The World Health Report 2003

Shaping the Future

World Health Organization
The full report was produced under the overall direction of Tim Evans (Assistant Director-General) and Robert Beaglehole (Editor-in-Chief). The principal authors were Robert Beaglehole, Alec Irwin and Thomson Prentice. The other main contributors to chapters were: Chapter One: Colin Mathers, Kenji Shibuya and Claudia Stein. Chapter Two: Andrew Cassels and Michel Thieren. Chapter Three: Paul Farmer. Chapter Four: Bruce Aylward. Chapter Five: David Heymann and Mary Kay Kindhauser. Chapter Six: Ruth Bonita and Smadh Reddy (cardiovascular diseases section); Sarah Galbraith and Douglas Bettcher (tobacco control section); Margaret Macintyre, Margaret Peden, Mark Rozenberg and Christie Vu (road traffic hazards section). Chapter Seven: Rafael Bengoa, Ties Boerma, Marie-Andrée Diouf, David Evans, William Savedoff, Alaka Singh, Barbara Stilwell, Wim Van Lerberghe and Eugenio Villar Montesinos.

Other contributors to the report were: Prerna Banati, Michel Beusenberg, Sandro Colombo, Carlos Dora, Joan Dzenowagis, Helga Fogstad, Elangovan Gajraj, Gauden Galea, Claudio Garcia Moreno, Yusuf Hemed, Alan Hinman, Alex Kalache, Rania Karwawa, Michele Levin, Alan Lopez, Abdelhay Mechlal, Lembit Rago, Shekhar Saxena, Philip Setel, Cyrus Shahpar, Hans Troedsson and Alice Yang.

Contributors to statistical tables were: Dorjsure Bayarsaikha, Steve Begg, Christina Bernard, Dan Chisholm, Steve Ebener, Emmanuela Gakidou, Yaniss Guigoz, Patricia Hernandez, Mollie Hogan, Kim Iburg, Chandika Indikadahena, Mie Inoue, Karsten Lunze, Doris Ma Fat, Takondwa Mwase, Fanny Naville, Jean-Pierre Poullier, Chalapati Rao, Daryl Rhoades, Hossein Salehi, Joshua Salomon, Angelica Sousa, Ruben M. Suarez-Berenguela, U Than Sein, Niels Tomijima, Nathalie Van de Maele, Sven Volkmuth, and Hongyi Xu.

Valuable input was received from Assistant Directors-General, policy advisers to the Director-General at WHO headquarters, and many technical staff. Additional help and advice were kindly provided by Regional Directors and members of their staff.

The report was edited by Barbara Campanini, assisted by Leo Vita-Frini. Translation coordination and other administrative and production support was provided by Shelagh Probst, assisted by Laura Pearson and Gary Walker. Proofreading was by Marie Fitzsimmons. The index was prepared by Kathleen Lyle. Front cover photographs (top row, left to right): reproduced with permission of Ming Pao, China, Hong Kong Special Administrative Region; WHO/P. Virot; PhotoDisc; (bottom row, left to right): WHO/P. Virot; PhotoDisc; Digital Stock/Corbis.

Cover design: Marilyn Langfeld
Interior design: Steve Ewart and Marilyn Langfeld
Layout: Steve Ewart and Reda Sadki
Printed in France
2003/15424 – Sadag – 4500
Message from the Director-General

Today’s global health situation raises urgent questions about justice. In some parts of the world there is a continued expectation of longer and more comfortable life, while in many others there is despair over the failure to control disease although the means to do so exist.

This contrast is starkly evident in lack of access to HIV/AIDS treatment, which led me, earlier this year, to declare a global health emergency. WHO decided to take this rare measure after evaluating the global situation and finding that only 5% of those in the developing world who require antiretrovirals (ARVs) are getting them. In sub-Saharan Africa, only 50 000 of the 4 million people in need have access to ARVs. This spells catastrophe, not only for the societies hardest hit but for the world as a whole. Our first step to respond to this crisis must be to reach “3 by 5” – 3 million people in developing countries on antiretrovirals by 2005. Major disparities also exist in areas such as child mortality. Of the more than 10 million children under 5 years old who die every year, almost all are in developing countries.

A world marked by such inequities is in very serious trouble. We have to find ways to unite our strengths as a global community to shape a healthier future. This report on the world’s health, my first since taking office, gives some initial indications of how to do it.

A message that runs throughout these pages is that progress in health, including rapid and sustainable expansion of emergency treatments, depends on viable national and local health systems. Scaling up ARV therapy in resource-poor settings has to be done in such a way as to strengthen health systems based on primary health care. In most countries, there will be only small and short-lived advances towards acceptable standards of health without the development of health care systems which are strong enough to respond to current challenges.

To lend impetus to this process WHO is now making results in countries its main objective. Effective action to improve population health is possible in every country but it takes local knowledge and strength to turn that possibility into reality. We have learnt this through successes such as controlling the SARS epidemic and major advances in the polio eradication campaign, and we have learnt it through setbacks as well, such as the continuing rise of AIDS, TB and malaria. All of these lessons have prepared us for the task ahead.
Twenty-five years ago, the Declaration of Alma-Ata challenged the world to embrace the principles of primary health care as the way to overcome gross health inequalities between and within countries. “Health for all” became the slogan for a movement. It was not just an ideal but an organizing principle: everybody needs and is entitled to the highest possible standard of health. The principles defined at that time remain indispensable for a coherent vision of global health. Turning that vision into reality calls for clarity both on the possibilities and on the obstacles that have slowed and in some cases reversed progress towards meeting the health needs of all people. This entails working with countries – especially those most in need – not only to confront health crises, but to construct sustainable and equitable health systems.

I urge the global health community to set its sights on bold objectives. All countries of the world have pledged to reach the Millennium Development Goals set at the United Nations Summit in 2000. These include ambitious targets for nutrition, maternal and child health, infectious disease control, and access to essential medicines. With this support we have a real opportunity now to make progress that will mean longer, healthier lives for millions of people, turn despair into realistic hope, and lay the foundations for improved health for generations to come.

To reach our goals, increased resource commitments and intensified collaboration among partners will be required. The following report describes the challenges we face and points the way for a united response from WHO and the global health community.

LEE Jong-wook
Geneva
October 2003
Overview

Global health is a study in contrasts. While a baby girl born in Japan today can expect to live for about 85 years, a girl born at the same moment in Sierra Leone has a life expectancy of 36 years. The Japanese child will receive vaccinations, adequate nutrition and good schooling. If she becomes a mother she will benefit from high-quality maternity care. Growing older, she may eventually develop chronic diseases, but excellent treatment and rehabilitation services will be available; she can expect to receive, on average, medications worth about US$ 550 per year and much more if needed.

Meanwhile, the girl in Sierra Leone has little chance of receiving immunizations and a high probability of being underweight throughout childhood. She will probably marry in adolescence and go on to give birth to six or more children without the assistance of a trained birth attendant. One or more of her babies will die in infancy, and she herself will be at high risk of death in childbirth. If she falls ill, she can expect, on average, medicines worth about US$ 3 per year. If she survives middle age she, too, will develop chronic diseases but, without access to adequate treatment, she will die prematurely.

These contrasting stories reveal much about what medicine and public health can achieve, and about unmet needs in a world of vast and growing health inequalities. *The World Health Report 2003* affirms that the key task of the global health community is to close the gap between such contrasting lives. Building on past experience and achievements, the report proposes solid strategies to shape a healthier, more equitable future.

A key message of this report is that real progress in health depends vitally on stronger health systems based on primary health care. In most countries, there will be only limited advances towards the United Nations Millennium Development Goals and other national health priorities without the development of health care systems that respond to the complexity of current health challenges. Systems should integrate health promotion and disease prevention on the one hand and treatment for acute illness and chronic care on the other. This should be done across all levels of the health care system, with the aim of delivering quality services equitably and efficiently to the whole population. The lessons from SARS and poliomyelitis eradication programmes shape strategies for an urgent health system response to HIV/AIDS; in turn, scaling up the attack on HIV/AIDS will do much to strengthen health care systems.
Stronger health systems: the minimum requirements

How can the young girl in Sierra Leone be given the same chances for a healthy life as the girl born in Japan? Many factors – such as poverty, armed conflict, institutional stability and the state of basic infrastructure – lie beyond the direct control of the health system. Understanding the importance of these factors, the World Health Organization (WHO) advocates aggressively for improvements in the underlying determinants of health. But there is much a well-functioning health care system can do to narrow health outcome gaps, even as the work of reducing poverty and socioeconomic injustice continues.

For every child born today to have a good chance of a long and healthy life, there are minimum requirements which every health care system should meet equitably. These are: access to quality services for acute and chronic health needs; effective health promotion and disease prevention services; and appropriate responses to new threats as they emerge. New threats will include emerging infectious diseases, but also long-term shifts such as the growing burden of noncommunicable diseases and injuries and the health effects of global environmental changes. These challenges must be met simultaneously, inclusively and sustainably at the same time as underlying determinants of health are improved.

This report argues that the key to success is health systems strengthening, centred on the strategies and principles of primary health care, constructing responses that support integrated, long-term health systems development on behalf of the entire population. This requires both effective use of existing knowledge and technologies and innovation to create new health tools, along with appropriate structures and strategies to apply them. Success will demand new forms of cooperation between international health agencies, national health leaders, health workers and communities, and other relevant sectors.

The World Health Report 2003 consists of seven chapters. Key ideas and thematic connections among the chapters are briefly described here. Detailed content is summarized at greater length in a subsequent section of this overview.

The report opens with an update in Chapter One of the current state of world health. It examines both life expectancy and healthy life expectancy, and shows the global and regional gaps between the two, highlighting differences between the poor and the better-off everywhere. Among leading communicable and noncommunicable causes of death and disability, HIV/AIDS emerges as the most urgent priority. This is first reflected in Chapter Two, on the slow progress so far towards the health-related Millennium Development Goals, including action on HIV/AIDS; Chapter Three is entirely devoted to the pandemic itself and shows why a bold HIV/AIDS control effort must drive the agenda for the global health community.

Communicable diseases are one part of the double burden of ill-health. They include both old and new infectious threats. One of the great public health goals of the 20th century was the eradication of polio: Chapter Four looks at the final steps needed to achieve polio eradication within the next few years. Meanwhile, new diseases have been emerging at the rate of one per year for the last 20 years or more. The latest, which caused global alarm in 2003, is SARS, and the lessons learnt from the outbreaks are contained in Chapter Five.

Confronting the double burden is the theme of Chapter Six. A deadly overlap between communicable and noncommunicable diseases and injuries is occurring throughout the developing world, leading to a crisis of priorities for health systems already struggling with inadequate resources. This chapter is divided into three sections: the rapidly growing
epidemic of cardiovascular disease; the global tobacco epidemic; and the multiple hazards –
direct and indirect – from the growth in road traffic.

All of the topics introduced above demand stronger health systems. Chapter Seven tackles
this issue in depth. It advocates strengthening health systems based on the principles and
practices of primary health care and examines key dimensions of scaling up, from the health
workforce crisis to pro-equity stewardship of the health system.

Core values for a global health partnership

Achieving national and global health objectives requires new resources and unprecedented
levels of cooperation among multilateral agencies, national authorities, communities, the
private sector and other stakeholders. Such a mobilization must be based on rigorous sci-
ence, but also on a clear ethical vision.

An ethical vision in global health draws inspiration from the Constitution of the World Health
Organization, drafted in 1946. Then, as today, the world was deeply concerned with ques-
tions of security. Indeed, “to maintain international peace and security” was the primary
purpose assigned to the United Nations. But the founders of WHO and the United Nations
system saw clearly the relationship between security and justice. Neither of these two values
can endure without the other. People who had lived through the Second World War, witness-
ing the effects of nationalism, ethnic hatred, and the disregard of human dignity pushed to
their extremes, understood this interdependence. The preamble to its Charter makes clear
that the mission of the United Nations to protect security depends on the establishment of
“conditions under which justice … can be maintained”.

The founders of the international system more than half a century ago grasped the close
connection between health – understood as “a state of complete physical, mental and social
well-being” – and the core values of justice and security. The WHO Constitution identifies
the “enjoyment of the highest attainable standard of health” as “one of the fundamental rights
of every human being without distinction”. A crucial part of justice in human relations is
promoting equitable access to health-enabling conditions.

During the last decades of the 20th century, health and security were often separated from
each other in national and international debates. Increasingly, however, the connections be-
tween these two domains are re-emerging. The United Nations Security Council and na-
tional bodies acknowledge, for example, the growing security impact of HIV/AIDS. The threat
of new infections demands new forms of cooperation between security and public health.

As globalization accelerates, the interdependence of nations is perceived clearly. Treating oth-
ers justly is now both a moral imperative and an aspect of wise security policy. This World
Health Report shows how SARS has brought interdependence and the need for international
cooperation strongly to the fore. But the basic principle extends to many other areas of public
health concern.

Population health contributes crucially to economic and social development. This is reflected,
for example, by the importance accorded to health issues in the United Nations Millennium
Development Goals. These goals are central to WHO’s agenda and to this report. Health is
both a goal in itself and a key development input towards other goals.

This report is not comprehensive. It focuses on selected themes, mentioning many other
important subjects only tangentially. Mental health, tuberculosis, malaria, malnutrition and
reproductive health will clearly remain crucial focus areas for WHO, although they receive
limited attention here. Similarly, the human impact on the natural environment and the health consequences of environmental change for human populations are given little direct attention. However, these processes will significantly shape health patterns, and the demands on health care systems, in the years ahead.

The purpose of this World Health Report is to encourage action for health improvement, especially for the poor and disadvantaged. This is no longer the time for academic debate: the moral imperative is for urgent action. Cooperation between governments, international institutions, the private sector and civil society spurred remarkable public health progress in the 20th century. In an increasingly interdependent world, such collaboration across political and sectoral boundaries is more vital than ever. This report urges every reader, whether inside or outside public health institutions, to share in the task of shaping a healthy, equitable and sustainable future for all.

Chapter summaries

Chapter One contains an assessment of the global health situation, with some important and unexpected findings. Over the last 50 years, average life expectancy at birth has increased globally by almost 20 years, from 46.5 years in 1950–1955 to 65.2 years in 2002. The large life expectancy gap between developed and developing countries in the 1950s has changed to a gap between the very poorest developing countries and all other countries.

Of the 57 million deaths in 2002, 10.5 million were among children of less than five years of age, and more than 98% of these were in developing countries. Globally, considerable progress has been made since 1970 when over 17 million child deaths occurred. In 14 African countries, however, current levels of child mortality are higher than they were in 1990. Overall, 35% of Africa’s children are at higher risk of death today than they were 10 years ago. The leading causes of death in children are perinatal conditions, lower respiratory tract infections, diarrhoeal diseases and malaria, with malnutrition contributing to them all. In sub-Saharan Africa, HIV/AIDS was responsible for an estimated 332 000 child deaths in 2002. Across the world, children are at higher risk of dying if they are poor and malnourished, and the gaps in mortality between the have and the have-nots are widening.

The state of adult health at the beginning of the 21st century is characterized by two major trends: slowing of gains and widening health gaps; and the increasing complexity of the burden of disease. The most disturbing sign of deteriorating adult health is that advances in adult survival in Africa have been reversed so drastically that, in parts of sub-Saharan Africa, current adult mortality rates today exceed those of 30 years ago. The greatest impact has been in Botswana, Lesotho, Swaziland and Zimbabwe, where HIV/AIDS has reduced life expectancies of men and women by more than 20 years.

The fragile state of adult health in the face of social, economic and political instability is apparent elsewhere. Male mortality in some countries in eastern Europe has increased substantially. Globally, most countries are already facing the double burden of communicable and noncommunicable diseases. Almost half of the disease burden in high-mortality regions of the world is now attributable to noncommunicable diseases. Population ageing and changes in the distributions of risk factors have accelerated these epidemics in most developing countries. Injuries, both intentional and unintentional, are on the increase, primarily among young adults.
Chapter Two traces the origins of the Millennium Development Goals and charts the progress so far towards achieving them. These goals represent commitments by governments worldwide to do more to reduce poverty and hunger and to tackle ill-health, gender inequality, lack of education, access to clean water and environmental degradation. Three of the eight goals are directly health-related; all of the others have important indirect effects on health.

The Millennium Development Goals place health at the heart of development. This chapter warns that without significantly strengthened commitments from both wealthy and developing countries, the goals will not be met globally, and outcomes in some of the poorest countries will remain far below the achievements hoped for.

Chapter Three reviews major trends in the HIV epidemic and examines successes and failures in the struggle against the world’s most devastating infectious disease, before discussing goals for the coming years. These include narrowing the AIDS outcome gap by providing three million people in developing countries with combination antiretroviral (ARV) therapy by the end of 2005 (known as the “3 by 5” target). Although robust HIV prevention and care constitute a complex health intervention, such interventions are not only feasible in resource-poor settings, but are precisely what is needed.

The chapter shows the often stark division between AIDS prevention and care, which in the developing world has meant that, for most people living with HIV, there is simply no decent medical care available at all. But it also provides examples, such as Brazil, where prevention and care have been successfully integrated. The chapter acknowledges that there is still a great deal to be done if the target of three million people on ARV therapy by 2005 is to be met. For this reason, WHO has formally declared inadequate access to ARV therapy to be a global health emergency, and has set in place a number of initiatives to respond accordingly and to progress towards the ultimate goal of universal access to ARV therapy.

Chapter Four is the encouraging story of how a major, ancient disease can be conquered. As a result of the Global Polio Eradication Initiative, one of the largest public health efforts in history, the number of children paralysed by this devastating disease every year has fallen from over 350 000 in 1988 to about 1900 in 2003; the number of countries in which the disease is endemic has fallen from over 125 to seven. This chapter records the expected last days of polio, one of the oldest known diseases, as the campaign to eradicate it nears its end. The vision of a polio-free world is within reach, although formidable obstacles remain.

The successes to date are the result of a unique partnership forged between governments, international agencies, humanitarian organizations and the private sector. Through this partnership, over 10 million volunteers immunized 575 million children against polio in nearly 100 of the lowest-income countries in the world in the year 2001 alone. The most visible element of the polio eradication initiative has been the National Immunization Days, which require immunizing every child under five years of age (nearly 20% of a country’s population) over a period of 1–3 days, several times a year for a number of years in a row. In many countries, the scale and logistic complexity of these activities were even greater than those of campaigns undertaken during the height of the smallpox eradication effort.

To capitalize on progress so far, substantial effort is now required to interrupt the final chains of polio transmission, certify that achievement, and minimize the risk of polio being reintroduced in the future. The ultimate success of the eradication effort, however, is still not guaranteed; it now rests with a very small number of endemic areas, where all of the children must be immunized, and with donors who must close the chronic financing gap for these activities.
Chapter Five, on SARS, is a tale of how a completely new disease can emerge with major international implications for health, economy and trade. Its rapid containment is one of the success stories of public health in recent years and represents a major victory for public health collaboration.

SARS is a newly identified human infection caused by a coronavirus unlike any other known human or animal virus in its family. Transmission occurs mainly from person to person during face-to-face exposure to infected respiratory droplets expelled during coughing or sneezing. The overall case–fatality ratio, with the fate of most cases now known, approaches 11% but is much higher in the elderly. The international outbreak eventually caused more than 8000 cases and 900 deaths in 30 countries.

Seven key lessons emerge from the SARS epidemic and will help shape the future of infectious disease control. First and most compelling is the need to report, promptly and openly, cases of any disease with the potential for international spread. Second, timely global alerts can prevent imported cases from igniting big outbreaks in new areas, provided the public health infrastructure is in place and an appropriately rapid response occurs. Third, travel recommendations, including screening measures at airports, help to contain the international spread of a rapidly emerging infection.

Fourth, the world’s scientists, clinicians and public health experts, aided by electronic communications, can collaborate to generate rapidly the scientific basis for control measures. Fifth, weaknesses in health systems, especially in infection control practices, play a key role in permitting emerging infections to spread. Sixth, an outbreak can be contained even without a curative drug or a vaccine if existing interventions are tailored to the circumstances and backed by political commitment. Finally, risk communication about new and emerging infections is a great challenge, and it is vital to ensure that the most accurate information is successfully and unambiguously communicated to the public.

Chapter Six, in contrast, describes the impact on developing countries of the stealthy but rapidly evolving epidemics of noncommunicable diseases and injuries, particularly cardiovascular disease (CVD), the global tobacco epidemic, and the “hidden epidemics” – direct and indirect – resulting from the growth in road traffic.

Today, the burden of deaths and disability in developing countries caused by noncommunicable diseases outweighs that imposed by long-standing communicable diseases. In examining the impact of the combination of these two categories, this chapter proposes a “double response” involving the integration of prevention and control of communicable and noncommunicable diseases within a comprehensive health care system based on primary health care.

Ironically, rates of CVD are now in decline in the industrialized countries first associated with them, although not all population groups have benefited. But from that irony stems hope: the decline is largely a result of the successes of primary prevention and, to a lesser extent, treatment. What has worked in the richer nations can be just as effective in their poorer counterparts, although particular attention is needed to ensure that the benefits flow to the entire population. There is now abundant evidence to initiate effective actions at national and global levels to promote and protect cardiovascular health through population-based measures that focus on the main risk factors shared by all noncommunicable diseases. The application of existing knowledge has the potential to make a major, rapid and cost-effective contribution to the prevention and control of the epidemics of noncommunicable diseases.
The consumption of cigarettes and other tobacco products and exposure to tobacco smoke are the world’s leading preventable cause of death, responsible for about 5 million deaths in 2003, mostly in poor countries and poor populations. The toll will double in 20 years unless known and effective interventions are urgently and widely adopted. The recognition that globalization of the tobacco epidemic can undermine even the best national control programme led to the adoption by 192 Member States at the World Health Assembly in May 2003 of the WHO Framework Convention on Tobacco Control (WHO FCTC).

The opening of the Convention for signature and ratification provides an unprecedented opportunity for countries to strengthen national tobacco control capacity. Success in controlling the tobacco epidemic requires continuing political engagement and additional resources at both global and national levels. The resulting improvement in health, especially of poor populations, will be a major public health achievement.

Chapter Six concludes with an assessment of the rising toll of road deaths and injuries and emphasizes the indirect, but equally important, effects of the growth in road traffic. More than 20 million people are severely injured or killed on the world’s roads each year. The social and economic burden falls most heavily on developing countries and will grow significantly heavier still in these countries because of the rapid increase in the number of vehicles on their roads. Existing knowledge must be converted into successful interventions for developing countries, taking account of each country’s unique road safety circumstances. More generally, cross-sectoral collaboration can improve public health and make more efficient use of the resources of the health, environment and transport sectors.

Chapter Seven emphasizes that health systems must be strengthened to meet the formidable challenges described in earlier chapters. Without significant health systems strengthening, many countries will make little headway towards the Millennium Development Goals, the “3 by 5” target, and other health objectives. The chapter proposes an approach to scaling up health systems based on the core principles of primary health care formulated in the 1978 Declaration of Alma-Ata: universal access and coverage on the basis of need; health equity as part of development oriented to social justice; community participation in defining and implementing health agendas; and intersectoral approaches to health. While these principles remain valid, they must be reinterpreted in the light of dramatic changes in the health field during the past 25 years. The chapter clarifies the conceptual basis of the development of health systems that are led by primary health care, then explores how health systems based on primary health care principles can confront four major contemporary challenges: the global health workforce crisis; inadequate health information; lack of financial resources; and the stewardship challenge of implementing pro-equity health policies in a pluralistic environment.

The World Health Report 2003 closes by showing that reinforced cooperation with countries to scale up health systems is part of WHO’s new way of working. Strengthening the Organization’s presence and technical collaboration in countries is the best way for WHO to speed progress towards the global health community’s most important goals: measurable health improvements for all, and aggressive strides to close equity gaps. Health inequalities scar the present and threaten the future. New forms of collaboration for comprehensive health systems development are needed to shape a world in which all people can enjoy the conditions of a healthy, dignified life. This report shows how WHO and its partners are drawing the lessons from recent achievements to press forward with this work.