFINITIONS OF THE INDICATORS

**GNI per capita** – Gross national income (GNI) is the sum of value added by all resident producers plus any product taxes (less subsidies) not included in the valuation of output plus net receipts of primary income (compensation of employees and property income) from abroad. GNI per capita is gross national income divided by mid-year population. GNI per capita in US dollars is converted using the World Bank Atlas method.

**GDP per capita** – Gross domestic product (GDP) is the sum of value added by all resident producers plus any product taxes (less subsidies) not included in the valuation of output. GDP per capita is gross domestic product divided by mid-year population. Growth is calculated from constant price GDP data in local currency.

**% of population below \$1 a day** – Percentage of population living on less than \$1 a day at 1985 international prices, adjusted for purchasing power parity.

**ODA** – Official development assistance.

**Debt service** – The sum of interest payments and repayments of principal on external public and publicly guaranteed long-term debts.

## MAIN DATA SOURCES

**GNI per capita** – World Bank.

**GDP per capita** – World Bank.

**Rate of inflation** – World Bank.

**% of population below \$1 a day** – World Bank.

**Expenditure on health, education and defence** – International Monetary Fund (IMF).

**ODA** – Organisation for Economic Co-operation and Development (OECD).

**Debt service** – World Bank.

## NOTES

a: Range \$745 or less.

b: Range \$746 to \$2975.

c: Range \$2976 to \$9205.

d: Range \$9206 or more.

- Data not available.

x Indicates data that refer to years or periods other than those specified in the column heading, differ from the standard definition or refer to only part of a country.

\* Data refer to the most recent year available during the period specified in the column heading.

# TABLE 7. WOMEN

| Countries and territories         | Under-5 mortality rank | Life expectancy: females as a % of males 2001 | Adult literacy rate: females as a % of males 2000 | Gross enrolment ratios: females as a % of males |                           | Contraceptive prevalence (%) 1995-2001* | Antenatal care coverage (%) 1995-2001* | Skilled attendant at delivery (%) 1995-2001* | Maternal mortality ratio* reported 1985-2001* |
|-----------------------------------|------------------------|---|---|---|---------------------------|---|--|--|---|
|                                   |                        |   |   | primary school 1995-99*                         | secondary school 1995-99* |   |  |  |   |
| Afghanistan                       | 4                      | 101   | 41  | 9   | 34                        | 2x                                      | -                                      | -  | -   |
| Albania                           | 98                     | 108   | -   | 99  | 103                       | -                                       | 95                                     | 99   | -   |
| Algeria                           | 75                     | 104   | 68  | 92  | 106                       | 57                                      | 58x                                    | 92   | 140   |
| Andorra                           | 161                    | -   | -   | -   | -                         | -                                       | -                                      | -  | -   |
| Angola                            | 3                      | 106   | -   | 84  | 72                        | 8                                       | -                                      | 23   | -   |
| Antigua and Barbuda               | 144                    | -   | 104   | -   | -                         | 53                                      | 82                                     | 100x   | 150   |
| Argentina                         | 130                    | 110   | 100   | 100   | 107                       | 74x                                     | 95x                                    | 98   | 41  |
| Armenia                           | 93                     | 108   | -   | 107   | 107x                      | 61                                      | 92                                     | 97   | 35  |
| Australia                         | 164                    | 107   | -   | 100   | 101                       | 76x                                     | 100x                                   | 100  | -   |
| Austria                           | 178                    | 108   | -   | 99  | 96                        | 51                                      | 100x                                   | -  | -   |
| Azerbaijan                        | 48                     | 110   | 97  | 99  | 100                       | 55                                      | 69                                     | 88   | 80  |
| Bahamas                           | 138                    | 113   | 102   | 97  | 103x                      | 62x                                     | -                                      | 99x  | -   |
| Bahrain                           | 138                    | 106   | 91  | 101   | 106                       | 62                                      | 97                                     | 98   | 46  |
| Bangladesh                        | 58                     | 100   | 57  | 97  | 108                       | 54                                      | 40                                     | 12   | 400   |
| Barbados                          | 144                    | 107   | 99  | 99  | 104                       | 55                                      | 89                                     | 91   | 0   |
| Belarus                           | 125                    | 118   | 99  | 95  | 97                        | 50                                      | 100                                    | -  | 20  |
| Belgium                           | 164                    | 108   | -   | 99  | 111                       | 78x                                     | -                                      | -  | -   |
| Belize                            | 84                     | 104   | 101   | 96  | 100                       | 56                                      | 96                                     | 77x  | 140   |
| Benin                             | 24                     | 106   | 45  | 67  | 47                        | 19                                      | 81                                     | 66   | 500   |
| Bhutan                            | 52                     | 104   | 55  | 76  | 29x                       | 31                                      | -                                      | 15x  | 380   |
| Bolivia                           | 58                     | 106   | 86  | 97  | 94                        | 48                                      | 69                                     | 59   | 390   |
| Bosnia and Herzegovina            | 136                    | 108   | 91  | 100   | -                         | 48                                      | 99                                     | 100  | 10  |
| Botswana                          | 42                     | 99  | 107   | 100   | 109                       | 48                                      | 97                                     | 99   | 330   |
| Brazil                            | 92                     | 112   | 100   | 95  | 111                       | 77                                      | 86                                     | 88   | 160   |
| Brunei Darussalam                 | 164                    | 106   | 93  | 95  | 110                       | -                                       | 100x                                   | 99   | 0   |
| Bulgaria                          | 138                    | 112   | 99  | 97  | 98                        | 86                                      | -                                      | -  | 15  |
| Burkina Faso                      | 12                     | 104   | 39  | 69  | 67                        | 12                                      | 61                                     | 31   | 480   |
| Burundi                           | 14                     | 104   | 72  | 81  | 75                        | 9x                                      | 76                                     | 25   | -   |
| Cambodia                          | 30                     | 109   | -   | 87  | 55                        | 24                                      | 38                                     | 32   | 440   |
| Cameroon                          | 25                     | 103   | 85  | 84  | 77                        | 26                                      | 75                                     | 56   | 430   |
| Canada                            | 161                    | 107   | -   | 101   | 101                       | 75                                      | -                                      | 98   | -   |
| Cape Verde                        | 88                     | 109   | 77  | 99  | 104                       | 53                                      | 99                                     | 53   | 35  |
| Central African Republic          | 19                     | 108   | 58  | 66  | 40x                       | 28                                      | 67x                                    | 44   | 1100  |
| Chad                              | 11                     | 105   | 61  | 61  | 28                        | 8                                       | 42                                     | 16   | 830   |
| Chile                             | 147                    | 108   | 100   | 96  | 101                       | 56x                                     | 95x                                    | 100  | 23  |
| China                             | 85                     | 106   | 84  | 103   | 91                        | 91                                      | -                                      | 89   | 55  |
| Colombia                          | 118                    | 109   | 100   | 99  | 112                       | 77                                      | 91                                     | 86   | 80  |
| Comoros                           | 57                     | 105   | 89  | 84  | 78                        | 26                                      | 74                                     | 62   | -   |
| Congo                             | 45                     | 108   | 85  | 91  | 73                        | -                                       | -                                      | -  | -   |
| Congo, Democratic Republic of the | 9                      | 105   | -   | 90  | 54                        | 8x                                      | 68                                     | 61   | 950   |
| Cook Islands                      | 118                    | -   | -   | 97  | -                         | 50x                                     | -                                      | 100  | -   |
| Costa Rica                        | 149                    | 106   | 100   | 97  | 113                       | 75x                                     | 70                                     | 98   | 29  |
| Côte d'Ivoire                     | 20                     | 101   | 70  | 75  | 54                        | 15                                      | 88                                     | 47   | 600   |
| Croatia                           | 158                    | 111   | 98  | 98  | 104                       | -                                       | -                                      | -  | 6   |
| Cuba                              | 152                    | 105   | 100   | 96  | 105                       | 73                                      | 100                                    | 100  | 33  |
| Cyprus                            | 164                    | 106   | 96  | 101   | 105                       | -                                       | -                                      | -  | 0   |
| Czech Republic                    | 178                    | 109   | -   | 100   | 102                       | 69x                                     | 99x                                    | -  | 9   |
| Denmark                           | 189                    | 107   | -   | 100   | 105                       | 78x                                     | -                                      | -  | 10  |
| Djibouti                          | 28                     | 106   | 59  | 72  | 131                       | -                                       | -                                      | -  | -   |
| Dominica                          | 143                    | -   | -   | 113   | -                         | 50                                      | 100                                    | 100  | 65  |
| Dominican Republic                | 76                     | 108   | 100   | 98  | 122                       | 64                                      | 98                                     | 96   | 230x  |
| East Timor                        | 36                     | 104   | -   | -   | -                         | 27                                      | 71                                     | 26   | -   |
| Ecuador                           | 98                     | 108   | 96  | 100   | 102                       | 66                                      | 69                                     | 69   | 160   |
| Egypt                             | 83                     | 105   | 65  | 92  | 94                        | 56                                      | 53                                     | 61   | 80  |
| El Salvador                       | 85                     | 109   | 93  | 96  | 100                       | 60                                      | 76                                     | 51   | 120   |
| Equatorial Guinea                 | 26                     | 106   | 81  | 82  | 44                        | -                                       | 37x                                    | -  | -   |
| Eritrea                           | 41                     | 105   | -   | 82  | 70                        | 8                                       | 49                                     | 21   | 1000  |
| Estonia                           | 147                    | 116   | -   | 96  | 103                       | 70x                                     | -                                      | -  | 52  |
| Ethiopia                          | 21                     | 103   | 76  | 67  | 67                        | 8                                       | 27                                     | 6  | 870   |

|  | Under-5 mortality rank | Life expectancy: females as a % of males 2001 | Adult literacy rate: females as a % of males 2000 | Gross enrolment ratios: females as a % of males |                           | Contraceptive prevalence (%) 1995-2001* | Antenatal care coverage (%) 1995-2001* | Skilled attendant at delivery (%) 1995-2001* | Maternal mortality ratio* reported 1985-2001* |
|--|------------------------|---|---|---|---------------------------|---|--|--|---|
|  |                        |   |   | primary school 1995-99*                         | secondary school 1995-99* |   |  |  |   |
| Fiji                                   | 121                    | 105   | 96  | 99  | 102x                      | 32x                                     | -                                      | 100  | 38  |
| Finland                                | 178                    | 110   | -   | 99  | 109                       | 77x                                     | 100x                                   | -  | 6   |
| France                                 | 164                    | 110   | -   | 99  | 100                       | 75x                                     | 99x                                    | -  | 10  |
| Gabon                                  | 56                     | 104   | 78  | 97  | 88                        | 33                                      | 94                                     | 86   | 520   |
| Gambia                                 | 35                     | 106   | 68  | 90  | 74                        | 10                                      | 79                                     | 51   | -   |
| Georgia                                | 102                    | 112   | 100   | 100   | 101                       | 41                                      | 95                                     | 96   | 50  |
| Germany                                | 178                    | 108   | -   | 99  | 99                        | 75x                                     | -                                      | -  | 8   |
| Ghana                                  | 49                     | 105   | 77  | 90  | 64x                       | 22                                      | 88                                     | 44   | 210x  |
| Greece                                 | 178                    | 107   | 97  | 100   | 103                       | -                                       | -                                      | -  | 1   |
| Grenada                                | 110                    | -   | -   | 89  | -                         | 54x                                     | 98                                     | 100x   | 1   |
| Guatemala                              | 72                     | 109   | 80  | 90  | 86                        | 38                                      | 60                                     | 41   | 190   |
| Guinea                                 | 22                     | 102   | 49  | 68  | 35                        | 6                                       | 71                                     | 35   | 530   |
| Guinea-Bissau                          | 8                      | 107   | 40  | 67  | 54                        | 1x                                      | 54                                     | 35   | 910   |
| Guyana                                 | 64                     | 115   | 99  | 98  | 103                       | 41x                                     | -                                      | 95   | 110   |
| Haiti                                  | 38                     | 112   | 91  | 101   | 95x                       | 28                                      | 79                                     | 24   | 520   |
| Holy See                               | -                      | -   | -   | -   | -                         | -                                       | -                                      | -  | -   |
| Honduras                               | 88                     | 109   | 109   | 102   | 128x                      | 50                                      | 84                                     | 54   | 110   |
| Hungary                                | 152                    | 113   | 100   | 99  | 101                       | 77x                                     | -                                      | -  | 15  |
| Iceland                                | 189                    | 106   | -   | 99  | 108                       | -                                       | -                                      | -  | -   |
| India                                  | 54                     | 102   | 61  | 83  | 66                        | 47                                      | 60                                     | 43   | 540   |
| Indonesia                              | 77                     | 106   | 89  | 96  | 96                        | 55                                      | 89                                     | 56   | 380   |
| Iran (Islamic Republic of)             | 81                     | 103   | 84  | 97  | 93                        | 73                                      | 77                                     | -  | 37  |
| Iraq                                   | 33                     | 105   | -   | 82  | 62                        | 14x                                     | 78                                     | -  | 290   |
| Ireland                                | 164                    | 107   | -   | 99  | 107                       | -                                       | -                                      | -  | 6   |
| Israel                                 | 164                    | 105   | 96  | 99  | 100                       | -                                       | -                                      | -  | 5   |
| Italy                                  | 164                    | 108   | 99  | 99  | 96                        | 78x                                     | -                                      | -  | 7   |
| Jamaica                                | 125                    | 106   | 110   | 106   | 96                        | 66                                      | 99                                     | 95   | 95  |
| Japan                                  | 178                    | 109   | -   | 100   | 102                       | 59x                                     | -                                      | 100  | 8   |
| Jordan                                 | 94                     | 104   | 89  | 100   | 103                       | 57                                      | 96                                     | 97   | 41  |
| Kazakhstan                             | 61                     | 119   | 100   | 100   | 100                       | 66                                      | 91                                     | 99   | 65  |
| Kenya                                  | 40                     | 103   | 85  | 99  | 90                        | 39                                      | 76                                     | 44   | 590   |
| Kiribati                               | 67                     | -   | -   | -   | -                         | 28x                                     | 88x                                    | 85   | -   |
| Korea, Democratic People's Republic of | 73                     | 109   | -   | 94x   | -                         | -                                       | -                                      | -  | 110   |
| Korea, Republic of                     | 178                    | 110   | 97  | 101   | 99                        | 81                                      | -                                      | 100  | 20  |
| Kuwait                                 | 151                    | 105   | 95  | 99  | 100                       | 50                                      | 95x                                    | 98   | 5   |
| Kyrgyzstan                             | 71                     | 112   | -   | 97  | 102                       | 60                                      | 97                                     | 98   | 65  |
| Lao People's Democratic Republic       | 49                     | 105   | 68  | 85  | 69                        | 19x                                     | 29                                     | 21   | 650   |
| Latvia                                 | 121                    | 117   | 100   | 98  | 102                       | -                                       | -                                      | 100  | 45  |
| Lebanon                                | 95                     | 104   | 87  | 96  | 109                       | 63                                      | 87                                     | 88   | 100x  |
| Lesotho                                | 34                     | 99  | 127   | 109   | 133                       | 23x                                     | 88                                     | 60   | -   |
| Liberia                                | 5                      | 104   | 53  | 72  | 67                        | 6x                                      | 84                                     | 51   | 580   |
| Libyan Arab Jamahiriya                 | 130                    | 106   | 74  | 100x  | 112                       | 45                                      | 81                                     | 94   | 75  |
| Liechtenstein                          | 149                    | -   | -   | -   | -                         | -                                       | -                                      | -  | -   |
| Lithuania                              | 152                    | 115   | 100   | 99  | 62                        | -                                       | -                                      | -  | 18  |
| Luxembourg                             | 178                    | 109   | -   | 102   | 105                       | -                                       | -                                      | -  | 0   |
| Madagascar                             | 32                     | 104   | -   | 96  | 93                        | 19                                      | 73                                     | 47   | 490   |
| Malawi                                 | 15                     | 99  | 63  | 100   | 80                        | 31                                      | 91                                     | 56   | 1100  |
| Malaysia                               | 158                    | 107   | 91  | 98  | 111                       | 55x                                     | -                                      | 96   | 41  |
| Maldives                               | 58                     | 98  | 100   | 101   | 107                       | 32                                      | 81                                     | 70   | 350   |
| Mali                                   | 6                      | 104   | 69  | 69  | 50                        | 7                                       | 47                                     | 24   | 580   |
| Malta                                  | 178                    | 107   | 102   | 101   | 89                        | -                                       | -                                      | -  | -   |
| Marshall Islands                       | 70                     | -   | -   | 99  | -                         | 37x                                     | -                                      | 95   | -   |
| Mauritania                             | 15                     | 106   | 58  | 94  | 71                        | 8                                       | 64                                     | 53   | 750   |
| Mauritius                              | 130                    | 111   | 92  | 101   | 98                        | 26                                      | -                                      | -  | 21  |
| Mexico                                 | 102                    | 109   | 96  | 99  | 104                       | 70                                      | 86                                     | 86   | 55  |
| Micronesia (Federated States of)       | 114                    | -   | -   | -   | -                         | -                                       | -                                      | 93   | -   |
| Moldova, Republic of                   | 95                     | 112   | 99  | 99  | 104                       | 74                                      | 99                                     | 99   | 28  |

# TABLE 7. WOMEN

|                                  | Under-5 mortality rank | Life expectancy: females as a % of males 2001 | Adult literacy rate: females as a % of males 2000 | Gross enrolment ratios: females as a % of males |                           | Contraceptive prevalence (%) 1995-2001* | Antenatal care coverage (%) 1995-2001* | Skilled attendant at delivery (%) 1995-2001* | Maternal mortality ratio* reported 1985-2001* |
|----------------------------------|------------------------|---|---|---|---------------------------|---|--|--|---|
|                                  |                        |   |   | primary school 1995-99*                         | secondary school 1995-99* |   |  |  |   |
| Monaco                           | 178                    | -   | -   | -   | -                         | -                                       | -                                      | -  | -   |
| Mongolia                         | 61                     | 107   | 100   | 103   | 122                       | 60                                      | 97                                     | 97   | 150   |
| Morocco                          | 78                     | 106   | 58  | 85  | 80                        | 59                                      | 42                                     | 40   | 230   |
| Mozambique                       | 12                     | 104   | 47  | 74  | 65                        | 10                                      | 71                                     | 44   | 1100  |
| Myanmar                          | 43                     | 109   | 91  | 100   | 100                       | 33                                      | 76                                     | -  | 230   |
| Namibia                          | 69                     | 100   | 98  | 102   | 113                       | 44                                      | 91                                     | 78   | 270   |
| Nauru                            | 98                     | -   | -   | 94  | -                         | -                                       | -                                      | -  | -   |
| Nepal                            | 55                     | 99  | 40  | 74  | 73                        | 39                                      | 28                                     | 11   | 540   |
| Netherlands                      | 164                    | 107   | -   | 98  | 96                        | 79x                                     | -                                      | 100  | 7   |
| New Zealand                      | 164                    | 107   | -   | 100   | 105                       | 75                                      | 95x                                    | 100  | 15  |
| Nicaragua                        | 79                     | 107   | 100   | 101   | 118                       | 60                                      | 82                                     | 65   | 150   |
| Niger                            | 2                      | 101   | 35  | 67  | 63                        | 14                                      | 41                                     | 16   | 590   |
| Nigeria                          | 15                     | 101   | 78  | 87  | 85x                       | 15                                      | 64                                     | 42   | -   |
| Niue                             | -                      | -   | -   | 100   | -                         | -                                       | -                                      | 100  | -   |
| Norway                           | 189                    | 108   | -   | 100   | 102                       | 74x                                     | -                                      | -  | 6   |
| Occupied Palestinian Territory   | 114                    | 105   | -   | 101   | 106                       | 51                                      | 96                                     | -  | -   |
| Oman                             | 146                    | 104   | 77  | 95  | 99                        | 40                                      | 96                                     | 91   | 14  |
| Pakistan                         | 43                     | 100   | 48  | 70  | 70                        | 17                                      | 28                                     | 20   | -   |
| Palau                            | 102                    | -   | -   | -   | -                         | 47x                                     | -                                      | 100  | -   |
| Panama                           | 110                    | 106   | 98  | 97  | 106                       | 58x                                     | 72                                     | 90   | 70  |
| Papua New Guinea                 | 53                     | 103   | 81  | 91  | 75                        | 26                                      | 78                                     | 53   | 370x  |
| Paraguay                         | 98                     | 107   | 98  | 97  | 104                       | 57                                      | 89                                     | 58   | 190   |
| Peru                             | 85                     | 108   | 90  | 99  | 94                        | 69                                      | 84                                     | 59   | 190   |
| Philippines                      | 88                     | 106   | 100   | 101   | 108                       | 47                                      | 86                                     | 56   | 170   |
| Poland                           | 152                    | 112   | 100   | 98  | 99                        | 49x                                     | -                                      | -  | 8   |
| Portugal                         | 164                    | 110   | 95  | 96  | 107                       | 66x                                     | -                                      | 100  | 8   |
| Qatar                            | 138                    | 104   | 103   | 96  | 137                       | 43                                      | 94x                                    | -  | 10  |
| Romania                          | 121                    | 110   | 98  | 98  | 101                       | 64                                      | -                                      | 98   | 42  |
| Russian Federation               | 121                    | 121   | 99  | 99x   | 108                       | -                                       | -                                      | -  | 44  |
| Rwanda                           | 15                     | 104   | 82  | 98  | 100                       | 13                                      | 92                                     | 31   | 1100  |
| Saint Kitts and Nevis            | 114                    | -   | -   | 93  | -                         | 41                                      | 100x                                   | 100  | 130   |
| Saint Lucia                      | 130                    | 107   | -   | 95  | 122                       | 47                                      | 100x                                   | 100  | 30  |
| Saint Vincent and the Grenadines | 110                    | -   | -   | 84  | -                         | 58                                      | 92                                     | 100x   | 43  |
| Samoa                            | 110                    | 110   | -   | 97  | 110                       | 30                                      | -                                      | 100  | -   |
| San Marino                       | 164                    | -   | -   | -   | -                         | -                                       | -                                      | -  | -   |
| Sao Tome and Principe            | 63                     | -   | -   | -   | -                         | 10x                                     | -                                      | 86x  | -   |
| Saudi Arabia                     | 105                    | 104   | 80  | 96  | 90                        | 32                                      | 90                                     | 91   | -   |
| Senegal                          | 30                     | 107   | 59  | 87  | 63                        | 11                                      | 77                                     | 51   | 560   |
| Seychelles                       | 137                    | -   | -   | 100   | -                         | -                                       | -                                      | -  | -   |
| Sierra Leone                     | 1                      | 107   | 45  | 93  | 85                        | 4                                       | 68                                     | 42   | 1800  |
| Singapore                        | 189                    | 106   | 92  | 98  | 110                       | 74x                                     | -                                      | 100  | 6   |
| Slovakia                         | 152                    | 111   | 100   | 99  | 101                       | 74x                                     | 98x                                    | -  | 9   |
| Slovenia                         | 178                    | 110   | -   | 99  | 103                       | -                                       | -                                      | -  | 11  |
| Solomon Islands                  | 114                    | 104   | -   | 87x   | 67x                       | 25x                                     | -                                      | 85   | 553x  |
| Somalia                          | 7                      | 107   | -   | 50x   | 60x                       | 1x                                      | 32                                     | 34   | -   |
| South Africa                     | 66                     | 106   | 98  | 97  | 110                       | 56                                      | 94                                     | 84   | -   |
| Spain                            | 164                    | 109   | 98  | 100   | 105                       | 81                                      | -                                      | -  | 6   |
| Sri Lanka                        | 130                    | 108   | 94  | 97  | 106                       | 71                                      | 98                                     | 97   | 90  |
| Sudan                            | 46                     | 105   | 67  | 86  | 164                       | 10x                                     | 75x                                    | 86x  | 550   |
| Suriname                         | 95                     | 108   | 97  | 97x   | 116x                      | 42                                      | 91                                     | 85   | 110   |
| Swaziland                        | 27                     | 102   | 97  | 95  | 100                       | 28                                      | 89                                     | 70   | 230   |
| Sweden                           | 193                    | 107   | -   | 103   | 127                       | 78x                                     | -                                      | -  | 5   |
| Switzerland                      | 164                    | 108   | -   | 99  | 93                        | 82                                      | -                                      | -  | 5   |
| Syrian Arab Republic             | 105                    | 103   | 68  | 92  | 89                        | 46                                      | 51x                                    | 76x  | 110x  |
| Tajikistan                       | 64                     | 109   | 99  | 93  | 85                        | 34                                      | 71                                     | 77   | 65  |
| Tanzania, United Republic of     | 23                     | 104   | 79  | 100   | 83                        | 22                                      | 49                                     | 36   | 530   |
| Thailand                         | 105                    | 109   | 97  | 95  | 103                       | 72                                      | 86                                     | 85   | 44  |

|   | Under-5 mortality rank | Life expectancy: females as a % of males 2001 | Adult literacy rate: females as a % of males 2000 | Gross enrolment ratios: females as a % of males |                           | Contraceptive prevalence (%) 1995-2001* | Antenatal care coverage (%) 1995-2001* | Skilled attendant at delivery (%) 1995-2001* | Maternal mortality ratio <sup>†</sup> reported 1985-2001* |
|---|------------------------|---|---|---|---------------------------|---|--|--|---|
|   |                        |   |   | primary school 1995-99*                         | secondary school 1995-99* |   |  |  |   |
| The former Yugoslav Republic of Macedonia | 109                    | 106   | -   | 99  | 96                        | -                                       | 100                                    | -  | 7   |
| Togo                                      | 29                     | 105   | 59  | 78  | 44                        | 26                                      | 73                                     | 49   | 480   |
| Tonga                                     | 125                    | -   | -   | 97  | -                         | -                                       | -                                      | 92   | -   |
| Trinidad and Tobago                       | 125                    | 107   | 99  | 98  | 109                       | 38                                      | 98x                                    | 99   | 70  |
| Tunisia                                   | 108                    | 104   | 74  | 95  | 104                       | 66                                      | 79x                                    | 90   | 70  |
| Turkey                                    | 79                     | 108   | 82  | 88  | 72                        | 64                                      | 68                                     | 81   | 130x  |
| Turkmenistan                              | 51                     | 110   | -   | -   | -                         | 62                                      | 98                                     | 97   | 65  |
| Tuvalu                                    | 74                     | -   | -   | 100   | -                         | -                                       | -                                      | 99   | -   |
| Uganda                                    | 36                     | 103   | 74  | 88  | 60                        | 23                                      | 92                                     | 39   | 510   |
| Ukraine                                   | 125                    | 117   | -   | 99x   | 114                       | 89                                      | -                                      | 99   | 25  |
| United Arab Emirates                      | 152                    | 106   | 109   | 99  | 114                       | 28                                      | 97                                     | 99   | 3   |
| United Kingdom                            | 161                    | 107   | -   | 100   | 116                       | 82x                                     | -                                      | 99   | 7   |
| United States                             | 158                    | 108   | -   | 98  | 101                       | 76                                      | 99x                                    | 99   | 8   |
| Uruguay                                   | 138                    | 110   | 101   | 98  | 118                       | 84                                      | 94                                     | 99   | 26  |
| Uzbekistan                                | 68                     | 109   | 100   | 100   | 88x                       | 67                                      | 97                                     | 96   | 21  |
| Vanuatu                                   | 81                     | 105   | -   | 108   | 84                        | 15x                                     | -                                      | 89   | -   |
| Venezuela                                 | 120                    | 108   | 100   | 98  | 120                       | 77                                      | 90                                     | 95   | 60  |
| Viet Nam                                  | 88                     | 107   | 95  | 97  | 90                        | 74                                      | 68                                     | 70   | 95  |
| Yemen                                     | 46                     | 104   | 37  | 57  | 36                        | 21                                      | 34                                     | 22   | 350   |
| Yugoslavia                                | 130                    | 107   | 98  | 103   | 105                       | 58                                      | -                                      | -  | 9   |
| Zambia                                    | 10                     | 98  | 84  | 94  | 76                        | 19                                      | 96                                     | 47   | 650   |
| Zimbabwe                                  | 38                     | 98  | 94  | 97  | 90                        | 54                                      | 93                                     | 73   | 700   |

## REGIONAL SUMMARIES

|                              |     |    |     |     |    |    |    |      |
|------------------------------|-----|----|-----|-----|----|----|----|------|
| Sub-Saharan Africa           | 103 | 78 | 87  | 82  | 22 | 66 | 41 | 1100 |
| Middle East and North Africa | 104 | 72 | 88  | 92  | 56 | 65 | 64 | 360  |
| South Asia                   | 101 | 61 | 82  | 71  | 45 | 52 | 35 | 430  |
| East Asia and Pacific        | 107 | 86 | 101 | 94  | 81 | -  | 80 | 140  |
| Latin America and Caribbean  | 110 | 98 | 97  | 108 | 71 | 84 | 81 | 190  |
| CEE/CIS and Baltic States    | 113 | 97 | 95  | 99  | 67 | 81 | 90 | 55   |
| Industrialized countries     | 108 | -  | 99  | 103 | -  | -  | 99 | 12   |
| Developing countries         | 105 | 80 | 91  | 88  | 61 | 65 | 56 | 440  |
| Least developed countries    | 103 | 66 | 84  | 85  | 29 | 55 | 29 | 1000 |
| World                        | 105 | 87 | 92  | 92  | 63 | 65 | 59 | 400  |

Countries in each region are listed on page 114.

## DEFINITIONS OF THE INDICATORS

**Life expectancy at birth** – The number of years newborn children would live if subject to the mortality risks prevailing for the cross-section of population at the time of their birth.

**Adult literacy rate** – Percentage of persons aged 15 and over who can read and write.

**Primary or secondary enrolment ratios** – The number of children enrolled in a schooling level (primary or secondary), regardless of age, divided by the population of the age group that officially corresponds to that level.

**Contraceptive prevalence** – Percentage of women in union aged 15-49 years currently using contraception.

**Antenatal care** – Percentage of women aged 15-49 years attended at least once during pregnancy by skilled health personnel (doctors, nurses or midwives).

**Skilled attendant at delivery** – Percentage of births attended by skilled health personnel (doctors, nurses or midwives).

**Maternal mortality ratio** – Annual number of deaths of women from pregnancy-related causes per 100,000 live births. This 'reported' column shows country reported figures that are not adjusted for underreporting and misclassification.

## MAIN DATA SOURCES

**Life expectancy** – United Nations Population Division.

**Adult literacy** – United Nations Educational, Scientific and Cultural Organization (UNESCO), including the Education for All 2000 Assessment.

**School enrolment** – Demographic and Health Surveys (DHS) and UNESCO, including the Education for All 2000 Assessment.

**Contraceptive prevalence** – DHS, Multiple Indicator Cluster Surveys (MICS), United Nations Population Division and UNICEF.

**Antenatal care** – DHS, MICS, World Health Organization (WHO) and UNICEF.

**Skilled attendant at delivery** – DHS, MICS, WHO and UNICEF.

**Maternal mortality** – WHO and UNICEF.

† The maternal mortality data provided in this table are those reported by national authorities. Periodically, UNICEF and WHO evaluate these data and make adjustments to account for the well-documented problems of underreporting and misclassification of maternal deaths and to develop estimates for countries with no data. The regional and global totals in this table are based on the most recent of these assessments and refer to the year 1995.

- NOTES**
- Data not available.
  - x Indicates data that refer to years or periods other than those specified in the column heading, differ from the standard definition or refer to only part of a country.
  - \* Data refer to the most recent year available during the period specified in the column heading.

# TABLE 8. HIV/AIDS AND MALARIA

| Countries and territories         | Adult prevalence rate (15-49 years), end-2001 | Estimated number of people living with HIV/AIDS, end-2001 |                       | HIV prevalence among pregnant women (aged 15-24), major urban areas |                      |                      | HIV/AIDS prevention, 1999-2001*  | % who used condom at last high-risk sex in past 12 months 1998-2001* |                    | Orphans                                      |   | Malaria, 2000                         |   |  |
|-----------------------------------|---|---|-----------------------|---|----------------------|----------------------|--|--|--------------------|--|---|---------------------------------------|---|--|
|                                   |   | Adults and children (0-49 years)                          | Children (0-14 years) | Year [no. of sites surveyed]  | Median (15-19 years) | Median (20-24 years) | % with sufficient knowledge to protect themselves from HIV/AIDS Female (15-24 years) | Female (15-24 years)   | Male (15-24 years) | Children orphaned by AIDS (0-14 years), 2001 | Orphan school attendance rate as a % of non-orphan attendance rate (1995-2001*) | % under-fives sleeping under a bednet | % under-fives sleeping under a treated bednet | % under-fives with fever receiving anti-malarial drugs |
|                                   |   |   |                       |   |                      |                      |  |  |                    |  |   |                                       |   |  |
| Afghanistan                       | -   | -   | -                     | -   | -                    | -                    | -  | -  | -                  | -  | -   | -                                     | -   | -  |
| Angola                            | 5.5   | 350,000   | 37,000                | -   | -                    | -                    | 12   | -  | -                  | 100,000                                      | 89  | 10                                    | 2   | 63   |
| Bahamas                           | 3.5   | 6,200   | <100                  | -   | -                    | -                    | -  | -  | -                  | 2,900  | -   | -                                     | -   | -  |
| Bangladesh                        | <0.1  | 13,000  | 310                   | -   | -                    | -                    | -  | -  | -                  | 2,100  | -   | -                                     | -   | -  |
| Barbados                          | 1.2   | -   | -                     | -   | -                    | -                    | -  | -  | -                  | -  | -   | -                                     | -   | -  |
| Belize                            | 2.0   | 2,500   | 180                   | -   | -                    | -                    | -  | -  | -                  | 950  | -   | -                                     | -   | -  |
| Benin                             | 3.6   | 120,000   | 12,000                | 1999 [n]  | 2.2                  | 4.8                  | -  | -  | -                  | 34,000                                       | 37  | 39                                    | 5   | 60   |
| Bhutan                            | <0.1  | <100  | -                     | -   | -                    | -                    | -  | -  | -                  | -  | -   | -                                     | -   | -  |
| Botswana                          | 38.8  | 330,000   | 28,000                | 2001 [3]  | 27.1                 | 34.9                 | -  | -  | -                  | 69,000                                       | 99  | -                                     | -   | -  |
| Burkina Faso                      | 6.5   | 440,000   | 61,000                | 1998 [1]  | 6.2                  | 8.8                  | -  | 41   | 55                 | 270,000                                      | -   | -                                     | -   | -  |
| Burundi                           | 8.3   | 390,000   | 55,000                | 1998 [1]  | 8.8                  | 15.4                 | 24   | -  | -                  | 240,000                                      | 69  | 3                                     | 0   | 31   |
| Cambodia                          | 2.7   | 170,000   | 12,000                | 2000 [n]  | 1.9                  | 2.8                  | 37   | 41   | -                  | 55,000                                       | 71  | -                                     | -   | -  |
| Cameroon                          | 11.8  | 920,000   | 69,000                | 2000 [5]  | 9.5                  | 11.2                 | 16   | 16   | 31                 | 210,000                                      | 92  | 11                                    | 1   | 66   |
| Central African Republic          | 12.9  | 250,000   | 25,000                | -   | -                    | -                    | 5  | -  | -                  | 110,000                                      | 89  | 31                                    | 2   | 66   |
| Chad                              | 3.6   | 150,000   | 18,000                | -   | -                    | -                    | 5  | 3x   | 2x                 | 72,000                                       | 93  | 27                                    | 1   | 32   |
| Comoros                           | -   | -   | -                     | -   | -                    | -                    | 10   | -  | -                  | -  | -   | 36                                    | 9   | 63   |
| Congo                             | 7.2   | 110,000   | 15,000                | 2000 [u]  | 11.0                 | -                    | -  | -  | -                  | 78,000                                       | -   | -                                     | -   | -  |
| Congo, Democratic Republic of the | 4.9   | 1,300,000   | 170,000               | -   | -                    | -                    | 12   | -  | -                  | 930,000                                      | 77  | 12                                    | 1   | 45   |
| Côte d'Ivoire                     | 9.7   | 770,000   | 84,000                | 1998 [3]  | 4.7                  | 12.2                 | 16   | 25   | 56                 | 420,000                                      | 77  | 10                                    | 1   | 58   |
| Djibouti                          | -   | -   | -                     | -   | -                    | -                    | -  | -  | -                  | -  | -   | -                                     | -   | -  |
| Dominican Republic                | 2.5   | 130,000   | 4,700                 | 1999 [n]  | 1.8x                 | 1.8x                 | 33   | 12x  | 48x                | 33,000                                       | 87  | -                                     | -   | -  |
| Ecuador                           | 0.3   | 20,000  | 660                   | -   | -                    | -                    | -  | -  | -                  | 7,200  | -   | -                                     | -   | -  |
| El Salvador                       | 0.6   | 24,000  | 830                   | -   | -                    | -                    | -  | -  | -                  | 13,000                                       | -   | -                                     | -   | -  |
| Equatorial Guinea                 | 3.4   | 5,900   | 420                   | -   | -                    | -                    | 4  | -  | -                  | -  | -   | 15                                    | 1   | 49   |
| Eritrea                           | 2.8   | 55,000  | 4,000                 | -   | -                    | -                    | -  | -  | 2x                 | 24,000                                       | -   | -                                     | -   | -  |
| Estonia                           | 1.0   | 7,700   | -                     | -   | -                    | -                    | -  | -  | -                  | -  | -   | -                                     | -   | -  |
| Ethiopia                          | 6.4   | 2,100,000   | 230,000               | 2000 [4]  | 8.9                  | 17.6                 | -  | 17   | 30                 | 990,000                                      | 60  | 1                                     | 0   | 3  |
| Gabon                             | -   | -   | -                     | 1995 [3]  | 7.1                  | 2 x                  | -  | 33   | 48                 | -  | 98  | -                                     | -   | -  |
| Gambia                            | 1.6   | 8,400   | 460                   | -   | -                    | -                    | 15   | -  | -                  | 5,300  | -   | 42                                    | 15  | 55   |
| Ghana                             | 3.0   | 360,000   | 34,000                | 2000 [5]  | 1.9                  | 3                    | 22x  | 48x  | 57x                | 200,000                                      | 95  | -                                     | -   | 61   |
| Guatemala                         | 1.0   | 67,000  | 4,800                 | -   | -                    | -                    | -  | -  | -                  | 32,000                                       | 98  | 6                                     | 1   | -  |
| Guinea                            | -   | -   | -                     | 1995 [1]  | 0.5                  | 2                    | -  | 18   | 32                 | -  | 115   | -                                     | -   | -  |
| Guinea-Bissau                     | 2.8   | 17,000  | 1,500                 | -   | -                    | -                    | 8  | -  | -                  | 4,300  | 104   | 67                                    | 7   | 58   |
| Guyana                            | 2.7   | 18,000  | 800                   | 1997 [1]  | 3.0                  | 7                    | -  | -  | -                  | 4,200  | -   | 61                                    | 7   | 3  |
| Haiti                             | 6.1   | 250,000   | 12,000                | 2000 [n]  | 3.7                  | 3.8                  | -  | 19   | 30                 | 200,000                                      | 82  | -                                     | -   | -  |
| Honduras                          | 1.6   | 57,000  | 3,000                 | -   | -                    | -                    | -  | -  | -                  | 14,000                                       | -   | -                                     | -   | -  |
| India                             | 0.8   | 3,970,000   | 170,000               | -   | -                    | -                    | -  | -  | -                  | -  | -   | -                                     | -   | -  |
| Jamaica                           | 1.2   | 20,000  | 800                   | 1997 [3]  | 1.3                  | 1.4                  | -  | -  | -                  | 5,100  | -   | -                                     | -   | -  |
| Kenya                             | 15.0  | 2,500,000   | 220,000               | 1997 [1]  | 12.5                 | 16.2                 | 26   | 14   | 43                 | 890,000                                      | 75  | 17                                    | 3   | 40   |
| Lao People's Democratic Republic  | <0.1  | 1,400   | <100                  | -   | -                    | -                    | -  | -  | -                  | -  | -   | 21                                    | 0   | -  |
| Lesotho                           | 31.0  | 360,000   | 27,000                | 1999 [n]  | 25.0                 | 41                   | 18   | -  | -                  | 73,000                                       | 89  | -                                     | -   | -  |
| Liberia                           | -   | -   | -                     | -   | -                    | -                    | -  | -  | -                  | -  | -   | -                                     | -   | -  |
| Madagascar                        | 0.3   | 22,000  | 1,000                 | -   | -                    | -                    | 5  | -  | -                  | 6,300  | -   | 30                                    | 1   | 59   |
| Malawi                            | 15.0  | 850,000   | 65,000                | 2001 [3]  | 13.6                 | 25.7                 | 34   | 32   | 38                 | 470,000                                      | 92  | 8                                     | 3   | 27   |
| Mali                              | 1.7   | 110,000   | 13,000                | 1997 [u]  | 3.5x                 | 3.5x                 | -  | -  | -                  | 70,000                                       | 72  | -                                     | -   | -  |
| Mauritania                        | -   | -   | -                     | -   | -                    | -                    | -  | -  | -                  | -  | -   | -                                     | -   | 50   |
| Mexico                            | 0.3   | 150,000   | 3,600                 | -   | -                    | -                    | -  | -  | -                  | 27,000                                       | -   | -                                     | -   | -  |
| Mozambique                        | 13.0  | 1,100,000   | 80,000                | 2000 [2]  | 13.0                 | 14.7                 | -  | -  | -                  | 420,000                                      | 35  | -                                     | -   | -  |
| Myanmar                           | -   | -   | -                     | 2000 [n]  | 2.9                  | 2.8                  | -  | -  | -                  | -  | -   | -                                     | -   | -  |
| Namibia                           | 22.5  | 230,000   | 30,000                | 2000 [n]  | 11.9                 | 20.3                 | -  | -  | -                  | 47,000                                       | -   | -                                     | -   | -  |
| Nepal                             | 0.5   | 58,000  | 1,500                 | -   | -                    | -                    | -  | -  | -                  | 13,000                                       | -   | -                                     | -   | -  |
| Nicaragua                         | 0.2   | 5,800   | 210                   | -   | -                    | -                    | -  | -  | -                  | 2,000  | -   | -                                     | -   | -  |
| Niger                             | -   | -   | -                     | -   | -                    | -                    | 5  | 2  | 2                  | -  | 69  | 17                                    | 1   | 48   |
| Nigeria                           | 5.8   | 3,500,000   | 270,000               | 2000 [n]  | 3.0                  | 5.8                  | -  | -  | -                  | 1,000,000                                    | 88  | -                                     | -   | -  |
| Panama                            | 1.5   | 25,000  | 800                   | -   | -                    | -                    | -  | -  | -                  | 8,100  | -   | -                                     | -   | -  |

|                              | Adult prevalence rate (15-49 years), end-2001 | Estimated number of people living with HIV/AIDS, end-2001 |                       | HIV prevalence among pregnant women (aged 15-24), major urban areas |                      |                      | HIV/AIDS prevention, 1999-2001*  | % who used condom at last high-risk sex in past 12 months 1998-2001* |                    | Orphans                                      |   | Malaria, 2000                         |   |  |
|------------------------------|---|---|-----------------------|---|----------------------|----------------------|--|--|--------------------|--|---|---------------------------------------|---|--|
|                              |   | Adults and children (0-49 years)                          | Children (0-14 years) | Year [no. of sites surveyed]  | Median (15-19 years) | Median (20-24 years) | % with sufficient knowledge to protect themselves from HIV/AIDS Female (15-24 years) | Female (15-24 years)   | Male (15-24 years) | Children orphaned by AIDS (0-14 years), 2001 | Orphan school attendance rate as a % of non-orphan attendance rate (1995-2001*) | % under-fives sleeping under a bednet | % under-fives sleeping under a treated bednet | % under-fives with fever receiving anti-malarial drugs |
|                              |   |   |                       |   |                      |                      |  |  |                    |  |   |                                       |   |  |
| Papua New Guinea             | 0.1   | 17,000  | 500                   | -   | -                    | -                    | -  | -  | -                  | 4,200  | -   | -                                     | -   | -  |
| Paraguay                     | -   | -   | -                     | -   | -                    | -                    | -  | -  | -                  | -  | -   | -                                     | -   | -  |
| Rwanda                       | 8.9   | 500,000   | 65,000                | 1999 [4]  | 8.4                  | 12.8                 | -  | 23   | 55                 | 260,000                                      | 93  | 6                                     | 5   | 13   |
| Sao Tome and Principe        | -   | -   | -                     | -   | -                    | -                    | 11   | -  | -                  | -  | -   | 43                                    | 22  | 61   |
| Senegal                      | 0.5   | 27,000  | 2,900                 | -   | -                    | -                    | 10   | -  | -                  | 15,000                                       | -   | 15                                    | 2   | 36   |
| Sierra Leone                 | 7.0   | 170,000   | 16,000                | -   | -                    | -                    | 16   | -  | -                  | 42,000                                       | 74  | 15                                    | 2   | 61   |
| Solomon Islands              | -   | -   | -                     | -   | -                    | -                    | -  | -  | -                  | -  | -   | -                                     | -   | -  |
| Somalia                      | 1.0   | 43,000  | -                     | -   | -                    | -                    | 1  | -  | -                  | -  | -   | 16                                    | 0   | 19   |
| South Africa                 | 20.1  | 5,000,000   | 250,000               | 2000 [n]  | 16.1                 | 29.1                 | -  | 20   | -                  | 660,000                                      | -   | -                                     | -   | -  |
| Sri Lanka                    | <0.1  | 4,800   | <100                  | -   | -                    | -                    | -  | -  | -                  | 2,000  | -   | -                                     | -   | -  |
| Sudan                        | 2.6   | 450,000   | 30,000                | -   | -                    | -                    | 2  | -  | -                  | 62,000                                       | -   | 24                                    | 2   | 23   |
| Suriname                     | 1.2   | 3,700   | 190                   | -   | -                    | -                    | 27   | -  | -                  | 1,700  | 89  | 72                                    | 3   | -  |
| Swaziland                    | 33.4  | 170,000   | 14,000                | 2000 [u]  | 22.0                 | 42.2                 | 27   | -  | -                  | 35,000                                       | 86  | 0                                     | 0   | 24   |
| Tanzania, United Republic of | 7.8   | 1,500,000   | 170,000               | 2000 [3]  | 13.2x                | 13.2x                | 26   | 21   | 31                 | 810,000                                      | 72  | 21                                    | 2   | 53   |
| Thailand                     | 1.8   | 670,000   | 21,000                | -   | -                    | -                    | -  | -  | -                  | 290,000                                      | -   | -                                     | -   | -  |
| Togo                         | 6.0   | 150,000   | 15,000                | -   | -                    | -                    | 20   | 22   | 41                 | 63,000                                       | 92  | 15                                    | 2   | 60   |
| Trinidad and Tobago          | 2.5   | 17,000  | 300                   | -   | -                    | -                    | 33   | -  | -                  | 3,600  | -   | -                                     | -   | -  |
| Uganda                       | 5.0   | 600,000   | 110,000               | 2000 [2]  | 7.0                  | 10.5                 | 28   | 44   | 62                 | 880,000                                      | 94  | 7                                     | 0   | -  |
| Ukraine                      | 1.0   | 250,000   | -                     | 1999 [u]  | -                    | 0.4                  | -  | -  | -                  | -  | -   | -                                     | -   | -  |
| Vanuatu                      | -   | -   | -                     | -   | -                    | -                    | -  | -  | -                  | -  | -   | -                                     | -   | -  |
| Yemen                        | 0.1   | 9,900   | -                     | -   | -                    | -                    | -  | -  | -                  | -  | -   | -                                     | -   | -  |
| Zambia                       | 21.5  | 1,200,000   | 150,000               | 1998 [4]  | 16.7                 | 26.8                 | 26   | 20x  | 39x                | 570,000                                      | 88  | 6                                     | 1   | 59   |
| Zimbabwe                     | 33.7  | 2,300,000   | 240,000               | 2000 [u]  | 27.1                 | 34.8                 | 17x  | 42   | 69                 | 780,000                                      | 85  | 3                                     | -   | -  |

DEFINITIONS OF THE INDICATORS AND MAIN DATA SOURCES

HIV/AIDS

**Adult prevalence rate (15-49 years), end-2001:** % of adults (15-49 years) living with HIV/AIDS.

Source: Joint United Nations Programme on HIV/AIDS (UNAIDS).

**Adults and children living with HIV/AIDS (0-49 years), end-2001:** Estimated number of adults and children living with HIV/AIDS at the end of 2001.

Source: UNAIDS.

**Children living with HIV/AIDS (0-14 years), end-2001:** Estimated number of children (0-14 years) living with HIV/AIDS.

Source: UNAIDS.

**HIV prevalence among pregnant women (aged 15-24):** % of blood samples taken from pregnant women aged 15-24 that test positive for HIV during 'unlinked anonymous sentinel surveillance' at selected antenatal clinics. The data are presented separately for pregnant women aged 15-19 and 20-24 years. The letter [n] denotes nationwide surveillance in both urban and rural areas; the letter [u] denotes nationwide surveillance in urban areas.

Sources: Country sentinel surveillance reports (1997-2002) and HIV/AIDS surveillance.

Database: US Census Bureau, International Programs Center, Health Studies Branch, 2002.

**% with sufficient knowledge to protect themselves from HIV/AIDS:** % of all young people (aged 15-24 years) who both correctly identify ways of preventing the sexual transmission of HIV and who reject major misconceptions about HIV transmission or prevention. This indicator is a composite of knowledge of two prevention methods (condom use and one faithful partner) and three locally defined common misconceptions.

Sources: Multiple Indicator Cluster Surveys (MICS), Demographic and Health Surveys (DHS) and behavioural sentinel surveys (BSS).

**% who used condom at last high-risk sex in past 12 months:** % of young men and women (aged 15-24) who say they used a condom the last time they had sex with a non-marital, non-cohabiting partner, of those who have had sex with such a partner in the last 12 months.

Sources: DHS, US Centers for Disease Control and Prevention (CDC), MICS and other national surveys.

**Children orphaned by AIDS (0-14 years), 2001:** Estimated number of children aged 0-14, as of end 2001, who have lost one or both parents to AIDS.

Source: UNICEF, UNAIDS, US Agency for International Development (USAID).

**Orphan school attendance rate as a % of non-orphan attendance rate (1995-2001):** % of children aged 10-14 who lost both natural parents and who are currently attending school as a % of non-orphaned children of the same age who live with at least one parent and who are attending school.

Sources: MICS, DHS.

MALARIA

**% under-fives sleeping under a bednet, 2000:** % of children (0-4 years) who slept under a bednet.

Sources: MICS, DHS.

**% under-fives sleeping under a treated bednet, 2000:** % of children (0-4 years) who slept under an insecticide-impregnated bednet.

Sources: MICS, DHS.

**% under-fives with fever receiving anti-malarial drugs, 2000:** % of children (0-4 years) who were ill with fever in the last two weeks and received any appropriate (locally defined) antimalarial drugs.

Sources: MICS, DHS.

**NOTES** Only countries whose adult prevalence rate of HIV/AIDS is 1% or higher and/or where 50% or more of the population lives in malaria-endemic areas are included.

- Data not available.

x Indicates data that refer to years or periods other than those specified in the column heading, differ from the standard definition or refer to only part of a country.

\* Data refer to the most recent year available during the period specified in the column heading.

## Regional summaries

Regional averages given at the end of each table are calculated using data from the countries and territories as grouped below.

### Sub-Saharan Africa

Angola; Benin; Botswana; Burkina Faso; Burundi; Cameroon; Cape Verde; Central African Republic; Chad; Comoros; Congo; Congo, Democratic Republic of the; Côte d'Ivoire; Equatorial Guinea; Eritrea; Ethiopia; Gabon; Gambia; Ghana; Guinea; Guinea-Bissau; Kenya; Lesotho; Liberia; Madagascar; Malawi; Mali; Mauritania; Mauritius; Mozambique; Namibia; Niger; Nigeria; Rwanda; Sao Tome and Principe; Senegal; Seychelles; Sierra Leone; Somalia; South Africa; Swaziland; Tanzania, United Republic of; Togo; Uganda; Zambia; Zimbabwe

### Middle East and North Africa

Algeria; Bahrain; Cyprus; Djibouti; Egypt; Iran, Islamic Republic of; Iraq; Jordan; Kuwait; Lebanon; Libyan Arab Jamahiriya; Morocco; Occupied Palestinian Territory; Oman; Qatar; Saudi Arabia; Sudan; Syrian Arab Republic; Tunisia; United Arab Emirates; Yemen

### South Asia

Afghanistan; Bangladesh; Bhutan; India; Maldives; Nepal; Pakistan; Sri Lanka

### East Asia and Pacific

Brunei Darussalam; Cambodia; China; Cook Islands; East Timor; Fiji; Indonesia; Kiribati; Korea, Democratic People's Republic of; Korea, Republic of; Lao People's Democratic Republic; Malaysia; Marshall Islands; Micronesia, Federated States of; Mongolia; Myanmar; Nauru; Niue; Palau; Papua New Guinea; Philippines; Samoa; Singapore; Solomon Islands; Thailand; Tonga; Tuvalu; Vanuatu; Viet Nam

### Latin America and Caribbean

Antigua and Barbuda; Argentina; Bahamas; Barbados; Belize; Bolivia; Brazil; Chile;

Colombia; Costa Rica; Cuba; Dominica; Dominican Republic; Ecuador; El Salvador; Grenada; Guatemala; Guyana; Haiti; Honduras; Jamaica; Mexico; Nicaragua; Panama; Paraguay; Peru; Saint Kitts and Nevis; Saint Lucia; Saint Vincent and the Grenadines; Suriname; Trinidad and Tobago; Uruguay; Venezuela

### CEE/CIS and Baltic States

Albania; Armenia; Azerbaijan; Belarus; Bosnia and Herzegovina; Bulgaria; Croatia; Czech Republic; Estonia; Georgia; Hungary; Kazakhstan; Kyrgyzstan; Latvia; Lithuania; Moldova, Republic of; Poland; Romania; Russian Federation; Slovakia; Tajikistan; the former Yugoslav Republic of Macedonia; Turkey; Turkmenistan; Ukraine; Uzbekistan; Yugoslavia

### Industrialized countries

Andorra; Australia; Austria; Belgium; Canada; Denmark; Finland; France; Germany; Greece; Holy See; Iceland; Ireland; Israel; Italy; Japan; Liechtenstein; Luxembourg; Malta; Monaco; Netherlands; New Zealand; Norway; Portugal; San Marino; Slovenia; Spain; Sweden; Switzerland; United Kingdom; United States

### Developing countries

Afghanistan; Algeria; Angola; Antigua and Barbuda; Argentina; Armenia; Azerbaijan; Bahamas; Bahrain; Bangladesh; Barbados; Belize; Benin; Bhutan; Bolivia; Botswana; Brazil; Brunei Darussalam; Burkina Faso; Burundi; Cambodia; Cameroon; Cape Verde; Central African Republic; Chad; Chile; China; Colombia; Comoros; Congo; Congo, Democratic Republic of the; Cook Islands; Costa Rica; Côte d'Ivoire; Cuba; Cyprus; Djibouti; Dominica; Dominican Republic; East Timor; Ecuador; Egypt; El Salvador; Equatorial Guinea; Eritrea; Ethiopia; Fiji; Gabon; Gambia; Georgia; Ghana; Grenada; Guatemala; Guinea; Guinea-Bissau; Guyana; Haiti; Honduras; India; Indonesia; Iran, Islamic Republic of; Iraq;

Israel; Jamaica; Jordan; Kazakhstan; Kenya; Kiribati; Korea, Democratic People's Republic of; Korea, Republic of; Kuwait; Kyrgyzstan; Lao People's Democratic Republic; Lebanon; Lesotho; Liberia; Libyan Arab Jamahiriya; Madagascar; Malawi; Malaysia; Maldives; Mali; Marshall Islands; Mauritania; Mauritius; Mexico; Micronesia, Federated States of; Mongolia; Morocco; Mozambique; Myanmar; Namibia; Nauru; Nepal; Nicaragua; Niger; Nigeria; Niue; Occupied Palestinian Territory; Oman; Pakistan; Palau; Panama; Papua New Guinea; Paraguay; Peru; Philippines; Qatar; Rwanda; Saint Kitts and Nevis; Saint Lucia; Saint Vincent/Grenadines; Samoa; Sao Tome and Principe; Saudi Arabia; Senegal; Seychelles; Sierra Leone; Singapore; Solomon Islands; Somalia; South Africa; Sri Lanka; Sudan; Suriname; Swaziland; Syrian Arab Republic; Tajikistan; Tanzania, United Republic of; Thailand; Togo; Tonga; Trinidad and Tobago; Tunisia; Turkey; Turkmenistan; Tuvalu; Uganda; United Arab Emirates; Uruguay; Uzbekistan; Vanuatu; Venezuela; Viet Nam; Yemen; Zambia; Zimbabwe

### Least developed countries

Afghanistan; Angola; Bangladesh; Benin; Bhutan; Burkina Faso; Burundi; Cambodia; Cape Verde; Central African Republic; Chad; Comoros; Congo, Democratic Republic of; Djibouti; Equatorial Guinea; Eritrea; Ethiopia; Gambia; Guinea; Guinea-Bissau; Haiti; Kiribati; Lao People's Democratic Republic; Lesotho; Liberia; Madagascar; Malawi; Maldives; Mali; Mauritania; Mozambique; Myanmar; Nepal; Niger; Rwanda; Samoa; Sao Tome and Principe; Senegal; Sierra Leone; Solomon Islands; Somalia; Sudan; Tanzania, United Republic of; Togo; Tuvalu; Uganda; Vanuatu; Yemen; Zambia

## Measuring human development

### An introduction to table 9

If development is to assume a more human face, then there arises a corresponding need for a means of measuring human as well as economic progress. From UNICEF's point of view, in particular, there is a need for an agreed method of measuring the level of child well-being and its rate of change.

The under-five mortality rate (U5MR) is used in table 9 (next page) as the principal indicator of such progress.

The U5MR has several advantages. First, it measures an end result of the development process rather than an 'input' such as school enrolment level, per capita calorie availability, or the number of doctors per thousand population – all of which are means to an end.

Second, the U5MR is known to be the result of a wide variety of inputs: the nutritional health and the health knowledge of mothers; the level of immunization and ORT use; the availability of maternal and child health services (including prenatal care); income and food availability in the family; the availability of clean water and safe sanitation; and the overall safety of the child's environment.

Third, the U5MR is less susceptible than, say, per capita GNI to the fallacy of the average. This is because the natural scale does not allow the children of the rich to be one thousand times as likely to survive, even if the man-made scale does permit them to have one thousand times as much income. In other words, it is much more difficult for a wealthy minority to affect a nation's U5MR, and it therefore presents a more accurate, if far from perfect, picture of the health status of the majority of children (and of society as a whole).

For these reasons, the U5MR is chosen by UNICEF as its single most important indicator of the state of a nation's children. That is why

the tables rank the nations of the world not in ascending order of their per capita GNI but in descending order of their under-five mortality rates.

The speed of progress in reducing the U5MR can be measured by calculating its average annual reduction rate (AARR). Unlike the comparison of absolute changes, the AARR reflects the fact that the lower limits to U5MR are approached only with increasing difficulty. As lower levels of under-five mortality are reached, for example, the same absolute reduction obviously represents a greater percentage of reduction. The AARR therefore shows a higher rate of progress for, say, a 10-point reduction if that reduction happens at a lower level of under-five mortality. (A fall in U5MR of 10 points from 100 to 90 represents a reduction of 10 per cent, whereas the same 10-point fall from 20 to 10 represents a reduction of 50 per cent).

When used in conjunction with GDP growth rates, the U5MR and its reduction rate can therefore give a picture of the progress being made by any country or region, and over any period of time, towards the satisfaction of some of the most essential of human needs.

As table 9 shows, there is no fixed relationship between the annual reduction rate of the U5MR and the annual rate of growth in per capita GDP. Such comparisons help to throw the emphasis on to the policies, priorities, and other factors which determine the ratio between economic and social progress.

Finally, the table gives the total fertility rate for each country and territory and the average annual rate of reduction. It will be seen that many of the nations that have achieved significant reductions in their U5MR have also achieved significant reductions in fertility.

# TABLE 9. THE RATE OF PROGRESS

| Countries and territories         | Under-5 mortality rank | Under-5 mortality rate |      |      | Average annual rate of reduction (%) |           | Reduction since 1990 (%) | GDP per capita average annual growth rate (%) |           | Total fertility rate |      |      | Average annual rate of reduction (%) |           |
|-----------------------------------|------------------------|------------------------|------|------|--------------------------------------|-----------|--------------------------|---|-----------|----------------------|------|------|--------------------------------------|-----------|
|                                   |                        | 1960                   | 1990 | 2001 | 1960-90                              | 1990-2001 |                          | 1960-90                                       | 1990-2001 | 1960                 | 1990 | 2001 | 1960-90                              | 1990-2001 |
| Afghanistan                       | 4                      | 360                    | 260  | 257  | 1.1                                  | 0.1       | 1                        | 0.1   | -         | 7.7                  | 7.1  | 6.8  | 0.3                                  | 0.4       |
| Albania                           | 98                     | 151                    | 45   | 30   | 4.0                                  | 3.7       | 33                       | -   | 3.0       | 5.9                  | 3.0  | 2.4  | 2.3                                  | 2.0       |
| Algeria                           | 75                     | 280                    | 69   | 49   | 4.7                                  | 3.1       | 29                       | 2.4   | 0.1       | 7.4                  | 4.6  | 2.9  | 1.6                                  | 4.0       |
| Andorra                           | 161                    | -                      | -    | 7    | -                                    | -         | -                        | -   | -         | -                    | -    | -    | -                                    | -         |
| Angola                            | 3                      | 345                    | 260  | 260  | 0.9                                  | 0.0       | 0                        | -   | -1.1      | 6.4                  | 7.2  | 7.2  | -0.4                                 | 0.0       |
| Antigua and Barbuda               | 144                    | -                      | -    | 14   | -                                    | -         | -                        | -   | 2.5       | -                    | -    | -    | -                                    | -         |
| Argentina                         | 130                    | 72                     | 28   | 19   | 3.1                                  | 3.5       | 32                       | 0.6   | 2.4       | 3.1                  | 2.9  | 2.5  | 0.2                                  | 1.3       |
| Armenia                           | 93                     | -                      | 60   | 35   | -                                    | 4.9       | 42                       | -   | -1.3      | 4.5                  | 2.4  | 1.2  | 2.1                                  | 5.9       |
| Australia                         | 164                    | 24                     | 10   | 6    | 2.9                                  | 4.6       | 40                       | 2.1   | 2.8       | 3.4                  | 1.9  | 1.8  | 1.9                                  | 0.5       |
| Austria                           | 178                    | 43                     | 9    | 5    | 5.2                                  | 5.3       | 44                       | 3.2   | 1.7       | 2.7                  | 1.5  | 1.3  | 2.0                                  | 1.3       |
| Azerbaijan                        | 48                     | -                      | 105  | 105  | -                                    | 0.0       | 0                        | -   | 1.7       | 5.5                  | 2.7  | 1.6  | 2.4                                  | 4.8       |
| Bahamas                           | 138                    | 68                     | 29   | 16   | 2.8                                  | 5.4       | 45                       | 1.2   | 0.1       | 4.4                  | 2.6  | 2.3  | 1.8                                  | 1.1       |
| Bahrain                           | 138                    | 160                    | 19   | 16   | 7.1                                  | 1.6       | 16                       | -   | 1.7       | 7.1                  | 3.8  | 2.4  | 2.1                                  | 3.9       |
| Bangladesh                        | 58                     | 248                    | 144  | 77   | 1.8                                  | 5.7       | 47                       | 0.5   | 3.1       | 7.0                  | 4.6  | 3.6  | 1.4                                  | 2.2       |
| Barbados                          | 144                    | 90                     | 16   | 14   | 5.8                                  | 1.2       | 13                       | 3.0   | 1.7       | 4.5                  | 1.7  | 1.5  | 3.2                                  | 1.1       |
| Belarus                           | 125                    | 47                     | 21   | 20   | 2.7                                  | 0.4       | 5                        | -   | -0.6      | 2.7                  | 1.9  | 1.2  | 1.2                                  | 3.7       |
| Belgium                           | 164                    | 35                     | 9    | 6    | 4.5                                  | 3.7       | 33                       | 2.9   | 1.8       | 2.6                  | 1.6  | 1.5  | 1.6                                  | 0.6       |
| Belize                            | 84                     | 104                    | 49   | 40   | 2.5                                  | 1.8       | 18                       | 3.2   | 1.6       | 6.6                  | 4.5  | 3.0  | 1.3                                  | 3.5       |
| Benin                             | 24                     | 296                    | 185  | 158  | 1.6                                  | 1.4       | 15                       | 0.1   | 1.9       | 7.0                  | 6.7  | 5.8  | 0.1                                  | 1.3       |
| Bhutan                            | 52                     | 300                    | 166  | 95   | 2.0                                  | 5.1       | 43                       | -   | 3.5       | 5.9                  | 5.9  | 5.2  | 0.0                                  | 1.0       |
| Bolivia                           | 58                     | 255                    | 122  | 77   | 2.5                                  | 4.2       | 37                       | -0.1  | 1.4       | 6.7                  | 4.9  | 4.1  | 1.0                                  | 1.6       |
| Bosnia and Herzegovina            | 136                    | 160                    | 22   | 18   | 6.6                                  | 1.8       | 18                       | -   | 16.2      | 4.1                  | 1.7  | 1.3  | 2.9                                  | 2.4       |
| Botswana                          | 42                     | 173                    | 58   | 110  | 3.6                                  | -5.8      | -90                      | 8.6   | 2.9       | 6.8                  | 5.2  | 4.1  | 0.9                                  | 2.0       |
| Brazil                            | 92                     | 177                    | 60   | 36   | 3.6                                  | 4.6       | 40                       | 3.6   | 1.4       | 6.2                  | 2.8  | 2.2  | 2.6                                  | 1.9       |
| Brunei Darussalam                 | 164                    | 87                     | 11   | 6    | 6.9                                  | 5.5       | 45                       | -1.8  | -0.7      | 6.9                  | 3.3  | 2.6  | 2.5                                  | 1.9       |
| Bulgaria                          | 138                    | 70                     | 16   | 16   | 4.9                                  | 0.0       | 0                        | -   | -0.9      | 2.3                  | 1.7  | 1.1  | 1.0                                  | 4.0       |
| Burkina Faso                      | 12                     | 315                    | 210  | 197  | 1.4                                  | 0.6       | 6                        | 1.1   | 2.4       | 6.7                  | 7.3  | 6.8  | -0.3                                 | 0.6       |
| Burundi                           | 14                     | 250                    | 190  | 190  | 0.9                                  | 0.0       | 0                        | 2.0   | -4.3      | 6.8                  | 6.8  | 6.8  | 0.0                                  | 0.0       |
| Cambodia                          | 30                     | -                      | 115  | 138  | -                                    | -1.7      | -20                      | -   | 2.0       | 6.3                  | 5.6  | 4.9  | 0.4                                  | 1.2       |
| Cameroon                          | 25                     | 255                    | 139  | 155  | 2.0                                  | -1.0      | -12                      | 2.5   | -0.3      | 5.8                  | 5.9  | 4.8  | -0.1                                 | 1.9       |
| Canada                            | 161                    | 33                     | 9    | 7    | 4.3                                  | 2.3       | 22                       | 2.3   | 2.0       | 3.8                  | 1.7  | 1.6  | 2.7                                  | 0.6       |
| Cape Verde                        | 88                     | -                      | 60   | 38   | -                                    | 4.2       | 37                       | -   | 3.3       | 7.0                  | 4.3  | 3.3  | 1.6                                  | 2.4       |
| Central African Republic          | 19                     | 327                    | 180  | 180  | 2.0                                  | 0.0       | 0                        | -0.6  | -0.3      | 5.7                  | 5.7  | 5.0  | 0.0                                  | 1.0       |
| Chad                              | 11                     | -                      | 203  | 200  | -                                    | 0.1       | 1                        | -1.2  | -0.5      | 6.0                  | 6.7  | 6.7  | -0.4                                 | 0.0       |
| Chile                             | 147                    | 155                    | 19   | 12   | 7.0                                  | 4.2       | 37                       | 1.2   | 4.8       | 5.3                  | 2.6  | 2.4  | 2.4                                  | 0.7       |
| China                             | 85                     | 225                    | 49   | 39   | 5.1                                  | 2.1       | 20                       | 4.8   | 8.9       | 5.7                  | 2.2  | 1.8  | 3.2                                  | 1.8       |
| Colombia                          | 118                    | 125                    | 36   | 23   | 4.1                                  | 4.1       | 36                       | 2.3   | 0.8       | 6.8                  | 3.1  | 2.7  | 2.6                                  | 1.3       |
| Comoros                           | 57                     | 265                    | 120  | 79   | 2.6                                  | 3.8       | 34                       | -   | -2.3      | 6.8                  | 6.2  | 5.1  | 0.3                                  | 1.8       |
| Congo                             | 45                     | 220                    | 110  | 108  | 2.3                                  | 0.2       | 2                        | 3.1   | -3.1      | 5.9                  | 6.3  | 6.3  | -0.2                                 | 0.0       |
| Congo, Democratic Republic of the | 9                      | 302                    | 205  | 205  | 1.3                                  | 0.0       | 0                        | -1.4  | -8.2      | 6.0                  | 6.7  | 6.7  | -0.4                                 | 0.0       |
| Cook Islands                      | 118                    | -                      | 32   | 23   | -                                    | 3.0       | 28                       | -   | -         | -                    | -    | -    | -                                    | -         |
| Costa Rica                        | 149                    | 123                    | 17   | 11   | 6.6                                  | 4.0       | 35                       | 1.6   | 2.8       | 7.1                  | 3.2  | 2.7  | 2.7                                  | 1.5       |
| Côte d'Ivoire                     | 20                     | 290                    | 155  | 175  | 2.1                                  | -1.1      | -13                      | 1.0   | 0.1       | 7.2                  | 6.3  | 4.8  | 0.4                                  | 2.5       |
| Croatia                           | 158                    | 98                     | 13   | 8    | 6.7                                  | 4.4       | 38                       | -   | 2.1       | 2.4                  | 1.7  | 1.7  | 1.1                                  | 0.0       |
| Cuba                              | 152                    | 54                     | 13   | 9    | 4.7                                  | 3.3       | 31                       | -   | -         | 4.2                  | 1.7  | 1.6  | 3.0                                  | 0.6       |
| Cyprus                            | 164                    | 36                     | 12   | 6    | 3.7                                  | 6.3       | 50                       | 6.2   | 3.1       | 3.5                  | 2.4  | 1.9  | 1.3                                  | 2.1       |
| Czech Republic                    | 178                    | 25                     | 11   | 5    | 2.7                                  | 7.2       | 55                       | -   | 1.1       | 2.3                  | 1.8  | 1.2  | 0.8                                  | 3.7       |
| Denmark                           | 189                    | 25                     | 9    | 4    | 3.4                                  | 7.4       | 56                       | 2.1   | 2.1       | 2.6                  | 1.6  | 1.7  | 1.6                                  | -0.6      |
| Djibouti                          | 28                     | 289                    | 175  | 143  | 1.7                                  | 1.8       | 18                       | -   | -3.6      | 7.0                  | 6.4  | 5.9  | 0.3                                  | 0.6       |
| Dominica                          | 143                    | -                      | 23   | 15   | -                                    | 3.9       | 35                       | -   | 1.4       | -                    | -    | -    | -                                    | -         |
| Dominican Republic                | 76                     | 149                    | 65   | 47   | 2.8                                  | 2.9       | 28                       | 3.1   | 4.2       | 7.4                  | 3.4  | 2.8  | 2.6                                  | 1.8       |
| East Timor                        | 36                     | -                      | -    | 124  | -                                    | -         | -                        | -   | -         | 6.4                  | 5.0  | 4.0  | 0.8                                  | 2.0       |
| Ecuador                           | 98                     | 178                    | 57   | 30   | 3.8                                  | 5.8       | 47                       | 2.9   | -0.3      | 6.7                  | 3.8  | 2.9  | 1.9                                  | 2.5       |
| Egypt                             | 83                     | 282                    | 104  | 41   | 3.3                                  | 8.5       | 61                       | 3.5   | 2.6       | 7.1                  | 4.2  | 3.0  | 1.8                                  | 3.1       |
| El Salvador                       | 85                     | 191                    | 60   | 39   | 3.9                                  | 3.9       | 35                       | -0.4  | 2.3       | 6.9                  | 3.7  | 3.0  | 2.1                                  | 1.9       |
| Equatorial Guinea                 | 26                     | 316                    | 206  | 153  | 1.4                                  | 2.7       | 26                       | -   | 18.8      | 5.5                  | 5.9  | 5.9  | -0.2                                 | 0.0       |
| Eritrea                           | 41                     | -                      | 155  | 111  | -                                    | 3.0       | 28                       | -   | 0.4       | 6.9                  | 6.2  | 5.4  | 0.4                                  | 1.3       |
| Estonia                           | 147                    | 52                     | 17   | 12   | 3.7                                  | 3.2       | 29                       | -   | 1.7       | 2.0                  | 1.9  | 1.2  | 0.2                                  | 4.2       |
| Ethiopia                          | 21                     | 269                    | 193  | 172  | 1.1                                  | 1.0       | 11                       | -   | 2.5       | 6.9                  | 6.9  | 6.8  | 0.0                                  | 0.1       |

|   | Under-5 mortality rank | Under-5 mortality rate |      |      | Average annual rate of reduction (%) |           | Reduction since 1990 (%) | GDP per capita average annual growth rate (%) |           | Total fertility rate |      |      | Average annual rate of reduction (%) |           |
|---|------------------------|------------------------|------|------|--------------------------------------|-----------|--------------------------|---|-----------|----------------------|------|------|--------------------------------------|-----------|
|   |                        | 1960                   | 1990 | 2001 | 1960-90                              | 1990-2001 |                          | 1960-90                                       | 1990-2001 | 1960                 | 1990 | 2001 | 1960-90                              | 1990-2001 |
| Fiji                                      | 121                    | 97                     | 31   | 21   | 3.8                                  | 3.5       | 32                       | 1.9   | 1.7       | 6.4                  | 3.5  | 3.0  | 2.0                                  | 1.1       |
| Finland                                   | 178                    | 28                     | 7    | 5    | 4.6                                  | 3.1       | 29                       | 3.4   | 2.6       | 2.7                  | 1.8  | 1.6  | 1.4                                  | 0.6       |
| France                                    | 164                    | 34                     | 9    | 6    | 4.4                                  | 3.7       | 33                       | 2.9   | 1.4       | 2.8                  | 1.8  | 1.8  | 1.5                                  | 0.0       |
| Gabon                                     | 56                     | -                      | 90   | 90   | -                                    | 0.0       | 0                        | 3.1   | -0.1      | 4.1                  | 5.1  | 5.4  | -0.7                                 | -0.5      |
| Gambia                                    | 35                     | 364                    | 154  | 126  | 2.9                                  | 1.8       | 18                       | 1.1   | 0.0       | 6.4                  | 5.9  | 4.9  | 0.3                                  | 1.7       |
| Georgia                                   | 102                    | 70                     | 29   | 29   | 2.9                                  | 0.0       | 0                        | -   | -4.9      | 3.0                  | 2.1  | 1.4  | 1.2                                  | 3.7       |
| Germany                                   | 178                    | 40                     | 9    | 5    | 5.0                                  | 5.3       | 44                       | -   | 1.2       | 2.4                  | 1.4  | 1.3  | 1.8                                  | 0.7       |
| Ghana                                     | 49                     | 215                    | 126  | 100  | 1.8                                  | 2.1       | 21                       | -1.2  | 1.9       | 6.9                  | 5.7  | 4.3  | 0.6                                  | 2.6       |
| Greece                                    | 178                    | 64                     | 11   | 5    | 5.9                                  | 7.2       | 55                       | 3.8   | 2.0       | 2.3                  | 1.5  | 1.3  | 1.4                                  | 1.3       |
| Grenada                                   | 110                    | -                      | 37   | 25   | -                                    | 3.6       | 32                       | -   | 2.9       | -                    | -    | -    | -                                    | -         |
| Guatemala                                 | 72                     | 202                    | 82   | 58   | 3.0                                  | 3.1       | 29                       | 1.4   | 1.4       | 6.9                  | 5.6  | 4.6  | 0.7                                  | 1.8       |
| Guinea                                    | 22                     | 380                    | 240  | 169  | 1.5                                  | 3.2       | 30                       | -   | 1.6       | 7.0                  | 6.6  | 6.0  | 0.2                                  | 0.9       |
| Guinea-Bissau                             | 8                      | -                      | 253  | 211  | -                                    | 1.7       | 17                       | -0.5  | -1.3      | 5.8                  | 6.0  | 6.0  | -0.1                                 | 0.0       |
| Guyana                                    | 64                     | 126                    | 90   | 72   | 1.1                                  | 2.0       | 20                       | -0.3  | 4.4       | 6.5                  | 2.7  | 2.4  | 2.9                                  | 0.7       |
| Haiti                                     | 38                     | 253                    | 150  | 123  | 1.7                                  | 1.8       | 18                       | 0.1   | -2.5      | 6.3                  | 5.4  | 4.1  | 0.5                                  | 2.5       |
| Holy See                                  | -                      | -                      | -    | -    | -                                    | -         | -                        | -   | -         | -                    | -    | -    | -                                    | -         |
| Honduras                                  | 88                     | 204                    | 61   | 38   | 4.0                                  | 4.3       | 38                       | 1.1   | 0.3       | 7.5                  | 5.2  | 3.9  | 1.2                                  | 2.4       |
| Hungary                                   | 152                    | 57                     | 16   | 9    | 4.2                                  | 5.2       | 44                       | 3.9   | 2.0       | 2.0                  | 1.8  | 1.3  | 0.4                                  | 3.0       |
| Iceland                                   | 189                    | 22                     | 5    | 4    | 4.9                                  | 2.0       | 20                       | 3.6   | 2.0       | 4.0                  | 2.2  | 1.9  | 2.0                                  | 1.3       |
| India                                     | 54                     | 242                    | 123  | 93   | 2.3                                  | 2.5       | 24                       | 1.6   | 4.0       | 5.9                  | 3.9  | 3.1  | 1.4                                  | 2.1       |
| Indonesia                                 | 77                     | 216                    | 91   | 45   | 2.9                                  | 6.4       | 51                       | 4.3   | 2.1       | 5.6                  | 3.3  | 2.4  | 1.8                                  | 2.9       |
| Iran (Islamic Republic of)                | 81                     | 281                    | 72   | 42   | 4.5                                  | 4.9       | 42                       | -3.5  | 2.0       | 7.0                  | 5.0  | 2.9  | 1.1                                  | 5.0       |
| Iraq                                      | 33                     | 171                    | 50   | 133  | 4.1                                  | -8.9      | -166                     | -1.1  | -         | 7.2                  | 6.0  | 4.9  | 0.6                                  | 1.7       |
| Ireland                                   | 164                    | 36                     | 9    | 6    | 4.6                                  | 3.7       | 33                       | 3.1   | 6.7       | 3.9                  | 2.2  | 2.0  | 1.9                                  | 0.4       |
| Israel                                    | 164                    | 39                     | 12   | 6    | 3.9                                  | 6.3       | 50                       | 3.1   | 2.2       | 3.9                  | 3.0  | 2.8  | 0.9                                  | 0.6       |
| Italy                                     | 164                    | 50                     | 10   | 6    | 5.4                                  | 4.6       | 40                       | 3.2   | 1.5       | 2.5                  | 1.3  | 1.2  | 2.2                                  | 0.7       |
| Jamaica                                   | 125                    | 74                     | 20   | 20   | 4.4                                  | 0.0       | 0                        | 0.1   | -0.3      | 5.4                  | 2.9  | 2.4  | 2.1                                  | 1.4       |
| Japan                                     | 178                    | 40                     | 6    | 5    | 6.3                                  | 1.7       | 17                       | 4.8   | 1.0       | 2.1                  | 1.6  | 1.4  | 0.9                                  | 1.2       |
| Jordan                                    | 94                     | 139                    | 43   | 33   | 3.9                                  | 2.4       | 23                       | 2.5   | 0.9       | 7.7                  | 5.8  | 4.4  | 0.9                                  | 2.5       |
| Kazakhstan                                | 61                     | -                      | 67   | 76   | -                                    | -1.1      | -13                      | -   | -1.8      | 4.5                  | 2.8  | 2.0  | 1.6                                  | 2.7       |
| Kenya                                     | 40                     | 205                    | 97   | 122  | 2.5                                  | -2.1      | -26                      | 2.3   | -0.6      | 8.0                  | 6.1  | 4.3  | 0.9                                  | 3.2       |
| Kiribati                                  | 67                     | -                      | 88   | 69   | -                                    | 2.2       | 22                       | -5.5  | 0.6       | -                    | -    | -    | -                                    | -         |
| Korea, Democratic<br>People's Republic of | 73                     | 120                    | 55   | 55   | 2.6                                  | 0.0       | 0                        | -   | -         | 4.4                  | 2.4  | 2.1  | 2.0                                  | 1.2       |
| Korea, Republic of                        | 178                    | 127                    | 9    | 5    | 8.8                                  | 5.3       | 44                       | 6.5   | 4.6       | 6.0                  | 1.7  | 1.5  | 4.2                                  | 0.6       |
| Kuwait                                    | 151                    | 128                    | 16   | 10   | 6.9                                  | 4.3       | 38                       | -6.2  | -1.4      | 7.3                  | 3.6  | 2.7  | 2.4                                  | 2.6       |
| Kyrgyzstan                                | 71                     | 180                    | 83   | 61   | 2.6                                  | 2.8       | 27                       | -   | -4.0      | 5.1                  | 3.7  | 2.5  | 1.1                                  | 3.6       |
| Lao People's<br>Democratic Republic       | 49                     | 235                    | 163  | 100  | 1.2                                  | 4.4       | 39                       | -   | 3.8       | 6.2                  | 6.1  | 5.0  | 0.1                                  | 1.8       |
| Latvia                                    | 121                    | 44                     | 20   | 21   | 2.6                                  | -0.4      | -5                       | 4.1   | -1.1      | 2.0                  | 1.9  | 1.1  | 0.2                                  | 5.0       |
| Lebanon                                   | 95                     | 85                     | 37   | 32   | 2.8                                  | 1.3       | 14                       | -   | 3.6       | 6.3                  | 3.2  | 2.2  | 2.3                                  | 3.4       |
| Lesotho                                   | 34                     | 203                    | 148  | 132  | 1.1                                  | 1.0       | 11                       | 3.1   | 2.0       | 5.9                  | 5.2  | 4.5  | 0.4                                  | 1.3       |
| Liberia                                   | 5                      | 288                    | 235  | 235  | 0.7                                  | 0.0       | 0                        | -0.6  | -         | 6.6                  | 6.8  | 6.8  | -0.1                                 | 0.0       |
| Libyan Arab Jamahiriya                    | 130                    | 270                    | 42   | 19   | 6.2                                  | 7.2       | 55                       | 0.2   | -         | 7.1                  | 4.9  | 3.5  | 1.2                                  | 3.1       |
| Liechtenstein                             | 149                    | -                      | -    | 11   | -                                    | -         | -                        | -   | -         | -                    | -    | -    | -                                    | -         |
| Lithuania                                 | 152                    | 70                     | 13   | 9    | 5.6                                  | 3.3       | 31                       | -   | -1.7      | 2.6                  | 2.0  | 1.3  | 0.9                                  | 3.4       |
| Luxembourg                                | 178                    | 41                     | 9    | 5    | 5.1                                  | 5.3       | 44                       | 2.6   | 4.2       | 2.3                  | 1.6  | 1.7  | 1.2                                  | -0.6      |
| Madagascar                                | 32                     | 186                    | 168  | 136  | 0.3                                  | 1.9       | 19                       | -1.3  | -0.6      | 6.9                  | 6.3  | 5.8  | 0.3                                  | 0.8       |
| Malawi                                    | 15                     | 361                    | 241  | 183  | 1.3                                  | 2.5       | 24                       | 1.5   | 1.7       | 6.9                  | 7.3  | 6.5  | -0.2                                 | 1.1       |
| Malaysia                                  | 158                    | 105                    | 21   | 8    | 5.4                                  | 8.8       | 62                       | 4.1   | 3.9       | 6.8                  | 3.8  | 3.0  | 1.9                                  | 2.1       |
| Maldives                                  | 58                     | 300                    | 115  | 77   | 3.2                                  | 3.6       | 33                       | -   | 5.3       | 7.0                  | 6.4  | 5.5  | 0.3                                  | 1.4       |
| Mali                                      | 6                      | 517                    | 254  | 231  | 2.4                                  | 0.9       | 9                        | 0.1   | 1.6       | 7.1                  | 7.0  | 7.0  | 0.0                                  | 0.0       |
| Malta                                     | 178                    | 42                     | 14   | 5    | 3.7                                  | 9.4       | 64                       | 7.1   | 4.0       | 3.4                  | 2.0  | 1.8  | 1.8                                  | 1.0       |
| Marshall Islands                          | 70                     | -                      | 92   | 66   | -                                    | 3.0       | 28                       | -   | -         | -                    | -    | -    | -                                    | -         |
| Mauritania                                | 15                     | 310                    | 183  | 183  | 1.8                                  | 0.0       | 0                        | 0.8   | 1.2       | 6.5                  | 6.2  | 6.0  | 0.2                                  | 0.3       |
| Mauritius                                 | 130                    | 92                     | 25   | 19   | 4.3                                  | 2.5       | 24                       | 2.9   | 3.9       | 5.9                  | 2.3  | 1.9  | 3.1                                  | 1.3       |
| Mexico                                    | 102                    | 134                    | 46   | 29   | 3.6                                  | 4.2       | 37                       | 2.4   | 1.5       | 6.9                  | 3.4  | 2.6  | 2.4                                  | 2.4       |
| Micronesia<br>(Federated States of)       | 114                    | -                      | 31   | 24   | -                                    | 2.3       | 23                       | -   | -1.3      | -                    | -    | -    | -                                    | -         |
| Moldova, Republic of                      | 95                     | 88                     | 37   | 32   | 2.9                                  | 1.3       | 14                       | -   | -8.2      | 3.3                  | 2.4  | 1.5  | 1.1                                  | 4.3       |

# TABLE 9. THE RATE OF PROGRESS

|                                  | Under-5 mortality rank | Under-5 mortality rate |      |      | Average annual rate of reduction (%) |           | Reduction since 1990 (%) | GDP per capita average annual growth rate (%) |           | Total fertility rate |      |      | Average annual rate of reduction (%) |           |
|----------------------------------|------------------------|------------------------|------|------|--------------------------------------|-----------|--------------------------|---|-----------|----------------------|------|------|--------------------------------------|-----------|
|                                  |                        | 1960                   | 1990 | 2001 | 1960-90                              | 1990-2001 |                          | 1960-90                                       | 1990-2001 | 1960                 | 1990 | 2001 | 1960-90                              | 1990-2001 |
| Monaco                           | 178                    | -                      | -    | 5    | -                                    | -         | -                        | -   | -         | -                    | -    | -    | -                                    | -         |
| Mongolia                         | 61                     | -                      | 107  | 76   | -                                    | 3.1       | 29                       | -   | 0.0       | 6.0                  | 4.1  | 2.4  | 1.3                                  | 4.9       |
| Morocco                          | 78                     | 211                    | 85   | 44   | 3.0                                  | 6.0       | 48                       | 2.3   | 0.7       | 7.2                  | 4.3  | 3.1  | 1.7                                  | 3.0       |
| Mozambique                       | 12                     | 313                    | 235  | 197  | 1.0                                  | 1.6       | 16                       | -   | 5.1       | 6.4                  | 6.5  | 6.0  | -0.1                                 | 0.7       |
| Myanmar                          | 43                     | 252                    | 130  | 109  | 2.2                                  | 1.6       | 16                       | 1.4   | 5.1       | 6.0                  | 4.0  | 3.0  | 1.4                                  | 2.6       |
| Namibia                          | 69                     | 206                    | 84   | 67   | 3.0                                  | 2.1       | 20                       | -   | 1.8       | 6.0                  | 6.1  | 5.0  | -0.1                                 | 1.7       |
| Nauru                            | 98                     | -                      | -    | 30   | -                                    | -         | -                        | -   | -         | -                    | -    | -    | -                                    | -         |
| Nepal                            | 55                     | 315                    | 145  | 91   | 2.6                                  | 4.2       | 37                       | 0.5   | 2.5       | 6.0                  | 5.2  | 4.6  | 0.5                                  | 1.1       |
| Netherlands                      | 164                    | 22                     | 8    | 6    | 3.4                                  | 2.6       | 25                       | 2.4   | 2.2       | 3.2                  | 1.6  | 1.5  | 2.3                                  | 0.6       |
| New Zealand                      | 164                    | 26                     | 11   | 6    | 2.9                                  | 5.5       | 45                       | -   | 1.8       | 4.1                  | 2.1  | 2.0  | 2.2                                  | 0.4       |
| Nicaragua                        | 79                     | 193                    | 66   | 43   | 3.6                                  | 3.9       | 35                       | -1.5  | -0.1      | 7.3                  | 5.0  | 4.0  | 1.3                                  | 1.8       |
| Niger                            | 2                      | 354                    | 320  | 265  | 0.3                                  | 1.7       | 17                       | -2.2  | -0.9      | 7.9                  | 8.1  | 8.0  | -0.1                                 | 0.1       |
| Nigeria                          | 15                     | 207                    | 190  | 183  | 0.3                                  | 0.3       | 4                        | 0.4   | -0.3      | 6.9                  | 6.6  | 5.6  | 0.1                                  | 1.4       |
| Niue                             | -                      | -                      | -    | -    | -                                    | -         | -                        | -   | -         | -                    | -    | -    | -                                    | -         |
| Norway                           | 189                    | 23                     | 9    | 4    | 3.1                                  | 7.4       | 56                       | 3.4   | 2.9       | 2.9                  | 1.9  | 1.7  | 1.4                                  | 0.5       |
| Occupied Palestinian Territory   | 114                    | -                      | 40   | 24   | -                                    | 4.6       | 40                       | -   | -3.0      | 7.7                  | 6.5  | 5.7  | 0.6                                  | 1.1       |
| Oman                             | 146                    | 280                    | 30   | 13   | 7.4                                  | 7.6       | 57                       | 7.6   | 0.3       | 7.2                  | 7.0  | 5.6  | 0.1                                  | 2.0       |
| Pakistan                         | 43                     | 227                    | 128  | 109  | 1.9                                  | 1.5       | 15                       | 2.9   | 1.2       | 6.3                  | 6.0  | 5.2  | 0.2                                  | 1.3       |
| Palau                            | 102                    | -                      | 34   | 29   | -                                    | 1.4       | 15                       | -   | -         | -                    | -    | -    | -                                    | -         |
| Panama                           | 110                    | 88                     | 34   | 25   | 3.2                                  | 2.8       | 26                       | 1.8   | 2.1       | 5.9                  | 3.1  | 2.5  | 2.1                                  | 1.7       |
| Papua New Guinea                 | 53                     | 214                    | 101  | 94   | 2.5                                  | 0.7       | 7                        | 1.1   | 1.0       | 6.3                  | 5.2  | 4.4  | 0.6                                  | 1.3       |
| Paraguay                         | 98                     | 90                     | 37   | 30   | 3.0                                  | 1.9       | 19                       | 3.0   | -0.7      | 6.6                  | 4.8  | 3.9  | 1.1                                  | 1.7       |
| Peru                             | 85                     | 234                    | 80   | 39   | 3.6                                  | 6.5       | 51                       | 0.4   | 2.5       | 6.9                  | 3.7  | 2.7  | 2.1                                  | 2.9       |
| Philippines                      | 88                     | 110                    | 66   | 38   | 1.7                                  | 5.0       | 42                       | 1.5   | 1.1       | 7.0                  | 4.4  | 3.4  | 1.5                                  | 2.1       |
| Poland                           | 152                    | 70                     | 19   | 9    | 4.3                                  | 6.8       | 53                       | -   | 4.4       | 3.0                  | 2.1  | 1.3  | 1.2                                  | 3.9       |
| Portugal                         | 164                    | 112                    | 15   | 6    | 6.7                                  | 8.3       | 60                       | 4.0   | 2.5       | 3.1                  | 1.6  | 1.5  | 2.2                                  | 0.6       |
| Qatar                            | 138                    | 140                    | 25   | 16   | 5.7                                  | 4.1       | 36                       | -   | -         | 7.0                  | 4.4  | 3.4  | 1.5                                  | 2.3       |
| Romania                          | 121                    | 82                     | 32   | 21   | 3.1                                  | 3.8       | 34                       | 2.0   | 0.0       | 2.3                  | 1.9  | 1.3  | 0.6                                  | 3.4       |
| Russian Federation               | 121                    | 64                     | 21   | 21   | 3.7                                  | 0.0       | 0                        | 3.8   | -3.5      | 2.7                  | 1.8  | 1.2  | 1.4                                  | 3.7       |
| Rwanda                           | 15                     | 206                    | 178  | 183  | 0.5                                  | -0.3      | -3                       | 1.1   | -1.3      | 7.6                  | 6.9  | 5.9  | 0.3                                  | 1.4       |
| Saint Kitts and Nevis            | 114                    | -                      | 36   | 24   | -                                    | 3.7       | 33                       | 3.7   | 4.7       | -                    | -    | -    | -                                    | -         |
| Saint Lucia                      | 130                    | -                      | 24   | 19   | -                                    | 2.1       | 21                       | -   | 0.6       | 6.9                  | 3.4  | 2.6  | 2.4                                  | 2.4       |
| Saint Vincent and the Grenadines | 110                    | -                      | 26   | 25   | -                                    | 0.4       | 4                        | -   | 2.5       | -                    | -    | -    | -                                    | -         |
| Samoa                            | 110                    | 210                    | 42   | 25   | 5.4                                  | 4.7       | 40                       | -   | 2.1       | 7.3                  | 4.8  | 4.3  | 1.4                                  | 1.0       |
| San Marino                       | 164                    | -                      | 10   | 6    | -                                    | 4.6       | 40                       | -   | -         | -                    | -    | -    | -                                    | -         |
| Sao Tome and Principe            | 63                     | -                      | 90   | 74   | -                                    | 1.8       | 18                       | -   | -0.6      | -                    | -    | -    | -                                    | -         |
| Saudi Arabia                     | 105                    | 250                    | 44   | 28   | 5.8                                  | 4.1       | 36                       | 2.2   | -1.2      | 7.3                  | 6.9  | 5.7  | 0.2                                  | 1.7       |
| Senegal                          | 30                     | 300                    | 148  | 138  | 2.4                                  | 0.6       | 7                        | -0.6  | 1.1       | 7.0                  | 6.3  | 5.2  | 0.4                                  | 1.7       |
| Seychelles                       | 137                    | -                      | 21   | 17   | -                                    | 1.9       | 19                       | 3.1   | 1.1       | -                    | -    | -    | -                                    | -         |
| Sierra Leone                     | 1                      | 390                    | 323  | 316  | 0.6                                  | 0.2       | 2                        | 0.6   | -5.0      | 6.3                  | 6.5  | 6.5  | -0.1                                 | 0.0       |
| Singapore                        | 189                    | 40                     | 8    | 4    | 5.4                                  | 6.3       | 50                       | 6.9   | 4.7       | 5.5                  | 1.8  | 1.5  | 3.7                                  | 1.1       |
| Slovakia                         | 152                    | 40                     | 15   | 9    | 3.3                                  | 4.6       | 40                       | -   | 2.1       | 3.1                  | 2.0  | 1.3  | 1.5                                  | 3.9       |
| Slovenia                         | 178                    | 45                     | 9    | 5    | 5.4                                  | 5.3       | 44                       | -   | 3.0       | 2.4                  | 1.6  | 1.2  | 1.4                                  | 2.0       |
| Solomon Islands                  | 114                    | 185                    | 36   | 24   | 5.5                                  | 3.7       | 33                       | 2.4   | -1.5      | 6.4                  | 5.9  | 5.4  | 0.3                                  | 0.8       |
| Somalia                          | 7                      | -                      | 225  | 225  | -                                    | 0.0       | 0                        | -1.0  | -         | 7.3                  | 7.3  | 7.3  | 0.0                                  | 0.0       |
| South Africa                     | 66                     | 130                    | 60   | 71   | 2.6                                  | -1.5      | -18                      | 1.3   | 0.2       | 6.5                  | 3.6  | 2.9  | 2.0                                  | 2.0       |
| Spain                            | 164                    | 57                     | 9    | 6    | 6.2                                  | 3.7       | 33                       | 3.2   | 2.5       | 2.9                  | 1.4  | 1.1  | 2.4                                  | 2.2       |
| Sri Lanka                        | 130                    | 133                    | 23   | 19   | 5.8                                  | 1.7       | 17                       | 2.7   | 3.8       | 5.8                  | 2.6  | 2.1  | 2.7                                  | 1.9       |
| Sudan                            | 46                     | 208                    | 123  | 107  | 1.8                                  | 1.3       | 13                       | -0.1  | 5.5       | 6.7                  | 5.5  | 4.6  | 0.7                                  | 1.6       |
| Suriname                         | 95                     | 98                     | 44   | 32   | 2.7                                  | 2.9       | 27                       | -0.6  | 2.0       | 6.6                  | 2.7  | 2.1  | 3.0                                  | 2.3       |
| Swaziland                        | 27                     | 225                    | 110  | 149  | 2.4                                  | -2.8      | -35                      | 2.1   | 0.2       | 6.5                  | 5.6  | 4.5  | 0.5                                  | 2.0       |
| Sweden                           | 193                    | 20                     | 6    | 3    | 4.0                                  | 6.3       | 50                       | 2.2   | 1.7       | 2.3                  | 2.0  | 1.4  | 0.5                                  | 3.2       |
| Switzerland                      | 164                    | 27                     | 8    | 6    | 4.1                                  | 2.6       | 25                       | 1.6   | 0.3       | 2.4                  | 1.5  | 1.4  | 1.6                                  | 0.6       |
| Syrian Arab Republic             | 105                    | 201                    | 44   | 28   | 5.1                                  | 4.1       | 36                       | 2.9   | 2.5       | 7.3                  | 5.7  | 3.8  | 0.8                                  | 3.7       |
| Tajikistan                       | 64                     | 140                    | 78   | 72   | 1.9                                  | 0.7       | 8                        | -   | -10.0     | 6.3                  | 4.9  | 3.1  | 0.8                                  | 4.2       |
| Tanzania, United Republic of     | 23                     | 241                    | 163  | 165  | 1.3                                  | -0.1      | -1                       | -   | 0.3       | 6.8                  | 6.2  | 5.2  | 0.3                                  | 1.5       |
| Thailand                         | 105                    | 148                    | 40   | 28   | 4.4                                  | 3.2       | 30                       | 4.6   | 3.0       | 6.4                  | 2.3  | 2.0  | 3.4                                  | 1.3       |

|   | Under-5 mortality rank | Under-5 mortality rate |      |      | Average annual rate of reduction (%) |           | Reduction since 1990 (%) | GDP per capita average annual growth rate (%) |           | Total fertility rate |      |      | Average annual rate of reduction (%) |           |
|---|------------------------|------------------------|------|------|--------------------------------------|-----------|--------------------------|---|-----------|----------------------|------|------|--------------------------------------|-----------|
|   |                        | 1960                   | 1990 | 2001 | 1960-90                              | 1990-2001 |                          | 1960-90                                       | 1990-2001 | 1960                 | 1990 | 2001 | 1960-90                              | 1990-2001 |
| The former Yugoslav Republic of Macedonia | 109                    | 177                    | 41   | 26   | 4.9                                  | 4.1       | 37                       | -   | -0.9      | 4.2                  | 2.0  | 1.6  | 2.5                                  | 2.0       |
| Togo                                      | 29                     | 267                    | 152  | 141  | 1.9                                  | 0.7       | 7                        | 1.1   | -0.6      | 7.1                  | 6.3  | 5.5  | 0.4                                  | 1.2       |
| Tonga                                     | 125                    | -                      | 27   | 20   | -                                    | 2.7       | 26                       | -   | 2.1       | -                    | -    | -    | -                                    | -         |
| Trinidad and Tobago                       | 125                    | 73                     | 24   | 20   | 3.7                                  | 1.7       | 17                       | 3.1   | 2.9       | 5.2                  | 2.5  | 1.6  | 2.4                                  | 3.7       |
| Tunisia                                   | 108                    | 254                    | 52   | 27   | 5.3                                  | 6.0       | 48                       | 3.3   | 3.1       | 7.2                  | 3.6  | 2.2  | 2.3                                  | 4.5       |
| Turkey                                    | 79                     | 219                    | 78   | 43   | 3.4                                  | 5.4       | 45                       | 2.0   | 1.8       | 6.4                  | 3.4  | 2.4  | 2.1                                  | 3.2       |
| Turkmenistan                              | 51                     | -                      | 97   | 99   | -                                    | -0.2      | -2                       | -   | -5.9      | 6.4                  | 4.3  | 3.3  | 1.3                                  | 2.4       |
| Tuvalu                                    | 74                     | -                      | 56   | 52   | -                                    | 0.7       | 7                        | -   | -         | -                    | -    | -    | -                                    | -         |
| Uganda                                    | 36                     | 224                    | 165  | 124  | 1.0                                  | 2.6       | 25                       | -   | 3.6       | 6.9                  | 7.1  | 7.1  | -0.1                                 | 0.0       |
| Ukraine                                   | 125                    | 53                     | 22   | 20   | 2.9                                  | 0.9       | 9                        | -   | -7.4      | 2.5                  | 1.8  | 1.1  | 1.1                                  | 4.5       |
| United Arab Emirates                      | 152                    | 223                    | 14   | 9    | 9.2                                  | 4.0       | 36                       | -5.0  | -1.6      | 7.0                  | 4.2  | 3.0  | 1.7                                  | 3.1       |
| United Kingdom                            | 161                    | 27                     | 10   | 7    | 3.3                                  | 3.2       | 30                       | 2.1   | 2.2       | 2.7                  | 1.8  | 1.6  | 1.4                                  | 1.1       |
| United States                             | 158                    | 30                     | 10   | 8    | 3.7                                  | 2.0       | 20                       | 2.2   | 2.2       | 3.5                  | 2.0  | 2.0  | 1.9                                  | 0.0       |
| Uruguay                                   | 138                    | 56                     | 24   | 16   | 2.8                                  | 3.7       | 33                       | 0.9   | 2.1       | 2.9                  | 2.5  | 2.3  | 0.5                                  | 0.8       |
| Uzbekistan                                | 68                     | -                      | 62   | 68   | -                                    | -0.8      | -10                      | -   | -1.8      | 6.7                  | 4.0  | 2.5  | 1.7                                  | 4.3       |
| Vanuatu                                   | 81                     | 225                    | 70   | 42   | 3.9                                  | 4.6       | 40                       | -   | -1.1      | 7.2                  | 4.9  | 4.4  | 1.3                                  | 1.0       |
| Venezuela                                 | 120                    | 75                     | 27   | 22   | 3.4                                  | 1.9       | 19                       | -0.5  | -0.6      | 6.6                  | 3.5  | 2.8  | 2.1                                  | 2.0       |
| Viet Nam                                  | 88                     | 219                    | 50   | 38   | 4.9                                  | 2.5       | 24                       | -   | 5.8       | 6.9                  | 3.7  | 2.3  | 2.1                                  | 4.3       |
| Yemen                                     | 46                     | 340                    | 142  | 107  | 2.9                                  | 2.6       | 25                       | -   | 2.2       | 7.6                  | 7.6  | 7.6  | 0.0                                  | 0.0       |
| Yugoslavia                                | 130                    | 120                    | 30   | 19   | 4.6                                  | 4.2       | 37                       | -   | 0.5       | 2.7                  | 2.1  | 1.6  | 0.8                                  | 2.5       |
| Zambia                                    | 10                     | 213                    | 192  | 202  | 0.3                                  | -0.5      | -5                       | -1.2  | -1.7      | 6.6                  | 6.4  | 5.8  | 0.1                                  | 0.8       |
| Zimbabwe                                  | 38                     | 159                    | 80   | 123  | 2.3                                  | -3.9      | -54                      | 1.4   | -0.2      | 7.2                  | 5.8  | 4.7  | 0.7                                  | 1.9       |

## REGIONAL SUMMARIES

|                              |     |     |     |     |     |    |     |      |     |     |     |     |     |
|------------------------------|-----|-----|-----|-----|-----|----|-----|------|-----|-----|-----|-----|-----|
| Sub-Saharan Africa           | 253 | 180 | 173 | 1.1 | 0.4 | 4  | 1.2 | 0.5  | 6.8 | 6.3 | 5.6 | 0.2 | 1.1 |
| Middle East and North Africa | 250 | 81  | 61  | 3.8 | 2.6 | 25 | 0.9 | 1.9  | 7.1 | 5.0 | 3.7 | 1.2 | 3.2 |
| South Asia                   | 244 | 128 | 98  | 2.2 | 2.4 | 23 | 1.7 | 3.6  | 6.1 | 4.2 | 3.4 | 1.2 | 2.0 |
| East Asia and Pacific        | 212 | 58  | 43  | 4.3 | 2.7 | 26 | 5.1 | 6.1  | 5.8 | 2.5 | 2.0 | 2.8 | 2.0 |
| Latin America and Caribbean  | 153 | 54  | 34  | 3.5 | 4.2 | 37 | 2.4 | 1.7  | 6.0 | 3.2 | 2.6 | 2.1 | 1.9 |
| CEE/CIS and Baltic States    | 103 | 44  | 37  | 2.8 | 1.6 | 16 | 3.4 | -0.4 | 3.2 | 2.3 | 1.6 | 1.1 | 3.7 |
| Industrialized countries     | 37  | 9   | 7   | 4.7 | 2.3 | 22 | 3.1 | 1.8  | 2.8 | 1.7 | 1.6 | 1.7 | 0.6 |
| Developing countries         | 223 | 103 | 89  | 2.6 | 1.3 | 14 | 2.9 | 3.5  | 6.1 | 3.6 | 3.0 | 1.7 | 2.0 |
| Least developed countries    | 278 | 180 | 157 | 1.4 | 1.2 | 13 | 0.0 | 2.2  | 6.7 | 5.9 | 5.3 | 0.4 | 1.2 |
| World                        | 197 | 93  | 82  | 2.5 | 1.1 | 12 | 3.1 | 2.0  | 5.0 | 3.2 | 2.7 | 1.5 | 1.9 |

Countries in each region are listed on page 114.

## DEFINITIONS OF THE INDICATORS

**Under-five mortality rate** – Probability of dying between birth and exactly five years of age expressed per 1,000 live births.

**Reduction since 1990 (%)** – Percentage reduction in the under-five mortality rate (U5MR) from 1990 to 2001. The United Nations Millennium Declaration in 2000 established a goal of a two-thirds (67%) reduction in U5MR from 1990 to 2015. Hence this indicator provides a current assessment of progress towards this goal.

**GDP per capita** – Gross domestic product (GDP) is the sum of value added by all resident producers plus any product taxes (less subsidies) not included in the valuation of output. GDP per capita is gross domestic product divided by mid-year population. Growth is calculated from constant price GDP data in local currency.

**Total fertility rate** – The number of children that would be born per woman if she were to live to the end of her child-bearing years and bear children at each age in accordance with prevailing age-specific fertility rates.

## MAIN DATA SOURCES

**Under-five mortality** – UNICEF, United Nations Population Division and United Nations Statistics Division.

**GDP per capita** – World Bank.

**Fertility** – United Nations Population Division.

**NOTES** - Data not available.

# Burden of disease estimates from WHO World Health Report 2002

**Annex Table 3 Burden of disease in DALYs by cause, sex and mortality stratum in WHO Regions,<sup>a</sup> estimates for 2001**

These figures were produced by WHO using the best available evidence. They are not necessarily the official statistics of Member States.

| Cause <sup>b</sup>  | SEX              |             |                  |             |                  |             | AFRICA                    |                                | THE AMERICAS                      |                         |                           |
|---|------------------|-------------|------------------|-------------|------------------|-------------|---------------------------|--------------------------------|-----------------------------------|-------------------------|---------------------------|
|   | Both sexes       |             | Males            |             | Females          |             | Mortality stratum         |                                | Mortality stratum                 |                         |                           |
|   |                  |             |                  |             |                  |             | High child,<br>high adult | High child,<br>very high adult | Very low child,<br>very low adult | Low child,<br>low adult | High child,<br>high adult |
| <b>Population (000)</b>   | <b>6 122 210</b> |             | <b>3 083 884</b> |             | <b>3 038 327</b> |             | <b>301 878</b>            | <b>353 598</b>                 | <b>328 176</b>                    | <b>437 142</b>          | <b>72 649</b>             |
|   | (000)            | % total     | (000)            | % total     | (000)            | % total     | (000)                     | (000)                          | (000)                             | (000)                   | (000)                     |
| <b>TOTAL DALYs</b>  | <b>1 467 257</b> | <b>100</b>  | <b>768 131</b>   | <b>100</b>  | <b>699 126</b>   | <b>100</b>  | <b>147 899</b>            | <b>209 985</b>                 | <b>46 520</b>                     | <b>81 270</b>           | <b>17 427</b>             |
| <b>I. Communicable diseases, maternal and perinatal conditions and nutritional deficiencies</b> | <b>615 737</b>   | <b>42.0</b> | <b>304 269</b>   | <b>39.6</b> | <b>311 468</b>   | <b>44.6</b> | <b>105 097</b>            | <b>156 359</b>                 | <b>3 250</b>                      | <b>17 105</b>           | <b>6 761</b>              |
| Infectious and parasitic diseases   | 359 377          | 24.5        | 184 997          | 24.1        | 174 380          | 24.9        | 71 903                    | 117 144                        | 1 422                             | 7 424                   | 3 709                     |
| Tuberculosis  | 36 040           | 2.5         | 22 629           | 2.9         | 13 411           | 1.9         | 3 987                     | 4 954                          | 15                                | 532                     | 397                       |
| STDs excluding HIV  | 12 404           | 0.8         | 4 804            | 0.6         | 7 600            | 1.1         | 2 287                     | 2 854                          | 73                                | 484                     | 78                        |
| Syphilis  | 5 400            | 0.4         | 2 984            | 0.4         | 2 416            | 0.3         | 1 398                     | 1 842                          | 2                                 | 65                      | 32                        |
| Chlamydia   | 3 494            | 0.2         | 295              | 0.0         | 3 199            | 0.5         | 373                       | 434                            | 53                                | 235                     | 14                        |
| Gonorrhoea  | 3 320            | 0.2         | 1 437            | 0.2         | 1 883            | 0.3         | 516                       | 577                            | 16                                | 178                     | 30                        |
| HIV/AIDS  | 88 429           | 6.0         | 45 457           | 5.9         | 42 973           | 6.1         | 12 513                    | 54 947                         | 465                               | 1 161                   | 1 141                     |
| Diarrhoeal diseases   | 62 451           | 4.3         | 31 633           | 4.1         | 30 818           | 4.4         | 8 058                     | 13 466                         | 102                               | 1 860                   | 832                       |
| Childhood diseases  | 48 268           | 3.3         | 24 102           | 3.1         | 24 166           | 3.5         | 14 476                    | 10 522                         | 52                                | 191                     | 247                       |
| Pertussis   | 12 464           | 0.8         | 6 224            | 0.8         | 6 240            | 0.9         | 3 479                     | 2 790                          | 50                                | 176                     | 229                       |
| Poliomyelitis   | 164              | 0.0         | 84               | 0.0         | 80               | 0.0         | 11                        | 4                              | 2                                 | 6                       | 1                         |
| Diphtheria  | 185              | 0.0         | 96               | 0.0         | 89               | 0.0         | 24                        | 24                             | 0                                 | 2                       | 7                         |
| Measles   | 26 495           | 1.8         | 13 235           | 1.7         | 13 260           | 1.9         | 8 863                     | 6 261                          | 0                                 | 0                       | 0                         |
| Tetanus   | 8 960            | 0.6         | 4 462            | 0.6         | 4 497            | 0.6         | 2 098                     | 1 444                          | 0                                 | 6                       | 10                        |
| Meningitis  | 6 420            | 0.4         | 3 458            | 0.5         | 2 961            | 0.4         | 472                       | 492                            | 48                                | 458                     | 190                       |
| Hepatitis B <sup>c</sup>  | 1 684            | 0.1         | 1 079            | 0.1         | 605              | 0.1         | 123                       | 150                            | 21                                | 61                      | 43                        |
| Hepatitis C <sup>c</sup>  | 844              | 0.1         | 531              | 0.1         | 313              | 0.0         | 64                        | 77                             | 60                                | 30                      | 9                         |
| Malaria   | 42 280           | 2.9         | 20 024           | 2.6         | 22 256           | 3.2         | 18 255                    | 17 757                         | 0                                 | 88                      | 20                        |
| Tropical diseases   | 12 994           | 0.9         | 8 741            | 1.1         | 4 252            | 0.6         | 3 138                     | 3 113                          | 11                                | 576                     | 218                       |
| Trypanosomiasis   | 1 598            | 0.1         | 1 029            | 0.1         | 568              | 0.1         | 802                       | 755                            | 0                                 | 0                       | 0                         |
| Chagas disease  | 649              | 0.0         | 333              | 0.0         | 316              | 0.0         | 0                         | 0                              | 8                                 | 440                     | 200                       |
| Schistosomiasis   | 1 760            | 0.1         | 1 081            | 0.1         | 678              | 0.1         | 666                       | 754                            | 1                                 | 72                      | 10                        |
| Leishmaniasis   | 2 357            | 0.2         | 1 410            | 0.2         | 946              | 0.1         | 228                       | 175                            | 1                                 | 54                      | 5                         |
| Lymphatic filariasis  | 5 644            | 0.4         | 4 317            | 0.6         | 1 327            | 0.2         | 921                       | 1 012                          | 0                                 | 8                       | 1                         |
| Onchocerciasis  | 987              | 0.1         | 571              | 0.1         | 416              | 0.1         | 521                       | 417                            | 0                                 | 1                       | 2                         |
| Leprosy   | 177              | 0.0         | 98               | 0.0         | 79               | 0.0         | 8                         | 8                              | 0                                 | 18                      | 0                         |
| Dengue  | 653              | 0.0         | 287              | 0.0         | 366              | 0.1         | 2                         | 4                              | 0                                 | 24                      | 66                        |
| Japanese encephalitis   | 767              | 0.1         | 367              | 0.0         | 400              | 0.1         | 0                         | 0                              | 0                                 | 0                       | 0                         |
| Trachoma  | 3 997            | 0.3         | 1 082            | 0.1         | 2 915            | 0.4         | 708                       | 818                            | 0                                 | 0                       | 0                         |
| Intestinal nematode infections  | 4 706            | 0.3         | 2 410            | 0.3         | 2 296            | 0.3         | 297                       | 377                            | 11                                | 511                     | 102                       |
| Ascariasis  | 1 181            | 0.1         | 604              | 0.1         | 577              | 0.1         | 49                        | 72                             | 3                                 | 144                     | 26                        |
| Trichuriasis  | 1 649            | 0.1         | 849              | 0.1         | 800              | 0.1         | 52                        | 72                             | 5                                 | 240                     | 47                        |
| Hookworm disease  | 1 825            | 0.1         | 932              | 0.1         | 893              | 0.1         | 195                       | 231                            | 3                                 | 127                     | 20                        |
| Respiratory infections  | 94 037           | 6.4         | 49 591           | 6.5         | 44 446           | 6.4         | 13 111                    | 16 761                         | 425                               | 2 139                   | 965                       |
| Lower respiratory infections  | 90 748           | 6.2         | 47 902           | 6.2         | 42 846           | 6.1         | 12 830                    | 16 400                         | 373                               | 1 980                   | 891                       |
| Upper respiratory infections  | 1 815            | 0.1         | 934              | 0.1         | 881              | 0.1         | 150                       | 189                            | 15                                | 48                      | 52                        |
| Otitis media  | 1 474            | 0.1         | 755              | 0.1         | 719              | 0.1         | 132                       | 172                            | 38                                | 110                     | 21                        |
| Maternal conditions   | 30 943           | 2.1         | 0                | 0.0         | 30 943           | 4.4         | 4 783                     | 6 546                          | 189                               | 1 158                   | 496                       |
| Perinatal conditions  | 98 422           | 6.7         | 53 777           | 7.0         | 44 645           | 6.4         | 11 091                    | 10 829                         | 739                               | 5 257                   | 1 100                     |
| Nutritional deficiencies  | 32 958           | 2.2         | 15 905           | 2.1         | 17 054           | 2.4         | 4 209                     | 5 079                          | 476                               | 1 127                   | 490                       |
| Protein–energy malnutrition   | 16 680           | 1.1         | 8 491            | 1.1         | 8 190            | 1.2         | 2 635                     | 2 946                          | 33                                | 731                     | 257                       |
| Iodine deficiency   | 2 502            | 0.2         | 1 741            | 0.2         | 761              | 0.1         | 216                       | 642                            | 5                                 | 65                      | 22                        |
| Vitamin A deficiency  | 981              | 0.1         | 402              | 0.1         | 579              | 0.1         | 386                       | 439                            | 0                                 | 0                       | 0                         |
| Iron-deficiency anaemia   | 12 039           | 0.8         | 4 918            | 0.6         | 7 121            | 1.0         | 959                       | 1 049                          | 434                               | 294                     | 207                       |

| Cause <sup>b</sup>  | EASTERN MEDITERRANEAN |                        | EUROPE                         |                      |                       | SOUTH-EAST ASIA      |                        | WESTERN PACIFIC                |                      |
|---|-----------------------|------------------------|--------------------------------|----------------------|-----------------------|----------------------|------------------------|--------------------------------|----------------------|
|   | Mortality stratum     |                        | Mortality stratum              |                      |                       | Mortality stratum    |                        | Mortality stratum              |                      |
|   | Low child, low adult  | High child, high adult | Very low child, very low adult | Low child, low adult | Low child, high adult | Low child, low adult | High child, high adult | Very low child, very low adult | Low child, low adult |
|   | 141 835               | 351 256                | 412 512                        | 219 983              | 241 683               | 297 525              | 1 262 285              | 154 919                        | 1 546 770            |
|   | (000)                 | (000)                  | (000)                          | (000)                | (000)                 | (000)                | (000)                  | (000)                          | (000)                |
| <b>TOTAL DALYs</b>  | <b>23 007</b>         | <b>113 214</b>         | <b>53 075</b>                  | <b>38 936</b>        | <b>59 212</b>         | <b>61 290</b>        | <b>357 554</b>         | <b>16 430</b>                  | <b>241 438</b>       |
| <b>I. Communicable diseases, maternal and perinatal conditions and nutritional deficiencies</b> | <b>5 691</b>          | <b>61 446</b>          | <b>2 579</b>                   | <b>7 029</b>         | <b>4 999</b>          | <b>20 403</b>        | <b>167 749</b>         | <b>1 064</b>                   | <b>56 205</b>        |
| Infectious and parasitic diseases   | 2 227                 | 32 514                 | 958                            | 2 388                | 2 530                 | 11 018               | 82 977                 | 358                            | 22 805               |
| Tuberculosis  | 175                   | 2 813                  | 57                             | 469                  | 1 152                 | 3 549                | 12 419                 | 46                             | 5 472                |
| STDs excluding HIV  | 139                   | 1 184                  | 79                             | 151                  | 130                   | 464                  | 3 854                  | 34                             | 593                  |
| Syphilis  | 3                     | 584                    | 3                              | 6                    | 7                     | 45                   | 1 283                  | 1                              | 128                  |
| Chlamydia   | 96                    | 296                    | 60                             | 94                   | 79                    | 250                  | 1 199                  | 25                             | 286                  |
| Gonorrhoea  | 37                    | 287                    | 15                             | 42                   | 39                    | 165                  | 1 236                  | 7                              | 174                  |
| HIV/AIDS  | 15                    | 1 698                  | 208                            | 43                   | 657                   | 1 850                | 11 758                 | 7                              | 1 966                |
| Diarrhoeal diseases   | 683                   | 10 101                 | 109                            | 584                  | 138                   | 1 128                | 21 249                 | 44                             | 4 097                |
| Childhood diseases  | 59                    | 7 129                  | 65                             | 298                  | 30                    | 1 529                | 11 431                 | 35                             | 2 203                |
| Pertussis   | 42                    | 2 383                  | 63                             | 60                   | 26                    | 159                  | 2 545                  | 34                             | 429                  |
| Poliomyelitis   | 4                     | 15                     | 1                              | 7                    | 1                     | 10                   | 54                     | 0                              | 47                   |
| Diphtheria  | 0                     | 16                     | 0                              | 1                    | 1                     | 7                    | 96                     | 0                              | 7                    |
| Measles   | 9                     | 3 039                  | 1                              | 227                  | 2                     | 1 151                | 5 771                  | 1                              | 1 169                |
| Tetanus   | 4                     | 1 676                  | 0                              | 3                    | 0                     | 202                  | 2 964                  | 0                              | 551                  |
| Meningitis  | 110                   | 963                    | 64                             | 281                  | 96                    | 422                  | 2 162                  | 13                             | 649                  |
| Hepatitis B <sup>c</sup>  | 35                    | 136                    | 18                             | 48                   | 24                    | 143                  | 471                    | 21                             | 388                  |
| Hepatitis C <sup>c</sup>  | 16                    | 68                     | 30                             | 30                   | 14                    | 63                   | 192                    | 33                             | 158                  |
| Malaria   | 49                    | 2 001                  | 2                              | 18                   | 0                     | 353                  | 3 327                  | 0                              | 409                  |
| Tropical diseases   | 51                    | 1 004                  | 0                              | 8                    | 0                     | 247                  | 4 144                  | 4                              | 480                  |
| Trypanosomiasis   | 0                     | 40                     | 0                              | 0                    | 0                     | 0                    | 0                      | 0                              | 0                    |
| Chagas disease  | 0                     | 0                      | 0                              | 0                    | 0                     | 0                    | 0                      | 0                              | 0                    |
| Schistosomiasis   | 28                    | 174                    | 0                              | 0                    | 0                     | 2                    | 1                      | 0                              | 51                   |
| Leishmaniasis   | 20                    | 258                    | 0                              | 6                    | 0                     | 6                    | 1 580                  | 0                              | 25                   |
| Lymphatic filariasis  | 4                     | 485                    | 0                              | 2                    | 0                     | 239                  | 2 563                  | 4                              | 404                  |
| Onchocerciasis  | 0                     | 46                     | 0                              | 0                    | 0                     | 0                    | 0                      | 0                              | 0                    |
| Leprosy   | 0                     | 16                     | 0                              | 0                    | 0                     | 18                   | 101                    | 0                              | 7                    |
| Dengue  | 9                     | 76                     | 0                              | 0                    | 0                     | 79                   | 281                    | 0                              | 112                  |
| Japanese encephalitis   | 0                     | 81                     | 0                              | 0                    | 0                     | 25                   | 322                    | 0                              | 340                  |
| Trachoma  | 238                   | 364                    | 0                              | 0                    | 0                     | 81                   | 167                    | 2                              | 1 619                |
| Intestinal nematode infections  | 48                    | 219                    | 0                              | 8                    | 0                     | 487                  | 1 063                  | 6                              | 1 576                |
| Ascariasis  | 20                    | 42                     | 0                              | 7                    | 0                     | 113                  | 156                    | 1                              | 547                  |
| Trichuriasis  | 1                     | 36                     | 0                              | 0                    | 0                     | 196                  | 233                    | 2                              | 766                  |
| Hookworm disease  | 27                    | 138                    | 0                              | 0                    | 0                     | 177                  | 657                    | 2                              | 246                  |
| Respiratory infections  | 1 115                 | 10 615                 | 677                            | 2 056                | 893                   | 2 497                | 30 407                 | 394                            | 11 983               |
| Lower respiratory infections  | 1 050                 | 10 327                 | 614                            | 1 973                | 814                   | 2 358                | 29 619                 | 372                            | 11 147               |
| Upper respiratory infections  | 24                    | 175                    | 26                             | 48                   | 53                    | 58                   | 449                    | 10                             | 518                  |
| Otitis media  | 40                    | 113                    | 37                             | 34                   | 25                    | 81                   | 338                    | 13                             | 318                  |
| Maternal conditions   | 446                   | 3 684                  | 156                            | 329                  | 266                   | 1 404                | 8 623                  | 59                             | 2 805                |
| Perinatal conditions  | 1 289                 | 11 174                 | 489                            | 1 666                | 712                   | 3 828                | 35 667                 | 127                            | 14 453               |
| Nutritional deficiencies  | 615                   | 3 460                  | 299                            | 591                  | 599                   | 1 656                | 10 075                 | 125                            | 4 158                |
| Protein–energy malnutrition   | 178                   | 1 981                  | 25                             | 115                  | 57                    | 691                  | 5 107                  | 17                             | 1 907                |
| Iodine deficiency   | 90                    | 398                    | 2                              | 162                  | 311                   | 57                   | 417                    | 0                              | 115                  |
| Vitamin A deficiency  | 0                     | 45                     | 0                              | 1                    | 0                     | 3                    | 96                     | 0                              | 11                   |
| Iron-deficiency anaemia   | 345                   | 933                    | 267                            | 288                  | 204                   | 821                  | 4 050                  | 105                            | 2 083                |

**Annex Table 3 Burden of disease in DALYs by cause, sex and mortality stratum in WHO Regions,<sup>a</sup> estimates for 2001**

These figures were produced by WHO using the best available evidence. They are not necessarily the official statistics of Member States.

| Cause <sup>b</sup>                    | SEX              |             |                  |             |                  |             | AFRICA                 |                             | THE AMERICAS                   |                      |                        |
|---------------------------------------|------------------|-------------|------------------|-------------|------------------|-------------|------------------------|-----------------------------|--------------------------------|----------------------|------------------------|
|                                       | Both sexes       |             | Males            |             | Females          |             | Mortality stratum      |                             | Mortality stratum              |                      |                        |
|                                       |                  |             |                  |             |                  |             | High child, high adult | High child, very high adult | Very low child, very low adult | Low child, low adult | High child, high adult |
| <b>Population (000)</b>               | <b>6 122 210</b> |             | <b>3 083 884</b> |             | <b>3 038 327</b> |             | <b>301 878</b>         | <b>353 598</b>              | <b>328 176</b>                 | <b>437 142</b>       | <b>72 649</b>          |
|                                       | (000)            | % total     | (000)            | % total     | (000)            | % total     | (000)                  | (000)                       | (000)                          | (000)                | (000)                  |
| <b>II. Noncommunicable conditions</b> | <b>672 865</b>   | <b>45.9</b> | <b>346 575</b>   | <b>45.1</b> | <b>326 290</b>   | <b>46.7</b> | <b>30 030</b>          | <b>36 075</b>               | <b>38 642</b>                  | <b>50 328</b>        | <b>8 432</b>           |
| Malignant neoplasms                   | 76 716           | 5.2         | 40 943           | 5.3         | 35 772           | 5.1         | 2 956                  | 3 881                       | 5 555                          | 4 513                | 883                    |
| Mouth and oropharynx cancers          | 3 734            | 0.3         | 2 693            | 0.4         | 1 041            | 0.1         | 132                    | 284                         | 101                            | 128                  | 14                     |
| Oesophagus cancer                     | 4 191            | 0.3         | 2 712            | 0.4         | 1 478            | 0.2         | 60                     | 238                         | 133                            | 134                  | 8                      |
| Stomach cancer                        | 8 149            | 0.6         | 5 067            | 0.7         | 3 082            | 0.4         | 214                    | 204                         | 139                            | 398                  | 141                    |
| Colon/rectum cancer                   | 5 762            | 0.4         | 3 089            | 0.4         | 2 673            | 0.4         | 144                    | 166                         | 593                            | 287                  | 38                     |
| Liver cancer                          | 7 317            | 0.5         | 5 132            | 0.7         | 2 185            | 0.3         | 431                    | 500                         | 127                            | 180                  | 63                     |
| Pancreas cancer                       | 1 948            | 0.1         | 1 099            | 0.1         | 849              | 0.1         | 34                     | 52                          | 249                            | 143                  | 22                     |
| Trachea/bronchus/lung cancers         | 11 258           | 0.8         | 8 065            | 1.0         | 3 194            | 0.5         | 98                     | 157                         | 1 400                          | 474                  | 26                     |
| Melanoma and other skin cancers       | 671              | 0.0         | 377              | 0.0         | 294              | 0.0         | 38                     | 59                          | 123                            | 61                   | 11                     |
| Breast cancer                         | 6 317            | 0.4         | 23               | 0.0         | 6 294            | 0.9         | 187                    | 300                         | 666                            | 427                  | 60                     |
| Cervix uteri cancer                   | 3 827            | 0.3         | ...              | ...         | 3 827            | 0.5         | 288                    | 505                         | 94                             | 300                  | 77                     |
| Corpus uteri cancer                   | 937              | 0.1         | ...              | ...         | 937              | 0.1         | 13                     | 20                          | 88                             | 170                  | 54                     |
| Ovary cancer                          | 1 605            | 0.1         | ...              | ...         | 1 605            | 0.2         | 47                     | 91                          | 149                            | 95                   | 16                     |
| Prostate cancer                       | 1 495            | 0.1         | 1 495            | 0.2         | ...              | ...         | 149                    | 125                         | 212                            | 159                  | 32                     |
| Bladder cancer                        | 1 548            | 0.1         | 1 059            | 0.1         | 490              | 0.1         | 74                     | 65                          | 109                            | 52                   | 6                      |
| Lymphomas, multiple myeloma           | 4 360            | 0.3         | 2 403            | 0.3         | 1 957            | 0.3         | 353                    | 362                         | 376                            | 230                  | 51                     |
| Leukaemia                             | 4 660            | 0.3         | 2 670            | 0.3         | 1 989            | 0.3         | 145                    | 232                         | 252                            | 360                  | 88                     |
| Other neoplasms                       | 1 773            | 0.1         | 904              | 0.1         | 869              | 0.1         | 31                     | 44                          | 104                            | 136                  | 22                     |
| Diabetes mellitus                     | 15 446           | 1.1         | 7 328            | 1.0         | 8 118            | 1.2         | 358                    | 460                         | 1 388                          | 1 798                | 226                    |
| Nutritional/endocrine disorders       | 8 232            | 0.6         | 3 763            | 0.5         | 4 469            | 0.6         | 754                    | 897                         | 802                            | 1 181                | 252                    |
| Neuropsychiatric disorders            | 191 260          | 13.0        | 93 488           | 12.2        | 97 772           | 14.0        | 7 868                  | 9 412                       | 13 845                         | 18 598               | 2 927                  |
| Unipolar depressive disorders         | 65 911           | 4.5         | 26 279           | 3.4         | 39 632           | 5.7         | 1 939                  | 2 258                       | 5 152                          | 5 687                | 887                    |
| Bipolar affective disorder            | 13 708           | 0.9         | 6 932            | 0.9         | 6 776            | 1.0         | 767                    | 899                         | 516                            | 1 037                | 176                    |
| Schizophrenia                         | 15 891           | 1.1         | 8 117            | 1.1         | 7 774            | 1.1         | 755                    | 871                         | 522                            | 1 237                | 208                    |
| Epilepsy                              | 6 787            | 0.5         | 3 617            | 0.5         | 3 171            | 0.5         | 455                    | 690                         | 173                            | 729                  | 147                    |
| Alcohol use disorders                 | 19 843           | 1.4         | 16 623           | 2.2         | 3 221            | 0.5         | 251                    | 752                         | 2 497                          | 3 435                | 344                    |
| Alzheimer and other dementias         | 12 437           | 0.8         | 5 393            | 0.7         | 7 043            | 1.0         | 287                    | 324                         | 1 472                          | 774                  | 59                     |
| Parkinson disease                     | 1 599            | 0.1         | 771              | 0.1         | 828              | 0.1         | 31                     | 38                          | 230                            | 51                   | 7                      |
| Multiple sclerosis                    | 1 442            | 0.1         | 624              | 0.1         | 818              | 0.1         | 52                     | 41                          | 113                            | 102                  | 16                     |
| Drug use disorders                    | 7 116            | 0.5         | 5 556            | 0.7         | 1 560            | 0.2         | 590                    | 642                         | 786                            | 806                  | 233                    |
| Post-traumatic stress disorder        | 3 266            | 0.2         | 906              | 0.1         | 2 360            | 0.3         | 143                    | 167                         | 181                            | 203                  | 32                     |
| Obsessive-compulsive disorder         | 4 819            | 0.3         | 2 074            | 0.3         | 2 745            | 0.4         | 380                    | 447                         | 223                            | 543                  | 87                     |
| Panic disorder                        | 6 636            | 0.5         | 2 254            | 0.3         | 4 383            | 0.6         | 347                    | 408                         | 269                            | 499                  | 85                     |
| Insomnia (primary)                    | 3 406            | 0.2         | 1 467            | 0.2         | 1 939            | 0.3         | 136                    | 158                         | 264                            | 316                  | 48                     |
| Migraine                              | 7 565            | 0.5         | 2 053            | 0.3         | 5 511            | 0.8         | 187                    | 246                         | 500                            | 735                  | 148                    |
| Sense organ disorders                 | 38 742           | 2.6         | 18 759           | 2.4         | 19 983           | 2.9         | 2 086                  | 2 234                       | 1 681                          | 1 793                | 307                    |
| Glaucoma                              | 1 152            | 0.1         | 456              | 0.1         | 696              | 0.1         | 158                    | 163                         | 15                             | 89                   | 6                      |
| Cataracts                             | 8 269            | 0.6         | 3 896            | 0.5         | 4 373            | 0.6         | 863                    | 857                         | 40                             | 304                  | 118                    |
| Hearing loss, adult onset             | 25 873           | 1.8         | 13 185           | 1.7         | 12 688           | 1.8         | 942                    | 1 072                       | 1 402                          | 1 168                | 149                    |
| Cardiovascular diseases               | 144 471          | 9.8         | 77 155           | 10.0        | 67 316           | 9.6         | 5 388                  | 5 976                       | 6 950                          | 7 194                | 1 001                  |
| Rheumatic heart disease               | 6 112            | 0.4         | 2 615            | 0.3         | 3 497            | 0.5         | 359                    | 405                         | 42                             | 108                  | 11                     |
| Hypertensive heart disease            | 7 306            | 0.5         | 3 630            | 0.5         | 3 676            | 0.5         | 256                    | 304                         | 324                            | 563                  | 118                    |
| Ischaemic heart disease               | 58 725           | 4.0         | 33 826           | 4.4         | 24 899           | 3.6         | 1 614                  | 1 644                       | 3 523                          | 2 688                | 295                    |
| Cerebrovascular disease               | 45 870           | 3.1         | 23 603           | 3.1         | 22 267           | 3.2         | 1 508                  | 1 810                       | 1 448                          | 2 332                | 277                    |
| Inflammatory heart disease            | 5 670            | 0.4         | 3 272            | 0.4         | 2 398            | 0.3         | 358                    | 414                         | 400                            | 418                  | 24                     |

| Cause <sup>b</sup>                    | EASTERN MEDITERRANEAN |                        | EUROPE                         |                      |                       | SOUTH-EAST ASIA      |                        | WESTERN PACIFIC                |                      |
|---------------------------------------|-----------------------|------------------------|--------------------------------|----------------------|-----------------------|----------------------|------------------------|--------------------------------|----------------------|
|                                       | Mortality stratum     |                        | Mortality stratum              |                      |                       | Mortality stratum    |                        | Mortality stratum              |                      |
|                                       | Low child, low adult  | High child, high adult | Very low child, very low adult | Low child, low adult | Low child, high adult | Low child, low adult | High child, high adult | Very low child, very low adult | Low child, low adult |
|                                       | 141 835               | 351 256                | 412 512                        | 219 983              | 241 683               | 297 525              | 1 262 285              | 154 919                        | 1 546 770            |
|                                       | (000)                 | (000)                  | (000)                          | (000)                | (000)                 | (000)                | (000)                  | (000)                          | (000)                |
| <b>II. Noncommunicable conditions</b> | <b>13 282</b>         | <b>39 329</b>          | <b>46 259</b>                  | <b>27 473</b>        | <b>42 170</b>         | <b>31 866</b>        | <b>144 703</b>         | <b>13 720</b>                  | <b>150 556</b>       |
| Malignant neoplasms                   | 1 084                 | 2 824                  | 8 554                          | 3 330                | 5 486                 | 3 027                | 10 630                 | 2 743                          | 21 248               |
| Mouth and oropharynx cancers          | 43                    | 203                    | 277                            | 110                  | 216                   | 199                  | 1 365                  | 58                             | 603                  |
| Oesophagus cancer                     | 39                    | 106                    | 239                            | 78                   | 133                   | 43                   | 732                    | 92                             | 2 155                |
| Stomach cancer                        | 135                   | 131                    | 454                            | 296                  | 714                   | 97                   | 550                    | 404                            | 4 273                |
| Colon/rectum cancer                   | 64                    | 144                    | 1 028                          | 279                  | 570                   | 279                  | 372                    | 373                            | 1 426                |
| Liver cancer                          | 46                    | 129                    | 276                            | 106                  | 132                   | 363                  | 483                    | 276                            | 4 205                |
| Pancreas cancer                       | 20                    | 34                     | 379                            | 121                  | 208                   | 60                   | 133                    | 148                            | 346                  |
| Trachea/bronchus/lung cancers         | 122                   | 218                    | 1 660                          | 642                  | 1 021                 | 368                  | 1 310                  | 420                            | 3 341                |
| Melanoma and other skin cancers       | 4                     | 19                     | 140                            | 45                   | 66                    | 11                   | 27                     | 26                             | 41                   |
| Breast cancer                         | 86                    | 332                    | 993                            | 296                  | 514                   | 395                  | 839                    | 201                            | 1 021                |
| Cervix uteri cancer                   | 54                    | 121                    | 105                            | 114                  | 163                   | 240                  | 1 349                  | 35                             | 384                  |
| Corpus uteri cancer                   | 8                     | 17                     | 131                            | 78                   | 133                   | 29                   | 34                     | 32                             | 128                  |
| Ovary cancer                          | 16                    | 64                     | 229                            | 83                   | 157                   | 129                  | 239                    | 56                             | 235                  |
| Prostate cancer                       | 13                    | 38                     | 335                            | 64                   | 101                   | 41                   | 114                    | 59                             | 52                   |
| Bladder cancer                        | 26                    | 213                    | 254                            | 89                   | 125                   | 47                   | 270                    | 40                             | 178                  |
| Lymphomas, multiple myeloma           | 130                   | 292                    | 437                            | 168                  | 137                   | 203                  | 1 107                  | 113                            | 400                  |
| Leukaemia                             | 101                   | 330                    | 323                            | 182                  | 211                   | 228                  | 759                    | 96                             | 1 352                |
| Other neoplasms                       | 35                    | 191                    | 176                            | 38                   | 65                    | 333                  | 271                    | 68                             | 259                  |
| Diabetes mellitus                     | 418                   | 833                    | 1 083                          | 526                  | 682                   | 1 098                | 3 417                  | 377                            | 2 783                |
| Nutritional/endocrine disorders       | 242                   | 629                    | 637                            | 177                  | 184                   | 402                  | 537                    | 229                            | 1 310                |
| Neuropsychiatric disorders            | 4 234                 | 10 555                 | 14 727                         | 7 015                | 8 858                 | 8 538                | 39 553                 | 3 757                          | 41 373               |
| Unipolar depressive disorders         | 1 211                 | 3 623                  | 4 091                          | 2 587                | 2 612                 | 2 874                | 17 299                 | 1 005                          | 14 685               |
| Bipolar affective disorder            | 360                   | 832                    | 617                            | 473                  | 450                   | 705                  | 2 946                  | 241                            | 3 691                |
| Schizophrenia                         | 448                   | 994                    | 591                            | 569                  | 443                   | 1 054                | 3 629                  | 234                            | 4 336                |
| Epilepsy                              | 125                   | 479                    | 244                            | 191                  | 192                   | 335                  | 1 879                  | 66                             | 1 082                |
| Alcohol use disorders                 | 16                    | 178                    | 2 129                          | 610                  | 1 690                 | 570                  | 1 435                  | 480                            | 5 456                |
| Alzheimer and other dementias         | 172                   | 400                    | 3 153                          | 452                  | 967                   | 446                  | 1 681                  | 530                            | 1 719                |
| Parkinson disease                     | 25                    | 173                    | 287                            | 65                   | 80                    | 54                   | 190                    | 107                            | 261                  |
| Multiple sclerosis                    | 33                    | 72                     | 156                            | 60                   | 86                    | 64                   | 272                    | 30                             | 346                  |
| Drug use disorders                    | 488                   | 606                    | 757                            | 180                  | 447                   | 124                  | 859                    | 246                            | 351                  |
| Post-traumatic stress disorder        | 79                    | 185                    | 207                            | 125                  | 130                   | 180                  | 705                    | 81                             | 847                  |
| Obsessive-compulsive disorder         | 186                   | 335                    | 256                            | 270                  | 281                   | 172                  | 822                    | 63                             | 755                  |
| Panic disorder                        | 177                   | 408                    | 321                            | 245                  | 238                   | 363                  | 1 470                  | 127                            | 1 679                |
| Insomnia (primary)                    | 34                    | 155                    | 346                            | 117                  | 158                   | 116                  | 842                    | 130                            | 584                  |
| Migraine                              | 144                   | 405                    | 742                            | 254                  | 238                   | 341                  | 1 682                  | 153                            | 1 788                |
| Sense organ disorders                 | 879                   | 2 457                  | 2 234                          | 1 024                | 1 819                 | 2 995                | 10 585                 | 806                            | 7 841                |
| Glaucoma                              | 68                    | 141                    | 44                             | 37                   | 102                   | 34                   | 71                     | 8                              | 217                  |
| Cataracts                             | 174                   | 695                    | 19                             | 87                   | 236                   | 599                  | 2 959                  | 18                             | 1 299                |
| Hearing loss, adult onset             | 574                   | 1 464                  | 1 857                          | 768                  | 1 299                 | 2 199                | 6 917                  | 661                            | 5 400                |
| Cardiovascular diseases               | 2 935                 | 8 855                  | 9 201                          | 8 495                | 16 440                | 6 104                | 35 427                 | 2 391                          | 28 115               |
| Rheumatic heart disease               | 68                    | 510                    | 78                             | 137                  | 217                   | 228                  | 2 336                  | 20                             | 1 593                |
| Hypertensive heart disease            | 294                   | 537                    | 317                            | 515                  | 349                   | 593                  | 866                    | 41                             | 2 229                |
| Ischaemic heart disease               | 1 514                 | 3 839                  | 3 867                          | 3 702                | 8 431                 | 2 246                | 17 990                 | 772                            | 6 601                |
| Cerebrovascular disease               | 489                   | 1 875                  | 2 590                          | 2 496                | 5 357                 | 1 971                | 7 981                  | 1 099                          | 14 637               |
| Inflammatory heart disease            | 79                    | 386                    | 278                            | 324                  | 600                   | 254                  | 1 320                  | 78                             | 737                  |

**Annex Table 3 Burden of disease in DALYs by cause, sex and mortality stratum in WHO Regions,<sup>a</sup> estimates for 2001**

These figures were produced by WHO using the best available evidence. They are not necessarily the official statistics of Member States.

| Cause <sup>b</sup>                    | SEX              |             |                  |             |                  |            | AFRICA                 |                             | THE AMERICAS                   |                      |                        |
|---------------------------------------|------------------|-------------|------------------|-------------|------------------|------------|------------------------|-----------------------------|--------------------------------|----------------------|------------------------|
|                                       | Both sexes       |             | Males            |             | Females          |            | Mortality stratum      |                             | Mortality stratum              |                      |                        |
|                                       | (000)            | % total     | (000)            | % total     | (000)            | % total    | High child, high adult | High child, very high adult | Very low child, very low adult | Low child, low adult | High child, high adult |
| <b>Population (000)</b>               | <b>6 122 210</b> |             | <b>3 083 884</b> |             | <b>3 038 327</b> |            | <b>301 878</b>         | <b>353 598</b>              | <b>328 176</b>                 | <b>437 142</b>       | <b>72 649</b>          |
| Respiratory diseases                  | 62 842           | 4.3         | 34 634           | 4.5         | 28 208           | 4.0        | 3 126                  | 4 144                       | 2 986                          | 4 848                | 761                    |
| Chronic obstructive pulmonary disease | 29 917           | 2.0         | 17 012           | 2.2         | 12 905           | 1.8        | 505                    | 608                         | 1 552                          | 1 359                | 86                     |
| Asthma                                | 15 010           | 1.0         | 8 036            | 1.0         | 6 973            | 1.0        | 943                    | 1 300                       | 777                            | 1 539                | 282                    |
| Digestive diseases                    | 50 173           | 3.4         | 28 303           | 3.7         | 21 869           | 3.1        | 2 864                  | 3 506                       | 1 705                          | 3 759                | 782                    |
| Peptic ulcer disease                  | 4 585            | 0.3         | 2 922            | 0.4         | 1 663            | 0.2        | 144                    | 196                         | 53                             | 136                  | 39                     |
| Cirrhosis of the liver                | 15 051           | 1.0         | 9 765            | 1.3         | 5 286            | 0.8        | 527                    | 621                         | 494                            | 1 164                | 274                    |
| Appendicitis                          | 418              | 0.0         | 245              | 0.0         | 173              | 0.0        | 25                     | 33                          | 14                             | 37                   | 14                     |
| Diseases of the genitourinary system  | 15 010           | 1.0         | 8 822            | 1.1         | 6 188            | 0.9        | 1 271                  | 1 509                       | 595                            | 1 055                | 265                    |
| Nephritis/nephrosis                   | 8 236            | 0.6         | 4 527            | 0.6         | 3 709            | 0.5        | 651                    | 771                         | 238                            | 488                  | 166                    |
| Benign prostatic hypertrophy          | 2 428            | 0.2         | 2 428            | 0.3         | ...              | ...        | 126                    | 143                         | 87                             | 200                  | 28                     |
| Skin diseases                         | 2 171            | 0.1         | 1 183            | 0.2         | 989              | 0.1        | 335                    | 425                         | 73                             | 171                  | 42                     |
| Musculoskeletal diseases              | 29 798           | 2.0         | 13 007           | 1.7         | 16 792           | 2.4        | 1 037                  | 1 144                       | 1 923                          | 2 178                | 304                    |
| Rheumatoid arthritis                  | 4 757            | 0.3         | 1 353            | 0.2         | 3 404            | 0.5        | 127                    | 141                         | 324                            | 532                  | 83                     |
| Osteoarthritis                        | 16 372           | 1.1         | 6 621            | 0.9         | 9 750            | 1.4        | 625                    | 687                         | 1 045                          | 969                  | 117                    |
| Congenital abnormalities              | 28 083           | 1.9         | 14 330           | 1.9         | 13 753           | 2.0        | 1 715                  | 2 161                       | 685                            | 2 284                | 514                    |
| Oral diseases                         | 8 148            | 0.6         | 3 956            | 0.5         | 4 191            | 0.6        | 242                    | 282                         | 352                            | 820                  | 147                    |
| Dental caries                         | 4 677            | 0.3         | 2 371            | 0.3         | 2 306            | 0.3        | 180                    | 212                         | 180                            | 696                  | 129                    |
| Periodontal disease                   | 296              | 0.0         | 150              | 0.0         | 146              | 0.0        | 14                     | 17                          | 13                             | 21                   | 3                      |
| Edentulism                            | 3 057            | 0.2         | 1 398            | 0.2         | 1 659            | 0.2        | 43                     | 48                          | 156                            | 95                   | 13                     |
| <b>III. Injuries</b>                  | <b>178 656</b>   | <b>12.2</b> | <b>117 287</b>   | <b>15.3</b> | <b>61 368</b>    | <b>8.8</b> | <b>12 771</b>          | <b>17 551</b>               | <b>4 628</b>                   | <b>13 837</b>        | <b>2 235</b>           |
| Unintentional                         | 129 853          | 8.9         | 82 378           | 10.7        | 47 475           | 6.8        | 9 403                  | 10 886                      | 3 053                          | 7 288                | 1 679                  |
| Road traffic accidents                | 37 719           | 2.6         | 26 187           | 3.4         | 11 532           | 1.6        | 2 786                  | 3 527                       | 1 348                          | 2 712                | 459                    |
| Poisoning                             | 7 508            | 0.5         | 4 706            | 0.6         | 2 802            | 0.4        | 488                    | 662                         | 315                            | 73                   | 20                     |
| Falls                                 | 15 672           | 1.1         | 9 835            | 1.3         | 5 837            | 0.8        | 411                    | 472                         | 378                            | 696                  | 130                    |
| Fires                                 | 10 974           | 0.7         | 4 686            | 0.6         | 6 287            | 0.9        | 837                    | 827                         | 96                             | 143                  | 37                     |
| Drowning                              | 11 778           | 0.8         | 8 150            | 1.1         | 3 628            | 0.5        | 1 648                  | 1 353                       | 112                            | 478                  | 109                    |
| Other unintentional injuries          | 46 202           | 3.1         | 28 814           | 3.8         | 17 389           | 2.5        | 3 233                  | 4 045                       | 804                            | 3 186                | 926                    |
| Intentional                           | 48 802           | 3.3         | 34 910           | 4.5         | 13 893           | 2.0        | 3 369                  | 6 666                       | 1 575                          | 6 549                | 555                    |
| Self-inflicted                        | 19 923           | 1.4         | 11 579           | 1.5         | 8 345            | 1.2        | 284                    | 461                         | 808                            | 635                  | 99                     |
| Violence                              | 20 167           | 1.4         | 15 831           | 2.1         | 4 336            | 0.6        | 2 248                  | 2 895                       | 684                            | 5 653                | 452                    |
| War                                   | 8 309            | 0.6         | 7 193            | 0.9         | 1 116            | 0.2        | 836                    | 3 309                       | 70                             | 236                  | 4                      |

<sup>a</sup> See the List of Member States by WHO Region and mortality stratum.

<sup>b</sup> Estimates for specific causes may not sum to broader cause groupings due to omission of residual categories.

<sup>c</sup> Does not include liver cancer and cirrhosis deaths resulting from chronic hepatitis virus infection.

... Data not available or not applicable.

| Cause <sup>b</sup>                    | EASTERN MEDITERRANEAN |                        | EUROPE                         |                      |                       | SOUTH-EAST ASIA      |                        | WESTERN PACIFIC                |                      |
|---------------------------------------|-----------------------|------------------------|--------------------------------|----------------------|-----------------------|----------------------|------------------------|--------------------------------|----------------------|
|                                       | Mortality stratum     |                        | Mortality stratum              |                      |                       | Mortality stratum    |                        | Mortality stratum              |                      |
|                                       | Low child, low adult  | High child, high adult | Very low child, very low adult | Low child, low adult | Low child, high adult | Low child, low adult | High child, high adult | Very low child, very low adult | Low child, low adult |
|                                       | 141 835               | 351 256                | 412 512                        | 219 983              | 241 683               | 297 525              | 1 262 285              | 154 919                        | 1 546 770            |
|                                       | (000)                 | (000)                  | (000)                          | (000)                | (000)                 | (000)                | (000)                  | (000)                          | (000)                |
| Respiratory diseases                  | 674                   | 3 125                  | 3 195                          | 1 699                | 2 149                 | 2 366                | 14 042                 | 1 053                          | 18 674               |
| Chronic obstructive pulmonary disease | 178                   | 828                    | 1 777                          | 737                  | 1 201                 | 895                  | 6 441                  | 380                            | 13 372               |
| Asthma                                | 304                   | 999                    | 706                            | 369                  | 290                   | 543                  | 3 630                  | 375                            | 2 952                |
| Digestive diseases                    | 545                   | 3 622                  | 2 447                          | 2 027                | 2 682                 | 2 523                | 12 791                 | 706                            | 10 214               |
| Peptic ulcer disease                  | 38                    | 235                    | 133                            | 153                  | 219                   | 258                  | 1 712                  | 35                             | 1 234                |
| Cirrhosis of the liver                | 133                   | 940                    | 922                            | 687                  | 1 014                 | 854                  | 4 206                  | 201                            | 3 015                |
| Appendicitis                          | 7                     | 20                     | 16                             | 9                    | 21                    | 27                   | 96                     | 5                              | 94                   |
| Diseases of the genitourinary system  | 349                   | 1 114                  | 549                            | 565                  | 725                   | 823                  | 2 729                  | 225                            | 3 236                |
| Nephritis/nephrosis                   | 120                   | 757                    | 195                            | 273                  | 220                   | 479                  | 1 865                  | 99                             | 1 915                |
| Benign prostatic hypertrophy          | 67                    | 133                    | 121                            | 64                   | 76                    | 116                  | 526                    | 50                             | 690                  |
| Skin diseases                         | 21                    | 145                    | 88                             | 37                   | 133                   | 241                  | 309                    | 19                             | 133                  |
| Musculoskeletal diseases              | 485                   | 1 203                  | 2 448                          | 1 468                | 1 902                 | 1 564                | 5 085                  | 982                            | 8 077                |
| Rheumatoid arthritis                  | 99                    | 218                    | 423                            | 271                  | 359                   | 117                  | 855                    | 142                            | 1 065                |
| Osteoarthritis                        | 227                   | 577                    | 1 489                          | 930                  | 1 210                 | 931                  | 2 474                  | 649                            | 4 442                |
| Congenital abnormalities              | 962                   | 3 121                  | 566                            | 679                  | 697                   | 1 191                | 7 616                  | 221                            | 5 670                |
| Oral diseases                         | 419                   | 655                    | 353                            | 393                  | 347                   | 661                  | 1 712                  | 141                            | 1 623                |
| Dental caries                         | 201                   | 367                    | 200                            | 192                  | 164                   | 251                  | 1 062                  | 76                             | 767                  |
| Periodontal disease                   | 5                     | 19                     | 16                             | 11                   | 13                    | 15                   | 98                     | 6                              | 46                   |
| Edentulism                            | 210                   | 262                    | 134                            | 189                  | 169                   | 389                  | 517                    | 58                             | 775                  |
| <b>III. Injuries</b>                  | <b>3 960</b>          | <b>12 439</b>          | <b>4 237</b>                   | <b>4 434</b>         | <b>12 042</b>         | <b>9 021</b>         | <b>45 102</b>          | <b>1 646</b>                   | <b>34 677</b>        |
| Unintentional                         | 3 296                 | 9 033                  | 3 121                          | 3 371                | 7 614                 | 7 032                | 36 900                 | 994                            | 26 184               |
| Road traffic accidents                | 1 312                 | 2 273                  | 1 251                          | 651                  | 1 615                 | 3 934                | 7 245                  | 323                            | 8 286                |
| Poisoning                             | 66                    | 367                    | 128                            | 132                  | 1 860                 | 172                  | 1 662                  | 42                             | 1 521                |
| Falls                                 | 350                   | 1 098                  | 635                            | 547                  | 853                   | 713                  | 4 939                  | 185                            | 4 266                |
| Fires                                 | 242                   | 1 013                  | 62                             | 165                  | 668                   | 307                  | 6 008                  | 26                             | 542                  |
| Drowning                              | 154                   | 690                    | 76                             | 176                  | 603                   | 329                  | 2 201                  | 66                             | 3 781                |
| Other unintentional injuries          | 1 171                 | 3 592                  | 969                            | 1 700                | 2 017                 | 1 577                | 14 844                 | 350                            | 7 787                |
| Intentional                           | 738                   | 3 406                  | 1 116                          | 1 063                | 4 428                 | 1 989                | 8 203                  | 653                            | 8 493                |
| Self-inflicted                        | 291                   | 690                    | 947                            | 512                  | 1 995                 | 864                  | 5 768                  | 617                            | 5 952                |
| Violence                              | 324                   | 618                    | 144                            | 320                  | 1 916                 | 521                  | 1 978                  | 35                             | 2 378                |
| War                                   | 113                   | 2 040                  | 24                             | 211                  | 490                   | 600                  | 246                    | 0                              | 130                  |