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INTRODUCTION

The period covered in this report includes the 50th anniversary of the founding of WHO on 7 April 1948. It therefore seems appropriate to cast our eyes back, not only over the last 12 months, but to the very earliest days of WHO in the Western Pacific Region. Part 2 of my report for the Regional Committee, which is contained in a separate volume, is a history of WHO in the Western Pacific Region over the last 50 years. Preparing this volume has enabled us to reappraise our role in the Region and to recognize both what has been achieved and what remains to be done.

Comparing the current report of activities over the last 12 months with the first Report of the Regional Director provides instructive examples of how some aspects of WHO's work have remained constant, while others have changed out of all recognition.

Some of the diseases which engaged the attention of WHO in its first years are, thankfully, either greatly reduced or no longer with us. For example, yaws, a crippling and disfiguring disease that is caused primarily by poor standards of hygiene, affected some 50 million people worldwide when WHO was established. Almost all of these were in tropical areas. The disease has now virtually disappeared from the Region, following mass treatment with penicillin in the 1950s and 1960s, in many cases initiated by WHO. Like yaws, poliomyelitis is a disease that primarily affects children. Here too great progress has been made over the last 50 years. The last reported case of poliomyelitis in the Region had onset of illness on 19 March 1997 and the process to certify the eradication of poliomyelitis is well underway.

Other diseases that are referred to in that first report still concern us today. One of these is malaria. The present report details WHO's continuing support for malaria prevention and control, including support for the use of artemisinin, promotion of pyrethroid-treated nets and vector control activities. The fact that malaria still exists in the Region should not, however, blind us to the successes that have been achieved in the last 50 years. There were 40 million cases in the Region in 1948 and only 2.5 million in 1996. The indications are good that the regional target of a 50% reduction in malaria incidence and an 80% reduction in mortality by 2000, based on 1992 figures, will be reached. This is a considerable achievement, especially when seen against a backdrop of a resurgence of malaria in other parts of the world.

Not only have some diseases stubbornly resisted all attempts to eradicate them, other new and re-emerging diseases pose threats that could never have been predicted 50 years ago. AIDS is the most widely publicized of these, but outbreaks of dengue fever and dengue haemorrhagic fever and the discovery of the first human cases of influenza A (H5N1) in Hong Kong have also posed threats to the health of the Region in the last year.

Public health administration in the Region has improved out of all recognition in the last half century. The first Report of the Regional Director described a Region still recovering from the ravages of war, with health services which were, in most cases, capable of providing only emergency care. The sophisticated and effective health systems that are now in place in most of the Region are a tribute to the collaboration between Member States and WHO that has flourished since 1948. Yet, as this report of the last 12 months' activities shows, improving health services is a never-ending process. To take the area of human resources as an example, in the last year WHO has been involved in health workforce planning, education and training, fellowships, and publications. Perhaps more than any other area, human resources development demonstrates the continuity of our work and the need for us to build on what Member States and the Organization have already achieved.

Comparing the first Report of the Regional Director with this year's, the most striking development has been the shift from curative to preventive care. To a certain extent this is a consequence of more prosperous times, yet it is also indicative of a fundamental philosophical shift in our perception of how human health can be improved. In the last year, WHO's health promotion activities in the Region have stretched across a range of areas, and have included implementing the Action Plan on Tobacco or Health, promoting healthy environments such as schools and workplaces, and reducing high-risk sexual behaviour. As we shift our gaze from the last to the next 50 years, it seems probable that this move towards preventive care, particularly with regard to illnesses related to changes in lifestyle, will
increase. Thus, despite the enormous advances that have been made, we should regard our achievements to date simply as a prologue. Our main work still lies ahead.

Regional Director
Chapter 1. The Regional Committee

The forty-eighth session of the WHO Regional Committee for the Western Pacific was held in Sydney, Australia from 22 to 26 September 1997. Dr Michael Wooldridge (Australia) was elected Chairman and Dr Ponemek Daraloy (the Lao People’s Democratic Republic) was elected Vice-Chairman. The English and French rapporteurs were Mr Shigeki Tsuda (Japan) and Dr Maguy Jean-François (France).

The report of the Regional Director on the work of WHO during the period 1 July 1996–30 June 1997 was presented to the Committee. Part 2 of the report presented an in-depth review entitled “Human resources for health in the Western Pacific Region: 1978–1997”. A decision selecting “Fifty years of WHO in the Western Pacific Region” as the topic for Part 2 of the 1998 report was taken.

The Committee discussed the report of the Sub-Committee on Programmes and Technical Cooperation on Renewing the Strategy for Health for All: Draft Regional Policy for the 21st Century and the draft global document Health for All in the 21st Century. As a result of these discussions, the Regional Committee asked the Regional Director to revise the regional policy document and to forward the revised document to the Director-General as part of the regional contribution to the global renewal of health for all. The Committee also asked the Regional Director to suggest to the Director-General that he develop best practice guidelines for WHO to use when contemplating and negotiating partnerships for health with the for-profit private sector. Both requests were contained in resolution WPR/RC48.R4.

The points for discussion agreed upon by the special group of the Executive Board for the Review of the WHO Constitution were considered by the Committee and the summary records of its discussions forwarded to the Director-General. Inter alia, it was proposed that since the Western Pacific Region had the largest population, its allocation from the regular budget should be increased accordingly; that the same arguments would apply to increased representation from the Region on the Executive Board; and that annual sessions of the Regional Committee should be retained.

At the technical briefing the representatives discussed Australia’s health services. By resolution WPR/RC48.R6, it was decided to continue to hold technical briefings on appropriate issues in conjunction with the Regional Committee. The Regional Director was requested to continue to arrange technical briefings on appropriate subjects in close coordination with the host countries for future sessions held outside the Regional Office. When sessions are held in the Regional Office, the Regional Director was requested to arrange technical briefings on selected topics agreed by the Committee. By resolution WPR/RC48.R6, the Committee decided that, for the forty-ninth session in 1998, the subject of the technical briefing would be traditional medicine.

The Committee adopted 12 resolutions and took five decisions. In addition to those already mentioned, the Regional Committee adopted resolutions on the eradication of poliomyelitis; country visits to Cambodia and Vanuatu by the Sub-Committee on Programmes and Technical Cooperation to review WHO’s collaboration in the area of emerging and re-emerging diseases; sexually transmitted diseases, HIV infection and AIDS; New horizons in health; development of health research; infant and young child nutrition; women, health and development; the first progress report on implementation of the Action Plan on Tobacco or Health; and the dates and places of the forty-ninth and fiftieth sessions.
Chapter 2. Health policy and management

2.1 General programme development and management

Regional situation

WHO’s programmes of cooperation in the Region are systematically developed within the framework of the General Programme of Work, taking into account global, regional and national priorities. Economic and political changes in the Region, and their impact on health systems and infrastructures, are also considered in the formulation of regional and country programmes and budgets.

Within these broad parameters, programme development and management is guided by the principles contained in the regional framework document, New horizons in health. In particular, a set of indicators has been developed to enable regional policy to be interpreted at country level. New horizons in health has been an integral part of the renewal of health for all in the Region and was endorsed as such by the forty-eighth session of the Regional Committee in Sydney in September 1997.

The Rarotonga Agreement is a good example of how the concepts of New horizons in health are being implemented in the island countries of the Pacific. This Agreement was developed at a Meeting of the Ministers of Health of Pacific Island Countries in Rarotonga, Cook Islands in August 1997. The Agreement contains recommendations on four specific areas: Healthy Islands, human resources for health, pharmaceuticals and the use of traditional medicine. There are numerous other examples of how New horizons in health approaches are being implemented throughout the Region, from the incorporation of the indicators in China’s Ninth Five-Year Plan to the health-promoting schools that now exist in 15 countries and areas of the Region.

Within its process of internal reform, WHO is constantly searching for ways to complement the work of its partners in health, and for opportunities to streamline programmes and structures to enhance performance in support of health and capacity-building in countries. As envisioned in the draft health for all policy, the work of WHO also takes into account the fact that overall improvements in health status are closely linked to sustainable and human-centred development, particularly as regards the role and status of women.

Managerial process for WHO’s programme development

The programme aims to ensure that managerial processes are effectively applied for health development in the formulation, implementation, monitoring and evaluation of the programmes of cooperation in the Region.

The focus of health systems development in the Region is evolving from a vertical to an integrated approach and from exclusively medical to intersectoral interventions. WHO has also sought to promote decentralization in the reform of health services and to foster self-reliance through the development of local human resources. Broader conceptual approaches have emerged, such as the move away from compartmentalized interventions for diarrhoeal diseases and acute respiratory infections to integrated management of childhood illness.

Similarly, New horizons in health approaches view health as a life-long continuum within the context of the environment provided by families and communities. This necessitates an approach to health that views the person as a whole, rather than simply as a patient requiring treatment. The narrow definition of environmental health has broadened to encompass a wide range of issues relating to health, quality of care and disease that are determined by environmental factors.

The document Renewing the Strategy for Health for All: Draft Regional Policy for the 21st Century covers such emerging issues as demographic change, the health transition, environmental concerns and increased travel and trade. It is designed to provide a framework which countries can use to review their own health policies for the 21st century.
The 1998-1999 programme budget serves as the primary tool for implementation of the WHO programme of collaboration. Implementation activities are being carried out through plans of action which were developed in close collaboration with Member States, with emphasis placed on the global and regional priorities and on the concepts outlined in *New horizons in health*. The Programme Classification List is based on the list of 19 major programmes under the Ninth General Programme of Work. The Regional Committee endorsed the proposed programme budget for 1998–1999 during its forty-seventh session. It was then reviewed by the Executive Board during its ninety-ninth session in January 1997, and endorsed by the World Health Assembly in May 1997. Comprehensive exchanges of letters have been signed with 35 countries and areas to cover the planned activities for the 1998-1999 biennium.

The 2000–2001 proposed programme budget emphasizes the global priorities recommended by the Executive Board, as well as regional priorities and national priorities and the concepts outlined in *New horizons in health*. The proposed programme budget will be submitted to the Regional Committee during its forty-ninth session in September 1998. It will then be consolidated into the proposed global programme budget, which will be reviewed by the Executive Board in January 1999 and by the World Health Assembly in May 1999.

**Management and support to information systems**

The objectives are to support executive management, technical and administrative programmes of the Regional Office and health informatics aspects of other programmes.

Computer facilities were upgraded throughout the Regional Office to optimize new office automation software, the operating system and Internet browsing software. The electronic mail system was strengthened in both the Regional Office and country offices.

The Regional Office’s Internet website will be made available to the public in mid-1998. The site will provide access to regional documents, such as the Report of the Regional Director and technical information covering a broad range of programmes. Work continued on strengthening the regional Intranet which will improve communications between WHO offices in the Region.

The Regional Office worked with the Regional Office for the Americas to complete the compilation of User Requirements for a regional and country module for the global Activity Management System (AMS) for use in all WHO offices. A gap analysis between user specifications and the AMS was undertaken in December 1997. The Regional Information System continued to be refined.

**Coordination with other organizations. Mobilization of external health resources**

The objective is to support the management and implementation of the Organization’s programmes by ensuring effective coordination with other organizations, both intergovernmental and nongovernmental, and agencies within the United Nations system at both regional and national levels.

Extrabudgetary funds have provided essential support to disease prevention and control, especially malaria and poliomyelitis; emergency and humanitarian action; and reproductive health.

WHO participated in the Fifth Asian and Pacific Ministerial Conference on Social Development organized by the United Nations Economic and Social Commission for Asia and the Pacific (ESCAP) from 5 to 11 November 1997 in Manila, the Philippines.

Country-specific activities were carried out in collaboration with the United Nations Development Programme (UNDP) in activities such as malaria control in Solomon Islands, support for management development in Cambodia and support for nursing development in China. WHO collaborated with UNDP, UNICEF, and the World Bank in a comprehensive programme to control iodine deficiency disorder in China. In the area of environmental health, there was collaboration with UNDP in integrating health, environment and sustainable development considerations in Fiji.

The focus of technical cooperation with the United Nations Population Fund (UNFPA) was on the strengthening of reproductive health services, health education outreach and family planning. WHO technical support was provided to 14 country projects and one intercountry project funded by UNFPA.

WHO worked closely with the United Nations Children’s Fund (UNICEF) in the implementation of programmes on control of acute respiratory infections and diarrhoeal diseases. Joint activities included case management courses in Cambodia, the Lao People’s Democratic Republic and the
UNICEF has continued to be a major partner in efforts to eradicate poliomyelitis in the Region. Countries in the Region with a high prevalence of neonatal tetanus received technical support from WHO in collaboration with UNICEF.

A Vice-President of the World Bank and a representative of the World Bank Resident Mission in the Philippines visited the Regional Office in October 1997. Both the World Bank and WHO reaffirmed their support for collaborative activities in the development and implementation of health programmes at country level. A further visit was made by the Manager, East Asia Health Sector, World Bank in February 1998 to discuss health projects in the Philippines supported by the Bank. WHO participated in the World Bank’s strategy validation and mid-term review of an urban health and nutrition project in the Philippines. This project covers acute respiratory infections, malaria, nutrition, schistosomiasis and tuberculosis.

The Regional Office collaborated with the Asian Development Bank (ADB), particularly in the development of health sector policy priorities in Asia and the Pacific. A joint meeting was conducted in March 1998 to review the draft ADB Health Sector Policy. WHO also collaborated with ADB and UNDP in establishing a public health monitoring programme in the Philippines.

Since the signing of a memorandum of understanding in December 1996, WHO and the Pacific Community (formerly the South Pacific Commission) have collaborated in various activities, including a comprehensive review of the Pacific Community’s Health Programme, a regional project on tuberculosis and a health promotion meeting, held in Fiji in January 1998. WHO has invited the Pacific Community to participate in various meetings scheduled for 1998.

Efforts in many programmes have been sustained as a result of valuable contributions provided by the Governments of Australia, Belgium, Denmark, Finland, France, Italy, Japan, Luxembourg, the Netherlands, Norway, the Republic of Korea, Sweden, the United Kingdom of Great Britain and Northern Ireland and the United States of America. Additional resources were also provided by the Arab Gulf Programme for United Nations Development Organizations (AGFUND), the Centers for Disease Control and Prevention, Nippon Foundation, the Pacific Leprosy Foundation, Rotary International, and the Sasakawa Memorial Health Foundation.


2.2 Health, science and public policy

Regional situation

Reform of health services has continued in most countries and areas. One area that is drawing increasing attention from developed and developing countries, and from those undergoing the transition from centrally-planned to market economies, is health financing. In the short to medium term, spending on health is certain to be affected by the economic crisis that has touched almost all countries and areas in the Region to some degree. In the longer term, the health transition will lead to significant increases in demand for services, particularly in the 45 to 64 age group. This means that greater demands on health services will be made when countries are least able to afford them, which will require a degree of resourcefulness in health financing, even in the more affluent countries of the Region.

WHO is cooperating with Cambodia and the Lao People’s Democratic Republic to support a variety of health reform initiatives to make quality health care available to everyone at an affordable cost. These reform measures include the development of new health policies; the strengthening of health services through decentralization and rationalization of services; the improvement of human resources for health through training and reallocation of health workers; and, in some cases, a restructuring of the
roles and responsibilities of the various departments and divisions of the health ministry itself.

Health for all should not revert to "health for some", despite the current financial crisis. This applies particularly to remote rural communities which may be expensive to reach. In this regard, the goals of the International Decade of the World’s Indigenous People provide a useful guide to meeting the needs of communities that are often marginalized.

Individual and group training activities have been used to continue the development of a nucleus of research scientists in the Region. In order to look for more effective ways of fully utilizing increasingly limited resources, WHO collaborating centres have been encouraged to work together with WHO and among themselves by developing and supporting work in the priority areas identified by WHO.

Health in socioeconomic development

The objectives of the programme are to develop national capabilities for international collaboration in health through effective communication and leadership, and to strengthen the links between the countries themselves through networking of staff.

To meet the need for strong leadership in the health sector, the Learning Centre at the Regional Office provides potential leaders from the Region with a unique opportunity to learn the latest managerial techniques, to develop advanced communication and leadership skills, and to liaise effectively with WHO. The ten-month fellowship programme is divided into two modules: the first module is devoted to development of communication skills in the English language, and the second focuses on leadership and management skills. Twenty-eight fellows graduated in March 1998. Fourteen fellows from the Region enrolled for the first module that began in May 1998 and 13 others will join them in October for the second module.

The Fifty-first World Health Assembly reviewed a report submitted by the Director-General on finalizing a comprehensive programme of action for collaboration within the United Nations system and with other intergovernmental organizations for the International Decade of the World’s Indigenous People. The Regional Office will ensure that this is implemented in the Region. A review carried out by the Regional Office showed that, to date, only Australia and New Zealand have active programmes to combat health problems faced by indigenous communities. The health of Aboriginals and Torres Strait Islanders was one of the topics of the technical briefing session at the forty-eighth session of the Regional Committee in Sydney, Australia. * * *

The goals of health for all remain central to the health in socioeconomic development programme. The programme will continue to promote the cause of equity of access to health care. This search for equity is more important than ever in the current economic climate.

Research policy and strategy coordination

The programme promotes national capability in health research that is relevant to the objective of health for all.

The regional research strategy focuses on biomedical, epidemiological and health systems research. Medical research carried out in the Region has contributed to a significantly improved understanding of the biomedical, environmental and behavioural determinants of health and their interaction, enabling WHO to define more effective approaches to health promotion, disease prevention and protection of the environment.

Sixteen countries have focal points to coordinate and manage research activities.

Support continued for the development of a broad framework of research methodology for use in biomedical or health systems research in the Region. A workshop on research design and methodology was held in Cambodia in May 1998, bringing the total number of national workshops in this field held since 1981 to 20. The manual, *Health research methodology: a guide for training in research methods*, is being revised and updated.
WHO supported nine research projects initiated by scientists from five countries in the Region. The principal investigators involved in WHO-supported research have always been encouraged to disseminate the results of their research widely, including through publication in refereed journals. From 1998, the request for wide dissemination of research findings has been formalized in correspondence to collaborating centres regarding WHO funding.

Results of WHO-sponsored research have influenced many health-related activities in the Region. For example, in 1994 a study of the “Impact of vehicular emissions on the vulnerable population in Metro Manila”, was carried out by the College of Public Health, University of the Philippines, with WHO collaboration. The results of this research were critical in influencing decision-makers to pass air pollution control legislation. They also provided a foundation for the health impact component of motor-vehicle-related aspects of a comprehensive air quality plan, which is being financed by the Government, through ADB, beginning in 1998. Because this study highlighted the importance of assessing public health impacts, the air quality management plan contains a public health monitoring component. This is a clear example of the effective integration of public health impact assessment in policy development and programme planning and implementation.

Another example is the WHO/UNU/UNICEF multicentre study, undertaken by the WHO Regional Centre for Research and Training in Tropical Diseases and Nutrition (WHO/RTTD), Kuala Lumpur, Malaysia, to assess the feasibility and effectiveness of weekly iron folate supplements in preventing and treating anaemia in adolescents. The study involved 630 girls from three secondary schools in Sarawak. Based on the good results obtained from this new approach, preventive supplementation with weekly iron folate doses for women of reproductive age is being introduced in selected areas of the Philippines and Viet Nam. This strategy involves both the public and private sectors and stimulates community participation through social mobilization activities to address several problems previously encountered in programmes for the control of anaemia in pregnancy: late supplementation; cost and logistics of procuring the supplements; information and motivation of health workers and the target population; side-effects; and how to make the supplements more appealing to the target women.

WHO/RTTD also conducted a WHO-funded study of mother and child nutritional status in selected communities of Brunei Darussalam in 1995. This multicountry study was part of a strategy to share knowledge and resources among Brunei Darussalam, the Lao People’s Democratic Republic and Malaysia. A follow-up study is currently being undertaken in the Lao People’s Democratic Republic on the prevalence and causes of anaemia among women of child-bearing age in Vientiane Province.

The 218 WHO collaborating centres within the Region play a key role in WHO’s programme of support for research, including disease surveillance. These centres share their knowledge and expertise in research and training activities with countries and other collaborating centres.

In early 1998, the Regional Office published the Summary of 1995 activities of the WHO collaborating centres in the Western Pacific Region. The third in a series of annual documents, the summary outlines the main activities of the collaborating centres and reports on research findings as described in their 1995 annual reports. The publication has been disseminated widely. Recipients include governments in the Region, all WHO collaborating centres in the Region, all active and former members of the Regional Advisory Committee on Health Research and all current members of the Global Advisory Committee on Health Research, technical units in WHO Headquarters, and all WHO regional offices. In addition, copies have been lodged with all depository libraries in the Western Pacific Region and will be distributed to all representatives attending the forty-ninth session of the Regional Committee.

Efforts to promote health research have focused primarily on human resources development, particularly in developing countries. Support will be provided to those countries in the Region where
there is insufficient funding, staff and infrastructure to undertake a regular health research programme.

2.3 National health policies and programme development and management

Regional situation

Decentralization of national health services has been a consistent theme in the Region for a number of years. However, the means employed to bring health services closer to the community have varied from country to country. In China, experiments are being carried out with new cooperative mechanisms for the delivery of health services in rural areas. In Cambodia, the Lao People’s Democratic Republic, Malaysia and Viet Nam, training programmes have become increasingly focused on delivery of health services at the district level. In many Pacific island countries, community participation is already an active part of social and political structures and there is a strong sense of responsibility towards health and other social services. In such countries, quality and efficiency of community-level care are the key issues.

The reorientation towards district-level health services often enables countries to identify and correct systemic weaknesses. In Mongolia, for example, the district emphasis has brought out the need to strengthen referrals and secondary care in order to support district health services. In the same way, the attention being paid to consumers’ expectations of health services in Hong Kong has helped to improve standards of care.

The drive towards decentralization that has taken place in many countries and areas of the Region has not reduced the need for national policy-making. On the contrary, the role of national planning has been stressed more than ever. Several countries, including Fiji, Malaysia and Singapore, have recently introduced more comprehensive health planning processes. What is happening in these countries and throughout the Region is a clarification of the respective roles of central, provincial and local health services.

The trend towards decentralization was one of the emerging issues identified in the Third Evaluation of the Implementation of the Strategy for Health for All by the Year 2000, endorsed by the Regional Committee at its forty-eighth session.

Community involvement also has an important part to play in the specific area of emergency and disaster preparedness. Disasters to strike the Region included earthquakes in China, a cyclone in Cook Islands, drought in Papua New Guinea, a typhoon in Viet Nam and haze in Brunei Darussalam, Malaysia, the Philippines and Singapore. Effective national policies to prepare for such natural and man-made disasters require a strong community component if they are to attract popular support.

Technical cooperation with countries

The aims of this programme are to provide governments with information concerning WHO policies; to support governments in the planning and management of national health programmes; to collaborate with governments in identifying national programmes where WHO's technical resources can be most useful; and to mobilize external resources for implementing national health programmes.

The Executive Board reviewed the Director-General’s report on WHO country offices at its 101st session in January 1998. The Board endorsed the principle of utilizing a common set of objective criteria to determine the nature and extent of WHO representation at country level, and requested the Director-General to develop such criteria and introduce them in a flexible manner over the next three bienniums. Work is continuing at global and regional levels to develop the criteria.

A global study assessed the work of WHO at country level, supported by the governments of Australia, Canada, Italy, Norway, Sweden and the United Kingdom of Great Britain and Northern Ireland (the "Oslo Group"). Twelve countries were visited, including Cambodia and Papua New Guinea in the Western Pacific Region. Findings were presented to the Director-General in late 1997. The findings of the study were reviewed by the cosponsors and WHO at a meeting in Rome in April 1998 and will be presented to the Director-General for further discussion.

Emergency preparedness

The objectives of this programme are to support countries in planning and implementing national emergency preparedness initiatives to mitigate the destruction and damage caused by natural disasters. Since January 1998 the programme has also aimed to collaborate with national and
international agencies working in disaster and emergency situations.

In collaboration with the Ministry of Health and Welfare of Japan and the Japan International Corporation of Welfare Services, WHO supported the fourth training course on emergency management for Japanese nongovernmental organizations in Tokyo in February 1998. The course was followed by a field visit in the Philippines.

A national workshop on health emergency preparedness and response was conducted in Cambodia in September 1997. Discussions covered problems encountered by the health sector during disasters and possible solutions involving interdisciplinary and intersectoral approaches.

Collaboration with Member States in preparing and updating national emergency plans continued. Technical support was provided to Malaysia in conducting a national conference on emergency preparedness and disaster management in Kuala Lumpur in November 1997. During the conference, disaster management plans for the health sector were developed.

The most common natural disasters that struck the Region were typhoons, cyclones, floods, drought, earthquakes and volcanic eruptions.

WHO responded promptly to emergencies caused by earthquakes in China, a cyclone in Cook Islands and a typhoon in Viet Nam. Cambodia was provided with polyvalent antisera for snake bites after the Mekong River overflowed, leading to extensive flooding. In September 1997, dust masks and respirators were provided to Brunei Darussalam and Malaysia during the haze that affected those countries.

In response to the drought and famine in Papua New Guinea, technical support was provided to assess nutritional status and micronutrient deficiencies and to establish a monitoring system.

In March 1998, Shanghai Medical Emergency Centre was designated as a collaborating centre for research and training for prehospital emergency services. The Centre will conduct training in emergency services for health personnel and related professionals. This is the first collaborating centre covering emergency and humanitarian action in the Region. Two national workshops on community preparedness for emergency situations were held with WHO support in April 1998 at the Centre.

Progress has been made towards achieving the two main objectives of the programme: to strengthen communities’ capacity to respond to natural disasters and to support the preparation of national emergency plans. The main thrust of the programme will continue to be the provision of technical support to countries in order to achieve these two objectives. Support will be provided to improve management skills among national disaster emergency focal points. Efforts will also be made to ensure better coordination at national, regional and international levels.

Supplies and equipment excluding drugs, biologicals and contraceptives

The aim of the programme is to ensure timely procurement and delivery of supplies and equipment as required by the WHO programme of cooperation, including reimbursable purchases made on behalf of Member States within the Region.

Supplies and equipment to the value of approximately $ 11 600 000 were procured during the period under review, principally for country projects. This figure includes purchases through WHO Headquarters which amounted to $ 6 300 000 and direct purchases through the Regional Office and the country offices worth $ 5 300 000.

The Regional Office also procured supplies and equipment totalling about $ 4 100 000 on behalf of Member States under the reimbursable procurement scheme, including anti-tuberculosis drugs and rabies vaccines for the Philippines and insecticides for Papua New Guinea and Solomon Islands.

Efficient procurement and dispatch of supplies and equipment remains an important part of the WHO programme of cooperation. Timely and cost-effective delivery has ensured prompt responses to country needs, especially during emergencies.

2.4 Biomedical and health information and trends

Regional situation
Most countries in the Region are taking steps to align their information systems to public health functions and needs. More active and rational use of information is being observed in health programme management and health planning. The majority of countries now also appreciate the need to monitor their health information systems continuously to improve the quality and use of data. Guidelines on development and prioritization of indicators are being provided to member countries by WHO.

Advances in information and communication technology have enabled information networks to be set up in many countries. Improvements in data transmission and information feedback on diseases have greatly enhanced epidemiological surveillance.

**Epidemiology, statistics, trend assessment and country health information**

The objectives are to develop and strengthen national capacity for collecting, assessing, using and disseminating up-to-date information on delivery of health services. The programme also encourages research on new methods and regional databases for monitoring health activities, promotes the design and implementation of health management information systems, and selects and adapts appropriate information technology for data processing.

The forty-eighth session of the Regional Committee asked the Regional Director to further refine the minimum set of indicators for *New horizons in health* and to continue to work with countries to develop country-specific indicators.

Workshops and other meetings were held to discuss the development, selection and integration of relevant health indicators into the national health plans of seven Member States. Countries were specifically advised to select indicators based on criteria relevant to their needs and level of health development. Pursuant to resolution WPR/RC48.5, the list of selected health indicators for *New horizons in health* was refined and data definitions were standardized to facilitate comparisons between countries.

Gender-disaggregated and gender-specific information collected by the Regional Office was reviewed and a proposed list of 20 indicators of gender significance was prepared. Some of these indicators are not part of routine reporting in many countries and areas in the Region and special studies or surveys will be required to collect them. Further consultation with countries will be needed to determine the list of gender-specific information which it is operationally feasible to collect. In addition, before mechanisms are set up to integrate these indicators into national information systems, countries should also look into possible alternative sources for such information.

To improve the quality of morbidity and mortality data at country level, ICD-10 training courses were organized to upgrade the skills of medical record personnel in the classification and coding of diseases. Six countries successfully carried out training courses or workshops during 1997. Some of these countries are now preparing plans to implement ICD-10 in the near future. Malaysia and the Philippines have expressed an interest in introducing diagnosis-related groups and case mix concepts to support resource management in their health care systems. Technical support was given to countries to improve medical documentation and develop patient records systems.

The enhancement of health reporting for epidemiological surveillance and streamlining health information systems for planning and resource allocation are priority areas for many countries. In Viet Nam, technical support was provided to develop a unified health reporting system and to improve capacity to collect and process health information. A dictionary of basic health indicators and an information system training manual were prepared. The system is expected to be implemented initially in two provinces.

To strengthen the capacity of the Health Management Information and Education Centre, Ministry of Health, Mongolia, technical support was provided to improve the reporting system for basic health indicators and to upgrade skills and knowledge on decision-making through the use of health information. Training was given on computer system administration, database management, and application software for network systems. Computers were provided to initiate networking systems in three provinces. Such networking will speed up data transfer and report generation.

To enhance further collaboration with countries in the Region, a management information system workshop was organized in the Regional Office in October 1997. A total of 12 countries and areas participated, with one observer from the South Pacific Commission (now the Pacific Community). The workshop reviewed recent developments in health information systems, particularly as they relate to analysis, presentation and use of information and the application of informatics. All participants
reported that they experienced constraints at all levels of their information systems, including poor quality and timeliness of data collection, limited analysis and action, and insufficient feedback to the workers at the data source. It will be crucial for each country to develop well-defined objectives for its own health information system according to its own needs, resources, and overall epidemiological and health management situation. * * *

Despite efforts to improve overall health information system development in the Region, most developing countries continue to face problems relating to incomplete data coverage, inadequate infrastructure, insufficient data use in support of health care delivery and poor feedback mechanisms. Training for both providers and users of information remains the best way of overcoming these constraints. WHO will continue to support training in epidemiology, health statistics, international classification of diseases, information systems management and health informatics.

Progress has been made towards developing a regional health database to monitor and evaluate health-for-all strategies.

With the gradual integration of health indicators for *New horizons in health* into health management systems, the health information programme will concentrate on provision of more timely information and data quality.

**Publishing, language and library services**

This programme is responsible for providing Member States with valid scientific, technical, managerial and other health information.

Publications published by the Regional Office included: *Caring for mothers and their babies: a guide for midwives; Nursing care of the sick: a guide for nurses working in small rural hospitals; Manual on the prevention and control of common cancers; Syndromic case management of STD - Advocacy brochure; Medicinal plants in the South Pacific; and Medicinal plants in the Republic of Korea.* Twelve publications were reprinted. In addition, documents covering aspects of WHO's work in the Region were issued by technical units.

Various publications were translated into Chinese, French, Khmer, Korean, Lao, Mongolian, Pidgin, Turkish and Vietnamese. Collaboration with the People's Medical Publishing House in China, a WHO collaborating centre for promotion and translation of WHO publications, continued.

Requests for articles, documents and other publications, as well as bibliographic literature searches from countries, were fulfilled by the Regional Office Library. This facilitated and accelerated the dissemination of health information to researchers and health professionals.

In China, the on-line medical information retrieval system was strengthened through the provision of technical support and equipment to the Institute of Medical Information, a WHO collaborating centre for health and biomedical information. Eleven medical colleges have been linked to the Chinese Medical Information Network (CMINET) and the network will be extended to other major medical libraries. The upgrading of equipment in Mongolia enhanced the capability for search and retrieval of biomedical information in the medical library.

Four fellows from China were trained in medical information networking, including publishing, to improve the publication and dissemination of health information. Fellows from Mongolia and Viet Nam were sent to Malaysia and the Philippines to study medical library services.

In addition to electronic forms of information exchange, health information relevant to health research in the Region has been made readily available and accessible through the prompt delivery of requested publications and bibliographies.
Chapter 3. Health services development

3.1 Organization of health systems based on primary health care

Regional situation

Health for all and primary health care remain fundamental to the reorganization and delivery of health systems throughout the Region. The major development themes for health care systems in the Region have been the epidemiological transition; demographic changes, ageing in particular; and the evolution of new organizational structures in the formerly centrally-planned economies.

In many countries, health systems are struggling to keep up with rising costs and decreasing national expenditures on health. Supplementary and alternative means of health financing, such as health insurance, user charges and contracting out of health services, are being studied.

Health systems research and development

The objective of the programme is to integrate health systems research with routine functions of management and to support research on priority health development issues.

WHO supported two study tours for health personnel from the Lao People’s Democratic Republic in October and November 1997: one to Australia on health research management and one to Malaysia on health systems research. A study tour to Malaysia and the Philippines on new methods of medical research was undertaken by a senior official in health research, in October 1997, also supported by WHO. Two collaborating centres located in the Republic of Korea and one in Malaysia actively collaborated with WHO in research, training and provision of consultants in the field of health systems research and development.

There is an increasing trend towards the use of health systems research to improve management, as seen in actions taken to address specific issues such as health financing, health legislation and quality of care. The importance of health systems research will grow as countries grapple with complex and rapidly changing demands on their health services.

National health systems and policies

The programme aims to strengthen national capabilities to develop and manage health systems, focusing on appropriate financing and cost-effectiveness, and quality of care.

WHO collaborated closely with several countries in addressing various health financing issues. Support to Viet Nam in efforts to improve health insurance coverage continued in February 1998, with emphasis placed on improving management skills and quality of services. Collaboration in Viet Nam also included identification of priorities for budget allocation among Departments, Institutes and Centres of the Ministry of Health and development of a methodology for budget preparation and monitoring. Through technical support and organization of national and subnational workshops, health planning capacity has also been considerably strengthened in Cambodia.

Training in health care financing was provided to Papua New Guinea and a financial module was developed and field tested in November and December 1997. With WHO support, a methodology was developed for costing health care services in Samoa in August and September 1997.

In China, a meeting on the feasibility of methods of analysing hospital investments and operating costs, and a seminar on costing and financing public health care, were held in October and November 1997. In addition, three fellowships to the United States of America, covering medical insurance, health care law and financial management, were awarded to relevant staff from China.

Several countries have given increased priority to assessing and improving the quality of health services. A strong commitment to quality health care in Malaysia has resulted in developments in total
quality management, hospital accreditation and formulation of clinical practice guidelines.

A quality of care initiative was launched in Vanuatu in November 1997. Workplans were prepared and activities were successfully implemented in Port Vila and four provincial hospitals. Follow-up actions included upgrading the skills of nurses and midwives and development of clinical practice guidelines.

Legislation is an important element of health development. WHO supported a review of existing legislation and the drafting of new legislation emphasizing current public health strategies and needs in Niue in November and December 1997. A review of health legislation in Papua New Guinea was carried out in July 1997.

In April 1998, the Centre for Health Law, Ethics and Policy, University of Newcastle, Australia, was designated as a WHO collaborating centre for health legislation.

The current status of hospital planning and financial management was reviewed in Mongolia in October 1997. A curriculum and modules for hospital management training were developed and various hospital financing mechanisms were discussed.

Approximately 90 senior hospital administrators attended a workshop in Shanghai, China, in December 1997, to review hospital management and financing, and to discuss various options for improving the effectiveness of health services and changing management strategies. In the Lao People’s Democratic Republic, the future role of the provincial hospital system was discussed at a workshop in September 1997. Plans were made to strengthen provincial hospitals and improve management capability.

Key challenges in many countries include ensuring equity of access to health services, delivering the appropriate quality of services and building or maintaining a sustainable financing framework.

District health systems

The objective of this programme is to strengthen the capability at the district level to plan and implement the most effective care for the population.

Health care workers from China, Mongolia, the Republic of Korea and Viet Nam took part in study tours on development, planning and organization of health systems. Countries visited included Australia, China, Malaysia, the Republic of Korea and the United States of America. Particular interest was shown in exchanging ideas and enhancing skills in management, health financing and restructuring of health services.

Considerable efforts are being made in Cambodia to strengthen health systems based on primary health care at the central and district levels. In collaboration with a number of partner agencies such as the Australian Agency for International Development (AusAID), the Department for International Development of the United Kingdom (DFID), and UNDP, WHO has supported the planning, implementation and evaluation of the reorientation through the provision of long-term staff and consultants and also by holding workshops and seminars.

A seminar on health care reform and health infrastructure for the ageing society of the Republic of Korea in the 21st century was conducted in October 1997. It provided an opportunity for key decision-makers to share views on future needs for planning the delivery of health services for ageing populations.

The need to address the specific health needs of the very large population of older persons in China is being increasingly recognized. In view of this, a workshop in Beijing in November 1997 placed particular emphasis on reviewing and discussing strategies for community health services for older persons. The policy implications and specific strategies for implementation of comprehensive community health care services for older persons in China will be areas for discussion in follow-up
meetings.

In Viet Nam, polyclinics were strengthened, particularly in remote and minority areas, through staff training and by upgrading the facilities by procuring essential primary health care supplies and medical equipment.

Training of district health workers continued to be emphasized by several countries. In Viet Nam training courses were conducted on both clinical and management aspects. Training materials, such as handbooks for volunteers working during national immunization days, were produced.

In view of the need to provide appropriate and updated training and reference materials, the Regional Office prepared *District health facilities. guidelines for development and operations*. This publication is a new version of *District hospitals. guidelines for development*, the second edition of which was published in 1996. In this new edition, coverage has been expanded to include planning, design and management of health facilities from the district hospital to peripheral health station. In doing so, it addresses the special health care needs of older persons, as well as the latest developments in health technology, such as telemedicine.

An intercountry workshop on district health systems was conducted in Nha Thrang, Viet Nam, in November 1997. The workshop was attended by approximately 30 participants from Cambodia, the Lao People's Democratic Republic and Viet Nam. It provided an excellent opportunity to share common experiences and lessons learned. Participants also discussed ways of enhancing future technical cooperation in the field of district health systems. The workshop highlighted the importance of using health systems research to strengthen district health services, and proposed the establishment of an intercountry network to enhance technical exchange.

The main challenges for district health systems continue to be, first, maintaining a high quality of care which is equally accessible to all, and, second, ensuring the participation of the community in the planning and implementation of health services. District health systems need to adapt to changes which will affect health in the 21st century, including demographic transition and environmental issues.

### 3.2 Human resources for health

**Regional situation**

Basic training programmes for a variety of health professionals are now in place in all countries and areas in the Region. The first stage of incorporating *New horizons in health* approaches into curricula of institutions educating health personnel has been completed.

Reciprocity continues to be an important factor in the development of postgraduate and continuing education programmes for health professionals. In Pacific island countries, medical training institutions are developing collaborative relationships that will involve sharing resources.

Nurses are the largest category of health workers and provide a wide range of services in hospitals and community services, sometimes with minimal medical back-up. However, they are not always adequately trained for the many roles they are expected to fill. Support is still needed to strengthen nursing education, practice and management.

Many countries and areas in the Region are unable to support all the academic and training programmes required to produce the entire range of human resources needed now and in the future. Appropriately planned fellowships and study tours, therefore, continue to be a major means of developing a well trained and adequate cadre of health professionals.

**Development of human resources for health**

The objectives of the programme are: to cooperate with countries in planning for the training and
deployment of the types and numbers of health personnel they require and can afford; to help ensure that such personnel are equipped with the necessary scientific, technical and managerial competence; to help ensure that such personnel are utilized optimally to meet the requirements of national strategies to achieve health for all; and to promote policies and programmes for health workforce planning, production and management in order to meet the requirements of the health systems.

Health workforce planning activities continued in several Pacific island countries and areas, using specifically developed regional software. Activities in the countries have been reviewed as a follow-up to training given in 1996 and to reinforce the need for workforce planning by governments.

WHO cooperation with countries has emphasized building national capacity to analyse health personnel requirements and to plan appropriate training, taking national and regional priorities into account. Training institutions in the Region are being encouraged to review their curricula to ensure that they continue to produce adequate numbers of people-centred and appropriately skilled professionals to meet current and future needs. Draft guidelines for this process have been produced for circulation and discussion.

A database on current educational and licensing practices in all medical education facilities in the Region is being developed. This will facilitate planning and sharing of technical knowledge.

The development of educational methodology has been of prime importance in all areas of the Region. A Diploma in Health Personnel Education, using modern teaching methods, was tested in Cambodia with great success. Support was provided to Fiji and the Republic of Korea to encourage the shift to problem-based learning in medical teaching.

The Regional Office has collaborated with governments on emerging issues, including the role of distance education in Malaysia and the role of government in educational management in China. Support was provided to Mongolia in the second quarter of 1998 to review medical curricula and mechanisms for the certification and registration of health service providers.

WHO worked with Cambodia to develop a new training curriculum for nurse midwives and a training programme for currently practising midwives. Technical support for curriculum development was also provided to Kiribati, the Lao People’s Democratic Republic and Vanuatu. WHO supported in-service education to expand and upgrade the skills of currently practising nurses. A course in Viet Nam was developed to teach hospital nurses how to work in community health settings.

A manual on basic nursing care, *Nursing care of the sick: a guide for nurses working in small rural hospitals*, has been produced by the Regional Office. This manual is being translated into Chinese, French, Khmer, Lao, Mongolian and Vietnamese and will be widely distributed throughout the Region.

From 1 July 1997 to 30 April 1998, 340 fellowships and 235 study tours were awarded to health staff from countries and areas in the Region.

A meeting for national fellowship officers, held in the Regional Office in November 1997, provided an opportunity to discuss future directions for strengthening national and regional capacity through the fellowship programme.

The procedures for implementation of fellowships were reviewed and new processes have been put in place. These are being further refined. The efficiency of implementation is improving.

A rapid follow-up study on WHO fellowships is conducted every two years. The evaluation questionnaire includes monitoring information on fellowships and, from the 1996-1997 biennium on, will also include some quantitative data.

Most of the identified non-returning fellows studied in the United States of America. Over the last five years, 14 fellows and 1 research grantee, having completed their programmes in the United States of America, signified their intention to stay. All 15 are repaying or have repaid the cost of their fellowships. The whereabouts of only one fellow from China, who studied in Europe, remains unknown.

An impact study of the fellowships in the Communication, Leadership and Management Programme, which is held in the Regional Office, has been completed and results are being studied to assess the impact of the programme on country health services and WHO priority programmes (see section 2.2). A similar study is being considered for the entire fellowship programme to assess the usefulness, impact and cost-effectiveness of fellowships.
Several countries in the Western Pacific Region are in the process of transition to market economies. Study tours to other countries have been undertaken by policy-makers and decision-makers who lack experience of the health reforms required under their new systems.

The Registry of Training Institutions of the Region is updated every two years and lists all major training institutions in health-related fields in the Region, and their available courses. It is a useful guide for countries and areas in deciding where to place their fellows and will be available on the Internet website of the Regional Office.

WHO supported a workshop on orienting human resources to *New horizons in health* approaches, held in Sydney, Australia, in August 1997. There were 23 participants from 13 countries in the Region.

A meeting of Ministers of Health for Pacific Island Countries took place in Rarotonga, Cook Islands, in August 1997. The Rarotonga Agreement that was adopted at the meeting identified human resources for health as a key component of Healthy Islands initiatives.

There have been positive developments in various aspects of health workforce planning, which continues to be a priority throughout the Region. The importance that Pacific island countries place on human resources can be seen from the fact that human resources for health was highlighted in the Rarotonga Agreement.

### 3.3 Essential drugs

**Regional situation**

There have been several positive developments during the period. Fourteen countries now participate in the WHO Certification Scheme on the Quality of Pharmaceutical Products Moving in International Commerce. With WHO support, quality assurance has been strengthened in Cambodia, China and the Lao People’s Democratic Republic. The Association of South-East Asian Nations (ASEAN) pharmaceuticals project has extended the list of ASEAN reference substances from 139 to 160. The inclusion of pharmaceuticals in the Rarotonga Agreement indicates the importance that Pacific island countries now place on the supply and quality of pharmaceuticals.

Although 27 countries and areas in the Region have legislation relating to drug use, only 18 have endorsed a national drug policy. Drug advertising, promotion and clinical trials are still not covered by legislation in many countries and areas in the Region. In addition, the shortage of trained staff remains a problem in the implementation of policies and enforcement of existing legislation. The lack of adequate procedures for drug registration and quality assurance, as well as counterfeit drugs, are also areas of concern in some countries and areas. The objectives of the Action Programme on Essential Drugs are to ensure the continuous supply of essential drugs and biologicals of acceptable quality and affordable price, and to support Member States in the establishment and implementation of effective national programmes for monitoring and maintaining the quality, safety and efficacy of pharmaceutical products.

Drug legislation in Papua New Guinea was revised and improved in September 1997. In Cambodia, draft decrees and sub-decrees pertaining to the national drug policy have been developed over the last two years. Preparation of a national drug policy is being initiated in Samoa. The third national drug policy conference was held in Mongolia in December 1997.

In the Lao People’s Democratic Republic, drug registration has been strengthened. The WHO basic tests for pharmaceutical dosage forms and simple tests for detecting counterfeit and substandard drugs have been introduced. Drug quality assurance and drug inspection has been strengthened in Cambodia by providing technical support and staff training. In China, technical support was provided for the administration and evaluation of biological and pharmaceutical products, particularly impurity testing and stability assessment.

The Essential Drugs List was reviewed and revised in Cambodia in December 1997. Appropriate self-medication for older persons has been strengthened in Viet Nam through collaborative activities with the programme on ageing and health and the programme on traditional medicine. In Viet Nam, WHO supported the translation and printing of guidelines on the rational use of essential drugs. The translation of national drug use documents was supported in Mongolia.

Progress in addressing the problem of counterfeit drugs has been slow. A biregional meeting of the
South-East Asia and Western Pacific Regions on combating the production and supply of counterfeit drugs was conducted in Viet Nam in November 1997.

In the Lao People’s Democratic Republic, the national guidelines on revolving drug funds were field tested. Outcomes included improvements to the guidelines and the preparation of a programme and training courses for implementation of these funds.

Pharmaceutical practices in ASEAN Member States were strengthened through a training course on clinical pharmacy, held in Singapore in November 1997. In the same month, the 10th Meeting on the Production and Utilization of ASEAN Reference Substances was held in Nonthaburi, Thailand. The meeting adopted an additional 21 substances as ASEAN reference substances, bringing the total to 160. The 16th Meeting of the ASEAN Working Group on Technical Cooperation in Pharmaceuticals, held in Singapore in February 1998, adopted a revised Plan of Action for 1998–2001. In future the country coordinators will be responsible for the execution and management of the project. WHO will play an advisory role and provide technical support as required.

Inspectors and auditors from 12 countries in the Western Pacific and South-East Asia Regions attended a training course on good manufacturing practices held in Jakarta, Indonesia, in September 1997. On-site training was conducted in the Lao People’s Democratic Republic and Mongolia during November and December 1997.

A discussion paper on pharmaceuticals and essential drugs was prepared for the Meeting of Ministers for Health in Pacific Island Countries in Rarotonga, Cook Islands, in August 1997. The meeting supported the recommendations on bulk purchase of pharmaceuticals as well as the establishment of quality assurance and drug information schemes for Pacific island countries.

As a follow up to the Rarotonga Agreement, a workshop on drug supply management and drug quality assurance for Pacific island countries was held in Nadi, Fiji, in November 1997. The workshop discussed the establishment of a quality assurance scheme and a drug information exchange network. Testing of pharmaceuticals through this scheme is being carried out by Therapeutic Goods Administration Laboratories, Australia, a WHO collaborating centre for drug quality assurance.

The National Poison Centre, Universiti Sains, Penang, Malaysia, was designated as a WHO collaborating centre for drug information. The Centre’s responsibilities included the establishment of a network for drug information exchange between drug regulatory authorities.

Quality control, good manufacturing practices and inspection have been strengthened in many countries through technical support, staff training workshops and collaborative activities such as ASEAN and biregional meetings and meetings of the Pacific island countries.

The rational use of drugs remains a major concern throughout the Region and should be a priority for future activities. Mechanisms for international exchange of information should be strengthened as a means of pursuing the objectives of the programme.

3.4 Quality of health care and health technology

Regional situation

Most countries and areas in the Region have strengthened the management of their blood transfusion services and the supply of safe blood and blood products. However, many still do not routinely screen for infectious agents. Although the majority of countries in the Region now implement non-remunerated blood donation, paid blood donations still continue in six countries.

Health laboratory services, although frequently less developed at intermediate and peripheral levels than at the central level, are being strengthened in most countries of the Region. Since 1991, the regional external quality assessment programme has been provided to national laboratories in 14 Pacific island countries and the Lao People’s Democratic Republic.

Traditional medicine, particularly the practice of herbal medicine and acupuncture, is widely used in the Region and there is a general move towards its integration into the mainstream of health care systems. Health authorities are paying increasing attention to the contribution traditional medicine can make to the health of their populations and are seeking ways to regulate its practice and to ensure the quality of herbal medicines.
Technology for health care

The objective of the programme is to strengthen national health laboratory and radiology services by using appropriate technology to meet the diagnostic, case management and monitoring needs of curative and preventive medicine throughout the lifespan of all individuals.

Distance learning materials on safe blood and blood products have been translated and printed in Chinese by the WHO Collaborating Centre for the Development and Research for the Services of Blood Transfusion, Shanghai Blood Centre, China.

Two national workshops for trainers in the use of distance learning materials for safe blood and blood products were held in China, one in September and one in November 1997. Participants came from all over China.

In an effort to make its blood supply safer, in December 1997 China passed a law to halt paid blood donation. Starting in October 1998, sales of blood, which at present account for about 50% of China’s blood supply, will be illegal and the country will rely on voluntary donations.

In October 1997, lectures were delivered to radiologists and engineers in Hanoi and Ho Chi Minh City, Viet Nam, to improve their knowledge of computer tomography and magnetic resonance imaging.

In December 1997, an advanced course on quality control and quality assurance in diagnostic imaging was taught to medical and health physicists, and radiographers in Manila, the Philippines.

A workshop on clinical laboratory diagnosis, using molecular biology techniques and cohort studies, for the prevention of viral heart diseases (viral myocarditis and cardiomyopathy) was conducted in Chuxiong, Yunnan Province, China, in November 1997.

Fourteen Pacific island countries and the Lao People’s Democratic Republic continued their involvement in the regional external quality assessment programme. WHO supported an assessment of two of the participating laboratories, in Fiji and Kiribati, in October 1997.

In November 1997, a workshop was held in Suva, Fiji, to review the current status of the regional external quality assessment programme. The workshop also sought to initiate or strengthen the management system in laboratories, to improve existing proficiency testing methods and to develop criteria for national accreditation of laboratories.

A training course on health technology assessment was supported in Malaysia in November 1997. In addition, a fellow from Malaysia studied health technology assessment in Canada and the United States of America in December 1997.

Most countries in the Region have continued to improve their health laboratory and radiology services. However, progress in some developing countries has been hampered by rapid staff turnover, insufficient attention to supply of reagents and maintenance of equipment, and a lack of qualified human resources in laboratory and radiology services. In addition, the use of paid blood donation has led to unsafe blood and blood products in several countries.

Traditional medicine

The objective of the programme is to support the safe and effective practice of traditional medicine. The programme encourages the integration of traditional medicine into the mainstream of health delivery systems, where applicable.

In December 1997, a national seminar on traditional and complementary medicine in contemporary health care, held in Kuala Lumpur, Malaysia, recognized the contribution made by traditional medicine and recommended the integration of traditional with modern medicine.

Following a survey on the current status of traditional medicine, conducted in selected provinces of Viet Nam, a national workshop to discuss policy on traditional medicine was held in October 1997. WHO is supporting the drafting of a national policy on traditional medicine in Viet Nam.

In Cambodia, the first national workshop on traditional medicine was held in October 1997. During the meeting, the current status of traditional medicine was reviewed and the future direction for
programme development was identified.

Fellowships and study tours were awarded to national staff from Cambodia, Mongolia, the Philippines and Viet Nam to observe national policy and administration of traditional medicine in China, Japan and the Republic of Korea.

In Viet Nam, a training manual, *Medicinal plants for the family*, was published by the Ministry of Health to support community-based traditional medicine activities. In August 1997, training courses on the use of traditional medicine in community health care were held in Vinh Phuc and Nghe An provinces. A model medicinal plant garden for communities was set up in Vientiane, the Lao People’s Democratic Republic.

A training course on traditional Tibetan medicine was conducted in Mongolia.

In the South Pacific, activities were initiated to increase awareness of the role played by traditional medicine in health care and to collect knowledge on traditional medical practice. A South Pacific women’s traditional medicine workshop was held in Fiji in July 1997. A workshop on traditional medicine was also held in Nauru in September 1997.

In many developing countries, traditional healers are essential human resources for health care in rural communities. However, most of them have no formal training in primary health care. A training package for traditional healers was, therefore, prepared by the Regional Office. The package includes basic concepts and knowledge on primary health care. Simple language and pictures are used to make the contents easy to understand. A trainer’s guide was also developed.

In collaboration with the programme on ageing and health and the programme on essential drugs, a workplan for health care of older persons through traditional medicine, including traditional physical exercise and proper self medication, was prepared in Viet Nam. A national workshop and two training courses on the subject were conducted in October 1997.

Guidelines for the appropriate use of herbal medicines, developed at a working group held in Manila in December 1997, cover a broad range of topics in relation to herbal medicines, with particular emphasis on national policy development, regulation of practice and registration. These guidelines represent a set of generic principles which can be flexibly implemented by different countries. They will act as a reference point for governments and health authorities and may also be used by manufacturers, researchers and practitioners to ensure the proper use of herbal medicines.

Two fellows from the Philippines studied herbal medicine preparation in China in September and October 1997, with WHO support. Another was supported in a fellowship on clinical research on traditional medicine in the Republic of Korea.

The development of quality assurance for herbal medicines continued through the organization of workshops such as that on quality control of herbal medicines in various forms of dosage, held in Harbin, China, in December 1997.

In 1998, the implementation of good manufacturing practices for herbal medicine products began in Malaysia.

A training course on adverse reactions to herbal medicines, attended by 50 clinicians and pharmacists, was held in Guangzhou, China in 1997.

The *Malaysian herbal monographs*, serving as standard references on the quality and safety specifications of selected medicinal plant species, were prepared with WHO support by the National Pharmaceutical Control Bureau, Ministry of Health, Malaysia.

*Medicinal plants in the South Pacific*, containing data on 102 plants with medical applications, and *Medicinal plants in the Republic of Korea*, with data on 150 medicinal plants, were published by the Regional Office in 1998. They are part of a series of publications on medicinal plants. *Medicinal plants in Japan* is now being prepared.

The second volume of *Medicinal plants in Cambodia*, in the Khmer language, prepared by the National Centre of Traditional Medicine, Cambodia, was published in 1997, with WHO support.

In 1997, two medical doctors from Malaysia were provided with a three-month basic
training course on acupuncture, conducted in China.

In the Philippines, about 100 government doctors from throughout the country attended short courses on acupuncture, organized by the Department of Health. There are now eight government hospitals in the Philippines which provide acupuncture treatment.

Acupuncture is widely used in Viet Nam for the rehabilitation of patients suffering from paralysis. WHO provided technical support to Viet Nam on the integration of acupuncture with modern rehabilitation techniques.

Herbal medicines on display in a Cambodian street market

Lack of information, particularly among those working at provincial, district and community levels, has affected the development of traditional medicine in Viet Nam. In view of this problem, two information centres for traditional medicine were set up in Hanoi and Ho Chi Minh City. A computer database on traditional medicine, developed by the WHO Collaborating Centre for Traditional Medicine, Institute of Clinical Research and Information, Beijing, China, has been installed in the two centres. Information pamphlets prepared by these two centres have been widely distributed in Viet Nam.

In China, 120 traditional medicine researchers and clinicians attended two training courses in August 1997 on research methodology, which introduced the principles and methods of clinical epidemiology in research on traditional medicine.

A study by the Beijing University of Traditional Chinese Medicine on the use of traditional medicine for the rehabilitation of patients suffering from cerebrovascular diseases continued with WHO support.

A collaborative research project on pesticide residues in medicinal plants is being conducted by the WHO Collaborating Centre for Traditional Medicine, Institute of Medicinal Plant Development, Beijing, China, and the WHO Collaborating Centre for Food Contamination Monitoring, Institute of Nutrition and Food Hygiene, Beijing, China.

Health authorities in several countries and areas in the Region are taking action to integrate traditional medicine into their mainstream health care systems. In some countries, however, recognition of the value of traditional medicine has not been accompanied by strong support or the development of vigorous programmes at national or lower levels. Even in those countries where government policy on traditional medicine has been established, lack of experience among health authorities sometimes hinders implementation.
Chapter 4. Promotion and protection of health

4.1 Reproductive, family and community health and population issues

Regional situation

The data collected in the regional reproductive health databank reveal inequities between countries and between areas within countries. The data also clearly demonstrate the impact of cultural and economic conditions on reproductive health.

Use of contraceptives continues to increase in most countries in the Region, although the need for family planning remains high in Cambodia, the Lao People's Democratic Republic, Mongolia, Papua New Guinea, the Philippines and some Pacific island countries. In these countries, unwanted pregnancies are still frequent, putting the life and health of mothers and their babies at risk. Illegal and unsafe terminations of pregnancy are estimated to be responsible for about 30% of all the Region’s maternal deaths and a large number of permanent disabilities.

Maternal and child health, as measured by maternal, child and infant mortality, has been improving in many developing countries. The maternal mortality ratio is now below the regional target of 300 deaths per 100 000 live births in 31 countries and areas in the Region, and the infant mortality rate is below the regional target of 50 deaths per 1000 live births in 33 countries and areas. However, the unreliability of data means that actual maternal mortality figures are probably higher than those reported in several countries. Data show that maternal mortality is much higher in rural areas.

Integration of various health services under the reproductive health and family planning umbrella is needed in many countries and areas to achieve further progress.

The number of children and young people is increasing in most developing countries of the Region. Sexually transmitted diseases and AIDS, unwanted pregnancies and high-risk behaviour among adolescents continue to cause concern.

At the other end of the life cycle, many countries are witnessing an unprecedented and rapid ageing of their populations. The health of older persons is generally accorded a relatively low priority and resources are consequently inadequate. In many countries and areas, there is a lack of appropriately trained personnel to care for these growing populations of older persons.

The major occupational diseases in the Region are occupational lung diseases, in particular silicosis, among mining and other workers exposed to silica dust. The increased use of pesticides and mechanization of agriculture have also resulted in increasing occupational health problems as have the use of increasingly sophisticated industrial processes and the introduction of hazardous industries in the Region.

Reproductive, child and women’s health

The main objective of the programme is the reduction of maternal and infant mortality and morbidity, through appropriate and comprehensive care before, during and after delivery and through the use of safe fertility regulation methods to enable women and couples to plan their pregnancies.

Guidelines and manuals were published to help health workers to deal with various aspects of reproductive health services, such as counselling pregnant women, managing maternal and child health programmes, providing care to mothers and their babies, advising on nutrition during pregnancy, collecting information and teaching sex education. To support health workers in providing family planning services, a second edition of the WHO publication *Family planning options* was printed.

Research in the reproductive health area has been promoted in many countries. In December 1997, 42 health workers from 10 Pacific island countries were trained in reproductive health care and operational research methodology at the Regional Training and Research Centre in Reproductive
Health (RTRC), Fiji School of Medicine. Another workshop on reproductive health was held for 18 media personnel from 11 Pacific island countries. The Special Programme of Research Development and Research Training in Human Reproduction continued to support institutions in the form of research grants, fellowships and institution strengthening in six countries. Small-scale operational research projects have been initiated in several Pacific island countries as a result of the training provided by the RTRC.

In order to increase awareness of maternal health on the occasion of the tenth anniversary of the Safe Motherhood Initiative, safe motherhood was designated as the theme for World Health Day on 7 April 1998 and safe motherhood desk calendars, posters and leaflets were produced and widely distributed throughout the Region. The safe motherhood folder provides detailed information on maternal health for each country in the Region as well as an annotated bibliography of WHO publications on maternal and infant health.

Anaemia in pregnancy is widespread in most developing countries in the Region with some districts showing prevalences as high as 50% of all pregnant women. A new approach to prevent anaemia in pregnancy has been devised and introduced in selected areas of the Philippines and Viet Nam. Iron and folate supplements are given once a week to all women of reproductive age instead of daily to pregnant women only. This new schedule has been shown to be effective in controlled clinical trials. The weekly administration of iron will reduce costs and improve compliance by preventing the side-effects which are mainly responsible for people dropping out of the programme. Distribution of the weekly iron and folate doses can also be arranged through community outlets, thereby decreasing the burden on the health care system. Depending on the results of this intervention, it is envisaged that the wide-scale introduction of weekly iron supplements will help to considerably reduce maternal mortality due to post-partum haemorrhage, and improve the iron status of mothers and newborn infants.

The regional reproductive health databank is regularly updated from a large variety of sources, facilitating analysis of the reproductive health situation of the Region.

In most developing countries, teenage pregnancies, unsafe terminations, sexually transmitted diseases and AIDS, lower genital tract infections and high maternal mortality and morbidity are the major reproductive health problems. Technical support was provided in most countries in the Region to help the coordination and integration of the different sectors of the health services dealing with these aspects. Support was also provided for local training of health workers and managers. Introduction of new reproductive health technologies, strategies to expand the use of contraceptives and development of information materials on reproductive health areas were also promoted and supported in several countries.

The health of children under five years of age is continuously improving as a result of coordinated efforts by various programmes, including the Expanded Programme on Immunization. Tetanus toxoid immunization of pregnant women; better treatment of communicable diseases; increased awareness of methods to prevent infectious diseases; increased use of oral rehydration therapy for diarrhoeal diseases; and appropriate therapy for acute respiratory tract infections have all helped to improve the health of the children of the Region. The use of the integrated management of childhood illness (IMCI) strategy in the Philippines and Viet Nam has shown positive results.
Mental health

The objective is to promote policies and programmes to deal with priority psychosocial and behavioural problems and to develop community-based programmes for the prevention and control of mental and neurological disorders.

A draft strategy document for countries of the Region, Promoting mental health: 1998–2001, was completed in December 1997 and is now being circulated for peer review.

A review of mental health legislation and mental health practices in Pacific island countries and areas was undertaken in September and December 1997 and March 1998, with a view to identifying the problems, challenges and opportunities for enhancing mental health treatment and care. Some Pacific island countries have minimal legislation governing the treatment and care of persons with mental health problems. In others, mental health and other relevant legislation is out of date or inadequate to meet existing needs. This project will support countries to develop more contemporary and effective legislative and regulatory frameworks to address mental disorders and mental health problems.

A community-based mental health care project was begun in Mongolia, within the framework of Nations for Mental Health, a global programme on mental health for underserved populations. The project aims to reorient mental health care towards community-based services that place emphasis on psychosocial interventions, delivered from within the primary health care sector. It is designed to tackle the determinants and consequences of mental disorders with special emphasis on underserved populations. Similar projects are also underway in China, the Marshall Islands and VietNam.

In September 1997, a review of mental health problems, mental disorders and mental health policies was undertaken in Vanuatu. Training was also provided on community-based mental health services and psychosocial rehabilitation.

Increasing emphasis is being placed on broadening the scope of mental health policies, strategies, programmes and services to include mental health promotion and the prevention or alleviation of mental health problems. Emphasis is also being placed on treating people with mental disorders and mental health problems in environments that are safe, effective and as non-restrictive as possible. Accordingly, mental health specialists are reorienting their efforts towards building the skills of primary health care workers and families. The challenge is now to encourage and support countries to continue to move away from long-term institutional care towards community-based psychosocial methods of treatment.

Substance abuse, including alcohol and tobacco
The objective of the programme is to reduce problems related to alcohol, drug and tobacco use.

A regional workshop on problems relating to the use of amphetamine-type stimulants in the Western Pacific Region was held in the Regional Office in February 1998. This workshop affirmed that use and problems related to amphetamine-type stimulants is increasing in the Region and that current approaches to prevention and treatment are inadequate. Priorities for future action in policy development, research, prevention, treatment and harm reduction were identified.

A national workshop on alcohol, tobacco and drugs was held in Tonga in August 1997, during which priority areas of concern were discussed and future actions identified. Particular emphasis was placed on the importance of public policy and legislation to reduce alcohol and tobacco-related health harms. Problems relating to the increasing non-traditional use of kava were also reviewed.

In November and December 1997, available research on the nature and extent of substance abuse problems among young people in the Pacific area was reviewed and linkages with other social issues such as crime, school attendance, educational achievement and reproductive health were studied. The need for a high-level structure to develop policy and programmes on substance abuse was emphasized, as was the importance of coordinating activities with other relevant sectors.

In connection with the 10th World Conference on Tobacco or Health, a one-day meeting was held in Beijing in August 1997 to review progress made in implementing the Action Plan on Tobacco or Health for 1995–1999.

This midterm review covered 18 countries within the Region. Of these, 16 had implemented some tobacco control legislation. Implementation of the Action Plan was reported to the Regional Committee at its forty-eighth session. The Regional Committee commended the Regional Director for striving to implement the Action Plan, but voiced its concern at the increase in per capita tobacco consumption.

The Regional Office has produced a Tobacco or Health folder, outlining key issues and strategies for national implementation of effective and comprehensive tobacco control measures. This folder has been distributed widely throughout the Region. The Advisory Kit for World No-Tobacco Day has been reproduced at the Regional Office for distribution to focal persons on Tobacco or Health within the Region.

The regional database on Tobacco or Health has been updated, expanded and converted to a format compatible with the global database. This new format enables easier collection, analysis and accessibility of the core data. Focal persons on Tobacco or Health have had secure electronic access to this database since June 1998.

In line with the regional Action Plan on Tobacco or Health for 1995–1999, which recommends the inclusion of tobacco or health issues in medical curricula, a module in English and Chinese was pre-tested in two workshops in China.

Consumption of alcohol, tobacco and other drugs continues to increase, with serious health implications in many countries in the Region. In addition to policies, strategies and activities aimed at reversing this overall trend, more attention is now being paid to health protection strategies. These strategies are aimed at reducing the harm associated with substance abuse, thereby protecting public health. While only a small number of countries in the Region are currently adopting policies and strategies consistent with this public health framework, many more are beginning to consider the arguments and evidence in its favour.

**Health promotion**

The aim is to encourage Member States to establish comprehensive policies and programmes that promote healthy lifestyles and health-supportive environments.

In December 1997, a regional workshop on networking among health-promoting schools was held in Beijing, China. The workshop explored a range of options for the development of health-promoting schools, including integrating them into Healthy Cities initiatives or using entry points such as helminth control or HIV/AIDS prevention projects. The workshop also strengthened existing links and formalized a network for the development of health-promoting schools in the northern part of the Region. Manuals on the design and implementation of health-promoting schools were reviewed. Networking methods to facilitate mutual support between countries were also explored.
WHO supported the strengthening of the health-promoting schools network in South Pacific countries and areas and the development of a manual on the Pacific Network of Health-promoting Schools.

In China, a project using helminth control as an entry point for health-promoting schools, carried out last year in two provinces, was evaluated. The project's success in reducing the prevalence of helminth infection led to its extension to Yunnan and Sichuan provinces, where a similar evaluation took place in April 1998.

A health promotion study focusing on lifestyles and the perception of health risks among adolescent girls was initiated in September 1997. This comparative study, carried out in Australia, China, Fiji and Malaysia, aimed to identify lifestyle patterns adopted by adolescent girls in relation to known health risks.

Technical support was provided to China in October 1997 to review existing health promotion activities, identify gaps, propose complementary policies and legislative models, and contribute to the development of an action plan for the national coordinating committee on health-promoting schools. The need for support structures to implement and monitor the development of health-promoting schools was identified, as were adequate human resources and financial support.

A national workshop was undertaken in the Philippines in November 1997 to review and adapt regional guidelines on the development of health-promoting workplaces and to support the development of a healthy workplaces programme.

A regional workshop on networking among health-promoting workplaces was held in Shanghai, China, in December 1997, with a view to exchanging experiences and exploring strategies to develop health-promoting workplaces. Draft regional guidelines on the development of health-promoting workplaces were reviewed. The meeting also focused on integrating health-promoting workplaces into Healthy Cities-Healthy Islands initiatives and establishing a network for the development of health-promoting workplaces.

In October and November 1997, training workshops on development of health-promoting workplaces were held in Shanghai and Guangdong, China, to adopt draft regional guidelines and train industrial managers and staff.

Work was undertaken in Viet Nam in August 1997 to refine a model of health promotion and integrate it into the Master of Public Health course being developed at Hanoi Medical University. Similar activities took place in Mongolia, where two workshops on curriculum development were held and teaching personnel received training on the use of a health promotion module.

The establishment of networks of health-promoting schools and health-promoting workplaces has strengthened existing links, facilitated mutual support and promoted their integration into other health-promoting initiatives, especially Healthy Cities-Healthy Islands. However, despite successful health-promoting activities in many countries and areas of the Region, there is still a need for national strategies that are more community-based and address all the factors that shape individual behaviours.

Communications and public relations

The objective is to create greater awareness of WHO, foster involvement in its work, and engage in advocacy for health for all and the WHO approach to health.
To commemorate WHO’s 50th anniversary on 7 April 1998, Member States and the Regional Office carried out public information activities to raise awareness of effective partnerships between governments and WHO.

A documentary film was produced to inform the public about WHO’s work in the Western Pacific Region. Radio and television items on health-promoting themes were prepared. A manual for broadcasters was also produced to guide broadcasters, communicators and health advocates to deliver health messages effectively. Member States also celebrated the event by holding exhibitions on collaborative activities, launching health campaigns, presenting awards for outstanding achievements in health and organizing group activities.

The Regional Office continued to distribute press kits and press releases, organize press conferences on specific health issues and publish the monthly newsletter, *Health and development*.

WHO international health days – World Health Day, World Tuberculosis Day, World No-Tobacco Day and World AIDS Day – again focused the attention of the public and decision-makers on specific health concerns that need to be addressed.

Health-promoting activities aimed at motivating people to adopt healthy lifestyles have increased in many countries and areas. Collaboration with the media has also increased, the growing interest in health issues being reflected in the number of requests for interviews with WHO staff and information materials on specific health concerns. The successful dissemination of information on healthy lifestyles and disease prevention and control has improved public participation in activities such as national immunization days. The use of electronic mail has likewise significantly improved communication and cooperation with the media.

**Rehabilitation**

The objective is to promote the development of community-based rehabilitation services and appropriate rehabilitation technology.

Programmes on prevention of disability and rehabilitation have been strengthened in China, Mongolia, the Philippines and Viet Nam through upgrading of facilities and personnel training. In China, WHO supported training at Tongji Medical University, a WHO collaborating centre for rehabilitation, in collaboration with the HongKong Society for Rehabilitation, another WHO collaborating centre. To promote continuing education for graduates of the rehabilitation training programmes, WHO supported the purchase of books and journals for the Technology Resource Centre based at the Tongji Medical University. Rehabilitation centres in Mongolia were provided with equipment.

Rehabilitation personnel in China, Mongolia, the Philippines and Viet Nam were trained through fellowships and local group training activities.

In Mongolia, a training course for trainers of health volunteers on the prevention and rehabilitation of disabilities was held in August 1997. In addition, local training courses on new developments in rehabilitation were supported, as was a fellowship to the Republic of Korea focusing on the rehabilitation of patients with brain and spinal cord trauma.

WHO also supported a national training course on planning, management and use of appropriate technologies for disability prevention and rehabilitation, conducted in Viet Nam in August 1997.

WHO collaborated with countries in the promotion and development of community-based rehabilitation. In China, senior rehabilitation personnel participated in a national workshop on the development and management of community-based rehabilitation in July 1997. Support was also provided for the development of community-based rehabilitation programmes in two provinces in the southern Philippines. The status of community-based rehabilitation services in Tonga was assessed during a workshop conducted in November 1997.

WHO provided guidance and technical support for a seminar to commemorate the mid-point of the Asia and Pacific Decade of Disabled Persons. Organized by the Ministry of Health and Welfare of Japan and the National Rehabilitation Center for the Disabled of Japan, a WHO collaborating centre for rehabilitation, the seminar assessed progress and discussed future activities. A declaration was adopted reaffirming support for the programme of work contained in the Agenda for Action for the Decade.
Limited resources and a shortage of rehabilitation personnel have held back the expansion of programmes in developing countries and areas in the Region. There is also a lack of adequate data on disability, especially psychosocial disability, to provide a basis for planning. Inadequate coordination among relevant agencies has also hindered progress.

4.3 Nutrition, food security and safety

Regional situation

The problems associated with nutritional status in the Region relate to both undernutrition and overnutrition.

Undernutrition in the form of protein-energy malnutrition is a serious problem in many countries in the Region. In eight countries, more than 10% of newborn infants weigh less than 2500 grams, reflecting the prevalence of protein-energy malnutrition among women of child-bearing age. In Cambodia, the Lao People's Democratic Republic, Papua New Guinea and Viet Nam, more than 30% of preschool children suffer from protein-energy malnutrition.

More than 400 million people in nine endemic countries in the Region are at risk of developing iodine deficiency disorders, and 30 million are affected by goitre. Iron deficiency anaemia affects up to 55% of pregnant women in developing countries and 10%–20% of pregnant women in developed countries of the Region. It also affects 10%–48% of pre-school and school-age children. In eight countries vitamin A deficiency is considered a public health problem.

Although more than 90% of infants in most countries in the Region are initially breast-fed, rates of exclusive breast-feeding in the first four to six months of life and continuation of breast-feeding during the first and second year are usually much lower. In 1997 reported prevalence of exclusive breast-feeding in the Region ranged from 20% to 94%.

Changes in traditional lifestyles, such as the adoption of unhealthy diets, overeating and lack of exercise, are responsible for obesity becoming more common in many developing countries in the Region. In some of the rapidly developing countries, 15%–30% of adults are overweight and there is a rising number of overweight children and adolescents.

Despite national food safety authorities’ efforts to promote food safety and enforce regulations, foodborne disease outbreaks are still frequent. Residues of pesticides and other chemical contaminants excessively or improperly used in food production and processing are giving cause for increasing concern, as is food contamination with biological agents, such as trematode-infested fish produced in sewage-fed ponds. Food hazard surveillance systems and regulations are in place in a few countries in the Region. However, in the majority of countries, the lack of public health laboratories and resources limits the opportunity to analyse food for chemical contamination.

Nutrition

The programme aims to improve nutritional status in all phases of the life cycle by promoting appropriate diets. It particularly aims to significantly reduce the most widespread nutritional deficiencies of iron, iodine and vitamin A and to combat protein-energy malnutrition in children and nutrition-related noncommunicable diseases in adults.

Continued support was given to seven countries for the development and implementation of national plans of action for nutrition. Of the 31 countries and areas that have begun development of plans, 17 have started implementation.

The fortification of salt with iodine is the main basis of national programmes to eliminate iodine deficiency disorders (IDD) in the Region. In China, multiagency collaboration has been used to strengthen the surveillance system. A national reference laboratory has been established and support provided for provincial laboratories. In Cambodia, a salt iodization law is being prepared, following the 1996 national IDD survey. A survey on the use and quality of iodized salt is being undertaken in the Lao People's Democratic Republic to determine whether the programme needs to be strengthened. The survey will also collect data on goitre among schoolchildren. In Fiji, steps have been taken to develop monitoring strategies to ensure compliance with 1995 legislation prohibiting the import of non-iodized salt. A similar law is also in place in Papua New Guinea.

As a short-term strategy, massive oral doses of vitamin A are being given to pre-school children in all
affected countries. The doses are given during national immunization days in Cambodia, the Lao People's Democratic Republic, the Philippines and Viet Nam. Alternative and more sustainable interventions, such as the fortification of food, are being discussed. In the Philippines, some foods are already fortified with vitamin A.

Concern over the large prevalence of iron deficiency anaemia (IDA) has prompted a search for interventions that are more effective than the present daily therapeutic supplementation with iron and folate for pregnant women. A new approach, to prevent anaemia with weekly iron and folic acid supplements for women of reproductive age, before they conceive, is currently being introduced in selected areas in the Philippines and Viet Nam. Cambodia is drawing up a specific plan of action to address its widespread IDA problem and, in Fiji, a workshop in November 1997 prompted a review of national supplementation policy according to WHO guidelines.

The Baby-Friendly Hospital Initiative is the main programme for breast-feeding promotion. The number of baby-friendly hospitals increased from 5786 in 1997 to 7021 in 24 countries and areas in the Region in the first quarter of 1998. In Mongolia, successful breast-feeding practices have been promoted effectively through baby-friendly hospitals, with over 90% of all mothers breast-feeding their infants exclusively for about six months. About 80% of hospitals with maternity facilities in China are now baby-friendly. In Malaysia, all government maternity hospitals are baby-friendly and efforts are being made to involve private hospitals.

In order to maintain the quality of baby-friendly hospitals in the Philippines, a monitoring system has been set up to address the problem. The WHO/UNICEF 40-hour breast-feeding counselling course has been introduced in the Lao People's Democratic Republic and in all Pacific island countries and areas, through training of trainers. In Viet Nam, a national workshop in April 1998 agreed to include a modified version of the course in the curriculum of midwives in the coming academic year.

The need to promote healthy lifestyles to address the growing prevalence of nutrition-related noncommunicable diseases is now recognized in many countries. Malaysia and Singapore, for example, have national campaigns to encourage healthy diets. Nutrition education and social mobilization programmes in Pacific island countries have created greater community awareness of nutrition issues and WHO continues to collaborate closely with the Pacific Community in this area. A meeting of nutritionists from all Pacific island countries, held in Samoa in October 1997, discussed the promotion of healthy lifestyles.

There is an urgent need for national surveillance systems, which are often the weakest links in national plans of action for nutrition. Countries where surveillance systems already exist include Japan, Malaysia, the Republic of Korea, and Viet Nam. The introduction of a national surveillance system is being considered in Cook Islands. In Mongolia, periodic household expenditure surveys include questions on height and weight. A revised version of the regional nutrition folder is being prepared.

Many countries and areas in the Region are now developing or implementing national plans of action for nutrition. The challenge is now to accelerate the elimination of micronutrient deficiency disorders, to establish national systems to monitor nutritional status and to promote the adoption of healthy lifestyles and prevent nutrition-related noncommunicable diseases.

**Food safety**

The overall objective of this programme is to reduce foodborne risks to health and ensure the safety of foods. More specific aims are to formulate effective food safety policies, strategies, legislation and regulations, and to implement national food safety programmes based on standards consistent with those adopted by the Codex Alimentarius Commission.

Most countries and areas in the Region have now established, or are in the process of establishing, modern legislative frameworks and infrastructures to administer their food safety programmes. WHO collaborated with Cambodia, Fiji, the Federated States of Micronesia, Solomon Islands and Viet Nam
to revise and develop national legislation on food safety.

Support was provided to health authorities to establish and improve quality assurance in microbiological analysis of food. Capabilities were strengthened in China and Mongolia and laboratory facilities upgraded in Cambodia, Fiji, the Lao People's Democratic Republic, Mongolia, Papua New Guinea, Tonga and Vanuatu.

Training of laboratory staff from China, Malaysia, Niue, the Republic of Korea, Tonga, Vanuatu and Viet Nam was provided both in the countries and abroad. Food inspectors in the Federated States of Micronesia received refresher training. In the Lao People's Democratic Republic, training materials on food safety and nutrition, to be included in the curriculum for pharmacists and food inspectors, were developed and introduced in a training of trainers workshop.

The Manual for the inspection of imported food is being revised for Papua New Guinea and will include the outcome of the current discussions by the Codex Alimentarius Commission on the application of the hazard analysis critical control point (HACCP) approach for monitoring food safety. The manual will also be used as a resource for other countries in the Region. Courses on the application of the HACCP have been held in Harbin, China, and in the Lao People's Democratic Republic.

All five WHO collaborating centres working in the area of food safety participate in the food component of the Global Environment Monitoring System. In addition, a food safety monitoring system is proposed for Cambodia, China, the Lao People's Democratic Republic and Viet Nam.

The concept of healthy marketplaces has been introduced in Baoding, China; Haiphong, Viet Nam; Phnom Penh, Cambodia; and Vientiane, the Lao People's Democratic Republic, as a component of Healthy Cities-Healthy Islands Initiatives. Marketplaces were selected in each city and orientation courses involving local government, producers, traders and consumers were held. Seed funds for the rehabilitation of the marketplaces and the development of information materials for vendors and the public were provided.

A national public awareness campaign on food safety was conducted in Cambodia on radio and television. Workshops for the development of information materials were conducted in Fiji and the Lao People's Democratic Republic in October and November 1997.

More countries have recognized the need for national food safety programmes and have developed institutional and legislative frameworks. The need to establish such programmes is made more urgent by the increased import and export of food and international regulations. Foodborne diseases still rank high in the morbidity statistics of developing countries, demonstrating the need for increased public awareness of safe food preparation in settings such as the home, the school and the marketplace.

4.4 Environmental health

Regional Situation

In recent years, some of the fastest developing economies in the world have been in the Western Pacific Region. Urban populations have also grown rapidly from 33.5% of the total regional population in 1990 to 37% in 1995, and it is estimated they will reach 40.7% in 2000. While providing job opportunities and material wealth, the economic and urban expansion of the Region has also had negative impacts on health, including the overloading of environmental management infrastructures and health care services.

A vivid example of this occurred in September and October 1997, when haze-type air pollution from forest fires burning in Indonesia blanketed much of Brunei Darussalam, Malaysia and Singapore, and also affected the southern Philippines. These fires are set each year to clear forest land for commercial purposes. The public health impacts of the fine particulate matter that comprised the haze are still being investigated. In January 1998, forest fires recurred in Indonesia. Fires started in Brunei Darussalam, Malaysia and the Philippines have also caused hazardous levels of air pollution. WHO technical staff have provided continuous support to the affected countries.

In 1990, approximately 19 million people in the Region were affected by waterborne diseases (corresponding to a median incidence rate of 1417 per 100 000 population). While this represents a marked reduction over the situation in the early 1980s, waterborne diarrhoeal diseases remain one of the main causes of death in children under five years of age. The morbidity associated with water-related vectorborne diseases such as schistosomiasis, malaria, dengue fever and filariasis, has an
adverse impact on the quality of life as well as on productivity and other aspects of economic growth. Many major cities are on the verge of a water supply crisis. The water resources available within easy reach of urban areas are not sufficient to meet increasing demand. Water has to be brought from further away, and requires more costly treatment because of pollution related to increases in domestic, agricultural and industrial wastes.

Although awareness of chemical safety issues is increasing throughout the Region, with several countries developing national plans, most countries do not have comprehensive programmes for the control of toxic chemicals. Where legislation exists, institutional development is often not sufficient to control the manufacture, registration, labelling, packaging, marketing, transportation, storage, treatment and disposal of toxic chemicals. The disposal of toxic chemical and other hazardous wastes is often not properly managed and current practices frequently contribute to significant adverse impacts on health and the environment. However, some rapidly developing countries in the Region, such as Malaysia, the Republic of Korea and Singapore, are developing and implementing comprehensive waste management programmes.

The challenge to the Region is to bring action on environmental health more in line with rhetoric. A number of frameworks for doing this have already been established. They include policy initiatives such as New horizons in health and the Rarotonga Agreement; operational mechanisms such as HealthyCities-Healthy Islands and other health-promoting environments; and arrangements with intergovernmental organizations such as ASEAN and the South Pacific Community.

**Water supply and sanitation in human settlements**

This programme focuses on the control of diseases related to water and sanitation through the promotion and development of community water supply and sanitation services.

In Viet Nam, national workshops were held on efficient management of urban and rural water supply and sanitation systems in November and December 1997. Technical support was provided to detect and control leaks; conduct management audits; and establish a management information system for the water and sanitation sector, consistent with the WHO/UNICEF joint monitoring programme (JMP).

In Cambodia, a needs assessment was carried out in late 1997 to develop a sector management information system with a coordinating element focusing on the efforts of government and bilateral and nongovernmental organizations in sector monitoring and management.

In China, field testing of sector monitoring implementation was started in January 1998. To facilitate wider usage of the water and sanitation monitoring system, the associated computer software was translated into Chinese.

In Cook Islands, support was provided in October and November 1997 to assess the sanitation and unaccounted-for-water situation in Rarotonga. An action plan was developed to reduce leakage, including the training of personnel in modern leak detection and control technology.

In Cambodia, China, the Lao People’s Democratic Republic and Viet Nam support was provided to assess the quality and safety of water and food and to develop an information and monitoring system.

In Kiribati, WHO supported a study on the effectiveness and efficiency of compost latrines in destroying pathogens in human excreta and the use of composted nightsoil as a fertilizer. Studies were supported in Viet Nam on the development of ecological and sustainable sanitation measures for ethnic minorities; the assessment of the public health impacts of fishpond latrines; and control and reduction of intestinal parasite infestations in schoolchildren and the general population. WHO supported studies in China to develop design criteria for an ecological solution to wastewater disposal using "wetlands" treatment technology, and guidelines on maximum allowable pesticide residues in plants cultivated for herbal medicines.

Facilities for water supply and human waste disposal were constructed, rehabilitated or improved in one major hospital and three schools in Ulaanbaatar and Darkhan, Mongolia.

A new approach to ensure community participation in activities to improve hygiene and sanitation was adapted for use in Papua New Guinea. Two senior staff from the Department of Health were sent to South Africa for training as trainers. In addition, a
A national workshop was conducted to train other health staff in the use of this approach.

With WHO support, an assessment of human resources needs in water supply companies in Viet Nam was carried out in February 1998. Human resources development plans and a draft training curriculum were drawn up to overcome the shortage of trained staff.

Fellowships were awarded on technical and practical aspects of water supply and sanitation. In November 1997, ten participants received one month’s training in Australia on quality assurance and quality control in the analysis of water and food.

Support was provided to Cook Islands in October 1997 for a drinking water quality management programme, including the strengthening of environmental health laboratory capabilities to monitor and analyse drinking water quality. Draft national water quality standards were formulated, based on WHO guidelines for drinking water quality. Similar support was also provided to the Lao People’s Democratic Republic and Mongolia.

Support was provided to the Lao People’s Democratic Republic for the drafting of environmental health legislation.

In general, improvements to water supply and sanitation systems, as well as to their management, operation and maintenance, have been carried out in both urban and rural areas. However, more efforts are needed to increase coverage in informal settlements in urban fringe areas; to address leak detection and control issues; to improve management capabilities; and to improve water quality and safety.

Environmental health in urban development

The objectives of this programme are to improve environmental health in urban areas; to promote increased awareness and understanding of the interaction between health, the environment and urban development; to promote cooperation and coordination among programmes and organizations concerned with environmental health in urban areas; and to enhance institutional capacity.

Eight cities or towns have been added to the Healthy Cities programme in Malaysia. In the Republic of Korea, WHO supported the development of a new Healthy Cities project in Kwachun. The total number of Healthy Cities projects supported by the Regional Office is now 15.

To promote the exchange of experience among cities with ongoing Healthy Cities initiatives, a visit to Japan was undertaken by mayors, vice-mayors and technical advisers from Malaysia, Mongolia and Viet Nam in November 1997. A similar visit to Australia and Malaysia was made by officials involved in the Healthy Cities projects in Cambodia, China, the Lao People’s Democratic Republic and Viet Nam.

A training programme for Healthy Cities project team members on “Managing the Environment for Health” was conducted in December 1997 by the WHO Collaborating Centre in Environmental Health at the University of Western Sydney-Hawkesbury, Australia. WHO supported 17 participants from Cambodia, China, the Lao People’s Democratic Republic, Mongolia and Viet Nam. A national workshop on Healthy Cities was conducted in the Lao People’s Democratic Republic to introduce the concept and approach of Healthy Cities and to share the experience of Vientiane with other urban centres in the country.

Various activities related to the “settings” approach were initiated in Healthy Cities projects in Cambodia, China, the Lao People’s Democratic Republic, Mongolia and Viet Nam. These initiatives focused on developing healthy marketplaces, healthy workplaces, health-promoting schools and healthy hospitals.

The Rarotonga Agreement that was adopted at the Meeting of the Ministers of Health for the Pacific Island Countries in August 1997 reaffirmed the commitment of Pacific island countries to the Healthy Islands approach. It identified future action areas, including national and local meetings of relevant
partners to improve their understanding of the Healthy Islands approach; formulation of national action plans and associated coordination mechanisms; and development of guidelines, protocols and skills needed to implement Healthy Islands projects.

In 1997 and early 1998, WHO, in collaboration with UNDP, worked with the Government of Fiji to develop a national environmental health action plan. WHO also participated in a regional health promotion meeting, convened by the South Pacific Commission (now the Pacific Community), which focused on the formulation of Healthy Islands action plans.

The management of urban waste continues to be a priority issue in many cities in the Region and is the focus of many Healthy Cities projects. WHO provided technical support in September 1997 to assess wastewater management in Haikou, China, and suggested ways to improve current practices. Solid waste management problems in urban areas in Ulaanbaatar and Darkhan, Mongolia, were also assessed.

The regional Healthy Cities–Healthy Islands programme is steadily growing, and experiences are being exchanged between more developed Healthy Cities projects in Australia, Japan and Malaysia and new projects in Cambodia, China, the Lao People's Democratic Republic, Mongolia and Viet Nam. Future activities will focus on the sharing of experiences between Healthy Cities projects, human resources development, healthy settings initiatives, and implementation of the Rarotonga Agreement.

Assessment of environmental health hazards

This programme aims to promote the central role of health in development decision-making; to improve technical capabilities for monitoring, assessing, controlling and managing environmental risks to health; to foster the development and application of appropriate, environmentally safe and sound methods and technologies for the effective prevention, control, and treatment of environmental health-related disease and disability; and to strengthen environmental health information systems.

UNDP and WHO jointly supported activities in Fiji to integrate health and environmental concerns into sustainable development planning focused on community-based environmental health action plans to complement both the government’s work and that of other external partner agencies. The process emphasized community training in strategic management; the creation of a local vision; partnership between the community and government; and community ownership of the development process. A community-based environmental health management model and a national environmental health action plan have been developed.

Work in the Philippines continued to focus on national strategy development. A national plan for environmental health services and a national framework and guidelines for environmental health impact assessment have been produced, with WHO support. As in other countries, the devolution of implementation responsibilities to local government level presents significant challenges in the areas of capacity building and human resources development.

The Healthy Cities project in Haiphong, Viet Nam, has continued to benefit from enthusiastic support at the local level. This has been reflected in the implementation of integrated healthy marketplace and ambient air quality monitoring activities. As Viet Nam continues to undergo rapid socioeconomic change, the need to integrate health and environmental considerations into development decision-making increases.

In Papua New Guinea, a project on environmental health impact assessment and management was initiated in August 1997. The project incorporated the establishment of baseline health and environment data, the assessment of priority environmental health risks, and the training of environmental health officers in four provincial centres. A local action plan to enhance management of the identified priority health risks was prepared for each of the four areas.

In accordance with resolution WPR/RC47.R2, adopted by the Regional Committee at its forty-seventh session, the WHO Western Pacific Environmental Health Centre was closed at the end of 1997. Increasing use is being made of technical resources available within the Region, particularly within the network of WHO collaborating centres. WHO has worked closely with the Government of Malaysia to establish the national Environmental Health Research Centre.

In 1997, the extent and persistence of the haze-type air pollution caused by annual forest-clearing fires in Indonesia was made much worse by the extremely dry conditions associated with the El Niño phenomenon. During 1997, the acute impacts on health of the fine particulate matter that comprises the haze were significant, and were reflected in the two to three-fold increase in respiratory-related
outpatient visits in some hospitals in Kuala Lumpur and Kuching, Malaysia.

WHO provided technical support to the Government of Malaysia and approximately 8700 dust masks for essential service personnel in Brunei Darussalam and Malaysia. A one-day workshop on air pollution health effects was held in Kuala Lumpur for Malaysian researchers and a WHO consultant was provided for a workshop on indoor air quality in Malaysia. Funding support was provided for two ongoing research studies on the impact of the haze on health.

In June 1998, a WHO Biregional Workshop on Health Impacts of Haze-Related Air Pollution was held in Kuala Lumpur, Malaysia, hosted by the Environmental Health Research Centre. The workshop participants from the South-East Asia and Western Pacific Regions reviewed and summarized research findings; identified needs for further technical information and research; and developed draft health impact reduction measures and strategies for consideration by affected countries and external support agencies.

The process of integrating health and environment considerations in sustainable development decision-making is a multisectoral, interdisciplinary task which depends on the collaboration of numerous organizations, departments and groups at international, national and local levels. For example, resolving the regional haze problem will require ongoing cooperation and coordination between the governments of all the countries concerned, as well as a diverse group of government agencies, local communities and external support organizations.

The most successful efforts to improve environmental health in the Region have incorporated clearly defined community-based initiatives. To be effective, integration mechanisms must focus particularly on health protection and health promotion and avoid a narrow, reactive approach to policy implementation. Successes in Fiji, the Philippines and Viet Nam have been achieved by emphasizing not only short-term actions, but also long-term planning, particularly in relation to human resources development.

Promotion of chemical safety

The objectives of this programme are to promote environmentally sound methods and technologies for the effective prevention of disease and disability related to the use of chemicals; to improve technical capabilities for monitoring, assessing, controlling and managing the risks to health related to the use of chemicals; to strengthen environmental health information systems as they relate to chemical safety; and to strengthen capabilities for emergency preparedness in relation to accidents involving toxic chemicals.

The major emphasis of chemical safety activities over the past year has been on improving chemical safety legislation; continuing to build networks to share technical information; strengthening national capabilities to control pesticides and ensure occupational safety; preventing chemical disasters; safely disposing of toxic chemical wastes; public awareness training; and building the skills of appropriate government and industry personnel. Continued emphasis was also placed on clinical waste management, with two training workshops being held in China and the Lao People’s Democratic Republic. Chemicals information management activities were carried out in the Philippines and Viet Nam, particularly focusing on the establishment of a network of poison control centres.

In most Pacific island countries and areas, the management of toxic chemicals and their associated waste is not perceived as a pressing problem. However, although the quantities of toxic chemicals in Pacific island countries may be relatively small, there are a number of constraints to their effective management, including limited and shallow groundwater resources, permeable soils, and limited land area for disposal. The South Pacific Regional Environment Programme (SPREP) is implementing an AusAID project on the “Management of Persistent Organic Pollutants in Pacific Island Countries”. This project addresses a wide range of related chemical safety issues of common interest. WHO is working closely with SPREP and other organizations to help ensure the most judicious use of

In Mongolia, the redesign of a traditional stove has reduced fuel consumption by 50%
chemical safety-related resources.

Most countries in the Region do not have comprehensive programmes for the control of toxic chemicals. In those countries where legislation does exist, the infrastructure is not usually sufficient to control the manufacture, registration, labelling, packaging, marketing, transportation, storage, treatment and disposal of toxic chemicals. The absence of policies to coordinate intersectoral activities and the general lack of involvement in chemical safety issues by planning and development sectors are serious handicaps to the implementation of preventive programmes. Health agencies do not yet play a leading role in chemical safety and this frequently results in this area of environmental health being ignored. Poison control centre networks have been developed in only a few countries in the Region, and even fewer countries have made systematic provisions for chemical emergencies or the evaluation of chemical risk.
Chapter 5. Integrated control of disease

5.1 Eradication/elimination of specific communicable diseases

Regional situation

Poliomyelitis is on the verge of being eradicated from the Western Pacific Region. Only nine wild-poliovirus-associated cases were reported in 1997, eight of these were in Cambodia and one in Viet Nam. In response, Cambodia, the Lao People's Democratic Republic and Viet Nam have conducted high-risk response immunization (HRRI) in addition to national and subnational immunization days. As the last reported wild-poliovirus-associated case of poliomyelitis had onset of disease in March 1997, there is good reason to be optimistic that indigenous wild poliovirus transmission in the Region has finally ceased.

The number of registered cases of leprosy in the Region fell from 27 400 in 1996 to 24 471 in 1997. This is about 10% of the figure in 1982, when multidrug therapy was introduced for the treatment of leprosy patients. Newly-detected cases have remained stable at around 12 000 a year since 1994, indicating the success of efforts to target "hidden cases" and underserved population groups. Twenty-six countries and areas in the Region are now free from leprosy.

Poliomyelitis

The objective is to maintain poliomyelitis eradication activities and proceed to certification of eradication.

In the second half of 1997 and early 1998, even more intensive efforts than in previous years were made to finally interrupt the transmission of wild poliovirus. The results are very encouraging. The latest reported case in the Region, as of 20 March 1998, had onset of illness on 19 March 1997 in Cambodia. Since then, despite high-quality surveillance, no new wild poliovirus has been detected in the Region.

In 1997, additional immunization efforts were employed to eradicate poliovirus in high-risk areas of the Region, where transmission had been continuing at a low level despite previous national immunization days. In May, June and July 1997, Cambodia, the Lao People's Democratic Republic and Viet Nam conducted two rounds of HRRI, covering 1 million children under five years of age in Cambodia, 75 000 in the Lao People's Democratic Republic and 1 million in Viet Nam. This was followed by national or subnational immunization days in these countries, as well as in China, Mongolia, Papua New Guinea and the Philippines, during the 1997/1998 low-transmission season, and further HRRI in Cambodia and Viet Nam in February, March and April 1998. A notable feature of all these activities was the wide use of mobile teams travelling from house to house, or boat to boat on the waterways, to ensure no child was missed.

Improved surveillance has complemented the improved quality of supplementary immunization. As of 20 March 1998, a total of 5848 acute flaccid paralysis (AFP) cases had been investigated throughout the Region, 83% of which had two stool samples taken within two weeks of onset of illness. More timely availability and analysis of laboratory and AFP surveillance information has allowed the rapid identification of high-risk areas for HRRI. All recently-endemic countries now have surveillance of a standard at or approaching that needed for certification.

In November 1997, the Regional Commission for
the Certification of Poliomyelitis Eradication in the Western Pacific met for the second time and approved the national plans of action for non-endemic countries and Pacific island countries and areas which are represented by the Subregional Committee for Certification of Poliomyelitis Eradication in the Pacific Island Countries and Areas. During 1998, the eight recently-endemic countries of the Region will submit national plans of action for certification to the third meeting of the Regional Commission.

The Subregional Committee for Certification of Poliomyelitis Eradication in Pacific Island Countries and Areas met for the second time in December 1997. At this meeting, the Committee reviewed progress in implementing the plan of action recommended at its first meeting in 1996.

Leprosy

The aims of the programme are to eliminate leprosy as a public health problem in every country and area of the Region by 2000, to prevent disability by early detection and treatment, and to improve the quality of life of persons disabled because of leprosy.

For the Region as a whole, the target of elimination of leprosy, defined as less than one case per 10 000 population, was achieved in 1991. Among the 11 countries and areas in the Region that have not yet reached the elimination target, Kiribati, the Marshall Islands, the Federated States of Micronesia and Papua New Guinea have prevalence rates far above the elimination target. Cambodia, the Lao People’s Democratic Republic and the Philippines are close to the elimination target but still have a relatively large number of cases, owing to their large populations. The other remaining four countries are either close to the elimination target or have fewer than 10 cases.

China and Viet Nam, where national elimination targets have been reached, still have substantial numbers of leprosy cases. Special attention was given to strengthening programmes in districts with prevalence rates above the target. In selected provinces in five countries in the Region, leprosy elimination campaigns, supported by the Nippon Foundation and other members of the International Federation of Leprosy Associations, helped to significantly increase case detection.

Figure 5.1 Leprosy prevalence and MDT coverage in the Western Pacific Region (1986-1997)
Special projects have been launched to make treatment available to people with leprosy living in difficult-to-reach areas of five countries in the Region. Of particular importance were Kiribati, the Marshall Islands and the Federated States of Micronesia, which have very high rates of leprosy and scattered populations in many small islands.

In Kiribati, total population screening was carried out with the support of the Pacific Leprosy Foundation and WHO. It increased the number of detected cases to 98 for 1997, more than double the average number of cases detected in previous years. Preventive therapy was carried out in the highly-endemic Federated States of Micronesia during 1997 and 1998. As a result, the number of new cases had decreased by more than 70% after the first year of operation. It is anticipated that the country will achieve leprosy elimination by 2000. In the Marshall Islands, the entire population is being screened and all patients identified are treated with multidrug therapy.

In June 1998, a workshop on the elimination of leprosy in the Western Pacific Region was held in the Regional Office. Twenty-five countries and areas participated and reaffirmed their commitment to strengthen leprosy surveillance activities through integrated approaches and to implement special activities in areas with substantial numbers of cases. The Epidemiological review of leprosy in the Western Pacific Region, 1982-1997 was presented to this meeting and widely distributed throughout the Region.

An evaluation of the leprosy elimination programme in China, carried out in November 1997, confirmed that there are only a few townships in China that have yet to reach the elimination goal. A similar exercise conducted in the Philippines in mid-1998 showed that treatment is available to all patients throughout the country.

The success of the poliomyelitis eradication initiative can be attributed to many factors, including strong political commitment and social mobilization. However, without the support of international partners (see section 5.2) the rapid progress from widespread endemic poliomyelitis in 1990 to a handful of cases in 1997 would not have been possible. The major challenge now is to maintain surveillance and supplementary immunization at high standards until global eradication has been achieved.

Twenty-six countries and areas in the Region have achieved the elimination target for leprosy. A further three Pacific island countries and areas have fewer than 10 cases. Future efforts should focus on remaining clusters of the disease and on the rehabilitation of leprosy patients with deformities.

5.2 Control of other communicable diseases

Regional situation

A combination of factors has led to the emergence and re-emergence of particular diseases. These
factors include rapid and frequent international travel and trade; urbanization, resulting in overcrowded cities with poor sanitation; ecological changes that increase exposure to disease vectors and natural reservoirs; and the misuse of drugs, inducing antimicrobial resistance. Communicable diseases which have re-emerged as serious concerns include tuberculosis, diphtheria, cholera, dengue fever and dengue haemorrhagic fever. Outbreaks in the Region included those caused by new variants of Escherichia coli and Vibrio cholera O139. Emerging diseases posing significant public health problems include hepatitis C and HIV/AIDS. For the first time, influenza A (H5N1), known as avian influenza, was identified in humans in Hong Kong, China, in 1997. Eighteen cases with six deaths were reported. At present, the major transmission mode seems to be bird-to-human infection.

Hepatitis B seriously affects the Western Pacific Region, with 25 countries showing hepatitis B antigen prevalence rates greater than 8%. WHO estimates that more than 150 million people in the Region have chronic hepatitis B infection, including between 10% and 30% of the populations in China, Mongolia and certain Pacific island countries. Thirty-four countries and areas have implemented national hepatitis B immunization policies and 30 have started immunization programmes for newborn infants, bringing the regional coverage of newborn infants to approximately 75%.

Outbreaks of dengue fever and dengue haemorrhagic fever have been recorded in 15 countries and areas in the Region over the last five years, with 50 000 to 150 000 hospitalized cases reported annually. The majority of dengue cases are young children.

In most developing countries in the Region, approximately 70% of deaths of children under five years of age are due to six common preventable or easily treatable childhood disorders: acute respiratory infections (mostly pneumonia), diarrhoea, measles, malaria, dengue haemorrhagic fever, malnutrition, or a combination of these conditions.

Among infectious diseases, tuberculosis is the leading killer of adults worldwide. It ranks among the five leading causes of death in several countries in the Region. The total number of notified tuberculosis cases increased from 650 256 in 1986 to 942 831 in 1996, a 30% increase. During the same period, the number of reported infectious cases almost doubled.

In comparison with other parts of the world, the Region as a whole continues to experience only a moderate HIV epidemic. The epidemic displays three major patterns: low levels of HIV transmission, as observed in Japan, the Philippines, the Republic of Korea and Pacific island countries; declining HIV epidemics, as in Australia and New Zealand; and increasing HIV transmission, as in Cambodia, China, Malaysia, Papua New Guinea and the southern part of Viet Nam. Cumulative totals of 73 722 cases of HIV infection and 13 956 cases of AIDS had been reported in the Region as of February 1998. However, there is significant underreporting of both HIV and AIDS cases. It is estimated that, by the end of 1997, more than 700 000 individuals were HIV-infected, and at least 43 000 cumulative cases of AIDS had occurred in the Region (16 000 of these occurring in 1997). By 2000, the total number of HIV-infected individuals is expected to more than double, while the annual number of new cases of AIDS is projected to increase fourfold.

It is estimated that more than 35 million new cases of sexually transmitted disease (STD) occur every year in the Region, of which 30 million are chlamydia. Particularly high levels of STD infection (infection rates of 20% to 40%) are found among commercial sex workers and others with high-risk sexual behaviour.

Among the 112 million people at risk in nine malaria-endemic countries in 1996 (the last year for which reliable data are available), there were approximately 0.5 million cases confirmed by microscopy. This compares to 0.66 million in 1995, 0.74 million in 1992 and 1.4 million in 1984. There were 2402 reported and 20 000 estimated deaths from malaria in the Region in 1996. The countries most affected were Cambodia and the Lao People’s Democratic Republic. There were 396 confirmed cases in the Republic of Korea in 1996, marking malaria’s return to that country after an absence of 17 years.

More attention is being given to large-scale vector control measures to protect populations with the highest incidence of malaria. In 1996, approximately 20 million people were protected with pyrethroid-treated mosquito nets and 9 million with indoor residual house sprays. This represents about 26% of the population at risk in malaria-endemic areas in the Region. DDT was used for indoor spraying in China, Malaysia, Papua New Guinea and Solomon Islands.

Vaccine-preventable diseases
The objectives of the programme are to reduce morbidity and mortality from diphtheria, pertussis, poliomyelitis, measles, tetanus, tuberculosis, and hepatitis B, to promote regional self-sufficiency in the supply of good quality vaccines, and to ensure reliable cold chain and logistics systems and safe sterilization and injection practices.

In 1997, the regional coverage for six antigens (not including hepatitis B) was sustained at over 90%. Most countries have sustained the gains in coverage made in recent years while simultaneously carrying out poliomyelitis eradication activities.

Activities to eradicate poliomyelitis are described in section 5.1.

The six countries in the Region that have recently reported neonatal tetanus have continued to improve surveillance and increase tetanus toxoid coverage for women of child-bearing age. All six countries have reduced the incidence of neonatal tetanus to below 1 case per 1000 live births per year in every province. They are also continuing to make progress towards this target at the district level. As neonatal tetanus is a focal disease usually confined to rural areas that have limited access to health facilities, countries are using surveillance data to focus immunization on the few remaining high-risk areas.

Despite the maintenance of high overall measles immunization coverage, there are still pockets of low coverage where measles outbreaks continue to occur. Analysis of outbreak data usually shows that the cause is failure to immunize rather than vaccine failure. Many Pacific island countries carried out national campaigns to accelerate measles control in late 1997 and the first quarter of 1998. At the same time, measles surveillance, which is still much less developed than poliomyelitis surveillance, is being improved.

There has been steady progress in some countries in adopting national plans to eliminate unsafe sterilization and injection practices. Autodestruct syringes have been successfully used in mass campaigns for measles and diphtheria control. The safe destruction of used injection equipment is an important issue for further development. Field trials have begun of low-cost incinerators that burn used plastic injection equipment safely. New cold chain equipment is being provided by partner agencies to replace existing units in many countries. Vaccine vial monitors have been distributed widely throughout the Region and have been proving useful, particularly for outreach immunization.

Comprehensive vaccine requirement calculations have been undertaken in several countries. These calculations have been used to identify government and partner agency funds to meet vaccine requirements. The Regional Office is actively collaborating with centres of excellence in providing technical support for vaccine production and quality control. During 1997 and 1998, the major focus was on strengthening the capacity of national control authorities, which was carried out through national and regional training workshops and fellowships involving centres in the Region.

Of the 37 countries and areas in the Region, 34 are now fully or partly self-sufficient in their supply of routine vaccines, either through production or procurement. Only Cambodia, the Lao People’s Democratic Republic and Mongolia are still fully dependent on external resources for their supply.

A total of 34 countries and areas in the Region have incorporated hepatitis B immunization into their routine Expanded Programme on Immunization to some extent. The Pacific island countries continued to achieve high coverage levels, particularly as the continuity of supply of vaccine has been assured by international partners. At the end of 1996, 13 Pacific island countries and areas had hepatitis B coverage of over 80% for infants. In more highly populated countries, the high cost of the vaccine has limited its full integration into the Expanded Programme on Immunization.

While the major share of the costs of the Expanded Programme on Immunization and poliomyelitis eradication is borne by the countries concerned, the success of the programme, particularly in poliomyelitis eradication, would not have been possible without the support of international partner agencies. These include the governments of Australia, Canada, Finland, France, Germany, Italy, Japan, Malaysia, the Netherlands, the Republic of Korea, Sweden, the United Kingdom of Great
Britain and Northern Ireland and the United States of America, together with UNICEF and Rotary International.

The Expanded Programme on Immunization continues to make progress and reaches every part of the Region. Although wild poliovirus is on the verge of being eradicated in the Region, there are areas that are vulnerable to outbreaks of other vaccine-preventable diseases, particularly measles. The lessons learnt from poliomyelitis are already being adapted to strengthen the Expanded Programme on Immunization as a whole, and there have been many gains in the improvement of the quality of immunization services.

**Diarrhoeal and acute respiratory disease control**

The programme aims to reduce childhood mortality, in particular mortality and morbidity from acute respiratory infections and diarrhoeal diseases in children below five years of age.

Adaptation of the integrated management of childhood illness (IMCI) strategy to individual country settings was completed in the Philippines and Viet Nam. Training courses were conducted in selected districts of both countries. The objective was to ensure that trained health workers can learn the IMCI strategy and apply these skills to every child they see. However, the availability of essential drugs in first-level health facilities is often a constraint.

An IMCI orientation and coordination meeting was held in Viet Nam in May 1998 and future IMCI activities were discussed. Also in May 1998, a meeting was held in China to introduce the IMCI strategy to interested parties.

After strengthening and updating the skills and knowledge of trainers, a number of training courses on case management of diarrhoeal and acute respiratory infections were conducted in Cambodia, the Lao People’s Democratic Republic, Mongolia and Viet Nam.

In Cambodia, a workshop was conducted in May 1998 to strengthen teaching of control of diarrhoeal diseases and acute respiratory infections in nursing schools. Efforts were made to improve the training sites for nursing students. Follow-up visits were made to Fiji, Kiribati and Vanuatu to review nursing training curricula in light of the plans prepared during the WHO/UNICEF training course for Pacific island nurse tutors on integrated management of selected childhood illnesses, conducted in August 1996.

High priority was given to enhancing the interpersonal communication skills of health workers in dealing with caretakers. In March 1998, a workshop on communication strategies for diarrhoeal and acute respiratory disease control, held in China, provided an opportunity for countries to share their experiences and strengthen the communication component of national diarrhoeal and acute respiratory disease control programmes.

The IMCI strategy is being extended beyond the initial projects in the Philippines and Viet Nam to other countries in the Region. Close collaboration with partner agencies and institutions related to child health will be crucial.

**Tuberculosis**

The objective is to reduce the transmission of tuberculosis and lower the number of deaths due to the disease.

In 1996, there were 942,831 newly notified cases of tuberculosis in the Region (see figure 5.2). Among these, 353,138 were highly infectious cases (sputum smear-positive). This latest figure is almost double that of 1987 (186,522).

These figures reflect the severity of the tuberculosis situation in the Region but also show the improvement of health care services for patients with tuberculosis, resulting in an increased number of cases seeking care.

Regional tuberculosis trends are shown in Figure 5.2.

![Figure 5.2 Number of tuberculosis patients in the Western Pacific Region (1986-1996)]
Tuberculosis/HIV co-infection is still low in the Region as a whole, except in Cambodia, Malaysia and Viet Nam. In Cambodia, a survey conducted on tuberculosis patients in 1996 indicated that 3.9% of all patients, and 11.5% of those in Phnom Penh, were HIV-positive. It is estimated that HIV-positivity among tuberculosis patients will increase to 26% by 2000.

In Malaysia, the reported number of tuberculosis patients infected with HIV increased to 262 in 1996, around eight times the number in 1991.

In Ho Chi Minh City, Viet Nam, the percentage of HIV-positive tuberculosis patients rose from 1% in 1994 to 6% in 1997. In the rest of the country the percentage remains lower than 1%.

In Papua New Guinea, the Philippines and some areas of China, particularly Yunnan province, close surveillance of HIV-seroprevalence among tuberculosis cases is needed.

A drug resistance surveillance project was completed in five countries in the Region in 1997 with the technical support of three WHO collaborating centres for tuberculosis bacteriology. The findings are being utilized to advocate the expansion of the directly-observed treatment, short course (DOTS) strategy nationwide in those countries where drug resistance is a major obstacle to tuberculosis control.

In the Philippines, progress has been seen since the DOTS strategy was introduced in three provinces in late 1996. The cure rate has improved from around 60% to more than 80%. As of February 1998, 5 million people, 8% of the total population of the Philippines, have access to DOTS. It is expected that this will rise to 25% by the end of 1998.

DOTS implementation has also been started in the Lao People’s Democratic Republic, Mongolia, two districts of Papua New Guinea, Samoa, Solomon Islands, Tonga, Vanuatu and Viet Nam.

A regional training course on management of tuberculosis was organized in Beijing in October 1997 in collaboration with the Government of China and the Japan Anti-Tuberculosis Association. It was attended by 25 participants from 14 countries in the Region.

In August 1997, seven countries in the Region with high levels of tuberculosis participated in a working group on tuberculosis morbidity and mortality in the Western Pacific Region, held in the Regional Office.

More and more countries and areas are implementing the DOTS strategy. However, across the Region, only 35% of tuberculosis patients are enrolled in DOTS programmes. Limited human and financial resources for tuberculosis control are the main constraint to expansion of the DOTS strategy.
In Cambodia, Malaysia and Viet Nam, where tuberculosis/HIV co-infection is high, most tuberculosis patients have access to a DOTS programme. This helps to secure a high cure rate.

**Emerging diseases, zoonoses and antimicrobial resistance**

The aims of the programme are: to establish surveillance mechanisms to detect and control outbreaks of communicable diseases, including zoonoses and antimicrobial resistance; to develop programmes for prevention and control activities, particularly for viral hepatitis, dengue fever and dengue haemorrhagic fever, Japanese encephalitis, haemorrhagic fever with renal syndrome, plague and influenza; and to respond to outbreaks of emerging and re-emerging infectious diseases.

Laboratory-based surveillance was strengthened at national level through a number of workshops, fellowships and WHO meetings on brucellosis, cholera, Creutzfeldt-Jakob disease, dengue fever, enterovirus infection, hantavirus infection, hepatitis, influenza, Japanese encephalitis and plague. Efforts to improve laboratory capacity, reagents and equipment were also made in some countries.

A Biennial Meeting of the South-East Asia and Western Pacific Regions of WHO on the Prevention and Control of Dengue Fever/Dengue Haemorrhagic Fever was held in the Regional Office in July 1997 with participants from 17 countries in the two regions. The objective of the meeting was to strengthen international and interregional collaboration to address the common public health concerns of dengue fever and dengue haemorrhagic fever.

Dengue fever and dengue haemorrhagic fever continue to be serious public health problems in the tropical countries of the Region, which include developing and newly industrialized countries, such as Malaysia and Singapore. More than 120 000 dengue cases were reported to WHO during 1997. In the Pacific islands, a dengue outbreak occurred in Fiji in 1998. However, the case fatality rate of dengue in the Region has been declining with the introduction of better case management.

**Figure 5.3 Case fatality rates for dengue in selected countries of the Western Pacific Region (%)**

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</thead>
<tbody>
<tr>
<td>Cambodia</td>
<td>10.40</td>
<td>6.90</td>
<td>7.20</td>
<td>4.10</td>
</tr>
<tr>
<td>Malaysia</td>
<td>3.20</td>
<td>0.56</td>
<td>0.58</td>
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</tr>
<tr>
<td>Viet Nam</td>
<td>1.78 (1979)</td>
<td>1.10</td>
<td>0.54</td>
<td>0.24</td>
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</tbody>
</table>

In China, the immunization programme for Japanese encephalitis (JE) has continued. Local production of JE vaccine has increased and over 120 million doses a year are now being given to children. This is sufficient for China’s current national requirements. The number of JE cases in China in 1996 and 1997 was half of that in the early 1990s.

JE vaccine is also being produced in Viet Nam and the country now meets 40% of its national requirements.

In Viet Nam, enough plasma-derived vaccine for viral hepatitis B to immunize all newborn infants can now be produced locally. WHO is supporting the transfer of technology for production of plasma-derived vaccine to Mongolia.

Eighteen human cases of influenza A (H5N1), including six deaths, were identified in Hong Kong, China, from May to December 1997. Preliminary data indicated that the major transmission mode was bird-to-human and that human-to-human transmission was inefficient if it even existed. Approximately 1.6 million chickens and other poultry in farms and markets in Hong Kong were slaughtered in December 1997. As of May 1998, no human cases of influenza A (H5N1) had been reported since 28 December 1997. In January 1998, an international team, coordinated by the Regional Office, visited Guangdong province in the southern part of China to assess the influenza situation. The team also discussed immediate and long-term international collaboration on influenza surveillance with national and local authorities. The mission found no human or poultry cases of influenza A (H5N1) infection. WHO diagnostic kits for influenza A (H5N1) had earlier been distributed to surveillance laboratories to standardize laboratory diagnosis. The team recommended that intensified influenza surveillance should be implemented in January 1998 and maintained for at least six months with full support of the central and local government.
More generally, the quality of regional influenza surveillance, as part of the global surveillance system, has been improved.

Surveillance and control of other communicable diseases, such as haemorrhagic fever with renal syndrome, leptospirosis, plague, typhoid fever and rabies were strengthened through training of local human resources, distribution of manuals on disease control and the provision of vaccines. A WHO meeting on prevention and control of hantavirus infections was held in Seoul, the Republic of Korea, in 1997. A meeting on the prevention and control of communicable diseases in Guangdong, Hainan, Hong Kong and Macao, was held in Hong Kong, China, in June 1998.

Outbreaks reported in the Region included hand-foot-and-mouth disease due to enterovirus infection in Malaysia, dengue in Fiji and the discovery of human cases of influenza A (H5N1) in Hong Kong, China. The Regional Outbreak Response Task Force responded promptly to life-threatening communicable disease outbreaks and teams of experts were sent in response to government requests. Regional stockpiles of supplies and equipment (e.g. insecticides, larvicide, fogging machines, and cholera kits) have been distributed to three strategic locations in preparation for emergencies: Manila, the Philippines; Phnom Penh, Cambodia; and Suva, Fiji. In early 1998, stockpiles of insecticide and larvicide in Phnom Penh and Suva were used to control dengue outbreaks. WHO activities following the discovery of human cases of H5N1 influenza in Hong Kong are described above under influenza.

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Epidemic preparedness has been strengthened at regional and national levels. Regional stockpiles of supplies and equipment ensured timely logistical collaboration during outbreaks of vectorborne diseases and cholera.

WHO’s involvement in disease surveillance, outbreak intervention and information dissemination during epidemics was extremely effective in containing outbreaks. The dissemination of outbreak information, authorized by WHO, through international media was most effective in containing adverse rumours which often affect international travel and trade.

**Sexually transmitted diseases and AIDS**

The objective of the programme is to prevent and control sexually transmitted diseases (STDs), including HIV infection and AIDS. WHO collaborates with the other cosponsors of the Joint United Nations Programme on HIV/AIDS (UNAIDS) in prevention and control programmes.

Two meetings on STD, HIV and AIDS epidemiological surveillance were held in the Regional Office. The first, in September 1997, brought together a group of experts to analyse the current situation of STDs, HIV and AIDS in the Region, and to review surveillance systems. During the second meeting, in October 1997, regional and international experts studied the epidemiology of STDs, HIV and AIDS in Asia and the Pacific. A computerized database for STD, HIV and AIDS data has been completed and is being promoted in the Region. Estimates and short-term projections for HIV and AIDS were updated in 10 countries of the Region. In addition STD estimates were projected for the Region.

By 2000, the number of HIV-infected individuals in the Region is expected to exceed 1.8 million and the annual incidence of AIDS cases is expected to increase to 60 000. It is estimated that more than 35 million new cases of STDs occur every year in the Region. Of these, 30 million are chlamydia infections.

![Figure 5.4 Epidemiological features of working estimates for HIV prevalence in selected countries of the Western Pacific Region](image-url)

<table>
<thead>
<tr>
<th>Country/Area</th>
<th>Reference year</th>
<th>HIV prevalence</th>
<th>HIV prevalence rate in adults over 15 (%)</th>
<th>Women among HIV infected population (%)</th>
<th>Sexual contact (%)</th>
<th>Injecting drug use (%)</th>
<th>Others (%)</th>
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</thead>
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<td>1996</td>
<td>96 300</td>
<td>1.631</td>
<td>50</td>
<td>95</td>
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<tr>
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<td>20</td>
<td>75</td>
<td>5</td>
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<td>0.150</td>
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<td>95</td>
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</tbody>
</table>
Two issues and a special edition of the regional STD, HIV, AIDS surveillance report covering the status and trends of STDs, HIV and AIDS, cumulative to the end of 1996, were published. Support was given for the development of HIV sentinel surveillance systems in Cambodia, China, Malaysia and the Philippines. Preparations were also made for special STD surveys in China, Malaysia and Pacific island countries and areas.

Tuberculosis/HIV co-infection is discussed in the section on tuberculosis (see pages 93-95).

Progress has been made in promoting the use of syndromic STD case management at the primary health care level where laboratory facilities are not available. An advocacy brochure and a poster were produced and distributed. Support was given for the adaptation, translation and distribution of training guidelines on the syndromic approach in Cambodia, China, the Lao People's Democratic Republic and Viet Nam. WHO and UNFPA are working together in Cambodia to support the improvement of STD control activities in selected areas of the country.

In July 1997, a training course to strengthen STD programme management was developed and conducted in Fiji and the Federated States of Micronesia for participants from 16 countries of the Pacific. Similar courses were held in 1998 in Malaysia, Papua New Guinea and Viet Nam. A manual to strengthen the management of specialized STD clinics is being developed.

The promotion of the use of health services for STD treatment was supported through the production of regional guidelines and the organization of workshops in Cambodia in October 1997, China in May 1998, Malaysia in July 1997, and Viet Nam in October 1997 and April 1998.

Efforts have been made to improve the prevention and control of STDs among sex workers through a model clinic project in the Philippines. Experts from the Region were invited to observe the three model clinics and to visit outreach programmes for sex workers in the Philippines. Continuous support has been provided for the operations of the Toul Kirk Dyke community clinic serving commercial sex workers in Phnom Penh, Cambodia.

Guidelines on STD education for teachers were finalized. A training course in STD counselling has been developed, and is initially being used in China. Technical support was also provided in the development of HIV and STD education as an entry point for health-promoting schools in China.

WHO supported AIDS care in Cambodia through the development of a strategic approach for HIV/AIDS care; the development of guidelines for the treatment of HIV/AIDS patients; and the promotion of home-based care.

In October 1997, the Regional Office promoted the exchange of country-level experience in STD and HIV prevention and control through a biregional meeting with the South-East Asia Region, in Beijing, China. Support was also given to the Fourth International Congress on AIDS in Asia and the Pacific, held in Manila, the Philippines, in October 1997.

Close collaboration with UNAIDS has been maintained and reinforced. WHO country representatives are chairing UNAIDS theme groups in several countries. In addition to general collaboration with UNAIDS, the Regional Office is supporting the implementation of country projects funded by UNAIDS.
Most countries and areas are now strengthening STD prevention and control as a way of preventing HIV transmission. However, in many countries, STD patients still seek treatment in the informal sector (from pharmacists or traditional practitioners). Additional efforts are required to educate the public and improve the quality of STD services in the public and private sectors.

The role of WHO in HIV/AIDS is now focused on surveillance, STD prevention and control focusing on people with high-risk behaviour, and AIDS care.

**Control of tropical diseases**

The programme aims to promote national, regional and international action for controlling malaria, to strengthen operational planning, implementation, evaluation and training so as to ensure cooperation between countries for greater impact on malaria control, and to involve the community more closely in malaria control activities, encouraging greater individual responsibility for protection against the disease.

The regional target for malaria control is a 50% reduction in malaria incidence and an 80% reduction in mortality by 2000, based on 1992 figures.

Multidrug-resistant falciparum malaria is a major problem affecting malaria control programmes in areas of Cambodia, China and Viet Nam. There is widespread use of artemisinin and its derivatives, particularly in Viet Nam. However, there are serious concerns that the irrational use of these drugs and the poor quality of some formulations may result in resistance developing rapidly. Despite problems with drug resistance, the malaria control programmes in these three countries, as well as in the Lao People’s Democratic Republic, have made significant progress due to increased political commitment and support from partner agencies.

National malaria control programmes are making progress in reducing morbidity and mortality due to malaria. This is being achieved through better management of resources, applying intensified control measures in selected areas, and identifying priority issues for partner support.

The marked drop in mortality in Viet Nam is related to artemisinin and its derivatives being made available free of charge through health services. Coverage of the population with pyrethroid-treated mosquito nets has steadily increased and 12 million of the 34 million people at risk have been protected. However, comprehensive control measures still need to reach areas where the poorest and most dispersed populations live, especially the ethnic groups in the northern and central highlands, and populations living in dense forest areas.

In the Lao People’s Democratic Republic, efforts were made to protect the Lao Theung ethnic group with pyrethroid-treated mosquito nets and to provide insecticide to other ethnic groups which already use mosquito nets. Diagnosis and treatment services need to be strengthened and expanded to reduce the estimated 5000 malaria deaths that occurred in the country in 1996.

In Cambodia, malaria causes an estimated 10 000 deaths each year and is at its most severe in isolated villages surrounded by forests. An uninterrupted drug supply has been maintained and there is optimism that malaria can be controlled in the north-eastern provinces by expanding pyrethroid-treated mosquito net coverage to the 170 000 inhabitants of all accessible areas.

In Papua New Guinea, malaria remains a serious health problem. In 1996, 514 deaths and 71 000 cases diagnosed by microscopy were reported. Outbreaks recently occurred in Chimbu and other highland provinces with considerable mortality. A malaria surveillance and control unit was established at Goroka in the Eastern Highlands.

In Vanuatu, 125 000 people, 73% of the population at risk, were protected with pyrethroid-treated mosquito nets. The goal is to achieve complete coverage by the end of 1998.

In Solomon Islands, the intensified malaria control programme in Honiara has reduced the annual parasite incidence and the number of malaria cases has been reduced from 604 cases per 1000 inhabitants in 1995 to 264 in 1997. Although falciparum malaria has been reduced, the detection of vivax malaria drug resistance poses a new challenge.
Group educational and training activities included microscopy training for malaria staff from Solomon Islands and Vanuatu in July 1997; training in management of severe and complicated malaria for staff from the south-west Pacific countries in August 1997; and a national meeting on drug policy issues in Papua New Guinea in October 1997. WHO also supported practical training for provincial and district level staff in Cambodia and Viet Nam. Biregional collaboration with the South-East Asia Region of WHO was strengthened through joint meetings in Chiang Mai, Thailand, and Beijing, China, in October 1997.

Mosquito nets being treated with pyrethroid in Vanuatu

National budgets were supplemented by the renewed commitment of partner agencies, including AusAID, DFID, the European Union, the Government of Japan, the Pacific Community, Rotary International, UNDP and the World Bank, to support malaria control activities.

The aim is to reduce the number of vectors of public health importance so that they no longer constitute a threat to public health and well-being.

Preventive and emergency control methods against dengue vectors in Northern Mariana Islands were strengthened through workshops held in October 1997 in Saipan, Tinian and Rota Islands. The workshops were attended by environmental health staff, quarantine officers and community workers. Measures were also taken to reduce the threat of dengue, malaria, and Japanese encephalitis vectors being introduced by aircraft. As part of intensified malaria control activities in Solomon Islands and Vanuatu, space spraying operations were carried out in specific localities during peak transmission periods.

A South-East Asia and Western Pacific biregional meeting on prevention and control of selected parasitic diseases was held in the Regional Office in April 1998. The meeting stressed that prevention and control of intestinal helminths and foodborne trematodes should be a major goal in the many countries of the two regions where these infections represent a significant public health problem. The meeting concluded that in Cambodia and the Lao People's Democratic Republic the control of schistosomiasis, foodborne trematodes and intestinal helminths could be carried out simultaneously, using a combination of orally administered drugs.

The objective is to promote simple and cost-effective methods to prevent and control filariasis.

Samoa has adopted a control strategy based on annual mass drug administration of diethylcarbamazine combined with ivermectin. The first combined treatment, carried out in 1996 with WHO support, was evaluated in 1997 and a reduction in the microfilaria rate from 2.2% to 1.7% was found. The results were disappointing, with 20% of the population, including many young adult males, remaining untreated. A second combined treatment was conducted in July 1997 with better coverage. An evaluation of coverage and prevalence will be made in 1998.

Fiji, French Polynesia and Tonga also have active filariasis control programmes that are based on annual mass drug administration of diethylcarbamazine.

Malaria incidence is showing a downward trend and the prospects are good that the regional target of a 50% reduction from 1992 figures by 2000 will be achieved. There have already been reductions of between 40% and 63% in China, the Philippines, Solomon Islands, Vanuatu and Viet Nam. Increased efforts are needed to implement effective control interventions in remote rural areas of Cambodia and the Lao People's Democratic Republic, where transmission is intense and mortality high, and in Papua New Guinea, where personnel shortages and population movements have contributed to the malaria problem.

Outbreaks of dengue haemorrhagic fever remain a threat. Further integration of agencies outside the health sector is necessary to eliminate mosquito breeding sites.

Governments are showing interest in the new multidrug filariasis control strategy but each endemic country requires a plan of action, filariasis drugs and operational funds to expand control
interventions.

**Special Programme for Research and Training in Tropical Diseases**

The aims of the programme are to promote and strengthen research activities, and to develop new and improved mechanisms and methods for prevention, diagnosis and treatment of major tropical diseases.

The major diseases targeted for research in the Region were malaria, schistosomiasis and filariasis. Topics included the benefits and effectiveness of different drug regimens, diagnostic methods, vector control trials and vaccine development for schistosomiasis and malaria. Support for malaria vaccine research was provided to several institutions in the Region, including the Papua New Guinea Institute of Medical Research; the Walter and Eliza Hall Institute of Medical Research, Melbourne, Australia; Queensland Institute of Medical Research, Australia; and the Hong Kong Institute of Biotechnology. Research is continuing, but as yet no malaria vaccine has been developed.

Working with the Malaria Control Service of the Philippines, the Regional Office remained the global focal point for producing and distributing test kits to measure the *in vitro* sensitivity of malaria parasites to antimalarial drugs.

The drug ivermectin is being introduced into operational programmes for filariasis control. The use of artemisane and artemisinin suppositories can allow life-saving treatment to begin before persons with severe or cerebral malaria reach hospitals or equipped health centres. *Dihydro-Qinghaosu*, a derivative of artemisinin, has been used successfully in treatment of multidrug-resistant malaria cases. Support for pyrethroid-treated mosquito net trials confirmed the effectiveness of this technique for vector control.

**Prevention of blindness and deafness**

The objectives of the programme are to reduce avoidable and curable blindness, promote eye health and make adequate eye care available to all, especially people in underserved rural and urban communities; and to reduce the incidence and consequences of hearing impairment.

Programmes for the primary prevention of blindness were supported in China, Fiji, Vanuatu and Viet Nam. Progress of the blindness prevention and control programmes in Fiji and Viet Nam was assessed in July and August 1997, with WHO technical support, and recommendations for future integration with other primary health care programmes were made. In addition, a training course on primary eye care management was conducted in Viet Nam in July 1997. In Vanuatu, a review of the extent of eye disease and existing treatment facilities was carried out by a consultant in August and September 1997. Technical support was also provided to a workshop on ways to reduce preventable and curable blindness.

Technical support was provided for a training course on surveying for cataract, which was held in Shanxi and Heilongjiang provinces, China, in August 1997.

The cataract intervention programme in the Lao People’s Democratic Republic was expanded to include 11 provinces, with support from the Republic of Korea. By the end of 1997, 1603 cataract operations had been performed. The programme showed primary health care in operation and further demonstrated the value of multisectoral participation. Medical supplies, surgical kits and glasses were provided to the programme by the Regional Office.

In the Philippines, intraocular lenses, medicines and drugs were provided for the cataract intervention programme in areas of high prevalence. Viet Nam was provided with cataract surgical kits.

A training curriculum on prevention of blindness was developed to enable mid-level eye care personnel to provide quality essential eye care services. The curriculum is currently being field-tested prior to finalization.

An intercountry workshop on prevention of blindness was held in Cambodia in February 1998, initiated by the Collaborating Centre for the Prevention of Blindness, Juntendo University, Japan. The workshop assessed past and present activities of the national programmes for the prevention of blindness in Cambodia, the Lao People’s Democratic Republic and Viet Nam.

WHO collaborated with the Ministry of Health and international nongovernmental organizations in a meeting on prevention of blindness in China in March 1998.
With WHO support, a network for the prevention of deafness was set up in China to obtain epidemiological data and draft a plan for prevention of deafness, especially deafness caused by otitis media in children.

Epidemiological surveys of deafness and hearing impairment were conducted in Quang Ninh Province and Hai Phong City in Viet Nam in collaboration with WHO. A national seminar to review activities for the prevention of deafness was held in Hanoi in October 1997. In December 1997, national workshops were conducted on the development of national programmes for the prevention of hearing impairment and deafness.

There is a need to increase public and government awareness of the extent and consequences of blindness and deafness. The lack of trained personnel and other resources to implement the programme needs to be addressed. In addition, the collection of epidemiological and other related data on blindness and deafness needs to be improved.

5.3 Control of noncommunicable diseases
Regional situation

Noncommunicable diseases, particularly cancer, cardiovascular diseases and diabetes, are major health issues in most countries and areas of the Region. This is in part due to lifestyle changes and ageing populations.

Cancer is one of the leading causes of death in 26 countries and areas in the Western Pacific Region. An estimated 3.5 million cases of cancer occur in the Region each year. The Region’s leading cancers for males are those of the stomach, lung, liver, oesophagus and colorectum. For females the most common sites are the breast, uterus, cervix, stomach, lung, liver and oesophagus.

Cardiovascular diseases are a major cause of death in 32 countries and areas, and account for 3 million deaths each year. Hypertension prevalence rates of more than 10% in 19 countries and areas significantly contribute to stroke, coronary heart disease, heart failure and renal failure. Morbidity and mortality due to coronary heart disease are now rising in many developing countries of the Region. Stroke remains common and is responsible for numerous deaths and disabilities. Rheumatic fever and rheumatic heart diseases are public health issues in six countries.

The current number of diabetics in the Region is estimated to be 30 million. By the year 2025, it will be at least 55 million. Thirteen countries and areas in the Region have a noninsulin-dependent diabetes prevalence rate of more than 8%, with some Pacific island countries having among the highest levels in the world. Insulin-dependent diabetes mellitus is still rare in developing countries.

Approximately 80% of the population in the Region is afflicted with dental caries which remains the most widespread of all dental problems. Periodontal disease, the other common oral health condition, affects over three-quarters of all adults to some degree.

Control of noncommunicable diseases

The objectives of the programme are to prevent and control noncommunicable diseases, particularly cancer, cardiovascular diseases and diabetes and to improve case management; and to support Member States in developing their oral health care programmes so that the highest possible level of oral health can be attained by all and maintained throughout life.

An epidemiological review of noncommunicable diseases was made and possible collaborative activities were discussed for Kiribati, Northern Mariana Islands, the Marshall Islands and Palau. A national plan of action for integrated prevention and control of noncommunicable diseases was formulated in Fiji.

Integrated projects for the prevention and control of noncommunicable diseases have been strengthened in China. A national workshop on integrated strategies for chronic disease control was held in Jiangxi, China, in May 1998, to extend integrated prevention activities to more provinces.

In August 1997, a national workshop on integrated prevention and control of cardiovascular diseases and diabetes was held in Tonga. An epidemiological review was carried out and a health campaign, strongly promoting the adoption of healthy lifestyles for primary prevention of cardiovascular disease and diabetes, was launched by His Majesty the King of Tonga.
A regional working group on integrated prevention and control of cardiovascular disease and diabetes was held in November 1997 in collaboration with the Medical Research Institute, Malaysia. Comprehensive recommendations were made for strengthening regional and country integrated programmes. A regional plan on integrated prevention and control of cardiovascular diseases was developed.

WHO supported the development of cancer control programmes in Brunei Darussalam, Papua New Guinea and Viet Nam. In Tonga, cancer prevention was strengthened through a national workshop held in June 1997.

In October 1997, WHO supported the International Meeting on Malignant Tumours in Children, held in Beijing, China, to promote the exchange of information on childhood cancer treatment and research. In December 1997, with WHO support, an International Seminar on Cancer Epidemiology and Control in the Asia Pacific Region was held in Kobe, Japan. The meeting led to strengthened information exchange on epidemiological research. It also reviewed the development of cancer registries in the Region.

The regional cancer database has been developed to include the most up-to-date and complete cancer mortality and incidence data available, as well as comprehensive cancer control information.

Early detection, particularly of cervical and breast cancer, is a priority of cancer control. In Nauru, a cervical cancer screening programme was initiated, focusing on training in conducting Pap smear tests and registering the results. Clinical guidelines were developed. Comprehensive recommendations were made on the development of cervical and breast cancer screening programmes in Brunei Darussalam.

In September 1997, a national manual on early detection of cancer was drafted at a meeting held in Xiamen, China. Training in early detection of cancer and a cervical screening programme were carried out in Mongolia in June 1998.

WHO cancer pain relief approaches were emphasized in the development of cancer control programmes in Papua New Guinea and Viet Nam.

In March 1998, a regional workshop on strengthening health professional education in cancer pain relief and palliative care was held in Saitama, Japan, with the support of the Saitama Cancer Center. The workshop developed approaches for the implementation of WHO methods for cancer pain relief and for strengthening professional education, including the development of medical and nursing curricula in palliative care and cancer pain relief.

An epidemiological review of cardiovascular diseases in Viet Nam in September 1997 indicated an increase in cardiovascular diseases and an 11% prevalence of hypertension. A cardiovascular disease survey and community-based measures for primary and secondary prevention of hypertension were begun.

In order to assess cardiovascular diseases and develop a national programme on prevention and control in Mongolia, a survey was undertaken in 1997 with WHO support. Analysis and evaluation of survey data and training in epidemiological methodology continued with WHO collaboration in 1998.

Hypertension control was emphasized in a workshop held in Tianjin, China, in May 1998. A stroke control project was developed in seven cities in China to reduce the incidence and mortality of strokes, which kill 1 million people in the country annually.

In Viet Nam, the programme for primary and secondary prevention of rheumatic fever and rheumatic heart disease was evaluated in combination with a training workshop for health workers in September 1997. Primary school children were screened for rheumatic fever and rheumatic heart diseases in Tongatapu, Tonga, in November 1997.

WHO provided support for a survey of noncommunicable disease and diabetes in Fiji, including three workshops on survey design, planning and methodology, held in September 1997.

In Tonga, a health campaign was organized with WHO support to mark World Diabetes Day in November 1997.

In Vanuatu, a five-year plan was developed to promote oral health. In Palau and Tonga, school-based oral health prevention programmes were strengthened. Health education on prevention of dental
diseases was enhanced in Mongolia in 1998. National dental surveys in Brunei Darussalam and the Philippines were initiated with WHO support in March 1998.

Oral health has been integrated into health-promoting schools projects in the Lao People’s Democratic Republic, Mongolia and Viet Nam.

Prevention and control of cardiovascular diseases and diabetes have been strengthened through the development of integrated programmes which emphasize reduction of common risk factors, particularly smoking, unhealthy diets and lack of exercise. Epidemiological assessment of cardiovascular diseases and diabetes has been enhanced to provide a more scientific basis for the development of intervention strategies and procedures.

Cancer prevention and control has focused on the development of early detection and screening, especially for cervical and breast cancer. The development of cancer pain relief and palliative care has been a major thrust of the cancer control programme. The low priority accorded to the programme in national health planning and the lack of trained health personnel at the primary health care level have been significant constraints. Lack of reliable and up-to-date data remains a significant constraint for the cancer control programme.

Oral health prevention has been strengthened with particular emphasis on development of school-based programmes. Oral health survey skills and knowledge of dental treatment have also been improved with WHO support.

*Early lessons in oral health, the Lao People’s Democratic Republic*
Chapter 6. Administrative services

Staffing requirements continued to be regularly monitored and reviewed. In view of the uncertain budgetary situation, a number of posts remained vacant or were temporarily filled by short-term professionals.

Concerning the appointment of women to professional levels, as at 1 May 1998, 21% of professional positions were held by women. Efforts continued to be made to meet the target set by the World Health Assembly of 50% by the year 2002 for new appointments of women to professional categories. An increased number of women were also recruited for short-term consultancies and short-term professional assignments which helped in identifying suitable candidates for fixed-term appointments. The appointment of women to fixed-term posts was equivalent to 34% of the total number of selections made in 1997 (Figure 6.2). The Coordinator for the Employment and Participation of Women at WHO Headquarters visited the Regional Office in November 1997. The implementation of relevant WHO resolutions was discussed in individual consultations and at a meeting with all female professional staff. The Coordinator expressed satisfaction was expressed at the efforts being made by the Regional Office to increase the employment and participation of women. Major problems regarding the recruitment, retention and promotion of women were identified.

Figure 6.1 Short-term professional staff employed from 1995 to 1997 (by gender)

<table>
<thead>
<tr>
<th>Year</th>
<th>Male</th>
<th></th>
<th>Female</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Number</td>
<td>%</td>
<td>Number</td>
</tr>
<tr>
<td>1995</td>
<td>22</td>
<td>79</td>
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</tr>
<tr>
<td>1996</td>
<td>24</td>
<td>71</td>
<td>10</td>
</tr>
<tr>
<td>1997</td>
<td>25</td>
<td>64</td>
<td>14</td>
</tr>
</tbody>
</table>

Bearing in mind the priority given by the World Health Assembly to reproductive health, women’s health and family health, considerable resources have been allocated to these areas. The majority of the financial resources allocated specifically for women’s and reproductive health came from UNFPA, with a total of $ 5 550 700 received during the 1996-1997 biennium. WHO contributed $ 969 800 from regular budget resources to the reproductive health programme.

Figure 6.2 Fixed-term appointments from 1995 to 1997 (by gender)

<table>
<thead>
<tr>
<th>Year</th>
<th>Number of all appointments</th>
<th>Women on the short-list</th>
<th>Men appointed</th>
<th>Women appointed</th>
<th>Women appointed</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>FO</td>
<td>%</td>
<td>RO</td>
<td>FO</td>
<td>%</td>
</tr>
<tr>
<td>1995</td>
<td>10</td>
<td>8</td>
<td>39</td>
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<tr>
<td>1997</td>
<td>9</td>
<td>3</td>
<td>37</td>
<td>8</td>
<td>3</td>
</tr>
</tbody>
</table>

Note: RO = Regional Office; FO = Field Office

The upgrading of the main conference hall was completed within the approved budget from the Real Estate Fund. Administrative procedures in Travel and Registry are being continually evaluated to ensure timely and cost-effective support to technical units.
The Regional Office has collaborated with Headquarters and other regional offices to develop an improved Regional Administration and Finance Information System. This was installed in the Regional Office in May 1998.

Bearing in mind the priority given by the World Health Assembly to reproductive health, women's health and family health, considerable resources have been allocated to these areas. The majority of the financial resources allocated specifically for women's and reproductive health came from UNFPA, with a total of US$ 5,550,700 received during the 1996-1997 biennium. WHO contributed to the reproductive health programme with regular budget resources for an amount of US$ 969,800.