Chapter 2

WHO's contributions to world health

The main focus of this report is on noncommunicable, chronic diseases and disorders, and on such problems as violence, homicides, suicides, accidents and injuries, and their impact on both developing and developed countries. Chapter 1 showed that the burdens of major diseases such as circulatory diseases, cancer and some mental disorders are likely to increase dramatically worldwide, largely because lengthening life spans will make them more common. While infectious diseases pose a relatively minor threat to health in the industrialized world, they will continue collectively to be leading causes of death and illness in many developing countries for the foreseeable future.

This chapter gives an overview of WHO's contribution during 1996 to supporting the progress of Member States in improving people's health. Each of the Organization's programmes consists of an aggregate of activities directed towards the attainment of specific objectives. The totality of the work of these programmes is intended to contribute to global health improvement. While this chapter summarizes the programmes' work in general, it begins by highlighting activities that are particularly relevant to the dominant issues of chronic diseases examined in Chapter 1. As in previous reports, the programme activities are brought together according to their influence on people's health at different stages of life. However, given that the majority of those affected by chronic diseases are elderly or middle-aged adults, and that such diseases in childhood are relatively uncommon, the usual sequence describing activities related to age groups has been reversed.

The Member States of WHO are committed to attaining as a minimum by all people in all countries at least such a level of health that they are capable of working productively and of participating actively in the social life of the community in which they live. This is known as "health for all". The Global Strategy for Health for All by the Year 2000, founded on primary health care and adopted by the World Health Assembly in 1981, provides both the policy framework for the worldwide health action needed to achieve the social target of at least a minimum level of health for all people, and the framework for WHO's programme to support it.

Last year was the first in WHO's ninth General Programme of Work for 1996-2001, which ensures continuity by having the same four interrelated policy orientations that applied in the final two years of the eighth General Programme of Work. The four policy orientations are: (1) integrating health and human development in public policies; (2) ensuring equitable access to health services; (3) promoting and protecting health; (4) preventing and controlling specific health problems. These were established to focus action by the world community, including WHO, on a number of goals and targets as well as to support countries in reaching targets that they might set in the light of their own situations.

The goals and targets in the ninth General Programme of Work are an expression of the commitment of the international health community, including WHO, to support countries in achieving improvements in health status and greater equity in health.

It is not possible for this chapter to reflect the full extent of WHO's work, but examples are given of the different types of action carried out at various levels of the Organization. The evaluation
of what WHO has done, and the impact of that work on global health, then provides the framework for Chapter 3 of this report, which outlines the Organization's priority issues and its strategy for tackling them in 1997 and beyond.

**Chronic conditions**

During 1996 WHO took action on a wide range of chronic conditions. For instance, since chronic diseases have a number of common risk factors, the Organization adopts an integrated approach to their prevention through the INTERHEALTH project. Genetic factors, for example, play an important role in determining individual susceptibility to various types of cancer and to diabetes mellitus, cardiovascular disease and hereditary disorders.

WHO has set up such integrated programmes in all regions of the world, for example, the countrywide integrated noncommunicable diseases intervention (CINDI) programme in Europe, which now comprises 24 countries. In 17 of them, a specially designed survey on experience with policy development in chronic disease prevention has been carried out. The survey showed that successful policy development and the creation of effective partnerships determine the time taken by countries to reorient their health care systems towards prevention and population-based health promotion approaches to chronic diseases. A special action plan to bridge the health gap between the East and the West of the region, based on experience within the CINDI network, has been developed with the aim of building capacity for preventing chronic diseases in eastern Europe. It will be used for planning the activities of the network up to the year 2000. The CINDI action plan on nutrition was also drafted.

In the Americas, the integrated chronic disease intervention project is known as CARMEN. Although the main focus is cardiovascular disease control, other conditions are also included such as diabetes, cervical cancer control and injury prevention. CARMEN is modelled on the North Karelia project in Finland, addressing policy interventions, risk factor reduction, and improvements in the quality of clinical prevention care. The first project, in Valparaiso, Chile, will be followed by similar initiatives in Argentina and other countries. Canada and Spain are providing technical support.

In the Western Pacific, two projects have been carried out in China, which integrate prevention and control of chronic diseases and aim at reducing the main risk factors, with emphasis on tobacco control and hypertension. In Fiji, a series of national workshops trained health workers in methods and skills for reducing risk factors.

**Cancer** continues to be a threat to health worldwide, as described in Chapter 1. The International Agency for Research on Cancer (IARC) coordinates and conducts epidemiological and laboratory research and risk evaluations that form the basis of scientific strategies for preventing cancer. It assesses the efficacy of various methods of screening and prevention, and disseminates skills and information worldwide through its programme of education, training and publications. Carcinogenic risks posed by a variety of exposures are evaluated and the assessments made are published in the IARC monographs (Table 4). The three volumes published in 1996 evaluated the risks posed by printing inks and printing processes; by some pharmaceutical drugs, including tamoxifen; and by retroviruses, including HIV. The Agency launched a programme of genetic epidemiology in 1996 with studies on the role of genetic factors in cancer susceptibility and carcinogenesis, including the search for a third breast cancer susceptibility gene. Publications issued dealt with cancer chemoprevention, cancer mortality in central Europe, fibre carcinogenesis, the role of socioeconomic factors, and cancer incidence and mortality in the European Union.

A cancer profile for the Western Pacific Region has been developed to monitor the epidemiological situation of
<table>
<thead>
<tr>
<th>Principal target organ/tissue</th>
<th>Cardiogens</th>
<th>Mixtures</th>
<th>Occupational exposures</th>
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<tr>
<td>Blood vessels</td>
<td>Vinyl chloride</td>
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<tr>
<td>Bone marrow</td>
<td>Benzene; benedan (1,4-butanediol dimethane sulfonate); chlorambucil; cyclophosphamide; ethylene oxide; melphalan; MOPP (chlorambucil, vincristine, procarbazine, and prednisone) and other combined therapy including alkylating agents; semustine (1-(2-chloroethyl)-3-(4-methylcyclohexyl)-1-nitrosourea, methyl-CCNU); thiopel; transulfur</td>
<td>Alcoholic beverages, betel quid containing tobacco; tobacco smoke</td>
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<tr>
<td>Cervix</td>
<td>Diethylstilbestrol; human papilloma-virus type 16; human papilloma-virus type 18</td>
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<td>Digestive tract, upper</td>
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<td>Kidney</td>
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<tr>
<td>Liver</td>
<td>Alpha toxins, naturally occurring; hepatitis B virus (chronic infection with); hepatitis C virus (chronic infection with); oral contraceptives, combined</td>
<td>Alcoholic beverages</td>
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<td>Bile ducts/liver</td>
<td>Opisthococci (infection with)</td>
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<td>Lung</td>
<td>Arsenic and arsenic compounds; asbestos; beryllium and beryllium compounds; bis (chloromerityl) ether and chloromerityl methyl ether (technical grade); cadmium and cadmium compounds; nickel compounds; radon and its decay products; talc containing asbestos fibres</td>
<td>Tobacco smoke</td>
<td>Aluminium production; coal gasification; coke production; haematite mining (underground) with exposure to radon; iron and steel founding; painter (occupational) exposure ao; silica, crystalline (in the form of quartz and cristobalite from occupational sources)</td>
</tr>
<tr>
<td>Lymphatic tissues</td>
<td>Azathioprine; ciclosporin; ethylene oxide; human immunodeficiency virus type 1 (infection with); human T-cell lymphotropic virus type 1 (infection with)</td>
<td>Wood dust</td>
<td>Boot and shoe manufacture and repair; furniture- and cabinet-making</td>
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<td>Nasal cavity</td>
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<td>Nasopharynx</td>
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<td>Oral cavity</td>
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<td>Paranasal sinuses</td>
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<td>Pharynx</td>
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<td>Respiratory tract, upper</td>
<td>Mustard gas (sulfur mustard); nickel compounds</td>
<td>Alcohol beverages; betel quid containing tobacco; tobacco products; aminol; tobacco smoke</td>
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<tr>
<td>Skin</td>
<td>Arsenic and arsenic compounds; methoxsalen (8-methoxypsoralen) + ultraviolet A radiation; solar radiation</td>
<td>Wood dust</td>
<td>2-Propanol (isopropyl) manufacture (strong solvent process)</td>
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<tr>
<td>Stomach</td>
<td>Helicobacter pylori (infection with)</td>
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<td>Strong inorganic-acid mists containing sulfuric and other (occupational exposure to)</td>
</tr>
<tr>
<td>Urinary bladder</td>
<td>4-Aminobiphenyl; benzidine; chlorophanazine (3,4-bis(2-chloroethyl)-2-naphthylamine); 2-cyclophosphamide; 2-naphthylamine; Schistosoma haematobium (infection with)</td>
<td>Tobacco smoke</td>
<td>Auramine, manufacture of; coal gasification; iron ore, manufacture of; rubber industry</td>
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<tr>
<td>Uterus</td>
<td>Estrogens, steroidal and nonsteroidal; oral contraceptives, sequenced; tamoxifen</td>
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<tr>
<td>Vagina</td>
<td>Diethylstilbestrol</td>
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a The full list with references can be found on Internet at http://www.iarc.fr.

b There is also conclusive evidence that these agents have a protective effect against cancers of the ovary and endometrium.

c Evaluated as a group.

d There is also conclusive evidence that this agent reduces the risk of contralateral breast cancer.
the most common cancers, summarizing the age-adjusted incidence of cancer in different parts of the body in 29 countries and areas. A WHO working group on cancer prevention and control convened in the Philippines in 1996 and funded by Australia reviewed the situation and made recommendations for the planning and implementation of cancer control programmes. IARC is conducting a randomized controlled trial of breast cancer screening by physical examination in 340,000 women in the Philippines. Cancer registries are in use in most countries, although with varying degrees of effectiveness and coverage of population.

A multinational WHO study in China, Japan, Philippines, Republic of Korea and Viet Nam investigated health workers’ knowledge of, and attitudes to, cancer pain relief, with a view to developing an appropriate approach for training. Cancer pain relief methods were introduced in Fiji, Mongolia and Samoa.

In order to prevent liver cancer, the Gambia and Zimbabwe are undertaking systematic immunization against hepatitis B (Box 9, page 32). Cancer of the urinary bladder, which is associated with Schistosoma haematobium infection, will gradually come under control as some countries have started mass chemotherapy with praziquantel and improvement of water and sanitation of communities at risk.

The 10-year-old, 26-country MONICA project continues to monitor trends and determinants of circulatory diseases and measures the effectiveness of interventions. In 1996, WHO disseminated the first 3-year trend data on risk factors and incidence of heart attacks and strokes. The Organization made available a set of protocols and a training manual for monitoring cardiovascular disease risk factors in developing countries, as well as guidelines for promoting physical activity as part of a prevention strategy.

In China, community-based population strategies for prevention and control of circulatory diseases were initiated with the development of national guidelines for intervention on risk factors.

WHO collaborated with the Republic of Korea in a national workshop aimed at strengthening community-based hypertension prevention and case management. Information on promotion of healthy lifestyles and prevention of cardiovascular diseases was disseminated through mass media in Mongolia. In view of the importance of nutrition in the prevention of cardiovascular diseases, WHO collaborated with Malaysia in re-examining the role of unhealthy nutrition as a risk factor for these diseases and developing nutrition intervention strategies for preventing them.

WHO published a regional plan for control of cardiovascular diseases and specific guidelines for countries in the Eastern Mediterranean (EMRO Technical Publication No. 22, Prevention and control of cardiovascular diseases). Following a pan-European consensus conference on stroke management held in cooperation with the European Stroke Council, at which a series of quality indicators were identified and the establishment of databases for stroke discussed, long-term cooperation for improving the quality of such care in Member States began. This initiative was further pursued in the joint third world and fifth European stroke conference in 1996.

During 1996, WHO conducted a study to determine the worldwide prevalence of diabetes mellitus. It concluded that the population affected will more than double in the next 25 years. World Diabetes Day on 14 November was an important vehicle for maintaining awareness and increasing understanding of what can be done to prevent and control diabetes. The 1996 theme “Insulin for life” highlighted the continuing unavailability or unaffordability of this essential medication in many of the world’s poorest countries.

Diabetes liaison offices are in place in all European Member States. 46% of countries have a national diabetes programme, 80% have a national diabetes task force and 85% have a diabetes patient organization. WHO has set up a computerized information system (DIABCARE), which aggregates and
evaluates data provided by countries. Diabetes is the subject of a priority chronic disease programme in the Americas. In 1996, the Declaration of the Americas on Diabetes, developed with the International Diabetes Federation (IDF) and regional partners, was endorsed by the ministers of health of the region as a guide for national programme development. A national programme on prevention and control of diabetes was formulated at a WHO-supported national symposium in China. Education for diabetic patients, training of health workers to update skills and knowledge on diabetes, and diabetes management programmes have been carried out in China, Fiji and the Republic of Korea. WHO is collaborating in a national diabetes survey in the Philippines to assess the burden of the disease and to identify the most common risk factors for diabetes and cardiovascular disease. The regional task force on diabetes established in the Eastern Mediterranean developed a regional plan for diabetes control. WHO has also produced a protocol for a diabetes prevalence survey for use in countries and a document, Diabetes prevention and control: a call for action, which includes technical guidelines and a regional plan for diabetes prevention and control. IDF and WHO issued a consensus document for the whole of Africa, with guidelines for the management of non-insulin-dependent diabetes mellitus.

WHO continues to support studies on and the application of primary prevention approaches for a variety of hereditary disorders including familial hypercholesterolaemia, haemophilia and cystic fibrosis. A landmark technical report, Control of hereditary diseases, was published in 1996 (see Box 13, page 53).

WHO is also concerned with other chronic conditions such as asthma and arthritis. WHO and the National Heart, Lung and Blood Institutes (United States) have jointly instigated a global initiative on asthma (GINA) to assist health care professionals and public health officials in appreciating the magnitude of the problem and in designing and delivering effective asthma management and prevention programmes in their countries. Following the preparation of a strategy and plan of action for GINA by 24 international experts, 27 national and international organizations have agreed to implement this strategy in all WHO regions. A joint WHO/International League of Associations of Rheumatology meeting was convened to address treatment decisions, relations of physicians with the pharmaceutical industry and coordination of drug regulation, and WHO has issued the resulting guidelines. The WHO low back pain initiative began comparative studies of a variety of common treatments (medical, chiropractic, alternative medical, etc.) to find the most appropriate approach for management of this prevalent debilitating disorder.

WHO’s work in 1996 on the epidemiology of mental and neurological disorders included a study of the prevalence, severity and cost of neurological disorders such as dementia, stroke, epilepsy and headache. An internationally accepted nomenclature and diagnostic categories are essential for carrying out epidemiological research. This common nomenclature is provided by the ICD-10, Chapter V, which has been expanded to include diagnostic guidelines and has now been translated into more than 25 languages.

A WHO collaborative project, involving 14 countries and completed in 1996, assessed psychological problems in general health care and indicated that one in four adults visiting a general doctor had a current and diagnosable mental disorder. The results of the research further suggested that only half of the patients suffering from well-known mental disorders such as depression, anxiety or alcohol abuse consulted a doctor. Of those, only half are diagnosed and only half of those diagnosed are treated. While a third of those using general health services need careful attention for psychological problems, no more than “the tip of the iceberg” is dealt with by the health services; and only 1% of people with mental disorders receive specialized care although

A landmark technical report, Control of hereditary diseases, was published by WHO in 1996.
WHO has prepared simple and user-friendly primary care versions of diagnostic and treatment guidelines for the common mental disorders.

Countries in all regions have prepared national mental health programmes. In Africa, 45% of countries have prepared a national programme on mental health, and 32% on prevention and control of substance abuse; 17% have set up a national coordination mechanism for implementation of mental health activities; 32% have integrated mental health into primary health care services; and 25% have a community-oriented programme. In the Eastern Mediterranean, national programmes have been set up in 20 out of 23 countries, and are evaluated regularly. In the Western Pacific, a regional mental health database has been established to facilitate problem identification and prioritization, and for planning, implementing, monitoring and evaluating mental health programmes and services.

Much psychiatric and psychological distress can be managed in general health care settings. Education on mental health interventions for those working in primary care is a priority, especially in war-torn countries. WHO has prepared simple and user-friendly primary care versions of diagnostic and treatment guidelines for the common mental disorders, based on the ICD-10, and educational kits. Two versions of the guidelines for the primary prevention of mental, neurological and psychosocial disorders were produced: one for professionals with a post-college degree and the other for mid-level health workers.

A document on essential psychosocial interventions was prepared as part of the WHO series Essential treatments in psychiatry.

In 1996 WHO published Ten basic principles of mental health care law. These were based on a comparative analysis of mental health laws in 60 jurisdictions at provincial, state and federal levels in 45 countries. Another WHO document issued in 1996 gives guidelines for promoting the human rights of people with mental disorders.

In order to increase public and professional awareness of epilepsy as a treatable brain disorder, WHO and the International League against Epilepsy announced a worldwide campaign against epilepsy in 1996.

Nicotine dependence affects around one-third of the global population above 15 years of age. Patterns and trends of tobacco, alcohol and illicit substance use were studied and their health and social consequences analysed. A status report on the global tobacco or health situation was finalized. Action to fight smoking is a central priority for the CINDI programme in Europe, and a multinational collaborative smoking cessation campaign, “Wait and win”, was organized in 1996 by the Finnish CINDI centre. Altogether 24 countries participated and some 70,000 smokers registered. Nicotine dependence is becoming a public health problem in Africa, and countries have expressed their desire to diversify their crops and eventually to replace tobacco cultivation by other commercial crops if they have a guarantee that this will not result in economic hardship. All Member States have now appointed a national focal point to manage their control programme, developed an education programme to sensitize the public on the health risks associated with tobacco use, and introduced teaching modules into their school curricula. They will need the support of the United Nations specialized agencies, especially WHO, FAO and the World Bank, if these efforts are to succeed.

A conference on the very sensitive subject of alcohol dependence brought together participants from 46 Member States, mainly in the European Region, who unanimously adopted a European Charter setting out five basic ethical principles and 10 action strategies for use at country level. WHO has undertaken comprehensive policy missions on alcohol, drugs and tobacco in eastern European countries to support the development and implementation of policy and action programmes to help prevent and reduce the severe problems they face.

In the area of psychoactive drug dependence, WHO’s activities include epidemiological surveillance and risk...
countries have shown that a new method for caries control – traumatic restorative treatment – is scientifically valid and affordable for immediate use in all countries. The acceptability and effectiveness of a new type of fluoridated toothpaste has been demonstrated in Indonesia. Milk fortified with fluoride, in addition to its high nutritional value, now benefits children in Bulgaria, Chile, China, the Russian Federation and the United Kingdom. WHO guidelines on this subject are available. Of the six global goals for oral health by the year 2000 adopted by WHO and the World Dental Federation, the one concerning the establishment of databases to monitor and evaluate changes in oral health is now seen as a priority, especially for the countries in eastern Europe. Software to be used by health care providers and administrators at community and national levels has been developed by WHO and is currently being tested in five Member States.

As regards safety promotion and injury control, WHO, in cooperation with the Government of Australia and with the active involvement of WHO collaborating centres on injury prevention, cosponsored the third international conference on injury prevention and control in 1996. The effectiveness of prevention in this area has been demonstrated in the Americas (Box 16). WHO convened a global consultation on violence and health to assist in the formulation of a plan of action.

Over the past two decades, WHO has been promoting community-based rehabilitation as a component of primary health care, and continues to do so as an effective strategy to increase access to rehabilitation for persons with physical disabilities and mental retardation, and to promote opportunities for their full integration into community and society. Close collaboration is maintained with ILO and UNESCO, with disability organizations and international nongovernmental organizations, and over 80 countries have now initiated programmes. An important trend in such programmes is to broaden the focus to “persons with social disadvan-

WHO has a global epidemiological surveillance system to assess and describe patterns and trends of substance abuse, together with the health consequences and national policy responses.
Box 16. Injury prevention in the Americas

In Latin America and the Caribbean, injuries account for 10% of mortality and 18% of years lost to disability. Injury is the first ranked cause of death in the age group 5-45 years. Leading causes of unintentional injuries are motor vehicle collisions, falls, burns and drowning. Although deaths due to unintentional causes exceed those due to violence by a ratio of 2:1, violence recently superseded motor vehicle collisions as the leading contributor to deaths from external causes in Latin America. During the 1980s, several countries suffered an increase in violence during times of internal conflict. Although such conflict has generally subsided, the trend in violence (e.g., homicide, suicide) as a cause of death continues upwards in several countries, while the trend in death from motor vehicle collisions is more generally downward.

Many countries have taken effective action against unintentional injuries. For example, both Chile and Saint Lucia have formed interministerial commissions to address road traffic injuries; in Bogota (Colombia), a surveillance project is under way, utilizing emergency department records; and a similar approach is being piloted in the eastern Caribbean by the WHO Caribbean Epidemiology Centre with financial support from the International Development Research Centre (Canada). Such surveillance is potentially valuable for the recognition of risk factors and for the design of specific interventions. Suriname, among other countries, recently introduced legislation requiring the use of helmets by riders of motorcycles. Despite limited resources, many countries have been able to reduce the impact of road traffic accidents by introducing highly cost-effective interventions such as improved traffic engineering (one-way roads, signs, speed bumps), as well as seat-belt legislation and safety promotion. Nonetheless, all countries could still achieve significant reductions in the impact of unintentional injuries through a more assertive approach to this area of public health.

Violence is becoming a serious issue in many countries, and takes many forms. The patterns differ significantly among countries; in most, domestic violence is a serious concern (e.g., spouse abuse, child abuse, elder abuse). In most countries, violence is increasing in virtually all age groups. Violence may be addressed effectively by adopting a public health approach consisting of surveillance, risk factor identification, intervention evaluation, and implementation. The following questions need to be asked: “What is the problem?” “What is the cause?” “What works?” “How do you do it?” The causes of violence are, in principle, as amenable to intervention as the causes of unintentional injury, although there is a great need for studies that will answer the questions just posed in specific cultural contexts. Nonetheless, some factors are sufficiently well understood to be generally applicable across cultures, such as the role of drugs and alcohol, and ease of access to deadly force (e.g., firearms).

National leadership is essential in the prevention of injury, whether due to unintentional causes or to violence. This has become a major public health challenge for the 21st century.

and the preparation of documents (including The multisectoral approach to community-based rehabilitation, in collaboration with ILO and UNESCO) and training materials for work with children (on spina bifida, hydrocephalus and communication) and on spinal cord injuries.

WHO is currently undertaking a major revision of the International Classification of Impairments, Disabilities and Handicaps (ICIDH), which covers all disabilities. A measure of subjective quality of life is being developed, covering areas such as physical and psychological functioning, level of independence and social relations. Field trials of a questionnaire with 100 items were completed in 15 countries in 1996, while a short version with 26 items is currently being field-tested.

Activities directed to specific age groups

Health of the elderly

While elderly people have much to offer the world in terms of skills and talents developed over a lifetime, they can also become a burden on their families and society. Ill-health is increasingly frequent, and often chronic. Ageing is often accompanied by persistent poverty and isolation, and the biggest impact is on women.

WHO emphasizes the concept of healthy ageing and stresses the need to avoid compartmentalizing older persons in “the elderly” category. For example, in collaboration with the Institute of Gerontology of the University of Heidelberg, Germany, WHO published the first of a series of guidelines on healthy ageing. Endorsed by the scientific community, these guidelines are now being translated into several languages, adapted to different cultural settings and triggering multiple activities - such as “walk events” to mark worldwide the celebration of 1 October, the International Day of Older Persons. The focus is on active ageing for healthy age-
ing. The model used for producing these guidelines has now been adopted for preparing guidelines on a range of topics such as back pain, incontinence, healthy eating for healthy ageing and oral health.

In 1996 WHO developed a conceptual framework for establishing the priority areas for research on ageing and health worldwide. A joint conference with the United Nations took place in New York, attended by 40 experts representing 28 countries from North and South. Its final report focuses on three main areas: priority research topics on healthy ageing; policy development; and ageing-related conditions (which include most of the chronic diseases referred to in Chapter 1). In order to look more closely at the different policy implications of population ageing, WHO collaborated in an international conference in 1996 which culminated in the Brasilia Declaration on Ageing.

Untreated cataract greatly adds to the dependence of old people and can aggravate the confusion associated with both normal age-related memory loss and the more serious dementias. WHO has developed a simplified grading system for cataract which will help in implementing preventive strategies. Up to 20% of cataract operations could be prevented or delayed by informing people about the influence of ultraviolet light on cataract formation and through simple techniques such as wearing sunglasses to protect against excessive exposure. WHO has developed guidelines for training in community ophthalmology, in collaboration with the Task Force of the partnership committee on collaborating nongovernmental organizations, and the International Centre for Eye Health (United Kingdom). Visual loss from chronic diseases often leads to poor vision (severe visual disability), but leaves residual vision which can be enhanced through training and the use of optical devices. A workshop on low vision care for the elderly was hosted by Organización Nacional de Ciegos de España in Madrid, together with the above-mentioned Task Force, and led to the development of a global estimate of low vision and guidance for the basic content of a low-vision care model.

Dementia afflicts people over the age of 60 in rich and poor countries alike. Early diagnosis helps delay the onset of the disease and depends on understanding the clinical manifestations and on training health personnel to recognize the signs of change. In that regard, WHO cosponsored a meeting of the International Psychogeriatric Association on clinical and other methods in use and being developed, to make as early a diagnosis as possible in Alzheimer disease.

**Health of adults**

In the area of reproductive health, WHO emphasizes the importance of enabling people to achieve their reproductive intentions—the desired number and timing of children within the context of the reproductive health of each individual. In Europe, several Member States have developed national policy documents on reproductive health, the main aim being to move from the use of abortion as the main method of fertility control to modern contraceptive methods. A scientific working group on training in reproductive health was established for the countries of central and eastern Europe and the newly independent States, involving all the major European schools and institutions of public health as well as nongovernmental organizations. In Africa, WHO cosponsored the first forum on teaching reproductive health in medical schools and other basic training institutions in 16 countries, where a version of the reproductive health training curriculum was also launched.

In collaboration with a large number of national and international groups, WHO has made recommendations on the medical criteria for prescribing various contraceptives, which will help national family planning programmes to simplify current contraceptive screening procedures and improve access to the services concerned. WHO regularly provides technical support to UNFPA on
Box 17. Ergonomics and health

Two-thirds of the world’s population spend one-third of their lives in earning a living for themselves and their families. These occupational activities generate revenue estimated at $21.6 trillion to sustain the world’s economies and social programmes. But these essential occupations present hazards to workers’ health. WHO and ILO estimate that they result in 160 million cases of occupational diseases and more than 120 million occupational accidents and injuries per year (including at least 200 000 fatalities). A significant number develop into chronic debilitating disorders and diseases which, since they are preventable, are needlessly afflicting human health.

Many occupational diseases are musculoskeletal in nature, e.g. low back pain and repetitive strain injury. Musculoskeletal injuries have known causes such as excessive force, awkward postures, repetitive tasks — all resulting in overexertion.

The quality of life of workers can be improved markedly by designing or modifying the work processes, products and environment, in accordance with ergonomic considerations and adapted to different cultures and practices in manufacturing and service industries. With this in mind, the International Ergonomics Association (IEA) has designed ergonomic packages and strategies adjusted for gender and age that are relevant, efficient and acceptable for the emerging industrial countries of the developing world.

Rehabilitation for musculoskeletal disorders is needed most urgently, and highest priority is being given to research into these disorders, which should result in the formulation of appropriate standards for the prevention of injuries, chronic diseases and disability. To this end, IEA has taken the lead in advocating and supporting the development of rehabilitation ergonomics. The IEA organized an international symposium on the subject in Toronto, Canada, in 1994. Another is to be held in Tampere, Finland, in 1997.

IEA, which is a nongovernmental organization in official relations with WHO, recommends that to minimize human suffering due to occupational injuries, priority should be given to: reducing or eliminating ergonomic hazards in the workplace; setting up “return-to-work” programmes with special emphasis on the disabled and ageing population; designing control strategies for the increasingly sedentary occupations associated with the microcomputer revolution; and promoting the adoption of legislative measures to protect workers’ health.

At the international level, IEA advocates the establishment of regional networks of ergonomics research centres to address and develop standards to remedy locally relevant problems, and of a global ergonomic information system and databases.

Based on a personal communication from the International Ergonomics Association.

reproductive health programmes. Existing family planning services have been assessed in eight countries with varied contraceptive prevalence, method mix, geographical, and political and social systems, including Brazil, Viet Nam and Zambia. The assessments revealed that improved utilization of existing methods is of a higher priority than the introduction of new ones, and that, in general, service delivery man-agement capability is not strong enough to introduce new methods widely with adequate quality of care without significant change and adaptation. One of the specific outcomes in Zambia was the development of a national document entitled Family planning in reproductive health: policy framework and guidelines. This is the first component of a national reproductive health policy and plan of action being developed to incorporate reproductive health in the health reform and district health planning processes.

Men still have relatively few contraceptive options, and WHO has supported the development of research on the contraceptive efficacy of suppressing sperm production by using exogenous steroids. The Organization has developed an improved formulation of a non-hormonal contraceptive based on immunological methods, which may provide protection for between 6 and 12 months.

Women and men of all ages at work are exposed to many potential hazards to health and to life (Box 17). WHO supports technical cooperation, information exchange, research and training through its global network of collaborating centres in occupational health.

Health of women

In the domain of maternal and neonatal well-being and the reduction of maternal and newborn deaths, straightforward and effective strategies and action can have an immediate as well as long-term impact on women, their families and their communities. Women suffer a disproportionate burden of ill-health, which cannot be explained by biological differences alone. Their social, economic and political disadvantages have a detrimental effect on their health (Box 18).

WHO assists countries in the implementation of national plans for safe motherhood by providing technical input on research or programming issues. The WHO data banks on maternal mortality, coverage of maternity care, anaemia, unsafe abortion, infertility, perinatal mortality, low birth weight and preterm birth are a source of up-to-date
information, and invaluable advocacy tools that contribute to the development and maintenance of standards and normative guidelines. The Safe motherhood newsletter regularly makes recent developments known to a wide audience of health care providers and decision-makers. WHO’s midwifery education modules, designed to equip health care workers to manage the major obstetric complications which threaten women’s lives, have been field-tested and are already being used in a number of countries. WHO’s technical support for research projects such as those on neonatal resuscitation, oxytocin administration and the measurement of haemoglobin focused on the development of simple technologies for vital interventions that will also help to reduce the morbidity and mortality associated with childbirth.

Work began on a literature review paper on achievements and pitfalls of supplementary feeding programmes for women and children with the aim of drawing lessons for the future. Later, guidelines will be developed to ensure that such programmes not only result in short-term nutritional benefits, but contribute to sustainable improvements in maternal and child health.

In 1996 WHO issued the report of an informal consultation on hookworm infection and anaemia in girls and women as well as a document defining indicators and measurement methods for assessing iron deficiency, which complemented earlier publications on iodine and vitamin A deficiencies. The Organisation participated in multicountry studies of the effectiveness of weekly iron supplements (instead of daily supplementation) for pregnant women, adolescent girls and young children and the results so far are promising. In 1996, WHO issued a report on the menopause in the 1990s (Box 19).

A group of experts on osteoporosis, including officers from national drug regulatory authorities and scientists, are preparing draft guidelines on the preclinical evaluation of and clinical trials on drugs which are being considered for use in osteoporosis. WHO will consult with the pharmaceutical industry and others concerning the draft guidelines. The objectives are to offer advice to the medical profession on which type of clinical study provides evidence of efficacy and safety, and to offer guidelines to the pharmaceutical industry to enable it to apply appropriate techniques and methodologies in the development of cost-effective interventions in osteoporosis. These final guidelines will be issued by WHO in 1997. This document, which will provide a scientific basis for the development of suitable drugs, will be of use not only to regulators and the pharmaceutical industry but also to academics and practising physicians. A shorter précis of the document

**Box 18. Gender as a determinant of health**

The gender concept was first used in the 1970s to describe those characteristics of men and women which are socially constructed, in contrast to those which are biologically determined. Essentially, the distinction between sex and gender aims to emphasize that everything women and men do, and everything expected of them, with the exception of their distinct biological functions (for women, pregnancy, childbirth and breast-feeding), can and does change over time, and according to changing and varied social and cultural factors. But in practically all cultures the role of women is subordinate to that of men. People are born female or male, but learn to be girls and boys who grow into women and men. They are taught what the appropriate behaviour and attitudes, roles and activities are for them, and how they should relate to other people. This learned behaviour is what makes up gender identity and determines gender roles.

A gender approach to health moves beyond describing women and women’s health in isolation, but rather brings into the analysis how the different social roles, decision-making power and access to resources between women and men affect their health status and their access to health care. It examines how these differences determine, for example, differential exposure to risk, access to the benefits of technology, information and services, and the ability to protect oneself from disease and ill-health.

In order to meet the special needs of women and remove inequities, WHO’s activities to improve women’s health include setting norms and standards, developing guidelines and policy, the provision of technical support, and research. Increased efforts will be directed towards:

- advocacy for women’s health and gender-sensitive approaches to health care delivery and development of practical tools to achieve this;
- promotion of women’s health and prevention of ill-health;
- making health systems more responsive to women’s needs;
- policies for improving gender equality; and
- ensuring the participation of women in the design, implementation and monitoring of health policies and programmes, in WHO and in countries.
Box 19. After the menopause: implications for women’s health

In 1990, it was estimated that there were 467 million postmenopausal women worldwide, 60% of whom were living in developing countries. This number is expected to rise to 1200 million by the year 2030, with the proportion living in developing countries reaching 76%. Until now, however, almost all of the research into the health implications of the menopause has been conducted in industrialized countries, leaving a huge gap in understanding the health needs of the great majority of postmenopausal women in the world.

To redress this imbalance, a WHO scientific group has reviewed current research, including studies on the symptoms of the menopause and their treatment, and the effects of this crossroad in women’s life on their cardiovascular and skeletal systems. In its report, published in 1996, the group has identified and described the areas where research needs are greatest, and emphasized the need to gather information on women in the developing world.

The menopause occurs between the ages of 45 and 55, when reproductive capacity ceases. The ovaries stop functioning and their production of hormones falls. A variety of physiological changes occur, and many women experience symptoms which are unpleasant and sometimes disabling. More important than the immediate symptoms are the effects of hormonal changes on many organs of the body.

Both the cardiovascular and the skeletal systems are adversely affected, as they also are by the ageing process. Numerous studies show that compared to premenopausal women of the same age, postmenopausal women have more risk factors for coronary heart disease, including higher blood cholesterol levels. A serious hazard for postmenopausal women is osteoporosis, sometimes called “brittle bone disease”, which makes bones more liable to fracture, especially the long bones such as the femur, and vertebrae. Fractures of the vertebrae are painful and can cause spinal deformity. Long bone fractures, especially of the neck of the femur, cause the greatest disability and death. Osteoporosis and associated fractures are a major cause of death, disability and medical expense worldwide.

The condition affects an estimated 75 million women in Europe, Japan and the United States combined, including one in three postmenopausal women and most elderly people. About 1.3 million osteoporotic fractures occur annually in the United States alone, with an annual cost approaching $10 billion a year. As the world population ages, the condition will become an ever greater public health problem. Thus early detection, prevention and treatment will be of greater importance. Prevention of osteoporosis can be aided by supplements of calcium and vitamin D, by physical exercise, by hormone therapy and by avoidance of smoking and heavy consumption of alcohol, but prevention should begin much earlier in life, with young women being encouraged to take appropriate steps to safeguard their own health.

To ameliorate the immediate and long-term consequences of the menopause, hormonal therapies are being used extensively in some societies. The therapies themselves have created new concerns about the increased risk of cancer of the endometrium and possibly the breast, and raise complex issues regarding the health benefits achieved relative to their cost in both health and monetary terms.


in lay language will be developed in parallel which may in turn be used by consumer groups as an educational tool.

Violence against women is a major public health issue. Studies show the impact of violence on women’s mental and physical health, and its far-reaching effects for the woman and her children. In 1996 WHO held a consultation on violence against women, and the WHO Global Commission on Women’s Health addressed the issue at its 1996 meeting. Both meetings focused on the topic of violence against women, but their findings and recommendations are relevant to all other situations where violence unfortunately may occur. WHO is carrying out a multicountry study on the prevalence, health consequences and risk factors of violence against women, especially violence in the family, and has identified information gaps and made recommendations for appropriate research methodologies, for ways to improve access to information, for advocacy and for interventions to prevent and address the consequences of violence.

Health of school-age children and adolescents

During adolescence, young people acquire new capacities and are faced with many new situations, presenting both opportunities for progress and risks to health and well-being. The patterns of behaviour which are initiated or consolidated during the second decade of life have long-term consequences, especially for chronic diseases.

Programmes for adolescents provide them with support and opportunities to acquire accurate information, to have access to health services and counseling, and to contribute to the well-being of their family and community. WHO’s life skills education project assists education authorities to introduce problem-solving, communication and interaction skills into school curricula. In addition to helping young people to handle emotions and tension, it promotes a more positive view of health and
the self, which will favourably affect their future physical and mental health status.

Education and health complement and enhance each other. In order to mobilize broad support for health promotion through schools, WHO launched the global school health initiative. In 1996, for example, teachers' unions in 18 Latin American countries benefited from training of trainers programmes based on the WHO/UNESCO resource package School health education to prevent AIDS and STDs. The long-term outcome is that spin-off programmes are launched to train others. Guidelines on strengthening interventions to prevent helminth infection through schools were issued, and financial and technical support was provided to China to use this document as an entry point for the development of health-promoting schools. In Europe, demonstration projects on school-based oral health promotion are being carried out in five countries.

Jointly with UNFPA and UNICEF, WHO has developed a human resources roster for adolescent health, aimed at helping countries to identify and deploy people with expertise in all aspects of programme development and delivery. WHO provides technical input to countries, partners in the United Nations system and key nongovernmental organizations and professional associations.

Rheumatic fever/rheumatic heart disease often result in significant chronic morbidity for schoolchildren and young adults. With a view to cooperating with countries in establishing a joint prevention and health promotion project with the support of the educational system, WHO signed a joint memorandum of understanding with UNESCO and the International Society and Federation of Cardiology in 1996.

WHO and the Arab Gulf Programme for United Nations Development Organizations (AGFUND) support an intensified programme on prevention and control of rheumatic fever and rheumatic heart disease in China, the Philippines, Tonga and Viet Nam. Studies on primary prevention among schoolchildren were carried out in China and the Philippines; the results showed that application of penicillin to streptococcal infection of the throat in schoolchildren and young people is an effective measure for primary prevention. National and regional registries for rheumatic fever and rheumatic heart disease were established, connecting to the computerized disease monitoring network in the Philippines.

A health and nutrition school feeding manual was completed, providing guidance to countries and the World Food Programme on the design and implementation of school feeding programmes. It sets out nutritional principles for establishing food requirements with emphasis on micronutrients as well as school-based health-related activities in areas such as food safety, safe water supply, sanitation and solid waste disposal, and intestinal parasite control.

WHO has established a project on substance abuse to address the needs of street children and other young people in especially difficult circumstances, recognizing their unique risk of substance-related harm. The project includes initiatives to train street educators working with young people.

WHO has developed a protocol for health services research on providing easier access for young people to reproductive health services. A guide on analysing sexual and reproductive health in adolescents was field-tested, and with UNICEF and the Commonwealth Medical Foundation a series of short training modules are being developed to strengthen knowledge, interpersonal communication skills and the sensitivity of health and other sectors to adolescent health and development issues. In Ghana, WHO participated in organizing the first African youth conference on sexual health, which was attended by more than 200 adolescents and young people, and which reviewed various activities relating to education on sexuality and sexual health in that age group in the participating countries.
Child health

Recent data indicate that more than half of child deaths in developing countries are attributable to malnutrition. Undernutrition retards the development of the infant’s immune system, resulting in an inadequate response to immunization and resistance to infection, and stunted physical and intellectual growth. To date, over 140 countries have drafted, finalized or adopted national plans of action for nutrition. Most successful programmes involve communities in identifying the problems and mobilizing action and resources to solve them. WHO support was channelled particularly to the least developed countries, in collaboration with national institutions, FAO and UNICEF. In Europe, the first nationally-representative food consumption survey in the countries of central and eastern Europe and the newly independent States was carried out in Kazakhstan in collaboration with UNDP.

In order to help monitor and prevent protein-energy malnutrition, WHO has published an expert committee report on Physical status: the use and interpretation of anthropometry. This and the WHO global database on child growth and malnutrition (now also accessible on the Internet) have become standard reference works for those active in this field. As existing international reference values for the growth of children have been found to be inappropriate, WHO has started work to develop and establish new standards. Trace elements in human nutrition and health, also published in 1996, gives reliable criteria and new knowledge on the global status and assessment of deficiency and excess of 19 trace elements.

By the end of 1996, more than 7700 hospitals in 171 countries had been designated as “baby-friendly”. A new training course for administrators and policy-makers on promoting breastfeeding in health facilities is now available, and WHO has finalized the Common review and evaluation framework for use by countries in reviewing action to give effect to the International Code of Marketing of Breast-Milk Substitutes.

The WHO global data bank on breastfeeding has been updated with new definitions and indicators, which will facilitate comparisons and monitoring of trends. With the collaboration of UNICEF, the University of Davis, California (United States), and the Nutrition Department of the Office de la recherche scientifique et technique, Montpellier (France), and other WHO collaborating centres, WHO has prepared a paper examining complementary feeding practices of infants and young children worldwide as well as guidelines for future research and survey procedures.

Infant and child health are affected by the mother’s nutritional status during pregnancy. Iodine deficiency in the mother, for example, can lead to iodine deficiency and mental retardation in the child, with devastating consequences lasting into old age. Universal iodization of salt for human and animal consumption is the optimal way of correcting iodine deficiency and should continue to be the primary focus for preventing and controlling iodine deficiency disorders. Through the efforts of national governments, WHO, UNICEF, the International Council of Iodine Deficiency Disorders and the salt industry, and with the support of bilateral development agencies, financial resources required to achieve universal salt iodization have been mobilized. An estimated $30 million worth of investment in salt iodization has been made available to countries since 1990 from external sources, over and above national investments. Salt iodization programmes now exist in 110 countries. By 1996, 57% of all salt consumed in 83 countries was adequately iodized. WHO has confirmed that it is safe to administer periodic large doses of iodized oil at any time during pregnancy, pending successful establishment of salt iodization in areas of moderate and severe iodine deficiency. Sustainable elimination of new iodine deficiency disorders appears feasible by the target year 2000, provided that national and international commitment are maintained.
The WHO/UNICEF Integrated management of childhood illness strategy provides a systematic process for diagnosing and treating five conditions: diarrhoea, acute respiratory infections, malnutrition (including problems with breast-feeding), measles and malaria, which together are responsible for approximately 70% of all child deaths. WHO provides technical support to national programmes and contributes to worldwide research aimed at the prevention and control of these problems. Six African countries are already implementing the programme.

WHO makes regular contributions to the newsletter Childhealth news which disseminates information on prevention and care management of childhood illness, aimed at programme managers and health workers taking care of children. It is published in English by the Appropriate Health Resources and Technologies Action Group in the United Kingdom, with regional or country-specific editions in a range of languages including Gujarati, Portuguese and Vietnamese.

Similar materials on diarrhoeal and respiratory diseases are being tested now for use in nursing and paramedical schools. The first country experience in using a self-instructional course on clinical skills in the control of diarrhoeal diseases was carried out in 1996.

In a trial in Kenya, WHO has shown that impregnated bednets not only prevent deaths from malaria, but also significantly reduce hospital admissions for severe malaria, which can thereby significantly reduce the burden on health services. Operational research is now focusing on such problems as how to promote wider use of insecticide-treated bednets and how to lengthen the time between retreatment of nets.

As a result of WHO’s activities, 500 million immunization contacts a year are made with children. Immunizing children also opens the door to other elements of care – for the children concerned, their siblings and the adults who take them to be vaccinated. Unfortunately, the relative success of global immunization is breeding complacency among donors. Resources for basic programmes are shrinking and interest is shifting to newer but much more expensive products.

One of WHO’s goals is to enable the provision of sufficient quantities of high-quality affordable vaccines to be sustained. A network was established to train the staff of national control authorities so that a uniform high standard for all vaccines used within each country can be ensured. A new evaluation tool is enabling countries to rapidly assess their production facilities and also to determine the investments needed to meet quality standards and ensure the long-term financial viability of immunization programmes.

A new vaccine against rotavirus is now ready for clinical testing. Vaccines against both strains of cholera have been produced and are being used in refugee camps. Standardization has been completed of animal models for testing and assessment of four newly developed tuberculosis vaccines, including a DNA vaccine. Examples of novel vaccination approaches include preclinical studies of a single-dose tetanus vaccine using a controlled release system, clinical trials for a nasal meningococcal vaccine, and research to develop optimal mucosal delivery systems for DNA vaccines. WHO has coordinated field trials of new vaccines against meningococcal meningitis in Niger, clinical trials of a locally produced cholera vaccine in Viet Nam, and of an oral cholera vaccine in Mali.

Vaccines against meningitis and pneumonia caused by Haemophilus influenzae type b have recently been shown in studies supported by WHO, the Children’s Vaccine Initiative, USAID and other funders to be capable of preventing at least 250,000 child deaths per year worldwide. The Children’s Vaccine Initiative has therefore entered into broad collaboration with WHO, UNICEF and vaccine producers to promote the wider use of this and other vaccines against acute respiratory disease.

Hearing impairment is a serious problem in young children because it retards language development and
school progress — both of which have a significant impact in later life. Some children have inherited severe inner-ear deafness, but most children who develop hearing impairment have had chronic otitis media which has not been recognized and not treated. In 1996 WHO and the CIBA Foundation developed guidelines on detection and proper management, especially at the primary care level.

**Infectious diseases**

Whatever their mode of transmission, most infectious diseases are chronic problems for all age groups. Chronic because of the persistence of the pathogens themselves and of the conditions they need for survival and transmission, and because in addition to the immediate impact that diseases such as leprosy, malaria or onchocerciasis have on individuals and communities, they have devastating consequences that can last a lifetime.

By end-1996, a cumulative total of 29.4 million children and adults had been infected with HIV and a cumulative 8.4 million AIDS cases had been documented worldwide. The Joint United Nations Programme on HIV/AIDS (UNAIDS) became operational on 1 January 1996. WHO, one of its six cosponsors, provides epidemiological and technical support by maintaining the epidemiological surveillance and tracking of HIV/AIDS and STDs. Publications include a source book on HIV/AIDS counselling and the results of a study on AIDS orphans carried out with UNICEF entitled Action for children affected by AIDS: programme profiles and lessons learned. WHO began publication of a quarterly newsletter in 1996, and information is accessible electronically on WHO's Internet site. A policy and advocacy document was issued in collaboration with UNAIDS entitled A deadly partnership: TB in the era of HIV. The WHO publication TB/HIV: a clinical manual will help clinicians cope with the growing problem of TB/HIV co-infection. WHO, UNICEF and UNDP collaborated to produce a policy guide on HIV and infant feeding.

In the fight against tuberculosis, WHO promotes the adoption and implementation of the directly observed treatment, short course (DOTS), which entails the use of standardized regimens of effective drug combinations, direct supervision of treatment for at least the first two months, and evaluation of treatment for each patient. Over 80 Member States have adopted, or are starting to use, the DOTS strategy, with an increase in cure rates to 90% in some countries. WHO continues to identify ways to facilitate DOTS adoption in different environments. An operational research project in Malawi improved the efficiency of diagnosis and treatment. Studies are under way to show the potential economic benefits of DOTS in India and how good-quality care might be delivered through a network of private providers. Advocacy workshops help translate programme review findings into action, and WHO's new training modules, Managing tuberculosis at national level, and guidelines aim to reinforce national technical expertise (e.g., tuberculosis control among refugees, and the management of drug-resistant tuberculosis). A new WHO newsletter, the TB treatment observer, highlights the success of DOTS in many countries.

WHO works with ministries and donors in developed countries to ensure continued financial support from them to countries where malaria is endemic. WHO organized training in epidemic preparedness and control with support from donors in 17 African and 3 Asian countries, trained 35 entomologists from national programmes in Asia and Africa in selective vector control in inter-country workshops, and provided technical assistance for malaria prevention and control in refugee camps in Azerbaijan and in 10 other countries affected by epidemics. The Organization issued guidelines for malaria control among refugees and displaced populations in 1996. WHO collaborated with UNDP in Myanmar; with the World Bank in Bangladesh, Lao People's Democratic Republic, Madagascar and Viet Nam; and with the European
Union in Cambodia, Lao People's Democratic Republic and Viet Nam. Community-based malaria control activities have been established in parts of Eritrea and Ethiopia, with support from Italy and the Netherlands, and in Uganda with the German Agency for Technical Cooperation (GTZ).

Onchocerciasis is prevalent in tropical Africa, Yemen and parts of Latin America. The two principal intervention methods for its control are vector control through larviciding and chemotherapy by ivermectin. In January 1996, a new African Programme for Onchocerciasis Control was started, covering 19 African countries where onchocerciasis affects about 15 million people.

Leprosy is declining in most endemic countries and variations in case detection observed in some countries are often related to intensified case-finding activities and the expansion of geographical coverage, rather than to an increase in the incidence of the disease. Different WHO regions and countries are expected to reach elimination levels at different dates. Each endemic country is expected to identify districts where leprosy is still endemic and give priority to them. WHO, by collecting information at the global level, assists in defining high-priority zones and in mobilizing adequate resources (Map 4). The leprosy elimination campaign is an initiative implemented by national staff with technical cooperation from WHO and other agencies, which aims at providing national programmes with additional external inputs to intensify elimination activities. The involvement of community volunteers and general health workers reduces the delay in managing cases and ensures that the existing health services are able to treat them.

1996 was the 200th anniversary of Jenner's smallpox vaccine. The World Health Assembly recommended that the world's remaining stocks of variola virus should be destroyed on 30 June 1999. The smallpox vaccine seed virus will be maintained in the WHO collaborating centre on smallpox vaccine at the National Institute of Public Health and Environmental Protection, Bilthoven, Netherlands.

Map 4. Leprosy, 1996
WHO remains active in tropical disease research. Preclinical trials of UMF 978, a drug which is proving to be effective against adult worms of Onchocerca, Wuchereria and Brugia (which cause river blindness and lymphatic filariasis) have been successfully completed. The drug has now been shown to be effective against adult worms after a single injection.

**Promotion and protection of health**

Promotion and protection of health cover a wide range of actions: from promotion of individual healthy lifestyles and human behavioural changes to management of risk to human health by governments, communities and the private sector.

WHO encourages the adoption of healthy lifestyles by focusing on advocacy for health, empowerment of communities and design of media strategies for health. In order to achieve this, a Five-year action plan, leading health promotion into the 21st century, has been launched. Feasibility discussions on infrastructures for health promotion and education to mobilize support and action were held in the Centers for Disease Control and Prevention (CDC), Atlanta, United States, with representation from China, India, Indonesia, Japan, the Russian Federation and the United States – the mega-country initiative, and with networks of countries which are geographically close – such as the Mediterranean country network for health promotion. Two new collaborating centers were established in Sydney (Australia) and Toronto (Canada) and two more are being designated in CDC and the African Medical and Research Foundation (AMREF), Kenya, bringing the total to 18. WHO also carried out targeted activities at country level, such as a workshop in Gabon on health education programme planning and evaluation techniques for health personnel.

Safe food and good nutrition are cornerstones of socioeconomic development and basic human rights. In 1996, enterohaemorrhagic Escherichia coli (EHEC), a newly emerging foodborne pathogen, struck in Japan and in the United Kingdom. WHO kept the international public health community informed by issuing articles in the Weekly Epidemiological record and fact sheets on E. coli O157:H7 and emerging foodborne diseases. WHO is organizing a consultation in 1997 to propose measures for the prevention of epidemics caused by EHEC, and to outline steps which should be taken when an epidemic strikes, in order to control its spread. To draw the attention of public health authorities to the role of food technologies in health protection, WHO has prepared a document on Food technologies and public health, as well as guidelines for developing or strengthening a national food safety programme. As contaminated food plays an important role in the spread of infant diarrhoea and as many families in developing countries have only limited, if any, access to facilities to control contamination (e.g. refrigeration), WHO and FAO have jointly published recommendations concerning the use of fermentation as a household technology for improving food safety.

In recent years, official food control as well as the food industry’s safety activities have increasingly been based on a relatively new food safety assurance system: the hazard analysis and critical control point system (HACCP). In order to promote the application of this system, WHO convened a workshop on the basis of which training materials for different target groups (decision-makers, food and public health inspectors, managers in the food industry) were developed in collaboration with the Industry Council for Development. A regional training course was convened in Harare to field-test this material. In 1996, WHO published Preparation and use of food-based dietary guidelines, which demonstrates how national authorities can emphasize locally available foods in their dietary advice, and integrate the messages in the guidelines into other health-related policies such as those on smoking, physical activity and alcohol consumption.
In 1996, WHO published the report of the joint FAO/WHO Expert Consultation on Biotechnology and Food Safety which addresses the evaluation of the safety of foods and food products produced using biotechnology.

Human health continues to be adversely affected by a wide array of environmental factors, ranging from climate change to water supply. In 1996, WHO provided information to the Intergovernmental Panel on Climate Change which was instrumental in securing new international commitments to deal with the root causes of global climate change. A related issue is increased exposure to ultraviolet radiation due to ozone layer depletion. During 1996, WHO produced information on health hazards and protection measures, including guidelines on a simple ultraviolet index to be used in risk communication in collaboration with UNEP, WMO and the International Commission on Non-Ionizing Radiation Protection.

As part of the GEMS/AIR programme, a system for making information on air quality more accessible was set up. Preliminary estimates show that many more "excess deaths" are caused by air pollution in the developing countries than in the developed countries, and that indoor air pollution in rural dwellings may present the greatest threat to health.

WHO emphasizes the low-cost and community-based aspects of water and sanitation programmes, serving populations at greatest risk from sanitation-related diseases. Practical training and guidance manuals produced by WHO are used throughout the world. Two of the most popular titles are Operation and maintenance of urban water supply and sanitation systems and Management of operation and maintenance in rural drinking-water supply and sanitation.

At the HABITAT II Conference in Istanbul in June 1996, WHO organized a panel discussion of international personalities on the theme "Creating healthy cities in the 21st century", which stressed the participatory approach and the important role of local authorities in addressing health and environment issues in urban areas. World Health Day 1996, on the theme "Healthy cities for better life", involved over 1000 participating cities around the world. The concept is now being extended to municipalities, villages and islands.

WHO is the executing agency of the International Programme on Chemical Safety (IPCS), operated jointly with ILO and UNEP, and the administering agency of the Intergovernmental Forum on Chemical Safety and the Interorganizational Programme for the Sound Management of Chemicals. In the field of assessment of risks to human health and the environment from exposure to chemicals, validated information was produced in the form of international chemical safety cards, data sheets on pesticides and the classification of pesticides by hazard. A new project was launched to accelerate international assessment of priority chemicals by producing concise international chemical assessment documents based on national and regional assessments. The first seven documents were reviewed in 1996. More than 30 poison information monographs and 14 treatment guides were reviewed and finalized. Several working groups met in the framework of the IPCS INTOX project which dealt with various aspects such as analytical toxicology and aquatic biotoxins, as well as an international seminar and workshop on poison control in the Mediterranean region. At a consultation on methodology for collection of pesticide poisoning data, a pilot study was conducted in four countries was launched. A project to provide national training for developing countries on toxic chemicals, environment and health, was launched in 15 countries in Africa, Asia and Latin America.

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Box 20. Essential Health Interventions Program

With many governments and international aid agencies forced to tighten spending in recent years, funding for essential health services is in short supply. The challenge now is to find ways of improving health delivery systems so as to ensure sustainable delivery of limited health resources.

The Essential Health Interventions Program (EHIP) is a response to this challenge. An initiative of Canada's International Development Research Centre (IDRC) with support and input from the Canadian International Development Agency (CIDA), EHIP is a four-year health research and development initiative designed to generate new knowledge in support of the planning and delivery of essential public and clinical health services. It will assist, at the district level, with the selection of essential clinical and public health interventions, taking into consideration community perceptions and preferences for health services. It will also study the usefulness of burden of disease and cost-effectiveness measurements for setting priorities and allocating health resources.

The initiative is already under way in the United Republic of Tanzania, where it is known as TEHIP (Tanzania Essential Health Interventions Project). Over time, and with additional funding, it is hoped that EHIP may expand to other countries with different environments and challenges, thereby adding to the knowledge base surrounding the universal applicability of this approach to health planning.

Over the past few years the Government of Tanzania has been working to strengthen health planning and service delivery capacity at district level through its health sector reform. TEHIP provides an excellent opportunity both to build on the existing health system and to test selected aspects of initiatives for health sector reform. The project is an excellent example of collaboration between all partners concerned: the Government of Tanzania, WHO, the World Bank, UNICEF, CIDA and the Echo McConnell Clark Foundation.

TEHIP will focus primarily on two strategies for improving health:

- financing and delivering essential clinical and public health interventions; and
- improving the planning and management of health services at the district level.

Tanzanian researchers will endeavour to answer the following three key questions:

- In the context of decentralization, how and to what extent, can district health management teams establish priorities and plan the allocation of resources according to local estimates of burden of disease and knowledge of the cost-effectiveness of relevant interventions?
- How, and to what extent, are the district health plans translated into the delivery and use of essential health interventions?
- How, to what extent, and at what cost, does this have an impact on burden of disease?

If the principles of health care planning being tested through EHIP prove workable, this Canadian initiative will have implications for improving health resource allocation in low-income countries around the world, and the use of limited health resources could be considerably improved.

Health services and health policy

Improving health services

In the decade ahead many countries will make decisions on their health systems development strategy which may prove irreversible. They will also have to strike a balance among health policy objectives such as service quality, cost effectiveness and acceptability (Box 20). These decisions should be made in the light of the best available evidence and in the most accountable and consultative manner possible. In 1996, a WHO conference on health care reform, which united participants from 45 countries and representatives of the World Bank, the Council of Europe and nongovernmental organizations, adopted the Ljubljana Charter, which places strong emphasis on developing health care systems governed by the principles of human dignity, equity, solidarity and professional ethics.

Many countries and agencies look to WHO for leadership on health systems issues. More specifically, strategic support is provided to countries in greatest need through public information programmes such as in the Republic of Moldova; a telecommunication programme in Bhutan; the development of rural medical cooperatives in China; the production of latrines in Guatemala; political mapping for health reform in Zambia; and the integration of health activities in agricultural projects in Mali and Uganda. WHO creates opportunities for countries to learn from each other's experience in health systems development, carrying out comparative studies and distilling key lessons in order to understand how individual country contexts affect policy. To this end, a series of discussion papers are produced, covering topics such as "Applying planned market logic to developing countries' health systems". Technical support is given to the poorest population groups with their own participation (e.g. in Bolivia, Guinea-Bissau and Viet Nam), emphasizing local processes and basic health services.
Reform strategies in health financing, organizational change and innovations in service delivery often involve trade-offs between different objectives of health policy. There is frequently a conflict between the demands of equity and the need to mobilize more private financing. While there is a growing awareness of the size and potential of private finance, few countries have reassessed the role of government in relation to the private health care sector. However, a clear message from reform experiences is that greater reliance on market mechanisms requires more regulation, not less. WHO guidelines, for example on social health insurance, have been widely used and cited.

Quality of care

Ensuring access to and availability of essential drugs and vaccines at low cost, their rational use, and their quality and safety are a major goal for WHO. The WHO Model list of essential drugs, which contains drugs that satisfy the health care needs of the majority of the population, was updated having regard to the increasing problem of resistance to antimicrobials. A new category of drugs with restricted indications was introduced. WHO provided support to over 50 countries, covering all elements of national drug policies. More than 110 countries now have an essential drugs list. Some 60, including countries as diverse as Australia, Kazakhstan and Viet Nam, have formulated, and are implementing, a national drug policy. To this end, the Guidelines for developing national drug policies are being updated. Innovative materials for training such as the Model guide to good prescribing and Guidelines to the economic aspects of drug supply, have been widely disseminated and used. Indicators for monitoring national drug policies were applied in research on comparative analysis of national drug policies which took place in 12 countries. Information was provided during 1996 on the essential drugs concept, national drug policies and rational use of drugs through a wide range of publications including technical documents and reports and the Essential drugs monitor, published in English, French, Spanish and Russian.

In the field of drug quality and efficacy, WHO supports the rational prescribing and use of essential drugs by regularly producing the series Model prescribing information. Other publications include WHO guidelines for good clinical practice for trials on pharmaceutical products (to set globally applicable standards for the conduct of biomedical research on human subjects); Drugs used in parasitic diseases; Drugs used in sexually transmitted diseases and HIV infection; and Drugs used in skin diseases.

Biotechnology will contribute significantly to the introduction and development of new therapies for chronic and debilitating diseases such as diabetes, dementia and cancer. To meet the vital need for respected worldwide standards of quality, efficacy and safety for biotechnology products, WHO regularly formulates guidelines and requirements on relevant biotechnology-derived biologicals that form a basis for globally harmonized norms and standards.

In spite of the increase in international trade in herbal medicines and other types of alternative medicine worldwide, the potential of traditional medicine is far from being fully utilized in most national health systems (Box 21).

WHO prepared a number of documents concerning national policy and regulation of traditional medicine and technical guidelines during 1996 (e.g., Guidelines on basic training in acupuncture and Guidelines for safe acupuncture treatment). With the aim of facilitating research and development of traditional medicine and scientific information exchange at the country level, the Organization issued a report summarizing the latest research achievements and activities in 17 WHO collaborating centres for traditional medicine during the last five years.

Technology assessment

Technology assessment is fundamental to quality of care as it provides the basis for rational decisions on selection of
Box 21. Traditional medicine

Many elements of traditional medicine are beneficial, but others are not. WHO encourages and supports countries in their efforts to find safe and effective remedies and practices for use in health services while not endorsing all forms of traditional medicine. Traditional medicine is examined critically, with an open mind.

Most of the population in developing countries still rely mainly on traditional practitioners and local medicinal plants for primary health care, and interest in traditional and alternative systems of medicine has grown in industrialized countries during the last decade. In the United States it is estimated that one-third of the population uses at least some form of alternative treatment such as herbal medicines, acupuncture, chiropractic and homeopathy. Surveys in European countries have shown similar interest: 60% of the Dutch and Belgian public have expressed their willingness to pay extra health insurance for alternative medicine, and 74% of the British public favour complementary medicine being available on the national health service.

Despite the existence of herbal medicines for many centuries, only a relatively small number of plant species — about 5000 — have been studied for their possible medical applications. Safety and efficacy data exist only in respect of a much smaller number of plants, their extracts and their active ingredients. The establishment and use of regulation procedures and quality control have become major concerns in both developing and industrialized countries.

Acupuncture is used worldwide because of the simplicity of its application, its minimal side-effects and its low cost. It has been in constant use in China for thousands of years, and spread to other oriental countries long ago. By 1990, the total number of acupuncturists in Europe had reached 88,000, of whom 62,000 were medical doctors, while acupuncture users totalled 20 million. Consumer surveys consistently show positive public attitudes to complementary medicine — 90% of the pain clinics in the United Kingdom and 77% in Germany use acupuncture. Important advances have been made in our understanding of the mechanisms of acupuncture. In particular, great progress has been made in clinical research on acupuncture analgesic which has been used during surgery and for the treatment of acute and chronic pain.

There are 19 WHO collaborating centres for traditional medicine, eight of which are involved in training and research on acupuncture, while the others are conducting research on herbal medicines. These centres have made a major contribution to the international standardization of herbal medicines and acupuncture, and the exchange of information.

In China, where traditional medicine is widely practised, each province has a college and a research institute for Chinese traditional medicine. In India, the government provides financial support for the research and development of the Ayurvedic and Unani systems and their increasing involvement in the delivery of health services. Such systems are seen as allies in the delivery of primary health care. Research institutes and foundations have also been established in industrialized countries, such as the Office of Alternative Medicine in the United States. A group set up by the European Commission is investigating the therapeutic significance of unconventional medicine, its cost-benefit ratio and its sociocultural importance as a basis for the evaluation of its possible use in public health.

WHO strongly supports the further promotion and development of the rational use of traditional medicine throughout the world.
in the Americas, Europe and the Western Pacific. With funding from the Japanese Ministry of Health and Welfare, the material has been translated from English into Chinese, French, Portuguese, Russian and Spanish.

WHO continuously monitors the establishment of national external quality assessment schemes as an indicator of the implementation of agreed principles to ensure good laboratory practice. To date, more than 60 countries have established national and/or regional schemes in at least one of the main laboratory disciplines. The Organization gave a training course on good diagnostic practice in collaboration with AMREF, to discuss and overcome major problems in communication between health laboratories and their users. A laboratory procedure for screening and monitoring diabetes mellitus in children was developed, and studies in central and eastern Europe proved the efficiency of the method in the long-term monitoring of patients, and in achieving comparability of epidemiological data. WHO issued a document entitled Safety in health laboratories.

In the area of radiation medicine, the technical specification for the WHO basic radiological system published in 1985 was updated and printed for worldwide distribution as the Technical specifications for the world health imaging system for radiography. Operation of the IAEA/WHO network of secondary standard dosimetry laboratories covering 73 laboratories in 56 countries (43 in developing ones), and the IAEA/WHO postal dose intercomparison programme, continued in all regions.

**Health personnel**

Since the health workforce accounts for some 70% of the recurrent health budget in many countries, it becomes a natural focus for improving cost-effectiveness in health services (Box 22, Fig. 8). Changes taking place in some Member States provide excellent lessons on how financial and economic forces modify the way care is provided and who provides it. International comparison in human resources for health is complicated by the lack of uniform nomenclature and standards. In addition, the data available are generally from the public sector only.

In order to strengthen health workforce planning and management in countries, WHO has developed a range of methods and instruments including computerized models of supply and requirement projections, among them a method for calculating staffing norms and a guide on the selection of planning methods to match specific situations. Trainers from some 40 countries have taken part in workshops on the use of these health workforce planning tools. Three countries in the South-East Asia Region have developed master plans for human resources for health, and two others have reviewed existing plans; all countries in the Region now recognize the need to continually review existing plans. The Kellogg Foundation and Japan provided funds for health workforce planning and policy analysis. Successful collaboration with nongovernmental organizations, foundations and individual institutions in the field of education of health professionals enabled WHO to maintain a wider spectrum of activities than would otherwise have been possible.

The World directory of schools of public health has been made available on microcomputer diskettes from an electronic database now being maintained in Geneva. The sixth edition of the World directory of medical schools was reprinted in 1996, with supplementary information. Future editions of this directory will be in electronic format only.

The importance of the role of nursing and midwifery is now widely acknowledged. A nursing management information system has been successfully tested and set up as part of an effort to establish national human resources information systems. In Africa, WHO is working towards legislative recognition of the role of nurses and midwives. In the Western Pacific, WHO is working with China to upgrade nursing education for the more than 1 million nurses...
Box 22. Health personnel

Ministries of health are faced with chronic problems of imbalance of three types in the health workforce: (i) numerical — the difference between the numbers of health care providers of various categories and the numbers a country or community needs and can afford; (ii) qualitative — the mismatch between the type and level of training and the job that needs to be done; and (iii) distributional — mismatch between the geographical, occupational, institutional and specialty mix, or between the public and private sector. These types of imbalance result in an inappropriate mix of skills, poor distribution of personnel and skewed allocation of resources to certain categories of health personnel.

Identifying the appropriate mix of health personnel is one of the major challenges that countries face. The number of each category of health worker is influenced by traditional ways of delivering services and by the available financial resources for salaries and equipment. Countries are attempting to find the most cost-effective combination to provide high-quality health care. In this context, countries must first make an assessment of the prevailing situation, based on the best available information.

WHO has taken the initiative to make a global comparison of health workforce ratios between countries. These can be misleading as they depend on methods of organization, financing and the public-private mix. Comparisons can, however, indicate genuine differences worldwide. Difficulties in comparisons between countries and regions occur because of variations in the level of education and number of years required for admission to practise in the respective disciplines, different terminologies and differences in the scope of responsibilities. The average ratio of physicians, nurses and midwives, and dentists per 100,000 population, by region, is given in Fig. 8. Ratios by country and rates by level of development are given in Annex 2.

The number of physicians per population varies significantly between and within countries. Globally, the developed market economies have a ratio of over 250 physicians per 100,000 population, compared to 14 per 100,000 in the least developed countries (LDCs), or almost 20 times as many. Developing countries (other than LDCs) have 85 physicians per 100,000. These differences reflect the access to services provided by physicians varies significantly between these three categories of countries. The economies in transition have a ratio of 360 physicians per 100,000 population, reflecting past policies in this group of countries to produce and employ large numbers of physicians in government service.

LDCs often do not have the capacity to train appropriate numbers of physicians and are unable to retain physicians trained in their country (when national medical schools exist) or abroad. Poor salaries and working conditions are often cited as factors contributing to poor retention rates. Shrinking public sector budgets have restricted the employment of health providers.

One of the most significant changes in the deployment of medical personnel during the past decade is the extended use of the general practitioner and the development of the "specialist" family physician. These practitioners are medical primary care providers, who are intended to interact more closely with the community than their more specialized colleagues. Their work encompasses health promotion, disease prevention and curative care for both individuals and the community.

The work of nurses and midwives ranges from carrying out high-technology investigations in the most industrialized countries to providing the whole range of primary health care services in remote regions in developing countries. Nursing and midwifery personnel are the largest group of health care professionals accounting for the largest share of the budget for human resources in most countries.

A survey of 94 countries in 1994 found that the demand for nursing and midwifery services is increasing. Factors affecting this demand include changing disease patterns and demographic profiles, resulting in higher demands for chronic care and home-based care. There are shortages of nurses and midwives, which are often compounded by inappropriate deployment, underuse or inappropriate use. The effective use of nurses and midwives within health care systems is affected by a number of interrelated issues such as a lack of clear definition of roles and responsibilities of this category of personnel in relation to others; traditional relationships between nurses and midwives, and physicians; the status of women in general and of nursing and midwifery as a career (in some countries) in particular; and poor working conditions (e.g. remuneration and physical safety).

Issues of substitution, delegation and complementarity of providers and their skills are being tackled as health care delivery systems and their managers struggle with questions of economic efficiency and effectiveness. Studies have indicated that some sets of activities and
Box 22. Health personnel (continued)

Individual tasks traditionally performed by one category of health care worker can be performed by a worker who has been educated differently.

A comparison for recent years of the availability of nursing and midwifery services in countries at different levels of economic development shows that economies in transition report an estimate of 800 nurses and midwives per 100,000 population and developed market economies report around 750, whereas LDCs have around 20 per 100,000.

There are great differences between regions in terms of access to dental services provided by **dentists**. Other oral care personnel include operating therapists, who work in more than 40 countries and provide a high proportion of oral treatment in many developing countries, and dental hygienists, employed in at least 57 countries, who also play a major role in the prevention of oral diseases at individual and community levels. Chairside assistants are employed in most countries and greatly increase the safety and efficacy of oral care, as well as, in some countries, transmitting health education messages to patients. Dental technicians are also involved in providing oral prosthetic services.

**Pharmacists**, who are key members of the health care team, work in hospitals, clinics and government and private pharmacies. When they dispense medicines they complement information given by the medical prescriber to ensure that the patient stores and uses the drugs correctly. Pressures of health care reform in countries are resulting in a growth in private sector pharmacies and privately employed pharmacists. The role of the pharmacist as a community health care provider is being supported in both developed and developing countries.

The differences observed between and within countries are the result of very complex factors, such as the availability of finances and human capacity to train, employ and adequately remunerate health personnel. Other factors include: opportunities to practise in other jurisdictions; the expectations of consumers or perceptions about what constitutes good care; and the relative power exercised by interest groups (e.g., medical associations, nursing groups).

Countries continue to emphasize education, training and skill development in the building of capacity, and are concerned with ensuring that their public health systems address current and emerging complex health issues. Accordingly, the interdependence of all health care workers and the need to strengthen linkages between medical and public health institutions are increasingly being recognized as desirable policy objectives. Some countries are engaged in designing policies for clearly formulated human resources for health within the national health policy, as a sound basis for continued progress in this area.

*For definitions of the categories, please refer to Annex 2.*

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**Fig. 8. Human resources, regional estimates, around 1993**

![Graph showing the ratio of nurses and midwives, physicians, and dentists per 100,000 population in different regions around 1993.](image-url)
now employed in the health services, in collaboration with UNDP. Post-basic and staff development courses targeted at nurses in rural areas of the Pacific via teleconference and radio broadcasts are being prepared. In Europe, an action plan has been launched to promote the role of nursing in preventing chronic diseases. Nursing education materials in Arabic are being developed in the Eastern Mediterranean. WHO and its collaborating centre for nursing and midwifery development in Bahrain have been instrumental in launching the nursing committee for the Gulf Cooperation Council. The registration system implemented with WHO technical support in Bahrain is now being used in Oman and the United Arab Emirates, and other Gulf countries are considering adopting it.

The fellowships programme continues to be an important modality of human resources development. A comprehensive system for the management, monitoring and evaluation of the fellowships programme was completed in 1996. In Africa, fellowship selection committees have been established in most countries, with 84% of fellows placed in African training institutions.

In order to reorient medical education and medical practice to meet changing needs, several global, regional and national initiatives have been taken to promote coordinated changes in health care and health professionals' practice and education. Educational development centres have been established in the Eastern Mediterranean with WHO support to provide professional and technical assistance to institutions or health organizations. An international working party involving more than 25 medical and nursing schools has been established to examine the social accountability in their education, research and health delivery programmes. A twice-yearly newsletter, Changing medical education and medical practice, continues to be distributed to a growing international audience. It is now available in Portuguese and Spanish through the efforts of WHO collaborating centres in Brazil and Chile. The newsletter is available in English on the Internet. Guidelines are regularly issued to develop an interface between health care, medical practice and medical education, thus influencing policy development and programme management at country level. In 1996, WHO published Doctors for Health: a WHO global strategy for changing medical education and medical practice for health for all.

Guiding health policy and management

WHO focuses on the underlying causes of inequality, vulnerability and ill-health, in particular as they affect women and other disadvantaged groups. WHO's guidance for policy-making emphasizes ethics, legislation and human rights. Ensuring coordination with organizations of the United Nations system and with intergovernmental bodies helps to integrate health aspects into development policies. Nongovernmental organizations are encouraged to participate fully in WHO's activities.

The annual World Health Report has become an essential tool for guiding priority-setting and policy-making in health. Information and data used for the annual assessment of the global health situation are gathered from all available sources worldwide: other international organizations (e.g. the International Organization for Migration), a range of intergovernmental and nongovernmental organizations; and national centres of scientific excellence (such as CDC, Atlanta). Translations of the Report into other languages have been undertaken by WHO's partners, such as the Arab Centre for Medical Literature and the German Green Cross.

The policy on health for all for the 21st century will be presented to the World Health Assembly in May 1998. In order to develop a consensus basis, wide country consultations took place in 1996. There will be particular emphasis on the control of diseases and cost-effective population-based prevention and health promotion measures. Since diversion of resources to chronic diseases
in countries where preventable diseases of childhood and infectious diseases still dominate the epidemiological picture would have a negative impact on equity in health, priority should be given to prevention and the selective use of the most cost-effective means of treatment, by including priority chronic disease prevention in the primary health care context. A life span approach to disease control will address antenatal, early childhood and adolescent interventions that promote active life and healthy ageing, and thus reduce individual suffering and the economic and social costs to family and community which are the result.

WHO plays a leading health advocacy role on the international stage. In 1996, the Global Commission on Women's Health obtained the widespread recognition of women's right to health and the enjoyment of health security throughout their life span. Other advocacy efforts of the Commission resulted in tangible outcomes such as the establishment in Pakistan of “women police stations” to curb violence against women. The Task Force on Health in Development draws the attention of policy-makers to health issues and promotes the health leadership of WHO. Intensified advocacy in Africa has resulted in increased financial support from Rotary International, USAID and several nongovernmental organizations. The “Kick polio out” campaign in South Africa is an example.

WHO raises public awareness of a number of key issues by organizing special “days”. Examples include the first global World Tuberculosis Day in 1996, involving nearly 100 governments, nongovernmental organizations and associations. In 1996, WHO aimed to involve new constituencies in addressing the tuberculosis epidemic, and published Groups at risk, to highlight how the tuberculosis epidemic affects all sectors of society, and the economy as a whole. WHO and UNAIDS collaborated in several advocacy initiatives, including a joint news conference at the international AIDS conference in Vancouver.

There is a growing need for a legislative framework to support health development initiatives and for legislative tools to respond to changing concepts of health. Many countries need support to mobilize expertise and resources to formulate, implement and evaluate health legislation on issues such as foodborne diseases, pharmaceuticals and organ transplantation. WHO maintains a database on “tobacco or health” legislation and makes it available to governments wishing to formulate national tobacco legislation. With the support of UNAIDS, WHO in 1996 updated its directory of legal instruments dealing with HIV infection and AIDS.

WHO supports national activities in the field of ethics, an area in which countries are eager to learn from each other's experience. WHO works with other intergovernmental organizations concerned with the development of legislative guidelines on health policies, ethics and human rights, for example UNESCO (Universal declaration on the human genome and human rights), the Council of Europe (Convention on human rights and biomedicine), and the European Commission (Ethical implications of biotechnology). WHO also works with a number of nongovernmental organizations in the area of bioethics, particularly the World Association of Medical Law and the Council for International Organizations of Medical Sciences.

In 1996, the WHO Centre for health development opened in Kobe, Japan. In conjunction with its inauguration a WHO symposium entitled “Urbanization: a global health challenge” was held to discuss the initial area of study. The proceedings of the symposium were published and widely distributed.

**Partnerships for health**

In order to place and maintain health at the centre of national development and regional and global cooperation, and ensure complementarity and cost-effectiveness in the allocation and use
Box 23. Investing in health research and development

One of WHO's constitutional functions is to promote and initiate health research development at national and international levels. Its Advisory Committee on Health Research (ACHR), and its regional counterparts established in the 1980s, have guided WHO's work in this field. Since then the ACHR has increasingly become a catalyst for scientific research and cooperation, encouraging and welcoming contributions from all sources, including governments, research institutes, and universities.

In that context, it reviewed an important contribution in 1996, a report of the Ad Hoc Committee on Health Research Relating to Future Intervention Options entitled Investing in health research and development. The report analyses current and projected disease burdens and investment patterns in research and development (R&D) in health, and offers both national and international investors ways to make informed decisions about resource allocation in a climate of scarce resources.

Among its main conclusions, the report finds that childhood infections and poor maternal health continue to dominate the health needs of low-income countries. Research is needed to determine the most effective application of existing packages of essential services and to improve the content of the packages - for example, vaccines for major childhood diseases. The report identifies particularly attractive R&D investment opportunities with a high potential for reducing disease burden.

The focus for R&D against the threats of tuberculosis, pneumococcal infection, HIV, STDs and malaria should be primarily biomedical, and aimed at developing new tools for their prevention, treatment and control. A list of "best buys" is identified and mechanisms to foster cooperation between the pharmaceutical industry and public sector are proposed as a means to focus all efforts on cooperation on key products for low-income and middle-income countries.

The report shows that demographically developing regions face a rapidly growing epidemic of noncommunicable diseases and injuries. Many of the interventions developed in industrialized countries are not cost-effective and will not offer solutions for poor countries. To address these challenges, two new initiatives are proposed.

Health services in many countries remain inefficient and poor in quality, and costs are spiralling. An initiative to strengthen national health policy development is outlined which would include indicators of performance, tools that assist the translation of policy into practice, and sharing of information, data and experience of health systems.

The creation of an informal forum for investors in international health R&D is also proposed to stimulate action for investment globally and nationally.

with partners in the scientific community. Following the Committee's recommendations, WHO established a task force on organ transplantation in 1996, to identify and clarify the medical, social, economic, ethical and related issues implicated in the potential advance in health care that cadaveric organ recovery and transplantation represent. Critical research issues of major significance to global health include multi-sectoral determinants and borders health. In the wake of the DALY debate, a subcommittee on health measurement was set up. In 1996, ACHR reviewed the report of an ad hoc committee entitled Investing in health research and development (Box 23).

The basic human rights of people with mental disorders are enshrined in the United Nations 1948 Universal declaration of human rights, the International covenant on economic, social and cultural rights adopted in 1976 and the 1991 Principles for the protection of persons with mental illness and the improvement of mental health care. In order to focus international efforts on concrete action, WHO initiated in 1996 a major interagency programme of the United Nations called "Nations for mental health". This programme aims specifically at reducing discrimination against people affected by mental disorders, by raising the awareness of governments and the public both about the magnitude of neuropsychiatric and substance abuse problems and about their impact on society, through collaborative strategies with international and nongovernmental organizations.

The drive is now towards implementation of the United Nations system-wide Special Initiative on Africa. With the participation of regional organizations, an implementation strategy for health sector reform was elaborated through a series of interagency technical consultations, organized by WHO. Expected outcomes for Member States are: improved equity; strengthened management; increased sustainability and cost-effectiveness of health services; a measurable reduction in the burden of disease; and increased and better use of resources for health, WHO has developed strategic alliances with the international scientific community, intergovernmental organizations within and outside the United Nations system, and nongovernmental organizations and other bodies.

WHO's Advisory Committee on Health Research, which deals with all issues related to research, including ethical concerns, provides a privileged link
resources for health. A collaborative meeting of WHO and Emory University in the United States brought together high-level government representatives of 11 African countries, two African universities, the World Bank, nongovernmental organizations and other institutions, to discuss collaborative support, particularly capacity building for health development in Africa. Similar partnership arrangements in support of health development programmes in Africa and in Asia-Pacific countries were discussed in November 1996 with the University of California, Los Angeles. These developments suggest that, at a time of so-called financial aid “fatigue” for development, intellectual capacity could be harvested to a greater extent than hitherto, with WHO providing a platform to facilitate this process across countries and continents.

Currently under way in collaboration with UNCTAD, the project on trade in health services is examining the difficulties that developing countries face in that domain and the openings it can offer. On the basis of a global analysis and of specific case studies in a number of countries, which will be followed by an expert meeting in June 1997, the project aims to help build up countries’ competence and to identify commercial opportunities. WHO is contributing its expertise to the project in order to provide national health authorities with appropriate advice and guidance on handling the impact of an expansion of trade in services. It will ensure that both the social advantages and disadvantages are adequately analysed, so that developing countries will be in a position to maximize the benefits stemming from such trade, while minimizing any potential cost. WHO’s concern is to guard against the risk of financial interests taking precedence over people’s health.

The fiscal year 1996 saw the highest lending to the health sector in the history of the World Bank, with $2.3 billion in new commitments. The Bank’s increasing country focus emphasizes closer involvement of the client, and attention to quality and results at country level. Initiatives to facilitate WHO/World Bank partnership in the health sector included consultations between Bank representatives and WHO staff at regional level. To facilitate this cooperation in a systematic manner a document, *Procedural strategies for implementation of the recommendations for health development*, was issued.

Following the 1992 International Conference on Nutrition, WHO and FAO have facilitated the preparation of over 140 national plans of action. The international community’s commitment to eliminate hunger and malnutrition was reaffirmed at the World Food Summit in Rome in November 1996. WHO for its part is currently assessing the worldwide prevalence of malnutrition and monitoring global progress towards reducing and eliminating it.

The European Union is increasingly becoming an instrument for cooperation among its 15 Member States in all aspects of public policy which, since the end of 1993, has included public health. The Union is already the largest provider of development assistance and humanitarian aid. It sets norms and standards in a variety of health-related fields, from the marketing of pharmaceuticals to the quality of drinking-water. It is therefore of legitimate concern to Member States that the activities of WHO and the European Union do not conflict with or duplicate each other but rather that the greatest degree of coherence exists for the sake of efficacy, while the two bodies continue to respect each other’s mandate.

WHO has prepared for the European Commission the first report on the state of health in the European Community.
Agenda currently developed between the European Union and the United States, WHO will be called upon to contribute to the networking and alert system on infectious diseases. The joint organization, with IAEA, of the conference “One decade after Chernobyl: summing up the radiological consequences of the accident”, has been the most visible element of a collaboration on nuclear risks.

WHO works with all the major development banks. For example, WHO collaborated with the African Development Bank to revise the health sector policy paper for its lending programme and provided technical inputs to two studies by the Asian Development Bank on its health sector policy priorities and on Emerging Asia. Inputs were also made to health projects financed by the Asian Development Bank in Cambodia, Mongolia, Pakistan, Thailand and Vanuatu. WHO and the European Bank for Reconstruction and Development confirmed the main principles of their mutual cooperation, including the promotion of environmentally sound and sustainable development. WHO met with the Inter-American Development Bank and the Islamic Development Bank to identify issues of common interest and expand cooperation at country level within existing collaborative frameworks.

In the context of its work with regional groups, WHO met in June 1996 with the secretariat of the Association of South-East Asian Nations to establish a broader cooperation framework in support of national socioeconomic development processes. WHO made a first contact with the Asia-Pacific Economic Cooperation secretariat to identify potential collaborative areas of mutual interest. Other partners include the League of Arab States and the Organization of the Islamic Conference, including the Islamic Educational Scientific and Cultural Organization; the Organization of African Unity (for the African regional nutrition strategy, the Dakar and Tunis declarations on HIV/AIDS, and capacity building of African nongovernmental organizations); and the Southern African Development Community (to establish a health sector). Collaboration was resumed with the Common Market for Eastern and Southern Africa in the area of pharmaceuticals.

In its efforts to mobilize resources, WHO concentrates on enhancing collaboration with those Member States which have committed themselves to devoting a part of their gross national products to external development goals. The health sector continues to be a prominent feature of government and organizational consultations. In 1996 two potential new contributors (the Republic of Korea and Singapore) to WHO’s Voluntary Fund for Health Promotion were approached to explore the possibility of their cooperation with the Organization. WHO regularly organizes meetings with potential donors, at which a “menu” of WHO activities is presented. This enables donors to select those which are consistent with their priorities.

Consultation and collaboration with nongovernmental organizations on an informal basis are ways in which WHO is able to seek the advice and opinions of different groups, whether from the professions, medical and clinical sciences, or users of health services. These informal contacts with nongovernmental organizations sometimes culminate, when it has been possible to establish regular and ongoing collaboration, in their admission into official relations. At its meeting in January 1996, the Executive Board brought to 184 the number of nongovernmental organizations in official relations with WHO by admitting the following organizations into official relations: the Thalassaemia International Federation, the European Centre for Ecotoxicology and Toxicology of Chemicals (ECETOC), Alzheimer’s Disease International, and the World Federation for Ultrasound in Medicine and Biology (WFUMB). These nongovernmental organizations had worked on, for example, community education to improve public knowledge and understanding of the hereditary disease thalassaemia and
of Alzheimer disease and other forms of dementia and related disorders, and advocacy for the development of thalassemia control programmes in countries where they are most needed. ECETOC contributed to WHO's work in evaluating the risk posed by specific chemicals to human health and the environment. Ultrasound machines are ubiquitous; however, resource constraints mean that in many countries, doctors, nurses and midwives do not have ready access to expert advice and, in order to overcome this situation, WFTUMB and WHO developed a manual of diagnostic ultrasound to provide guidance on the use of ultrasound in the diagnosis of a wide variety of common conditions at the primary and first-referral levels of health care.

**Information exchange**

To make partnerships effective and mutually supportive, WHO collects, analyses and publishes scientific information and the practical health experiences of countries at all levels of development. The Organization facilitates the exchange of this information to enable appropriate strategies to be formulated to improve the health of populations. The efficient dissemination of information and its management are crucial to this task. They provide a vital means of ensuring that new knowledge is put to good use, and that past lessons guide future action.

Taking full advantage of the economies of time and money offered by advances in **information technology**, WHO uses the services available via the Internet. The audience reached is vast: the WHO home pages attract an average 1.7 million “hits” each month. From these pages, users can access a wealth of constantly updated statistical, technical and practical information, including weekly alerts to disease outbreaks, daily countdowns on cases of specific diseases, country and global statistics, advice on the risks to health and the environment posed by hundreds of industrial chemicals, and vaccinations required for

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**Box 24. How NGOs build awareness of the value of international health cooperation**

Nongovernmental organizations (NGOs) in the United States are increasingly persuading the public and policymakers that sustained support and leadership in international health is important to their country. WHO has many NGO partners in the United States committed to building greater awareness of the need for and advantages of international cooperation in health activities. WHO also works closely with many United States Government agencies such as CDC, NIH and FDA.

New political leaders who are the successors of those who created the United Nations system and WHO 50 years ago need to learn about the complex ways in which domestic and international health are interwined, and about the budgetary savings to be gained from global health cooperation.

NGOs and scientific bodies in the United States now realize that they can play a unique role as partners in international health work, with WHO and with each other. Their contributions are invaluable in building community awareness and support for WHO’s work, including its normative, technical and operational functions, which otherwise would remain poorly understood outside narrow technical and scientific circles. They also explain how WHO’s activities relate to trade, economic opportunity and human well-being in their own country and elsewhere.

For example, Rotary International, WHO’s partner in polio eradication activities worldwide, now acknowledges each year the outstanding commitment of individual legislators to the eradication effort. Industry groups explain to United States politicians how international organizations such as WHO provide the scientifically-based framework of norms and standards that underpin the international rule of law and orderly trade opportunities. The American Medical Association and the American Public Health Association have resolved to work closely with WHO in technical areas. The United States Institute of Medicine has prepared a report from the scientific community explaining the vital interests of the country in global health and the need to support WHO. In June 1996, the National Council on International Health provided the public forum where Vice President Al Gore announced the decision of the President of the United States to direct policy priority towards global health and national action on emerging diseases. University-based WHO collaborating centres in the country work together to develop strategies for building local awareness of international health linkages. Students at Brown University have launched a student-led International Health and Development Association to raise awareness among university students.

All these activities in the United States help to educate new generations of voters and policymakers so that interest and support for international collaboration in health can be sustained for the benefit of all. As new health challenges emerge worldwide in an era of stagnant public resources and increasing public expectations, grass-roots and professional groups everywhere can decide to help shape the global health future. Recognizing and responding appropriately to these contributions is part of the challenge faced by national governments and by WHO in building strong partnerships that will sustain and renew the health-for-all strategy into the 21st century.
international travel through the popular International travel and health, issued annually. Users can find the conclusions reached by experts and consult a host of press releases and fact sheets (almost 150 in 1996 alone).

To facilitate the search for appropriate health information, WHO also offers access to the 60,000 items in its library database, as well as full descriptive and bibliographic details for over 700 recent publications. To date, the full texts of over 12,000 technical documents, ranging in nature from profiles of health conditions in eastern European countries to reports of WHO consultations on bovine spongiform encephalopathy, are stored in the WHO library on optical disks. To enhance its ability to serve as the collective memory for the Organization, the library is collaborating with the Institut Louis Jeanet d'Histoire de la Médecine in Geneva in setting up a resource centre for the study of the history of public health in general and of WHO in particular, a project which aims to offer the catalogue of this important collection over Internet to the international community of researchers in the history of public health. In 1996 WHO also established the first Internet e-mail network of African health librarians. Response was enthusiastic, with over 60 regular participants. Other activities include the launch of the bibliothèques bleues, ready-to-use mini-libraries packaged in a blue tin trunk for use at the district level in Africa. The reach of the 150 WHO depository libraries was extended by a growing network of public reference points – some 900 libraries where comprehensive collections of WHO publications are available for public consultation.

Global electronic networks, maintained by WHO, monitor such critical developments as the spread of antibiotic resistance, levels of air and water pollution, toxic reactions to chemicals, and adverse reactions to medicinal drugs.

As part of its publications programme, WHO brought out in 1996 a second edition of the highly successful guidelines on Cancer pain relief and an interagency report on Trace elements in human nutrition and health. As it updated its mortality database with the latest available and validated data on causes of death, WHO published the World health statistics annual 1995, with data covering the newly independent States of the former USSR. Volume 3 of the tenth revision of the International Classification of Diseases (ICD-10) was published in French and Spanish; Volume 2 was published in Spanish. Teaching health statistics, a set of lessons and seminar outlines to guide teachers of health statistics, first published by the Organization in 1986, was revised and expanded for publication. To facilitate the carrying out by countries of the third round of evaluation of progress in the implementation of their health-for-all strategies, WHO prepared a common framework which was distributed to all Member States.

Most of the books published by WHO in 1996 were designed in-house, as well as hundreds of brochures, newsletters, posters, maps, charts, graphs and slides for most WHO technical programmes. The demand for WHO publications remained high, as reflected in the sales results for 1996, amounting to $4.2 million. WHO's public health policy, with its reliance on community participation and self-help orientation, underlies its language service activities. Some WHO publications have been translated into over 60 languages – from Akan and Bengali to Samoan, Serbian and Swahili – in support of primary health care initiatives and to meet the demand for WHO's knowledge and experience at the country level.

In support of its advocacy role, WHO's health communication and public relations activities during 1996 were marked by a shift towards producing material for the media. Apart from preparing a range of press kits covering events of global interest such as the international conference on mental
health in Madrid, hundreds of telephone requests for interviews or information were handled during the year and many press conferences and special briefings were organized. The World Health Report 1996 was launched in Washington, London, Brussels and Geneva. The briefing on bovine spongiform encephalopathy and Creutzfeldt-Jakob disease was particularly well attended, with more than 200 journalists and 20 different television crews coming specially to Geneva to hear the latest information on this new health problem from the international experts convened by WHO.

**Emergency relief and humanitarian assistance**

As outlined in the World Health Report 1995, WHO’s policy of emergency management for sustainable development provides a bridge between relief work and development proper, the aim being to provide a long-term solution for reducing human suffering and avoiding economic loss due to epidemics, complex emergencies and mass population displacements.

In 1996 WHO supported 58 Member States in activities such as control of infectious diseases and epidemiological surveillance and investigations. Most of WHO’s response programmes focused on coordination and provision of technical support to national and international implementing partners, as well as provision of emergency vaccines, laboratory supplies and equipment for control of epidemics, and training of health workers.

In the light of resolutions adopted by the United Nations Commission on Narcotic Drugs and the World Health Assembly, and to ensure proper implementation of the international drug control system, WHO has taken the lead in developing an international consensus for simplifying the current export-import control procedures to allow timely provision of controlled medicines in emergency situations. It procured pharmaceuticals worth $9 million which were shipped to 37 different destinations. Connected tendering procedures, warehousing and transport constituted an exceptional challenge for the WHO units concerned. The number of types of health kits for use in emergency relief operations was increased to more than 20 and most of them are kept ready for shipment within 48 hours. The first catalogue covering medical supplies with generic specifications for use by field offices in emergency situations was completed in 1996.

Because of the high prevalence of mental health problems and injuries as a result of armed conflicts, WHO implemented integrated mental and physical rehabilitation programmes based on public health principles, notably in Bosnia and Herzegovina, Croatia and Rwanda. WHO also assisted health professionals in these countries in training, categorizing mental health problems, and data collection. Emphasis was placed on community-based care rather than costly hospital services. This also applied to services for victims of physical injuries, who received prostheses, physical therapy, and counselling.

In the context of current international efforts to give priority to the needs of underserved populations, WHO established a programme in 1996 to target the health needs of refugees and displaced persons, as well as those affected by wars and disasters. To complement support provided by UNHCR and other nongovernmental organizations, it prepared special guidelines, entitled Mental health and refugees, for use by those with no special training in psychology or mental health.

The WHO Panafircan Emergency Training Centre in Addis Ababa, Ethiopia, continued to focus on three main areas: training in disaster management, promoting emergency preparedness, and research into health and complex emergencies in Africa. In 1996 training and workshops were organized in Ethiopia, Lesotho, Namibia and Zimbabwe, and a programme for health emergency management training in Africa was designed, strategies and materials prepared, and...
external funding secured. Partners in these activities include the Organization of African Unity, the United Nations Disaster Management Training Programme, UNHCR, the United Nations Economic Commission for Africa, the International Committee of the Red Cross and the major regional non-governmental organizations.

Guidelines for epidemic preparedness and response to cholera and epidemic diarrhoeal diseases, diphtheria, epidemic meningitis, Ebola fever, measles, rabies, typhoid fevers, viral hepatitis and viral haemorrhagic fevers were issued, as well as a manual on universal precautions, including barrier nursing. Ready-to-use kits of key equipment and supplies for rapid response to epidemics were stockpiled at WHO headquarters and regional offices. So as to ensure a rapid response to epidemics, the Organization developed a roster of regional and headquarters staff and external experts who could provide technical assistance to countries in response to epidemics at 24 hours’ notice. This roster currently includes over 50 WHO staff and 20 external experts.

During 1996, WHO cooperated in the assessment and control of epidemics in Angola (meningococcal meningitis and anthrax), Indonesia (dengue haemorrhagic fever), Iraq (Crimean-Congo haemorrhagic fever), Japan (E. coli O157:H7 enteritis), and Sudan (epidemic febrile syndrome). At a meeting coordinated by WHO of ministers of health and the interior of West African countries, Angola and Chad, countries signed a protocol and a cooperation plan for combating epidemics in the subregion.

The process of revising the International health regulations was initiated in 1996. The revisions, and practical guidelines based on them, will be validated and field-tested in several countries in different regions, to assess their validity and applicability before submission to the Committee on International Surveillance of Communicable Diseases for its consideration and subsequent publication.

WHO, in its capacity as health and medical adviser to the World Food Pro-

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**Programme development and management**

Since 1993, WHO has focused on adapting its programme development and management to the profound political and economic changes which took place in the early 1990s, in order to make a more effective contribution to global health work, and in Member States. The task before the Organization is to enhance its comparative advantages, increase responsiveness and improve effectiveness.

Management reform in 1996 took place in the areas of budgeting and accounting, planning and priority-setting, performance measurement, and rationalization of the work of the governing bodies, leading to substantial savings (Box 25). WHO is currently upgrading the existing elements of its management information system to permit rapid flow and feedback of information relevant for programme management at all levels of the Organization. A totally new desktop environment is being introduced, based on powerful workstations and servers using a standard graphical user interface, with Windows NT as the client operating system. This will be supported by the new local area network at headquarters, which should provide high-speed transmission to desktop workstations and modern telephone capacity. A new videoconferencing service was launched at headquarters in
1996, with sessions taking place between universities, ministries of health and organizations located in Geneva, Washington, Bangkok and Barcelona.

The financial situation of the Organization, owing to a shortfall in the collection of contributions, remained a central concern. The question of available resources to enable the further development and implementation of approved programmes was a key subject of discussion throughout 1996. A number of governments, however, continued to provide extrabudgetary funds to many WHO programmes both globally and regionally. The long-standing and constructive dialogues with government officials continued in 1996. Finland, Ireland, Luxembourg, the Netherlands, Norway, Sweden, and the United Kingdom held formal policy and programme reviews with the WHO secretariat showing the importance attached to WHO’s work and the efforts being made by each government to ensure that additional funds are made available to various programmes for the attainment of agreed targets.

In the face of a substantially reduced staffing level, continued and sustained efforts were made in seeking efficiency improvements in the general administration. Support provided to WHO’s technical programmes. These efforts have resulted in the elimination of certain services and a significant reduction in the levels of others. Economic opportunities are being explored for further contracting out of certain maintenance services, and for taking advantage of the intense competition prevailing in the global telecommunications market.

During 1996 far-reaching reforms in the Organization’s personnel policy, aimed at better responding to global change and the needs of Member States, were either implemented or under study. Significant changes were made with regard to staffing patterns, types of contract, staff development and performance appraisal. While the total number of posts in the professional and higher-graded categories decreased from 1558 in 1994 to 1345 in 1996, the proportion of women in these categories remained at 26%.

### Box 25. Reform of WHO’s governing bodies

The World Health Assembly, in approving programme budgets for recent years, has consistently emphasized the need to shift resources from the allocation for governing bodies to priority programmes. The expenditure for governing bodies has, therefore, been closely scrutinized with a view to making economies. The result in 1996:

- the duration of Executive Board and Health Assembly sessions has been shortened;
- the number of pages of documentation for sessions of the governing bodies has been reduced;
- support provided to the sessions has been rationalized.

Regional offices have instituted similar measures to reduce the cost and rationalize the work of regional committees.

Shorter sessions. In the programme budget for the financial period 1996-1997 the duration of the Health Assembly in 1996 was cut from 9 days to 5½ days and that of the January 1997 session of the Executive Board was cut by two days, as was the 1997 Health Assembly. Shortening the sessions has been accomplished by:

- compressing formalities;
- limiting the number of items on the agenda;
- establishing timetables for completion of the work programme;
- starting meetings earlier; and
- limiting time allowed to speakers.

The shorter Health Assembly in 1996 was generally judged a success — it adopted 29 resolutions and completed its work on time. Delegates used the time available judiciously, holding informal discussions on resolutions prior to formal discussions in main committees and convening drafting groups during breaks.

Documentation. The number of pages of documentation for Executive Board and Health Assembly sessions in 1996-1997 has been reduced to 60% of the 1994-1995 level. The cost of editing, translation, word-processing, printing and mailing has been reduced, and participants in the governing bodies have also appreciated the sharper focus given to the documents by the shorter format. In order to ensure timely receipt despite the end-of-year holidays, documents for the January 1997 session of the Executive Board were sent by electronic mail to members of the Board who had provided electronic mail addresses.

Support services. Overtime paid to support services for governing body sessions was identified as a significant item of expenditure. In order to economize, a larger number of headquarters secretariat staff are now requested to provide support. Most staff work on shifts, but where overtime is necessary, it is compensated with time off rather than payment.

### Regional highlights

A characteristic feature of WHO is its decentralization. It has “regional organizations”, of which there are six, each consisting of a regional committee and a regional office. The regions vary widely in size, socioeconomic development, epidemiological characteristics, culture and history. Highlights are presented in the following pages.
**Africa**

Although some countries in the African Region continue to experience political and social unrest, WHO has made every effort to minimize disruption in its work. Improvements in telecommunications and electronic mail systems have facilitated contact within and outside the Region.

Like other parts of the world, Africa is going through rapid social changes and new lifestyles are emerging, some of which lead to hazardous behaviours, including an increase in alcohol and tobacco abuse, affecting mainly the young. Awareness of the health risks of smoking is still low, and powerful and well-organized antismoking organizations do not exist. Tobacco is becoming a public health problem in the Region and deserves the attention of all countries, especially in the form of involvement of top-level policy-makers and a firm political will. African countries need the support of the United Nations agencies if these efforts are to succeed. They are willing to consider the diversification of their crops and to eventually replace tobacco cultivation by other commercial crops if they have a guarantee that it will not lead to more economic hardship. All Member States have now appointed a national focal point to manage their control programme, developed an education programme designed to sensitize the public to the health risks associated with tobacco use, and introduced teaching modules into their school curricula.

Cancer in the Region is often associated with infection, e.g. hepatitis B (liver cancer) and Schistosoma haematobium infection (bladder cancer). In order to combat these cancers, countries have started to incorporate hepatitis B vaccination in their immunization programmes (e.g. the Gambia and Zimbabwe). Countries have also started mass chemotherapy with praziquantel against schistosomiasis, and improvement of water and sanitation in communities at risk.

A number of countries have begun to train health workers in the prevention and control of cardiovascular diseases in the communities. Guidelines for the management of non-insulin-dependent diabetes mellitus (NIDDM) were published as a consensus document for the whole of Africa by IDF and WHO. A review of human resource development for the prevention of blindness was completed in June 1996. More nurses or medical assistants are to be trained as cataract surgeons and plans are at an advanced stage to open another training centre for countries in central Africa.

A study carried out in 1995 showed that 45% of African countries have prepared a national programme on mental health, and 32% on prevention and control of substance abuse; 17% have set up a national coordination mechanism for implementation of mental health programs.
activities; 32% have integrated mental health into primary health care services; and 25% have a community-oriented programme. WHO sponsored the seventh technical meeting of the African group for action in mental health, which discussed mental health among children and adolescents in the Region. In the next few years, priority will be given to the elaboration of national mental health policies, training of health workers in mental interventions, particularly in countries which have suffered war, and promotion of violence prevention. Mental health activities will be included in the minimum district package of health activities.

In the field of oral health, two countries have initiated preventive oral health care programmes as part of community primary health care and in schools, using non-oral health personnel in selected districts. A major achievement is the preparation of models of oral health education and promotion materials which countries can adapt for use in health centres, schools and outreach campaigns. This reflects the need for emphasis on preventive and promotive measures to control oral disease. For the next years, regional priorities will include the development of a regional oral health strategy and plan of action. Research activities on oral diseases of regional interest will be promoted as well as appropriate training programmes for oral health workers, particularly at the district level.

Further progress was achieved in the eradication of poliomyelitis and dracunculiasis, malaria control and tuberculosis prevention and control. An intensification of advocacy, such as the "Kick polio out" campaign in South Africa, has resulted in increased financial support for various interventions, notably from Rotary International, USAID and several nongovernmental organizations. Other achievements include the extension of the implementation of directly-observed short-course chemotherapy for tuberculosis, more vigorous promotion of the use of insecticide-impregnated bednets and closer monitoring of resistance to antimalarial drugs. Priority was given to interventions aimed at reducing infant and child mortality. The implementation of the Integrated Management of Childhood Illnesses (IMCI) has already begun in six countries. In 1996, WHO organized a coordination meeting with the interested partners and a consensus was reached on the strategy for its implementation. The prevention and control of HIV/AIDS remain major concerns, and a new regional strategy was launched in September 1996.

Remarkable progress was made in the area of emergency and humanitarian action. The Regional Office is now equipped to address the emergency and humanitarian problems that have been on the increase in the Region, and its activities are closely guided by a standing committee on emergency situations. Training was organized for WHO Representatives in dealing with emergency and humanitarian problems.

In view of the critical role that nurses and midwives play in the implementation of primary health care programmes, a training needs assessment was undertaken, and the information generated will be used to develop appropriate programmes. There were major changes in the management of the WHO fellowships programme, so that most countries of the Region now have a fellowship selection committee, and in 1996 84% of the fellows were placed in African training institutions.

WHO's advocacy efforts centre on assisting Member States to consolidate their capacity and to create an informed public opinion and empower individuals, families and communities to take full responsibility for the promotion of their own health and that of their environment. Action plans covering the period 1996-1998 were elaborated for several countries.

Thus, the various problems or constraints that arose were taken as challenges, and appropriate strategies were developed to cope with them. Past experience makes the Region look to the future with hope. Despite all odds, with prudent and transparent management, sincerity of purpose, genuine and effective collaboration among the various partners, effective leadership from WHO, and more peace and stability in Member States, remarkable health development in the Region will not be the illusion that it may seem to many.
The economic situation of the Region of the Americas during 1996 was characterized by modest inflation and modest growth rates, and the economic crises suffered by two major contributors did not spread to the other countries as feared. In spite of continued widespread poverty and inequality that pose a potential threat to political stability, stable democracy is the norm.

The Pan American Health Organization and WHO (PAHO/WHO) have devoted substantial efforts in the Americas to establishing relations with new partners, including public sectors other than health, the private health sector, nongovernmental organizations and the media, as well as working towards providing ministers of health with arguments to support the view that investments in health have a positive effect on subsequent economic growth. The Inter-American Development Bank and ECLAC are joining PAHO/WHO in a study which will attempt to demonstrate the relationship between investments in health and economic growth, as well as how investments in health can contribute to reducing income inequality and improving such traditional health indicators as life expectancy and infant mortality rates.

In order to advocate for a different perception of health and to try to put health higher in the public agenda and the public debate, the Organization has actively supported the health aspects of the subregional integration movements in the Southern Cone (MERCOSUR), the Caribbean (CARICOM), the Andean region, and in Central America, giving advice and help as required in the firm belief that health as a critical aspect of functional cooperation can be a common platform for productive discussion and understanding.

As part of the process of reviewing its work, the Organization launched an initiative on "Rethinking International Technical Cooperation in Health" (RITCH) to re-examine different aspects of technical cooperation within a process aimed at improving effectiveness.

One of the critical components of technical cooperation is the mobilization of resources. PAHO/WHO has worked hard to establish partnerships with the major multilateral funding institutions such as the World Bank and the Inter-American Development Bank in order to establish complementarity of expertise to the benefit of countries and not necessarily seeking grants from these institutions.

In Latin America and the Caribbean, mortality from all causes was recently estimated at about 3 million. Of this, communicable, maternal and perinatal causes accounted for 293,000 (9.8%), noncommunicable diseases accounted for more than 1.7 million
<table>
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<tr>
<th>Selected health-for-all (HFA) indicators</th>
<th>1980</th>
<th>1996</th>
<th>2000</th>
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<td></td>
<td>Average</td>
<td>Maximum</td>
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<tr>
<td>Life expectancy at birth (years)</td>
<td>66</td>
<td>75</td>
<td>52</td>
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<tr>
<td>Infant mortality rate (per 1000 live births)</td>
<td>50</td>
<td>120</td>
<td>10</td>
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<tr>
<td>Under-5 mortality rate (per 1000 live births)</td>
<td>65</td>
<td>171</td>
<td>13</td>
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Deaths (57.9%), almost 800,000 of which were due to cardiovascular disease (45.4%), 340,000 to cancers (19.7%) and 85,000 to diabetes (4.9%).

Unlike Canada and the United States, where reductions of around 15% in the proportional mortality from diseases of the circulatory system have been seen since 1980, many countries in Latin America and the Caribbean are experiencing an increase attributable to these causes, in all adult age groups. The underlying risk factors such as high fat diets, sedentary way of life and smoking are established at a young age, and require lifestyle modification. Nonetheless, secondary interventions are also effective, including a more active role for clinical preventive medicine throughout life.

Most countries have not yet developed population data on cardiovascular disease risk factors, but those surveys which have been carried out generally reveal high prevalence rates. The prevalence of hypertension in the English-speaking Caribbean is generally in the range 20-30%. Some countries are developing national strategies for the prevention of ischaemic heart disease and stroke (e.g. Argentina, Chile, Costa Rica, Cuba, Uruguay), while others have not yet systematically assessed their impact and potential for control.

The impact of cancer throughout the Americas has greatly increased (by 73% overall from the early 1960s to the late 1980s), as shown in a recent 25-year analysis. Proportional mortality from this cause has increased in virtually every country. The leading cancers in Latin America and the Caribbean are: cervix, stomach, mouth-pharynx, oesophagus, breast, lung, liver, colorectum, lymphoma and leukaemia. The rates for cervical cancer, the leading cancer site, are among the highest in the world. While stomach cancer rates are steadily declining, those for breast cancer are increasing. Unlike North America, where a decline in lung cancer is now being experienced, rates are still rising throughout Latin America and the Caribbean. Programme priorities in most countries include tobacco control, while an increasing number are considering more cost-effective screening strategies for cervical cancer. A major unmet need in these countries is palliative care for persons with terminal cancer at all ages.

The recently established CARMEN project (integrated action for the multifactorial reduction of noncommunicable diseases) focuses particularly on cardiovascular disease prevention, but also aims to address the priority areas of cervical cancer prevention, diabetes management and injury prevention. Diabetes is the leading cause of blindness in the Americas, the leading cause of nontraumatic amputations and the leading cause of renal failure. The Declaration of the Americas on Diabetes, proclaimed in Puerto Rico in 1996, is being used as a launching pad for programme development in the Region.

The newly adopted regional plan of action on violence and health is expected to strengthen the commitment of the governments to act forcefully and intersectorally to attack the causes and diminish the consequences of violence.

As of March 1997, the total number of confirmed cases of measles in Latin America and the Caribbean was 1464, compared with 6489 cases reported in 1995. Neonatal tetanus is decreasing.
Eastern Mediterranean

1996 has been a year of great variety with occasional setbacks. Progress in public health has been steady. Countries that had already achieved reasonably good levels of health have managed to climb even higher with some of them reaching their targets before the target dates. Other countries with less favourable circumstances, and those caught in the grip of strife and upheavals, have also managed to show some progress albeit uneven, and the after-effects of the 1990-1991 Gulf War are still affecting the lives of millions of people.

Among the significant achievements in 1996, 11 countries continued to report no new cases of poliomyelitis during the year and seven of them have reported no cases for three or more consecutive years; 17 countries reported immunization coverage of 90% and above. National immunization days were held in 20 countries during 1996, including war-torn Afghanistan, and considerable progress is being seen in countries whose immunization coverage has been inadequate. However, the situation in Afghanistan and Somalia is not conducive to proper planning; efforts and initiatives continue to be made in these countries so that the whole Region will achieve the poliomyelitis eradication target.

Another disease on its way to being eradicated from the Region is dracunculiasis. Pakistan has been certified by the Global Commission on Dracunculiasis Eradication to have eradicated the disease. National efforts to achieve eradication in Sudan and Yemen are progressing and it is hoped that the disease will be completely eradicated from the Region in the near future.

Various elements of the regional strategic plan in response to emerging and re-emerging diseases, adopted by Member States in 1996, are being implemented at both national and regional levels.

Special efforts were made during 1996 in the fight against tuberculosis. These efforts were directed specifically towards introducing the strategy of directly observed therapy, short-course (DOTS) and collaboration between countries in important areas, such as tuberculosis control among high-risk groups, particularly refugees and displaced persons.

Demographic and socioeconomic changes in the Region over the last two decades have resulted in changing disease patterns in many countries and a consequent rise in lifestyle-related diseases. Reliable data on the magnitude of noncommunicable diseases are lacking but evidence suggests that cancer is now the leading cause of death in several Member States. Smoking, which appears to have increased in the Region faster than in most others, and newly acquired dietary habits, are among the most important lifestyle factors that appear to be responsible for a substantial
The regional programme on essential drugs is placing increasing emphasis on promoting local drug industries and strengthening national quality assurance systems. A regional plan for quality assurance of biologicals has been formulated and the programme is also supporting the publication of national documents covering various areas of special importance to the national drug formulary. The development of blood transfusion services in the Region has continued according to plan, and is being strengthened through collaboration with the Arab Gulf Programme for United Nations Development Organizations (AGFUND). Provision of safe blood and blood products based on regular voluntary nonremunerated donation remains the target.

It is now widely recognized that the health priorities of countries are not matched by the curricula of medical education institutions. 1996 saw a significant response to the recommendations of a ministerial consultation on medical education and health which was held at the end of 1995.

The basic development needs (BDN) initiative has met with considerable success to date. Through this approach, villagers in undeveloped and underserved communities have been encouraged to become self-reliant, receiving support in initiating income-generating projects, improving water availability and access to safe water and sanitation, and raising levels of nutrition, female literacy and community participation. The loans they received have been returned before time, and remarkable progress has been achieved in a comparatively short period. This is an appropriate approach for all communities, whether urban or rural, poor or comparatively well-off, and one that can incorporate many of the initiatives advocated by WHO.

The basic development needs/quality of life concept is gaining ground in the region. At present, 11 countries have embarked on BDN programmes, albeit at different rates. Replicability—the potential to expand, extend or transfer model or pilot schemes to wider applications—is crucial to these programmes; and replication of BDN schemes is increasing. Somalia, despite its civil strife, is one of the countries where BDN activities have been expanding.

Basic development needs replication has taken place in urban settings (for example, in Egypt) as well as rural ones. The BDN partners that have contributed to such replication are many and varied: local nongovernmental organizations; organizations within the United Nations system, such as UNICEF (in Egypt and Jordan), IFAD (in Somalia) and UNDP (in Morocco); and universities and medical schools.

A spirit of reform permeated the annual round of joint government/WHO programme review missions, which monitor and formulate programmes of collaboration. Measurable targets set on the basis of national priorities aimed at producing identified products through clearly defined activities. Other health-related sectors began to be involved in the process of health policy and planning.
Europe

Economic development has been extremely varied in the Region. In western European countries, slow economic growth of about 2.4% per annum continued. The countries of central and eastern Europe as a whole managed to reverse the previous trend, achieving average growth rates of about 4%, although there were considerable variations between individual countries. For most of the newly independent States the situation continued to be bleak, although in some countries certain signs of recovery in gross domestic product have been observed recently.

Overall, health improved in many western European countries; notably, the reported number of new cases of AIDS dropped for the first time. Trends in life expectancy and infant mortality showed signs of improvement in central and eastern Europe. For the first time since the late 1980s, life expectancy increased slightly in the Baltic States and the Russian Federation. However, the situation in the newly independent States in general was poor, and has deteriorated considerably with regard to noncommunicable diseases. Equally alarming in these countries were the steep increases in mortality from external causes of injury and poisoning, par-

particularly homicide in relative terms. Mortality trends in central, eastern and western Europe were fairly stable or slightly declining.

The devastation caused by armed conflicts in the Region reached levels not experienced for the past 50 years. The end of war in Bosnia and Herzegovina in 1996 was welcomed, although the task of reconstruction will doubtless require the combined efforts of the whole international community for many years ahead. WHO has been involved from an early stage, contributing to setting up a framework to rebuild the country’s health system and chairing the sectoral task force on health. In Croatia, the Organization has been working very closely with the Government in its efforts to draw up a master plan (in line with its updated health-for-all policy) for reconstruction of its war-damaged health care facilities.

WHO has been operating in the area around Chechnya, for example by helping to implement a project which included provision of vitally needed laboratory kits, drugs, vaccines and medical equipment. Humanitarian assistance was also provided to Armenia, Azerbaijan, Georgia and Tajikistan.

The catastrophic socioeconomic development for the hundreds of millions of people in the more eastern part of the Region has created rapidly growing health inequity, rising criminality, changing cultural and social norms and increasing health problems. In many cases, health services lack essential drugs, equipment and often even the
funds to pay personnel. In addition to the long-term trend of increasing cardiovascular diseases and cancer, the people in the newly independent States in particular, but to some extent also those of central and eastern European countries, face a rapidly increasing rate of accidents and homicides, as well as suicides and other consequences of severe stress.

In order to help reduce the public health problem of alcohol abuse, WHO has produced a series of nine technical documents providing an up-to-date review of major international developments in that area.

In 1996, the Organization published the conclusions of the 1995 Pan-European consensus conference on stroke management, which identified a series of quality indicators.

A quality of care model developed by WHO was also successfully used to improve the health of people with diabetes, not only in western Europe but also in eastern Europe in the EUROHEALTH countries that have adopted this new approach.

The diphtheria epidemic that broke out in the Russian Federation in 1990 has since affected all 15 newly independent States, with over 50 000 cases reported. On the basis of the difference between projected and reported cases, an estimated 100 000 cases appear to have been prevented as a result of the combined efforts of the Member States involved, with international cooperation.

A new and rapidly increasing threat was the reappearance of malaria in Azerbaijan and Tajikistan. In Tajikistan, the threat grew particularly serious in 1996, with some 100 000 cases occurring, including cases of the deadly falciparum form of the disease. In 1996, with assistance from WHO experts, plans for malaria control in Azerbaijan, Tajikistan and Turkey were elaborated and submitted to the international donor community for financial support. Countries bordering Tajikistan will receive assistance in preventing malaria spread and in treating imported cases.

In most newly independent States and some countries of central and eastern Europe, morbidity and mortality rates for tuberculosis have increased sharply since 1995, with two-thirds of notified cases in young adults. The lack of antituberculosis drugs in most of these countries results in inadequate treatment, increased mortality and greater prevalence of the disease. Furthermore, multidrug resistance is hampering control efforts. Because of migration, the decreasing trends of tuberculosis that were earlier seen in western Europe and parts of central and eastern Europe are now levelling off.

Particularly disturbing in recent years has been the very fast rise of syphilis, particularly in the newly independent States but also in central and eastern Europe; Lithuania, for example, has shown a six-fold increase in the last three years. This development is not only a grave problem in itself, but it also represents a great risk for increasing AIDS transmission in this part of Europe. A sharp rise in the incidence of HIV infection is now occurring in Belarus, the Russian Federation and Ukraine.

The sudden discovery in March 1996 of a new variant of Creutzfeldt-Jakob disease and its possible link to bovine spongiform encephalopathy has given rise to much concern. WHO responded to this new threat by organizing several technical meetings, and by planning a surveillance system.

Analysis of the outcome of 4.5 million births in the European Region indicated that some countries of central and eastern Europe might have more cost-effective quality of care programmes than many western European countries. When gathering information for such comparative analyses, it was essential that data were internationally accepted - a WHO task - and that the confidentiality of both the patient and the care provider was respected.

WHO in Europe has stepped up its effort to spread knowledge about its activities, in order to create a better understanding of its role, by issuing a new quarterly newsletter and intensifying public relations activities in connection with significant events.
South-East Asia

The Region is undergoing a profound transition: economic reforms, growing urbanization and political, social and cultural changes. In countries dominated by poverty and illiteracy and a heavy burden of disease, more change also needs to take place in an area that touches the lives of all: health. In today’s global village, any breakthrough achieved in this populous region is bound to have an impact on the health status of the world. The health scenario has altered significantly in recent years. With changing lifestyles and demographic patterns, the health needs of the people are also changing. The size, population, literacy levels and economic status of the countries of the Region vary considerably. Literacy rates range from 41% and 14% for males and females respectively in Nepal to 100% for both sexes in the Democratic People’s Republic of Korea.

The decline in crude birth and fertility rates, together with the increase in life expectancy, have resulted in the progressive ageing of populations. While poverty, malnutrition and infectious diseases are still prevalent, diseases associated with affluent countries, such as ischaemic heart disease, cancer and diabetes, have also taken hold. The declining crude death rate and increasing life expectancy, together with unfavourable lifestyles, have resulted in a substantial rise in chronic diseases, even among the younger generation. In India alone, nearly 800,000 people die from ischaemic heart disease and more than 600,000 from stroke each year, while the overall prevalence of rheumatic fever/rheumatic heart disease is of 11 per 1000 population. Oral cancer attributable to tobacco use is also of concern.

More than 50% of all deaths in Thailand are attributable to noncommunicable diseases (including accidents and other forms of violent death). According to the most recent estimates, the incidence of cancer was 154 per 100,000 in males and 129 per 100,000 in females, while cardiovascular diseases accounted for 17% of all deaths. Moreover, the prevalence of hypertension was found to be 10% in urban areas, 14-17% in slum areas and 3-4% in rural populations.

The death rate from cancer in some countries is almost 40 per 100,000 population per year. The number of new cases of cancer in 1992 in respect of a few cities in India was about 80 per 100,000 population, and in Thailand it was about 130 per 100,000. Cancer of the breast, cervix, mouth and pharynx dominated the clinical picture in India, while in Thailand, liver cancer is the most frequent malignancy among males, with lung cancer second. These two cancers account for 44% of all new malignancies in men. In women, cervical cancer is the most frequent, followed by liver cancer, breast cancer and lung cancer. These account for 52% of all new malignancies in women. Accidents and injuries constitute 9-10% of the total mortality in India.
### Selected health-for-all (HFA) indicators

<table>
<thead>
<tr>
<th></th>
<th>1980</th>
<th>1996</th>
<th>2000</th>
<th>No. of Member States which have not met the HFA targets in 1996</th>
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<tbody>
<tr>
<td>Life expectancy at birth (years)</td>
<td>54</td>
<td>68</td>
<td>63</td>
<td>73</td>
</tr>
<tr>
<td>Infant mortality rate (per 1000 live births)</td>
<td>113</td>
<td>160</td>
<td>73</td>
<td>112</td>
</tr>
<tr>
<td>Under-5 mortality rate (per 1000 live births)</td>
<td>153</td>
<td>219</td>
<td>97</td>
<td>145</td>
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It is estimated that there are a total of 11.5 million blind persons in the Region – almost one-third of the world total. Cataract accounts for an average of nearly 70% of the blindness. The cataract backlog needing surgical intervention is estimated to be 8 million.

A prolonged epidemiological transition seems under way, and its course and outcome will depend largely on trends and interactions in four key areas: population growth, urbanization, environmental degradation and poverty. The double burden of chronic and infectious diseases is stretching the resources of countries in the Region as never before. Tuberculosis claimed 1.2 million lives in 1995; for children under 5, pneumonia and diarrhoea remain major killers (1.4 million and 1 million deaths respectively every year). To further complicate matters, drug-resistant strains of tuberculosis and malaria have appeared. The surveillance and epidemiological analysis of infectious diseases show that some of them (e.g. poliomyelitis, neonatal tetanus and leprosy) are on the verge of eradication or elimination, while others (e.g. plague and malaria) that had almost disappeared by the 1970s, have reappeared. In addition, there are new diseases such as cholera caused by strain O139 and HIV/AIDS.

There are sharp inequities within countries that broad statistics do not reveal. The rich are getting richer while the poor are getting poorer. There is a growing number of specialty hospitals offering the most advanced and sophisticated treatment, while in many areas safe drinking-water is not available and primary health care services are lacking. A large percentage of the people live in abject poverty, sometimes so extreme that even a severe bout of malaria puts a family into debt for years. Women’s status in the Region has not improved markedly even though it is widely acknowledged that women’s full participation is essential for sustainable development. Maternal mortality ratios are unnecessarily high and unsafe abortions cause a large number of deaths. Female literacy continues to be low in several countries.

To effectively integrate health into the development process, the government health sector has to move beyond its present confines and interact with other sectors such as environment, education and housing, to define health-related responsibilities. A partnership between the government and community will foster participatory relationships that will not only make programme implementation more effective but also facilitate local problem-solving. Although it is now realized that health measures are crucial for economic development, this recognition is not sufficiently translated into adequate political commitment in most countries. Accountability for health must be accepted at the highest level of government.

Sustainability is a key issue, and one of the major challenges that governments will have to face as the countries move into the 21st century. Much of the success of health programmes to date—such as that for immunization—is due to investment in terms of financial and human resources by countries, WHO, other agencies of the United Nations system and bilateral donors. Increasingly, the countries of the Region are now having to meet the challenge of sustaining such programmes on their own.
Western Pacific

Year after year, WHO in the Western Pacific implements its programmes to improve the health and quality of life of the peoples of the Region, yet the size of the task does not get smaller as the problems are dealt with. Each year the population grows, new diseases emerge or old diseases re-emerge, and health systems face new challenges. Meanwhile, the funds available are eroded by inflation and the real cost of operations increases. There is now more need than ever for prioritization exercises affecting all levels, in order to ensure delivery of a compromise programme with reduced funding. Fortunately, support from extrabudgetary partners has allowed WHO to accelerate the conduct and guarantee the success of the priority programmes.

Rapid industrialization and urbanization in the Region, social change and ageing of populations are contributing to increased prevalence of chronic diseases, but prevention and control of infectious diseases also continue to demand close attention.

Over the last decade the epidemiological situation for malaria has significantly improved although it is still a serious concern. The number of cases detected by microscopy in 1994 was more than 50% lower than in 1984. Incidence decreased by 90% in China during the same period, but remains high in Cambodia and the Lao People’s Democratic Republic. In the Solomon Islands, a multisectoral “healthy islands” programme has reduced the number of malaria cases in the first 10 months of intensified malaria control efforts in 1996 by 77% compared to the same period in 1995.

The eradication of poliomyelitis has almost been achieved, while routine immunization of infants has been maintained at over 90% regionally. The elimination of leprosy is progressing, with special projects in six countries where the disease is still highly endemic. Among the other infectious diseases, diarrhoeal diseases and acute respiratory infections are the most important causes of death among children under 5. In a number of countries and areas there are now indications of a downward trend in infant and child morbidity and mortality, which can be attributed to improved sanitation and successful health interventions such as better case management.

The notification rate of tuberculosis in the Region has increased by 30% over the last decade. This is partly due to the improved reporting system. Tuberculosis control is being strictly implemented through the WHO policy package known as DOTS, already with promising results. For example, at subnational level in Cambodia, a cure rate of more than 80% has been achieved. The plan is now to implement the programme nationwide.
A task force for outbreak response was established in April 1996, and dealt with an outbreak of diphtheria in the Lao People’s Democratic Republic in July. Governments were supported in controlling outbreaks of cholera in Mongolia and the Philippines in August and September.

The steps being taken to improve reproductive health are already bringing positive results, although improvements in the levels of maternal morbidity and mortality have varied widely between and within countries. In 11 countries of the Region, the maternal mortality ratio remains above 100 per 100,000 live births and 100 or more per 100,000 live births in some isolated or underserved communities. However, better access to fertility regulation methods resulted in a significant decline in the total fertility rate in the Region from an average of 5.1 in 1960 to 2.1 in 1995. This has contributed considerably to reductions in maternal morbidity and mortality. In Malaysia and the Republic of Korea, for example, the maternal mortality ratio has dropped by two-thirds since 1960.

At the other end of life, cancer is among the leading causes of adult mortality in 24 countries/areas. Cardiovascular disease is one of the three leading causes of adult mortality in 28 countries/areas. Behaviour changes are necessary to reduce the incidence of these degenerative diseases. The principal approaches are promotion of healthy lifestyles and health-supportive environments, and advocacy on avoidance of risk factors provided through various settings, such as the home, the school and the workplace. Regional guidelines on the development of health-promoting workplaces will be available in 1997.

There is much more still to be done. All over the Region, governments have endorsed and are working with WHO to implement the concepts and directions of the policy document ‘New horizons in health’. Healthy islands and healthy cities activities are becoming very popular. These activities represent a change in emphasis from what can be done at the national level, to how municipal authorities, community organizations and individual households can best be supported in developing and implementing community-based initiatives.

Serious and far-reaching changes have been made in the health services and the scope of work of health personnel. Health systems reform continues to be a priority. Issues being faced include delivery of health care services, rising costs, equity of access, quality assurance and efficiency. WHO has worked with countries to reorient both basic training and continuing education of health professionals towards current and future needs. Postgraduate education in the Pacific is a priority and is progressing rapidly.

The question facing WHO in the Region now is not the ability to achieve significant results in health, but how it can be done with continually diminishing funding. WHO must act decisively to provide support to the areas where real progress can be made, and be seen to be made.