



EXECUTIVE BOARD

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REPORT ON MEETINGS OF EXPERT COMMITTEES AND STUDY GROUPS

Report by the Director-General

The Director-General submits this report on eight meetings of expert committees¹ and three meetings of study groups² whose reports have been prepared in English and French since the eighty-sixth session of the Executive Board.³ For each report, the background, contents and recommendations are outlined. The potential contribution that implementation of the recommendations can make to improving the public health situation in Member States and the implications for WHO's programmes are also discussed.

The meetings of the eight expert committees and the three study groups and their reports are reviewed hereunder, in the following order:

1. CONTROL OF THE LEISHMANIASES
Report of a WHO Expert Committee
2. CANCER PAIN RELIEF AND PALLIATIVE CARE
Report of a WHO Expert Committee
3. CHEMISTRY AND SPECIFICATIONS OF PESTICIDES
Thirteenth report of the WHO Expert Committee on Vector Biology and Control
4. SYSTEMS OF CONTINUING EDUCATION - PRIORITY TO DISTRICT HEALTH PERSONNEL
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5. BIOLOGICAL STANDARDIZATION
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6. EDUCATIONAL IMPERATIVES FOR ORAL HEALTH PERSONNEL: CHANGE OR DECAY?
Report of a WHO Expert Committee
7. THE USE OF ESSENTIAL DRUGS
Fourth report of the WHO Expert Committee on the Use of Essential Drugs

¹ In compliance with paragraph 4.23 of the Regulations for Expert Advisory Panels and Committees (WHO Basic Documents, 37th ed., 1988, p. 101).

² In conformity with resolution EB17.R13, operative paragraph 4.

³ For easy reference, copies of these reports, either in their final form or in proof, are annexed to this report (for members of the Executive Board only).

8. EVALUATION OF CERTAIN VETERINARY DRUG RESIDUES IN FOOD
Thirty-sixth report of the Joint FAO/WHO Expert Committee on Food Additives
9. DIET, NUTRITION, AND THE PREVENTION OF CHRONIC DISEASES
Report of a WHO Study Group
10. COORDINATED HEALTH AND HUMAN RESOURCES DEVELOPMENT
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11. THE ROLE OF RESEARCH AND INFORMATION SYSTEMS IN DECISION-MAKING FOR THE
DEVELOPMENT OF HUMAN RESOURCES FOR HEALTH
Report of a WHO Study Group

1. CONTROL OF THE LEISHMANIASSES

Report of a WHO Expert Committee
Geneva, 6-10 February 1989¹

1.1 Background

In 1982 a first WHO Expert Committee on the Leishmaniasesses reported² on the basic knowledge of leishmanial diseases, their geographical distribution and health impact, and the biology and taxonomy of the parasites, the vectors and the reservoir hosts. It provided a comprehensive review of basic principles and standards for control.

The 1982 Expert Committee's recommendations were subsequently reviewed in the light of their applicability and effectiveness under the typical regional conditions by meetings held in the European Region in 1984 and the Eastern Mediterranean Region in 1985. The specific problems in the Americas were addressed at a meeting organized jointly by the International Development Research Centre (Canada) and the Special Programme for Research and Training in Tropical Diseases.

The reports of the 1982 Expert Committee and the regional reviews provided a basis on which four experts and the WHO Secretariat prepared specific guidelines for each of the major epidemiological varieties of the disease. For practical purposes, the wide and complex range of leishmaniasis varieties was narrowed down into 11 nosogeographical entities, and recommended control approaches were worked out for each one. The present Expert Committee studied and reported on this novel approach.

1.2 The report

The report consists of three main parts. The first contains an up-to-date review of basic knowledge of the leishmaniasesses, control methods, and their geographical distribution; the second deals with the specific control approaches recommended for each nosogeographical entity; and the third examines various aspects of the planning and management of leishmaniasesses control programmes with reference to nutritional programmes, international coordination, and health education and training. The report concludes with short sections on research and recommendations.

¹ WHO Technical Report Series, No. 793, 1990. Date of publication: 12 September 1990 (English); 12 October 1990 (French).

² WHO Technical Report Series, No. 701, 1984.

1.3 Recommendations

Among the 11 recommendations made by the Committee, 6 are addressed to the national health authorities of the Member States where the leishmaniasis are endemic. Emphasis is placed on ensuring the local availability of drugs for treatment of leishmaniasis and on carrying out data analysis so as to define the control needs and evaluate progress. Attention is also drawn to the need for integrated and interdisciplinary approaches in order to be able to intervene in the complex transmission cycles.

Recommendations are also made for applied research on local risk factors and for the establishment of long-term pilot projects which can serve as models for control approaches and test sites for evaluating new tools in well-documented epidemiological situations.

1.4 Significance for public health and implications for the Organization's programme

The report is intended to be used for practical reference. It presents systematic and relatively simple guidelines to enable public health administrators to decide which control measures are needed and feasible under the local circumstances. Practical steps for planning, costing and management of national control programmes are outlined. Standards and technical procedures are given for the use both of medical staff and of vector and reservoir control personnel.

WHO's role in the application of the recommended control strategies is in the first place to provide direct cooperation in determining the control needs and in listing resources. Its second role is to promote technology transfer through training courses and distribution of manuals for field centres. Ad hoc technical cooperation can then be made available where technical problems in the field arise during implementation. In this respect, WHO must also ensure intercountry, regional and global coordination of control and research. Finally, as demonstrated in recent years, WHO can ensure liaison with funding agencies and nongovernmental organizations in order to coordinate support to national programmes, where needed. An important aspect of the Organization's role in relation to bilateral and multilateral support is to make sure that a technical evaluation is made of the results of the programmes supported and that appropriate strategies are chosen and the correct technical methods applied.

2. CANCER PAIN RELIEF AND PALLIATIVE CARE

Report of a WHO Expert Committee Geneva, 3-10 July 1989¹

2.1 Background

Cancer, cardiovascular diseases and accidents are the three main causes of death in both developed and developing countries for the age group 15-64 years. In developing countries the prevalence of communicable diseases often hides the fact that cancer is also becoming a serious problem. Every year about 7 million new cancer cases are diagnosed, half of them in developing countries, and about 5 million of the patients die. Prevalence data indicate that there are currently about 14 million people with cancer. In developed countries 67% of male and 60% of female cancer patients will die of their disease; in developing countries the figures are much higher. Of the eight most

¹ WHO Technical Report Series, No. 804, 1990. Date of publication: 9 November 1990 (English and French).

common forms of cancer, five are more prevalent in developing countries. Even if diagnosis is made at an early stage, treatment is curative in only three types of cancer; aftercare (pain and symptom control) is needed in all eight.

The WHO cancer control programme has been endorsed by both the Executive Board and the Thirty-fifth World Health Assembly (resolutions EB69.R17 and WHA35.30). The four key priorities of the programme are: (1) prevention; (2) early detection linked with efficient therapy; (3) aftercare; and (4) implementation of national cancer control programmes. Based on current estimates, about one-third of cancers can be regarded as potentially preventable. At least another one-third can be cured provided the diagnosis is made at an earlier stage. In most patients with incurable cancer, unnecessary pain could be avoided by appropriate medication. However, to reach this goal globally, a change of priorities among cancer control approaches and a redistribution of resources are urgently needed.

In 1986 WHO published Cancer pain relief,¹ advocating the use of analgesic drugs as the mainstay. This monograph was based on the work of two WHO consultative meetings held in 1982 and 1984, and field-testing of the "three-step analgesic ladder" method that had shown this approach to be scientifically valid, relatively simple to apply, and adaptable to a variety of health care settings. Within this context, the objective of the Expert Committee was to review the current status of cancer aftercare - pain relief and management of other symptoms - and to produce recommendations and guidelines for improving the quality of life of cancer patients.

2.2 The report

The report contains sections dealing with recent progress in cancer pain relief and future challenges; the magnitude of the cancer problem in the world and the urgent need for palliative care; the status of opioid availability for medical purposes; the identification of other common cancer symptoms; psychosocial and spiritual aspects of cancer care; ethical considerations; education and training of health care workers, education of patients and families, and public education; implementation of palliative care at the national level; and recommendations.

2.3 Recommendations

The Committee recommended that WHO support the concept of palliative care, in which pain relief is seen as part of a comprehensive approach to care at all stages of cancer, and take into consideration the management of all problems affecting dying cancer patients and their families. It noted that the expertise that WHO gains through its work in the area of cancer pain relief and palliative care should ultimately be applicable to broader-based programmes directed at the needs of all dying patients. In a more technical context, it recommended that WHO address a number of specific issues crucial to the effective implementation of cancer pain relief and palliative care programmes.

The Committee further recommended that Member States ensure that cancer pain relief and palliative care programmes are incorporated into their existing health care systems, emphasizing that separate systems of care are neither necessary nor desirable. It stressed the need for establishing national policies for cancer pain relief and palliative care, training health care workers, and ensuring the availability of both opioid and non-opioid analgesics for cancer patients with pain.

2.4 Significance for public health and implications for the Organization's programme

The number of cancer patients is increasing in the world. If current trends continue, cancer mortality can be expected to rise in nearly all regions. The major reasons for this increase are a general rise in the average age of the world population,

¹ Cancer pain relief. Geneva, World Health Organization, 1986.

control of other major health problems, and the growing use of tobacco. Tobacco consumption is increasing by more than 2% a year in developing countries. By the year 2000 there are likely to be 1.5 million additional cases of lung cancer each year linked to tobacco use, and 90% of these cancers will be incurable.

Globally, however, palliative care is still a neglected area and several million cancer patients suffer needlessly as a result. At present, palliative care attracts few of the available cancer control resources. Most of these resources are devoted to curative treatment, at a relatively high cost but with limited effect. The adoption of the Committee's recommendations is of importance for the reallocation of limited global resources for cancer control activities, and the reorientation of national cancer control programmes, especially in developing countries. For many years to come, in the absence of totally effective measures for prevention, early diagnosis and curative treatment of cancer, as well as of sufficient health care facilities and trained workers, palliative care will be the only realistic humane approach for many patients. Nothing would have a greater impact on the quality of life of these patients than the dissemination and application of knowledge already available in relation to pain and symptom management.

A second edition of Cancer pain relief will be published in 1991 in conjunction with guidelines on managing other cancer symptoms, and guidelines on opioid availability for medical purposes. These guidelines were reviewed and endorsed by the Expert Committee. More than 200 000 copies of Cancer pain relief have been distributed, in some 15 languages, showing clearly that it has fulfilled, and continues to fulfil, an important and urgent need.

3. CHEMISTRY AND SPECIFICATIONS OF PESTICIDES

Thirteenth report of the WHO Expert Committee on Vector Biology and Control Geneva, 19-25 September 1989¹

3.1 Background

Specifications for pesticides used in public health continue to be of much interest to Member States as reference for the purchase and quality control of such products, especially those which are out of patent and can therefore be manufactured by any company in any country. To ensure that products are both effective and acceptable in terms of safety, it is essential that the specifications published by WHO be met. It is also important that the specifications include new compounds appearing on the public health market. The Committee paid particular attention to the introduction of new methods of analysis allowing the detection of hazardous impurities as well as clauses to limit their amount in commercial products before and after storage.

3.2 The report

The report contains an information section for chemists who are not too conversant with vector control procedures and trends and a section on impurities and the role of isomers in the activity and toxicity of pesticides. However, much of the text is devoted to review and discussion of test methodology covering various chemical and physical requirements for pesticides and their formulations. Annexes give the recommended changes in existing specifications and methods as well as recommended specifications for new pesticides and formulations. Other problems such as biological control agents and decontamination of pesticide containers are also briefly considered.

¹ WHO Technical Report Series, No. 798, 1990. Date of publication: 27 September 1990 (English); 8 November 1990 (French).

3.3 Recommendations

The Committee recommended the publication of a seventh, revised edition of the WHO manual on specifications for pesticides used in public health,¹ the development of guidelines for specifications for household pesticides,² and the review and updating of the FAO/WHO manual on specifications for rodenticides.² The holding of an informal consultation on the reuse of pesticide containers and on the safe disposal of unwanted pesticides was also recommended.

3.4 Significance for public health and implications for the Organization's programme

WHO specifications for pesticides used in public health have been adopted by a number of Member States and serve as reference for the purchase and quality control of these products. It is essential that WHO provides the national authorities responsible for these activities and possibly for the registration of pesticides with an updated tool to carry out their work.

The Expert Committee assembles the latest knowledge in the field of pesticides and chemistry with a view to improving the quality of specifications. Specifications are also established for formulations not already included in the WHO manual (see paragraph 4.3 above), but which are becoming more important in disease vector control, such as ultra-low-volume liquids (ULV).

The emphasis placed by the Committee on safety aspects, on ULV formulations, and on household pesticides, including rodenticides, is in line with WHO policy, which recommends that populations be more and more directly involved in the control of public health vectors and pests.

4. SYSTEMS OF CONTINUING EDUCATION - PRIORITY TO DISTRICT HEALTH PERSONNEL

Report of a WHO Expert Committee Geneva, 2-6 October 1989³

4.1 Background

The important changes that are needed in the health care delivery system to comply with the primary health care approach will be possible only with the active involvement of competent and motivated personnel who have to be provided with new knowledge and new skills in keeping with developments in science and technology.

Many training activities have been organized by Member States to bring all categories of health professionals up to date on various technical as well as management subjects. However, fundamental shortcomings of continuing education include absence of policy, poorly defined structure through which it can be delivered, and inadequate resources, all of which result in a lack of consistency and sustainability.

The question of support for the successful design and implementation of a system of continuing education would be given much more attention if policy-makers in the health sector were sufficiently aware of the necessity to improve the performance of the workforce, which, incidentally, absorbs the largest proportion of health budgets.

¹ Specifications for pesticides used in public health, 6th edition. Geneva, World Health Organization, 1985.

² Rodenticides: analysis, specifications, formulations. Rome, Food and Agriculture Organization of the United Nations, 1979 (Plant Production and Protection Paper, No. 16).

³ WHO Technical Report Series, No. 803, 1990. Date of publication: 9 November 1990 (English); 8 November 1990 (French).

Priority is given to continuing education for district health personnel because the World Health Assembly has repeatedly recognized that the principal obstacle to achieving health for all is weak organization and management, particularly at the intermediate and district levels of health care delivery.

4.2 The report

The first part of the report considers the importance of continuing education as a management tool, in relation to the main pillars of the district health system, namely organization, planning, and management; intersectoral action and community involvement; financing and allocation of resources; and the development of human resources. The second part identifies the essential factors that influence the proper conduct of continuing education at district level. They relate to political will and organization, educational planning, learning methods, allocation of resources, supervision of health workers and correlation with health service requirements. The third part offers practical advice for the establishment of a system of continuing education to serve the district health system, by delineating responsibilities at different levels of health care for sustained development.

4.3 Recommendations

The Committee recommended that Member States give priority to the development of national programmes for the continuing education of health professionals working at district level as an important means of accelerating the implementation of primary health care strategies. It drew attention to the need to establish a national coordinating body for planning and supporting continuing education, and for conducting operational and action research to optimize the effect of continuing education on district health management.

The Committee further advised WHO to encourage and support Member States in testing approaches for establishing continuing education systems. It underlined WHO's role in training national authorities in the design and management of continuing education activities. It stressed the need for proper use of existing learning methods and the promotion of new ones for the rapid and efficient acquisition of essential skills.

4.4 Significance for public health and implications for the Organization's programme

Intensified efforts are still needed to achieve the goal of health for all in a number of countries, and continuing education of health professionals is one way to support these efforts. It is clear that the successful implementation of primary health care requires that health professionals at all levels of the health system possess new knowledge, skills and attitudes.

While reorientation of basic and postbasic education to give it greater social relevance is urgently needed, a considerable effort must also be made to update the knowledge of staff already in service. Efficient and effective methods of continuing education, which could be adapted to the various national contexts, are urgently required.

Considering the increasing cost of health care and the reduction of the health budget in many of the least-developed countries, it is of utmost importance to utilize human resources for health in an optimum way. The establishment of viable continuing education systems calls for a joint commitment of health care organizations, professional associations, training institutions and the health professionals themselves.

WHO's development of human resources for health programme will address the issue of continuing education for district health personnel from the point of view both of educational strategies and of the launching of a coordinated initiative with health services development.

5. BIOLOGICAL STANDARDIZATION

Fortieth report of the WHO Expert Committee on Biological Standardization Geneva, 24-31 October 1989¹

5.1 Background

The WHO Expert Committee on Biological Standardization is convened each year to provide guidance on regulatory issues related to the manufacture and quality assurance of biological products for the prophylaxis, diagnosis and treatment of diseases and to assist the efforts of national authorities to assure the purity and potency of these products. The Expert Committee also establishes international reference materials that are of prime importance for determining the potency and identity of those substances for which chemical and physical tests are not suitable.

5.2 The report

The report is as usual divided into three main sections plus annexes. It starts with a general section dealing with WHO's activities in developing guidelines to assure the quality of pharmaceutical and biological products made by recombinant DNA technology; methods for simplifying assays for the potency of DTP vaccines; studies to improve the reliability of laboratory estimates of the potency of oral poliomyelitis vaccine. The second section examines the reports of a number of international collaborative studies, and establishes new or replacement international standards for eight reference materials for blood, cytokines, and endocrinological and antibiotic products. The third section deals with guidelines and requirements for the production and quality control of DTP and oral poliomyelitis vaccines and guidelines for the preparation of international and other standards and reference reagents for biological substances. The Committee reviewed draft texts for these requirements and, after making some amendments, agreed that they should be annexed to the report.

5.3 Recommendations

The Committee stressed the importance of national authorities adopting the international requirements and reference materials for the standardization of quality, including potency, of biological products, thus facilitating the free circulation of quality products to the benefit of the peoples of the world.

5.4 Significance for public health and implications for the Organization's programme

The Committee's report includes revised requirements for the production and quality control of DTP and oral poliomyelitis vaccines. Implementation of these international requirements by manufacturers and national authorities is essential for assuring the safety and efficacy of such vaccines and the success of the Expanded Programme on Immunization.

The growth in the production of biologicals of all types is making it increasingly important that countries develop national quality assurance schemes, an essential component of which is the availability of national reference materials. In that respect the guidelines describing essential elements for the characterization and establishment of international and other reference reagents for biological substances are an important source of information for countries.

¹ WHO Technical Report Series, No. 800, 1990. Date of publication: 9 November 1990 (English and French).

6. EDUCATIONAL IMPERATIVES FOR ORAL HEALTH PERSONNEL: CHANGE OR DECAY?

Report of a WHO Expert Committee
Geneva, 6-13 November 1989¹

6.1 Background

The prevalence of common oral diseases - dental caries and periodontal diseases - has been decreasing in highly industrialized countries. Caries prevalence has been falling steadily for about three decades and the trend in both disease areas is likely to continue. Though increases have occurred in caries prevalence in developing countries, preventive capabilities have already halted or reversed the trend in some of them and are likely to ensure that it is transitory or never occurs in the remainder.

The consequent reduction in the need for well established forms of treatment is offset by the aging trend in almost all populations, the growing awareness of the desirability of a high standard of oral health as part of improved life-styles and the emergence of a wide range of oral manifestations of systemic diseases or conditions, notably in relation to HIV infection. There is also an "incubation" period between reduced prevalence of the common oral diseases and reduced need for care because of the continuing requirement to treat the sequelae of the diseases.

In this maelstrom of conflicting trends and needs, the balance of force points strongly to a need for planned changes in both the number and the type of oral health personnel and in the whole approach to the production of human resources for oral health in all Member States.

6.2 The report

Following a historical note on the development of dental education, the report reviews the changing disease patterns influencing the needs and demands for oral health and then looks at the effects that change should and will have on the types and mix of oral health personnel for the future. The differing extent and timing of the forces for change are discussed in relation to highly industrialized, newly industrialized and developing countries. Polarization of needs will bring about a bifocal emphasis on advanced technology at one pole and on nonclinical activities of prevention, health promotion, strategy selection and planning at the other. Despite current differences, it is anticipated that similar structural patterns will develop in all countries in the foreseeable future. A need is seen for each country to analyse critically the structure, scope and personnel categories of its oral health delivery system and to plan, according to clear goals, for the massive changes forecast. The application of new educational, scientific and technological developments are also discussed, as are structures for the future education of oral health personnel, the development of appropriate curricula and the setting and maintenance of adequate standards. Guidance is given to facilitate and plan the changes needed. Emphasis is given to the development of health sciences schools to ensure maximum integration of curricula and optimum flexibility in choosing, altering and developing careers for oral health personnel in the health sector.

6.3 Recommendations

The Committee made a number of recommendations, calling for urgent action at various levels of the health and education sectors in relation to: extension of information systems to support policies and action for new approaches to the education of oral health personnel; adoption of a multidisciplinary approach to the development of oral health professional and support personnel appropriate to national needs; incorporation of new

¹ WHO Technical Report Series, No. 794, 1990. Date of publication: 16 August 1990 (English and French).

and relevant scientific and technological knowledge in courses, taking full advantage of new styles of teaching and learning; provision for essential retraining, continuing education and relicensing; careful surveillance of the establishment of new dental schools to avoid what is seen in some countries as a disordered proliferation of the schools; and investigation of the health sciences school approach and establishment of a multidisciplinary group of experts to advise on an orderly process of change.

6.4 Significance for public health and implications for the Organization's programme

The Expert Committee's report is of considerable importance for public health. A situation has repeatedly been observed of inappropriate opening of dental schools, inappropriate numbers being admitted to the schools and inappropriate graduates emerging from them. Compounding this wastage of valuable resources, the infrastructure to support the functions intended for the oral health workforce is often inadequate. The report addresses these inadequacies, and calls for a renewal of efforts by WHO to stimulate Member States to act appropriately, before it is too late, in the matter of production of human resources for oral health.

In accordance with the common oral health strategy endorsed by the World Health Assembly in 1983, in resolution WHA36.14, the report provides impetus for planning by measurable objectives at all levels and for relating the education of oral health personnel to preventive and curative strategies designed to achieve those objectives. The urgency of implementation of these approaches at country level is clearly brought out in the report, and that urgency extends to the efforts of the WHO Secretariat at every level of the Organization's structure.

The report supports the emphasis that has always been given by WHO'S oral health programme to information systems, research and development projects, partnership with the dental profession, collaboration with industry and development of methodologies and guidelines. It also calls for a special multidisciplinary structure to determine how the fundamental changes envisaged can be effected in oral health, in collaboration with all the other elements of the health sector. The challenge emanating from this report is of great significance for the continued success of nations and WHO in achieving oral health commensurate with today's quality of life aspirations.

7. THE USE OF ESSENTIAL DRUGS

Fourth report of the WHO Expert Committee on the Use of Essential Drugs Geneva, 27-30 November 1989¹

7.1 Background

The report includes the sixth version of the WHO Model List of Essential Drugs and was prepared in the context of WHO'S Revised Drug Strategy, as endorsed by the World Health Assembly in resolution WHA39.27 in 1986. Its purpose is to provide guidance for countries wishing to establish national programmes for essential drugs and to keep under review a comprehensive yet limited array of drugs of proven value in the prophylaxis and treatment of commonly occurring conditions.

7.2 The report

The introductory sections of the report, as in previous issues, define the concept of essential drugs and its relevance to national drug policies, and list the criteria for the selection of the listed substances and their pharmaceutical dosage forms. Emphasis is again placed on the need for adaptation of the list at national level, having regard to the pattern of endemic disease, the health care infrastructure and existing systems of medicine. It introduces a new concept of "reserve antibiotics", namely substances that

¹ WHO Technical Report Series, No. 796, 1990. Date of publication: 17 September 1990 (English); 27 September 1990 (French).

are useful for a wide range of infections, but are inappropriate for unrestricted use owing to the need to reduce the risk of development of resistance to them and to their relatively high cost.

The following sections of the report give the revised model list and details of the amendments made to the individual entries. In keeping with established policy, drugs have been added only where definite advantages are considered to accrue. On this occasion, 18 new substances were in fact added, while six were deleted. Five of the newly-admitted compounds were included as a result of recent changes in the management of parasitic and bacterial diseases. An angiotensin-converting enzyme inhibitor and a new subsection on antithrombotic drugs were added in the light of continuing advances in cardiology. The sections on dermatological drugs and ophthalmological preparations were substantially revised. The details concerning the amendments include a mention that consideration was given to the addition of a subsection on antiviral drugs - none of which were, however, entered in the list at present because of their limited efficacy, toxicity and high cost.

7.3 Recommendations

The report enumerates the steps required at national level to bring the concept of an essential drugs policy to an advanced stage of implementation, and stresses that success is dependent on efficient administration of the supply, storage and distribution of drugs at every point from the manufacturer to the end-user. Having regard to the importance of locally relevant information on the prevailing sensitivities of bacterial pathogens, the report underlines the urgent need for governments to set up reference laboratories to monitor the resistance of the more important pathogens. It draws attention to the need for impartial, objective information on the rational and effective use of drugs, and urges that the provision of model prescribing information be given a high priority within WHO. It reasserts the need for rigorous quality assurance and use of the WHO Certification Scheme on the Quality of Pharmaceutical Products Moving in International Commerce by those countries that are largely dependent upon imported products.

7.4 Significance for public health and implications for the Organization's programme

The concept of essential drugs provides the foundation for the WHO Action Programme on Essential Drugs, and it has now been successfully integrated into national drug policies in a large number of developing countries with a view to improving and extending primary health care facilities. It provides both a rational approach to drug selection and a stimulus to all countries to consider the available options for establishing cost-effective drug policies in the public sector.

The biennial updating of WHO's Model List of Essential Drugs provides an important focus for technical collaboration between developed and developing countries. It has stimulated both the academic world and the pharmaceutical industry to address global health problems through a reappraisal of current therapeutic practice and innovative research.

8. EVALUATION OF CERTAIN VETERINARY DRUG RESIDUES IN FOOD

Thirty-sixth report of the Joint FAO/WHO Expert Committee on Food Additives
Rome, 4-14 February 1990¹

8.1 Background

The meeting was the thirty-sixth in the series of meetings of the Joint FAO/WHO Expert Committee on Food Additives, that have taken place since the first Joint FAO/WHO

¹ WHO Technical Report Series, No. 799, 1990. Date of publication: 8 October 1990 (English); 9 November 1990 (French).

Conference on Food Additives (Geneva, 1955),¹ and was convened in accordance with a recommendation made by the thirty-fourth meeting.² The Committee carries out systematic toxicological evaluations of food additives and contaminants in food, including residues of veterinary drugs.

The specific tasks before the Committee were (a) further to elaborate principles for evaluating the safety of residues of veterinary drugs in foods and for determining acceptable and safe levels for such residues when the drugs in question are administered to food-producing animals in accordance with good practice in the use of veterinary drugs; (b) to evaluate the safety of residues of certain veterinary drugs; and (c) to discuss matters arising from the report³ of the fourth session of the Codex Committee on Residues of Veterinary Drugs in Foods.

8.2 The report

The report contains sections dealing with general considerations and with comments on specific veterinary drugs leaving residues in food of animal origin, as well as recommendations for further toxicological and analytical work. Annexes to the report summarize the conclusions of the Committee and give details of further information required or desired.

General items that were considered include a discussion of the decision process for establishing recommended Maximum Residue Limits, consideration of bound residues, the assessment of the microbiological risk due to residues of antimicrobial drugs in food, and the allergenic potential of residues of veterinary drugs in food.

Comments are provided on the evaluation of three anthelmintic drugs (closantel, ivermectin and levamisole), two antimicrobial agents (benzylpenicillin and oxytetracycline) and two growth promoters (carbadox and olaquinox). All of these drugs were evaluated by the Committee for the first time. Acceptable daily intakes (ADIs) were established for closantel, ivermectin, levamisole (temporary ADI), benzylpenicillin, and oxytetracycline. Owing to insufficient information, the Committee was unable to establish an ADI for olaquinox; however, it concluded that residues resulting from its use under conditions of good practice in the use of veterinary drugs were temporarily acceptable. Maximum Residue Limits were established for all the drugs considered except for olaquinox.

8.3 Recommendations

The report contains recommendations for further work by the Committee. In addition, attention is drawn to the potential health implications of exposure of agricultural workers to some drugs and the ecological implications of the use of some drugs.

8.4 Significance for public health and implications for the Organization's programme

The report, as in previous reports of the Committee, emphasizes the public health significance of the risk assessment of chemicals released into the environment, specifically into the food supply, and gives an indication of the complexity of the process, which includes: assembling and analysing all the relevant data; interpreting studies of carcinogenicity, mutagenicity, teratogenicity and other effects; extrapolating effects observed in experimental animals to humans; and assessing risk to humans based on available epidemiological and toxicological data.

¹ FAO Nutrition Meetings Report Series, No. 11, 1956; WHO Technical Report Series, No. 107, 1956.

² WHO Technical Report Series, No. 788, 1989.

³ Codex Alimentarius Commission. Report of the Fourth Session of the Codex Committee on Residues of Veterinary Drugs in Foods, Washington, DC, 24-27 October 1989. Rome, Food and Agriculture Organization of the United Nations, 1989 (unpublished FAO document, ALINORM 91/31; available from FAO or WHO).

While all Member States have to face the problem of assessing these risks, only a few scientific institutions can undertake such assessments at this stage - hence the need to provide all Member States with valid information on these matters. Such information is also of considerable importance for the Joint FAO/WHO Food Standards Programme in its standard-setting activities.

Provision was made in WHO's programme budget for 1990-1991 for the convening of three meetings of the Joint FAO/WHO Expert Committee on Food Additives to permit the continued expansion of its work on veterinary drug residues in food. The present meeting was the first of the three, while the other two will deal respectively with veterinary drugs and with food additives and contaminants.

9. DIET, NUTRITION, AND THE PREVENTION OF CHRONIC DISEASES

Report of a WHO Study Group Geneva, 6-13 March 1989¹

9.1 Background

Noncommunicable chronic diseases programmes use a population-oriented primary prevention strategy as the main approach to combating the diseases. In view of the recognized link between dietary factors and the development of a wide range of chronic diseases, a need was felt for recommendations that could help to prevent chronic diseases related to the newly emerging dietary changes in developing countries, and to reduce the impact of these diseases in developed countries. For that purpose the Study Group had as its main task the establishment of safe ranges of population nutrient goals, taking into account both the minimum intake of a nutrient needed to prevent deficiency diseases and the maximum intake that should not be exceeded in the interest of preventing several chronic diseases.

9.2 The report

The report begins by assessing epidemiological data linking changing patterns of disease to changes in diet and summarizing what is known about the place of specific nutrients and dietary factors in the etiology of chronic diseases. It confirms the evidence linking dietary factors to chronic diseases such as coronary heart disease, hypertension, stroke, obesity, diabetes mellitus and various cancers, among others; assesses global trends in dietary patterns and investigates their links with specific chronic diseases; and sounds the alarm concerning the consequences of dietary changes in developing countries, which are now experiencing a universal and spontaneous shift towards the "affluent" type of diet. In subsequent sections, it addresses the difficult problems of prevention, offering information on the development of quantitative nutrient goals and their interpretation, the implementation of a population-oriented primary prevention strategy based on national nutritional goals, and the types of support required from food, nutritional and agricultural policies. It concludes with a series of appendices, including a review of dietary recommendations in developed and developing countries, dietary guidelines for diabetes mellitus, rules for safe food preparation, technical notes on the application and implications of population nutrient goals and an outline of a nutrition-based approach to food labelling.

9.3 Recommendations

The Study Group recommended that WHO should consider, *inter alia*, ensuring greater coherence between its nutrition and health policies, and strengthening coordination with other international agencies concerned with related sectors such as agriculture and trade. Governments were, in particular, advised to improve their capability for

¹ WHO Technical Report Series, No. 797, 1990. Date of publication: 1 October 1990 (English); 9 November 1990 (French).

policy-making based on scientifically valid information, and to take steps to strengthen their professional infrastructure, including the promotion of appropriate educational programmes.

9.4 Significance for public health and implications for the Organization's programme

Dietary factors are now known to influence the development of a wide range of chronic diseases. These conditions are the commonest cause of premature death in developed countries and they impose major burdens on society. According to current projections, cardiovascular diseases and cancer will emerge, or be established, as substantial health problems in virtually every country in the world by the year 2000.

The affluent type of diet that often accompanies economic development is energy-dense. People consuming such a diet characteristically have a high intake of fats (especially saturated) and free sugars and a relatively low intake of complex carbohydrates (from starchy, fibre-containing food). Such diets are well established in developed countries, and are now becoming more common in most developing countries, where they are typically adopted first by the urban, upper- and middle-class population. This change in diet can now be linked to the increasing incidence of chronic diseases and of premature death. Evidence suggests that many premature deaths and disabilities should be preventable by changes in diet and in other aspects of life-style. Governments and communities, in both developing and developed countries, should act now to reduce the future burden of chronic diseases. Their prevention or reduction is both a social responsibility and an economic necessity.

10. COORDINATED HEALTH AND HUMAN RESOURCES DEVELOPMENT

Report of a WHO Study Group Geneva, 6-10 November 1989¹

10.1 Background

Since 1976 it has been the policy of the World Health Organization to promote the integrated development of health systems and of health personnel. This policy and the concept underlying it was originally known as health systems and manpower development (HSMD). Subsequently, it was felt that coordinated health and human resource development (COHHRD) was a more appropriate description of the concept. COHHRD refers to three human resource development functions: human resource planning, production and management, which should be carried out in close coordination with the development of the health system as a whole. In practice, the COHHRD concept has not proved easy to implement, and a country may achieve such coordination in one geographical area or set of institutions with little progress elsewhere.

The aim of the Study Group was to discuss the current understanding and application of the COHHRD concept at the national level, especially with regard to the formulation, coordination, communication, implementation and evaluation of human resources policies related to health systems development.

10.2 The report

The report is organized in four sections. The first places integrated COHHRD within a setting of contemporary health care issues and defines certain key terms. The second puts the evolution of COHHRD into historical perspective and describes the ways in which Member States and WHO have tried to promote its application. The third provides a critical review of COHHRD in practice, based largely on the results of a number of studies received from 17 countries representing all six WHO regions and a wide variety of social, economic and political circumstances. The fourth gives a summary of the Study Group's conclusions as well as recommendations for further action by Member States and WHO.

¹ WHO Technical Report Series, No. 801, 1990. Date of publication: 8 November 1990 (English); 9 November 1990 (French).

The primary concern of the report is with the COHHRD process itself, in terms of its definition, accomplishments, problems and relevance to health service needs, and only to a minor extent with specific issues such as training, priorities and methods.

10.3 Recommendations

The recommendations to WHO and its Member States underline the need to strengthen the relationship between those who train health workers and those who are responsible for planning and managing the health services. They call for technical cooperation to be provided and actions designed to address priority topics relevant to human resources development. They stress that improved mechanisms for the implementation of policies and for planning should be developed, leadership strengthened, and participation of the professions and the public at large in the process of human resources development encouraged.

10.4 Significance for public health and implications for the Organization's programme

The Study Group concluded that the extent to which the COHHRD concept is applied in a country reflects the degree of relevance of its human resources to the needs of the people. It also reflects the cost-effectiveness and efficiency of the country's response.

Significant progress has been made in applying COHHRD in some countries and in increasing awareness of the concept in others. Despite this progress, it is equally evident that for many countries and institutions the coordination that exists between the two systems is still very inadequate. The numerous obstacles to COHHRD are described in some detail in the report. The main determinants of success in applying COHHRD are: agreement on the main problems to be addressed and their underlying causes; the political will to implement change; the active involvement of those affected; and the availability of well qualified and directed human resources, of development staff, and, ultimately, of sufficient resources to implement change.

From the outset WHO has played a catalytic role in furthering the development of human resources for health. Successive World Health Assemblies and other meetings have reaffirmed that coordinated human resources development is a critical determinant of the success of the health-for-all strategy. Although the impact of WHO's contribution on individual country experiences cannot readily be ascertained owing to the many factors that affect the outcome, the Organization will continue to promote COHHRD as a means of closing the gap between training and service requirements and of ensuring the cost-effectiveness of human resources for health.

11. THE ROLE OF RESEARCH AND INFORMATION SYSTEMS IN DECISION-MAKING FOR THE DEVELOPMENT OF HUMAN RESOURCES FOR HEALTH

Report of a WHO Study Group
Geneva, 13-17 November 1989¹

11.1 Background

Human resources for health are the pillars of any health system. Yet many problems exist in their development. There is, for instance, often a lack of effective policies and plans to ensure that the numbers and types of health personnel required are known, and that they can be supported financially and managed efficiently. Similarly, coordination between educational institutions and the service sector to ensure that training is relevant to the needs of health services is often weak. These problems must be solved expeditiously and efficiently if their adverse effects on the health system are

¹ WHO Technical Report Series, No. 802, 1990. Date of publication: 9 November 1990 (English); 8 November 1990 (French).

to be avoided. For this purpose, accurate and timely information and research to guide decision-making in the development of human resources for health is essential, but is often not available.

Mindful of this deficiency, the Fortieth World Health Assembly in May 1987 adopted resolution WHA40.14 on the promotion of balanced health manpower development. In the light of this resolution WHO has collaborated with countries in strengthening national capabilities to develop information systems and conduct research pertinent to the development of human resources for health as well as to identify strategies for better use of information and research in decision-making.

11.2 The report

The report begins with the presentation of a conceptual framework linking up the three components of decision-making, information systems and research. It notes that decision-making during the process of developing human resources for health depends on the availability of information which is either provided by an information system or generated by research. The three broad functions of human resources for health development, namely policy and planning, education and training, and management, are explained in the next section, as well as the concept of coordinated health and human resources development (COHHRD), which brings together the three functions. The main obstacles are then reviewed. The following six sections are divided into three pairs, each dealing with one of the components of decision-making, information systems and research. The first section in each pair examines the definition, potential contribution and positive/negative aspects of the particular component, while the second discusses measures to strengthen the component. The last three sections in the report are devoted to an examination of possible approaches and strategies to strengthen both information systems and research, and to the conclusions and recommendations of the Study Group.

11.3 Recommendations

The Study Group reaffirmed the need for timely decision-making in the human resources for health development process, to be supported by information either supplied by an information system or generated by research. Member States were, in particular, advised to strengthen their human resources for health information systems and research, and to make use of the results, while it was recommended that WHO should expand its advocacy role in high-priority activities, and strengthen its technical cooperation in the area. Each of the Study Group's recommendations was followed by examples of the types of action that could be undertaken.

11.4 Significance for public health and implications for the Organization's programme

The report provides a conceptual framework for the development of human resources for health and describes practical measures for strengthening information systems and research in order to generate the information required for timely decision-making in this area. Practical examples accompanying the Study Group's major recommendations show the options available to Member States and WHO to start strengthening information and research systems in support of the further development of human resources for health.