WHO provides technical support to Member States at short notice to combat outbreaks of disease and aims to strengthen the self-reliance of countries in disease control, as well as to develop international cooperation in the control of epidemics. Among other actions, WHO identifies experts available immediately to serve in epidemic situations and has some 200 collaborating centres on hand to provide advice and services covering a wide range of infectious diseases.

Support to the national health authorities in dealing with an epidemic is the starting point for national and preparedness against future outbreaks, based on epidemiological surveillance and laboratory services. However, there is rarely financial and political commitment, either from national authorities or from external sources to take the necessary steps once an epidemic is over. Studies show that the cost of controlling epidemics is several times higher than the cost of preventing them.

Environmental health is an essential component of primary health care, and as it covers the questions of shelter, water supply, sanitation, drainage, rubbish disposal, vector control and food safety, is intimately bound up with emergency preparedness and response. The main environmental health concern in emergency situations is to prevent the spread of disease leading to epidemics, to maintain the health status of the population, and to ensure that essential services are restored or improved. Action in the interest of preserving environmental health in an emergency calls for planning in advance, and for education and training extending down to the basic community level.

Veterinary public health is a fundamental consideration in both natural and man-made emergencies. Many of the veterinary problems which arise in emergencies are covered in the report of the European Workshop on Veterinary Public Health in Disaster Situations (Rome, 1984). The Centre for Research and Training in Veterinary Public Health (WHO Collaborating Centre) at the Istituto Superiore di Sanita in Rome compiles information on veterinary action in disasters which is available on request.

The meeting discussed the problems inherent in dealing with cholera: overcrowding, poor sanitation and water supply, difficult communications - and surveillance which is lacking everywhere. All these factors are characteristic of emergency situations. If a country establishes a national programme for the control of diarrheal diseases, health workers are able to treat cholera with the others and limit its spread. When mass movements of refugees occur, sanitation control is the most effective way of preventing cholera outbreaks.

6.4 Health aspects of technological disasters

The health aspects of technological disasters are a matter of concern to many developing countries with industrial complexes. Developing countries are at more of a loss in dealing with such disasters.

In the International Programme on Chemical Safety, a joint programme of WHO, the ILO and the United Nations Environment Programme (UNEP), WHO is preparing guidelines for the prevention of chemical accidents, and health safety guides for chemicals, as well as international chemical safety cards for the use of people handling chemicals on a day-to-day basis. Courses for the training of workers and middle management in the prevention of chemical accidents are being organized.

A meeting on chemical accidents was held in India early in 1987, and a World Conference on Chemical Accidents will be jointly organized by the Istituto Superiore di Sanita in Rome and the WHO Regional Office for Europe in July 1987 in response to growing concern about major accidents involving chemicals.

WHO is helping Member States to deal with chemical poisoning through the preparation of guidelines with information on diagnosis and treatment, monographs on antidotes, and a handbook on treatment, and is preparing a roster of experts on call when chemical disasters occur. WHO emphasizes the need to identify technological activities with a high risk of accidents and to translate such health hazards into practical preventive measures. The training of workers and management in the safe operation and maintenance of industrial plant, and the safe use of chemicals in industry, commerce and agriculture is essential. The efficiency of the international response to disasters depends on the appropriate agencies having information on national emergency systems and contingency plans. A prearranged mechanism is required for governments to call on the services of international agencies and for the latter to take immediate action.

The emphasis given by the International Labour Organisation (ILO) to the control of hazards in industry is illustrated by the fact that 40 per cent of ILO conventions deal with problems in the field of occupational safety and health. The ILO Governing Body has adopted a code of practice on safety, health and working conditions in the transfer of technology to developing countries and a manual on major hazard control is in preparation. Some 70 000 chemicals are in use in industry and the number is steadily increasing. An operational major hazard control system, as outlined by the ILO, would aim to identify activities which may give rise to a potentially disastrous situation; locate the possible sources of disasters; assess the ways and conditions under which disasters may occur; analyse industrial plans for potential weaknesses in the process and safety systems, and take steps to eliminate them; maintain an emergency programme to minimize the consequences of a disaster; and prepare an emergency plan for action by services outside the plant and within the local community.

Most accidents involving chemicals occur not in their manufacture, but while they are being transported. UNEP published guidelines in 1982 on risk management and accident prevention in the chemical industry. UNEP recently proposed that governments should negotiate two international conventions which will provide, firstly, for notification of accidents in which chemicals are released that might have harmful transboundary effects, and secondly for the prompt offering of assistance to minimize damage and to protect life, property and the environment. UNEP is also proposing a programme to enable governments in cooperation with industry to work with local leaders to identify acutely toxic chemicals present in their communities and show them how to control, limit and deal with accidental releases.

The Chernobyl nuclear accident, because of its wide international implications, provided a test for the emergency preparedness and response mechanisms of the WHO European Regional Office, which was able to give valuable service to the Member States, particularly in the form of expert services, the exchange of technical information, and to provide information in a way that was understandable to the media and the general public. The accident revealed many shortcomings, including a lack of national contingency plans to deal with transboundary nuclear pollution, lack of coordination, and shortcomings in the exchange of information. Monitoring networks were inadequate and guidelines on the levels of radiation at which public health intervention is required were lacking (these are now being drawn up). There were discrepancies in radiation measurement procedures. WHO is now providing assistance to Member States in remedying these deficiencies through a special project on nuclear accidents and public health, and is increasing the number of collaborating centres in radiation medicine which will accept victims of nuclear accidents as patients.

7. MANAGEMENT OF RESPONSE TO DISASTERS

7.1 Interagency coordination and collaboration

Coordination in disaster preparedness and response at the international level should be a routine and regular occurresence so that the various organizations concerned learn to work together when not under the pressure of action to deal with emergencies, and to do so without competing for leadership and resources.

When Member States are concerned about health issues, they look to WHO for leadership which should be exercised firmly; the health input to coordinated action by the United Nations family at the country level must come from WHO. It is the task of WHO to marshal technical support in the health field, tapping where necessary the resouces of the Member States and the expertise and experience of nongovernmental organizations.

WHO should continue to advise disaster-stricken countries to refuse unassessed emergency relief, and encourage donors to put their efforts into second-phase relief and rehabilitation. The decisions on the timing and contents of requests for assistance are for the affected countries to make, once they have determined how far they can go with their own resources. The meeting noted that the League of Red Cross and Red Crescent Societies has informed governments and its member societies that a decision to send unrequested drugs in an emergency is "a decision not to save lives".

In the African drought, different types of coordinating committees were established independently. The effective committees were those under the chairmanship of the government, with the participation of bilateral donors, multilateral agencies and nongovernmental organizations. Governments must have a central coordinating role in operational planning for disasters and their involvement in the contingency planning of the international agencies is also desirable because it ensures access to data which may not otherwise be made available.

There is difficulty in finding agreement among the agencies on the standards to be used in making assessments. Views diverge on the techniques to be adopted and there are no common parameters. It is vital that these assessments be coordinated, because they concern basic needs in the emergency situation. A greater effort should be made to establish common policies and guidelines.

At the field level, better communication and a freer exchange of information among agencies and between them and the communities receiving assistance would improve the impact of emergency programmes. The communities must be involved in planning and operations.

Agencies also need to find better ways of sharing information in the post-emergency phase to avoid repeating mistakes, and to ensure that the lessons learned lead to better performance. The development and application of an institutional memory is required.

The Office of the United Nations Disaster Relief Coordinator (UNDRO) collects and reconciles information from many sources on the targeting and types of assistance needed and communicates it to the donor community, international agencies and nongovernmental organizations. UNDRO expects the agencies to feed information into this system.

The meeting noted that technological disasters are increasing in frequency and that they are not covered by any specific mechanisms of international coordination in preparedness or response.

7.2 Immediate post-impact assistance: materials and supplies

WHO collaborates with UNHCR in listing the essential drugs which may be dispensed by health workers with very limited training in emergencies. The WHO Expanded Programme on Immunization has developed with OXFAM an emergency immunization kit. On vaccination techniques, WHO counsels the use of jet guns only if large numbers of people must be vaccinated quickly. Reusable syringes and needles are recommended - provided the capacity for sterilization is sufficient.

In its "pre-disaster" plans, UNICEF advises its field offices to identify the potential local suppliers of commonly needed relief items, the main means of transport and routes to disaster-prone areas, the potential transport contractors, and the means of delivering quickly goods procured abroad. Priority is given to local procurement as the most rapid and effective way of meeting the immediate needs of an affected population. The transport of vehicles and other bulk supplies from abroad may be costly and even if the prices for the same items within the country are high, it may be advantageous to buy them locally.

Care, however, must be taken not to upset the local market by depleting stocks, thus creating shortages and raising prices. UNIPAC handles overseas procurement for UNICEF and its services are available on a reimbursable basis to the United Nations agencies, governments and nongovernmental organizations. When a disaster strikes, a UNICEF country representative can draw immediately on a contingency fund and may if necessary divert supplies or funds within the country from regular programmes.

Increasingly, containers are bought rather than rented - at little extra cost - when importing supplies for assistance programmes in Africa. On arrival they are used as storage space.

The view was expressed that in emergency assistance there is a need for better coordination in the procurement and distribution of items other than food. Closer collaboration is needed among the external agencies to avoid duplication in internal transport and storage.

8. INFORMATION SUPPORT: APPLICATION AND USES FOR DISASTER MANAGEMENT

Country and community profiles are based on data collected in advance of emergencies. They should indicate preventive and mitigating measures for the control of hazards, for the education of the community in emergency preparedness and self-protection. Profiles serve to direct rescue and external aid and provide a baseline for the assessment of needs and for evaluation. They should include veterinary information. The development of a common model of a simplified country profile, useful as a tool in the field for all concerned with emergency services is a subject for discussion among agencies involved in disaster preparedness and response.

The need to collect information required in handling emergencies effectively is an additional reason for the development of a comprehensive health information system at the country and district levels as part of primary health care. The basis of such a system is training in surveillance for frontline health workers, village officials and administrators, who are usually the first to note that a disturbing situation is developing and who need to be given clear criteria for reporting. This is one aspect of an early warning system; the other is to train managers to use the information they receive for the planning of emergency services. So many organisms are involved in emergencies that the issue is as much a lack of communication and use of information as a lack of reliable data.

In refugee and famine situations, the interest is more in the quality of information than in the rapidity with which it is gathered. It is not necessary to spend time identifying the major health problems, which are known, but is is important to synthesize the information provided by past experience in similar

circumstances. At the beginning of an emergency, there are many indicators other than those to be found in country profiles - often informal signs which, to be detected, call for imagination on the part of information collectors - to show that a crisis is developing. The challenge is to decide what information is necessary and how accurate it needs to be.

Nutrition data are important, as well as infant and child mortality data, which are needed to interpret information on nutritional status. Mortality data in terms of crude death rates are, however, not valid unless the underlying population profile is known.

At present, the data and information available on nutritional status are unreliable in many countries. Efforts are under way to develop or strengthen food and nutrition surveillance systems, especially in those countries frequently suffering from critical situations. WHO, UNICEF and FAO have recently organized a plan of action for this purpose.

Data on nutritional levels, it was suggested, should be compared with economic indicators on a regular basis in order to judge the impact of economic policies.

If the purpose of collecting data is to cope better with medium- to long-term emergencies, it is advisable to set up training programmes for data collectors, as well as collection systems.

The Consolidated Information System for Famine Management in Africa, a project of the Centre for Research in the Epidemiology of Disasters at the University of Louvain, is a tool for programme planning for relief, rehabilitation and health development which, in its first, pilot phase covers nine countries in the Sudano-Sahelian belt of Africa. Drawing exclusively on existing United Nations and governmental sources, the project explores the viability of developing a standardized data base which would serve famine prevention rather than famine response programmes. It is intended as an information source for governments, international agencies implementing famine-related programmes, research institutes and professional associations.

The UNEP International Register of Potentially Toxic Chemicals (IRPTC) has four main purposes: to make data on chemicals available to those who need it; to locate and draw attention to the major gaps in available information and to encourage research to fill those gaps; to identify the potential hazards of manufacturing, handling and using chemicals and make people aware of them; and to assemble information on existing policies for the control and regulation of hazardous chemicals.

IRPTC operates a global network for information exchange on chemicals and has stored comprehensive data profiles on over 600 chemicals of international significance in its computerized data files. It issues regularly a bulletin and other technical publications and operates a query-response service for those who need efficient and quick access to data on hazardous chemicals including emergency situations.

9. TRAINING AND PUBLICATION EDUCATION IN DISASTER PREPAREDNESS

The identification of risks to human life and health, whether natural or technological, is politically and economically sensitive. A first requirement of preparedness is public awareness of the nature, location and potential consequences of hazards, leading to a second stage: popular pressure for political and administrative action. The technical basis for the information on risks must be very sound, both to convince the experts in industry and in governments, and to serve as a foundation for popular messages. When emergencies occur, clear, brief and unambiguous messages conveying not only what is established information, but also

admitting what is not yet known, assume great importance as a means of allaying anxiety. Plans for disaster preparedness and response should specify the authorized sources of information and the target groups.

In disaster preparedness, training materials should be directed to the needs of the community, propose simple measures which are oriented towards self reliance and which can be implemented locally. As part of its contribution, WHO should stimulate the standardization of training for medical staff in emergencies.

Training, with the active participation of the community, should be a permanent aspect of primary health care, and local teams should be in contact with specialized health centres for back-up services. Briefing of expatriate health workers being sent into the field and refresher courses for them should incorporate material on disaster preparedness with particular reference to the areas to which they are being assigned.

Risk maps, as part of community profiles, and prepared with the participation of the local community, are valuable in identifying and making generally known the potential hazards to life and health to which the local people are exposed. Such maps, however, only assume usefulness in association with the mapping of resources: water, food, rescue and relief materials.

In the Americas region, as a result of an AMRO initiative, issues such as preparedness, the mitigation of disasters and sanitation in emergencies are being incorporated in the curricula of university schools of public health. These schools frequently become centres of coordination in sudden disasters.

Disaster preparedness, it was suggested, should be introduced as a module into all training developed by the technical divisions and programmes of WHO.

INTERREGIONAL MEETING ON
HEALTH, EMERGENCY PREPAREDNESS AND RESPONSE

Geneva, 13-16 April 1987

ANNOTATED AGENDA

Agenda item 1: EMERGENCIES, HEALTH AND DEVELOPMENT

Session 1 discusses the indispensable link between emergency preparedness or response and health development, the framework for WHO's emergency activities, and presents the main UN system views.

In 1977, the Member States of WHO at the World Health Assembly decided that the main health target of governments and of WHO should be the attainment by all the people of the world by the year 2000 of a level of health that would permit them to lead a socially and economically productive life, popularly known as "Health for All by the Year 2000". The Global Strategy for Health for All, launched in 1979, requires the combined efforts of governments, people and WHO, nongovernmental organizations and other associations of people concerned. The Strategy calls for action that makes it possible for people to defend themselves against disease and to promote their health, strengthening of the health infrastructure of Member States is one of the key issues. It is within such a framework that the promotion of emergency preparedness and response should be viewed, as an integral part of the Strategy.

At the same time, the health sector is only one partner in the overall multisectoral development programme. It is realized that short-term solutions, such as direct emergency relief operations, would be short-lived, whereas long-term solutions are required to strengthen the capacity of countries themselves to forge their own development and sustain it.

Within the framework of its general policy and strategies WHO plays an active role in the efforts undertaken by the United Nations organizations and nongovernmental organizations in the area of the health emergency preparedness and response.

Agenda item 2: PREPAREDNESS IN MEMBER STATES AND IN WHO

Session 2 discusses three examples of the health emergency programmes in Member States and provides the background for WHO's support to these programmes. The presentations illustrate a variety of approaches, problems and responses.

Country-specific experiences from India, Tunisia and Ethiopia serve as examples for the formulation of national emergency programmes: India's presentation concentrates on the health sector of preparedness and response; Tunisia's presentation concentrates on the health sector within the overall civil defence framework; and Ethiopia's presentation is on the coordination of massive emergency response involving a large number of external agencies and gradually leading to rehabilitation and development.

The World Health Assembly resolution WHA34.26 reaffirms that the Organization's commitment to emergency preparedness and to promotion of the development of approaches for the prevention of adverse health effects of emergencies. The Organization can provide technical advice in many areas, such as communicable diseases, environmental health, nutrition, essential drugs and related medical supplies. WHO Collaborating Centres are an important external resource which needs to be strengthened further.

WHO cooperates with the governments of the affected Member States in responding to the health consequences of the emergencies as an integral part of the regional and global strategies for health for all, particularly taking into account the need to intensify the Organization's technical cooperation at the country level to enable the Member States to enhance their emergency preparedness.

All regions of WHO have formulated their emergency preparedness and management programmes and the related plans of action which will be presented under this item.

Agenda item 3: ISSUES IN CHRONIC DISASTERS

> Session 3 discusses the complex issues of famine, refugees and other large scale population movements, the ways and means to predict and prepare for such situations, as well as the modalities for response.

Large-scale population movements and famine, as a consequence of drought, wars or civil strife, are complex situations which require massive external resources. It is particularly in these types of disasters that the differentiation between emergency and long-term development becomes arbitrary. Many refugee situations have become semi-permanent and require the continuation of external assistance beyond the immediate emergency phase.

Food aid is the bulk of international assistance. The quantity and quality of food aid, its effects on local production, monitoring of needs and impact of food aid have been subject of extensive discussions, which will be summarized in this session. The health sector's role in the overall famine relief and preparedness are also to be discussed.

In the chronic refugee situations, after the immediate food aid and other acute relief efforts, other aspects of external and internal response gain importance, which have many similiarities to regular development programmes. The formulation of refugee health programmes, external aid, community involvement, the balance of services for refugees the surrounding populations, the involvement and responsib ilities of the host country's health authorities are among the issues to be discussed.

Agenda item 4: SPECIAL ISSUES IN ACUTE DISASTERS

Session 4 discusses the differences and similarities of approaches in response and preparedness for epidemics of communicable diseases and technological disasters; one type of disaster in which the health sector has long experience, and the other one becoming increasingly important and frequent.

Epidemics of communicable diseases are not a threat of yesterday for most of the world. The control of epidemics has a long history and may provide lessons for the efficient management of disasters of other types. The recent experiences in management of epidemics, chemical and nuclear disasters will be discussed, in order to compare the differences and similarities of approaches, the preparedness or prevention possibilities and methods as well as responses. The emergency preparedness and response approach which has this far concentrated largely on natural disasters, such as earthquakes, volcanoes, cyclones, floods, etc. will have to be reconsidered against the background of the changing nature of disasters.

Agenda item 5: MANAGEMENT OF DISASTER RESPONSE

Session 5 discusses the inter-agency coordination and collaboration in disaster response as well as the need to strengthen the coordination between the UN and other organizations, donors and recipients.

UNDRO has a mandate for the coordination of disaster response among UN agencies. It plays an important role between the Governments of the disaster-stricken countries and donors through its information and communication system. Other UN and nongovernmental organizations have more or less well-specified roles, some organizations concentrate on emergency action, some may draw on their regular programme resources and capacities established for other purposes in responding to emergencies. The standardization of the approaches may be difficult to achieve, but to a certain extent, guidelines etc. may help together with frequent communication in the rationalizing of responses and not wasting resources.

Agenda item 6: INFORMATION SYSTEMS: APPLICATIONS AND USES IN DISASTER SITUATIONS

Session 6 discusses information and communication as key issues in disaster preparedness and response. Some existing or experimental information systems and their applications are presented.

Appropriate emergency response depends on information. In addition to information describing the disaster situation, the assessment of needs, the background data on available resources and skills form the basis for action. Communication is even more crucial for obtaining the information together, to serve the decision making. Much of the information can be collated in advance. Communication channels can be established. Systems for early warning can be developed. New technologies provide means for collecting and combining information from a variety of sources. The session highlights developments and potentialities in this area.

Agenda item 7: TRAINING AND PUBLIC EDUCATION FOR DISASTER PREPAREDNESS

Session 7 discusses training materials and coordination of various training programmes, as well as community involvement and public education as means for emergency preparedness.

Orientation and training are amongst the most important components of emergency preparedness and management. Under- and post-graduate training as well as specialized training or orientation by various organizations will be discussed under this item. In WHO, there is need to clarify emergency response mechanisms at all organizational levels, to reorient WHO staff, particularly the WHO Representatives, to accelerate the implementation of training programmes and to place greater emphasis on practical training at the subregional and country levels for improving national capacities and capabilities for emergency preparedness and response.

In the immediate aftermath of disasters, the first response is mostly left to the community. The role of public education will be discussed.

Agenda item 8: WHO INTERNAL GUIDELINES IN DISASTERS

Session 8 discusses the framework for WHO's emergency management with reference to collaboration with and use of the other organizations' experiences in disaster management.

The capacity of WHO to provide sound technical advice on the management of emergencies within its field of competence need to be improved at all levels. The issues include assignment of responsibilities within the organization, improvement of information systems, communication, assessment of health needs, early warning systems as well as coordination and collaboration with other organizations.

Closing session:

The conclusions and recommendations of the meeting will be discussed for presentation to WHO and reporting to other organizations.

INTERREGIONAL MEETING ON
HEALTH, EMERGENCY PREPAREDNESS AND RESPONSE

Geneva, 13-16 April 1987

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