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WHAT THE HEALTH DEPARTMENT CAN DO IN  
ENVIRONMENTAL HEALTH ACTIVITIES

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## 1 INTRODUCTION

A well-organized health ministry or department concerned with the implementation of environmental health activities is still a need faced by many governments in the Region. Although most governments have started to take interest in establishing a basic service for environmental health whose responsibility it is to improve the environment and thus prevent the transmission of disease and promote the well-being of man, a tremendous amount of work still remains to be done.

## 2 EXISTING SANITATION SERVICES

It is noteworthy that even in the developing countries, the attainment of health is considered to be a right of each citizen and its importance from the standpoint of economic and social development is recognized. As a result, governments have to strengthen and expand existing sanitation services or establish new ones. Many of the countries in the Region have already a division or bureau in the health ministry or department responsible for the improvement of the environment. Some, however, have only limited sanitation services due to lack of trained manpower and inadequate financial resources. In the more developed countries, these services are provided at the national, state or provincial, and local level. Some are assisted by WHO consultants and advisers who work with their counterparts in the national government.

In some of the developing countries health ministries have embarked on various sanitation activities, such as the construction of water-seal latrines and the provision of rural water supplies and sanitary methods of refuse collection and disposal. In others, however, very little has been done. In the more developed countries, new sanitation activities have been started as a consequence of industrialization and the move of the population from rural to urban areas. Community water supplies are being expanded and improved to meet public health standards. Modern methods of sewage treatment are being introduced in most of their cities. Refuse disposal systems, using either composting or incineration, are under consideration for future construction in many urban areas. Water and air pollution surveys and investigations to determine the effects of pollution on public health, aquatic life and property are now under way. More attention is being given to food sanitation programmes to improve the manner of food handling and to protect the public from food-borne diseases. Increasing attention is being paid to the environmental health aspects of schistosomiasis and certain arthropod-borne diseases such as malaria, filariasis, haemorrhagic fever and others. These activities, however, have to be expanded to keep pace with the rapid growth of population and the accelerated social and economic development of the country.

### 3 ENVIRONMENTAL HEALTH PROBLEMS

In the developing countries only a few urban communities have water supplies which meet minimum public health standards and most rural dwellers utilize water of questionable quality. Sanitary disposal of human excreta and drainage exist in a few urban areas only. Refuse collection and disposal practices are below public health standards. Other environmental factors such as mosquitoes and flies, market and food sanitation have not received much attention. If sanitation services were improved, the occurrence of many of the gastro-intestinal diseases would be minimized.

Lately, new problems have arisen as a consequence of industrialization, the move of population from rural to urban areas, and rapid advances in science and technology. Adequate housing facilities have to be provided to take care of the increasing population in the urban areas. Sewerage systems for urban areas to ensure proper waste disposal have to be planned and constructed. The increased use of motor vehicles and the establishment of industrial plants near residential and commercial centres have created problems of air pollution. The discharge of untreated liquid wastes from factories into bodies of water has created water pollution problems. Radioactive fallouts as a result of experiments conducted by nuclear powers are a threat to public health. As a result of these developments, existing rules and regulations have become inadequate to cope with the new problems. Old laws are no longer binding and have to be repealed or amended so as to cover the new problem areas. The greatest problem, however, is how to obtain the necessary funds not only to raise the standard of health of the people but also to maintain what has been achieved. Funds are inadequate to purchase supplies, increase the pay of the staff, provide the necessary transport facilities if services are to be expanded, and maintain the equipment.

The incomes of sanitary engineers and sanitation inspectors are also inadequate. In the developing countries these are often so low that engineers leave government service to work in private practice or even to seek employment abroad. The shortage of well-trained personnel at all levels remains one of the major obstacles to the development and improvement of the sanitation services, particularly in the developing areas of the Region.

### 4 APPROACHES TO THE PROBLEMS

#### 4.1 Development of a long-term environmental sanitation programme

Environmental health is of paramount importance in developing national health programmes. The time has now come when it is essential for each country to embark on a long-term environmental sanitation programme which should be a part of the overall national health plan. This programme should be flexible and take into account the educational

status, cultural patterns, and the economic circumstances of the people. Whenever the situation warrants it, modifications should be made in the plan of action to suit the particular conditions in the country.

Sufficient funds must be provided by the national government to carry out the programme. It would be disadvantageous to embark on any programme unless there are adequate funds to ensure good results and maintain the results achieved. The salaries of the staff must be increased. Sufficient funds should be provided to improve building facilities, purchase necessary supplies, transport, and to maintain the equipment.

Environmental sanitation is a field where financial requirements are tremendous and work is costly, but there are a number of international organizations which are willing to invest funds to assist governments to deal with this problem.

#### 4.2 Training

The environmental sanitation staff at the national, state or provincial, and local levels must have adequate training closely geared to their individual duties and responsibilities. Training is necessary at undergraduate, graduate and post-graduate levels and there should also be in-service training. This will ensure that sanitation personnel will continually improve their basic knowledge and skills, thus raising the standard of the sanitation services. As the staff become trained, it is necessary to ensure that positions are open to them and that there are projects to which they can be assigned. They should be given facilities so that they can perform their work competently. The staffing position can be difficult when existing posts are filled by less highly trained people. This situation nevertheless cannot be changed and it is necessary in some countries to train auxiliary sanitation personnel when fully trained staff are not available.

#### 4.3 Health education

Health education, with the assistance of well-trained health education personnel of the department, should aim to train and stimulate local leaders to help their own people to become more capable of meeting their health problems. People must be trained to identify and recognize these problems and to take concrete steps to solve them on their own initiative. Health education should aim to change the attitude of the people towards health, should make them realize the importance of healthy living and of a healthy environment. It should motivate people who are not interested in bringing about changes in those aspects of their living practices which are detrimental to health. It has been recognized that adequate understanding and motivation are required by individuals and the public at large before co-operation, active support, and personal or community action can be realized.

#### 4.4 Community participation

Environmental health work, like other public health activities, will not be successful without the interest, understanding and co-operation of the people. Community participation should be stimulated, the co-operation and full support of the people must be obtained. They must participate at all levels, as early as possible, and continuously, in the planning and implementation of sanitation programmes. All available local resources should be utilized. The medical officers at all levels could play an important role in developing and promoting environmental sanitation activities because of their considerable influence on the people in matters pertaining to health. The co-operation of the community is easier to win if benefits are readily demonstrated.

#### 4.5 Regulations

Adequate rules and regulations prescribing minimum public health standards for the various aspects of environmental sanitation must be promulgated. These will guide the sanitation personnel in the performance of their duties in the field. Although punitive action should be the last resort in any violation of health rules and regulations, circumstances sometimes demand the use of the rule of law to attain compliance.

#### 4.6 Co-ordination with other government agencies, professional and civic organizations

Co-ordination with other government agencies engaged directly or indirectly in sanitation activities should be carried out to promote better understanding and to gain their support in carrying out the national sanitation programmes. Through the co-ordination and leadership of the health department, national or regional waterworks and sewerage authorities should be encouraged to undertake improvements in all sub-standard public water supplies and sewage disposal systems under their control, so that these systems can meet minimum public health standards. Likewise, by co-ordinating the other administrative and technical organizations concerned with housing and community development, especially during the planning stage of their programmes, the environmental health aspects will not be overlooked. The activities of voluntary health associations, social and welfare organizations, should be geared toward the promotion of sanitation projects. The support of medical associations is of particular significance because of the considerable importance people in some areas place on the advice and counsel of physicians.

It is at the national level that co-ordination of health activities by various organizations is most effective. The need for co-operation also arises as a result of the rapid progress in science and technology, which calls for closer ties with technical bodies, including non-governmental organizations, in order to ensure that the impact of their work is fully reflected in national health programmes.

To illustrate, a number of professional and civic organizations in the Philippines have been undertaking environmental sanitation activities. These are the 4-H clubs, the Philippine Medical Association, the Philippine Rural Reconstruction Movement, the Rotary Club, the Lions, the Jaycees, just to name a few. These organizations have undertaken sanitation projects with the backing but without the financial support of the Government.

#### 4.7 Establishment of a national committee

A national committee on environmental health, composed of representatives from the different agencies engaged in environmental health activities, might be organized to act as an advisory body to the health department or ministry. With the co-ordination of the various sanitation activities by this committee, more results could be achieved and economies effected.

#### 4.8 Establishment of an environmental sanitation unit

There should be an environmental sanitation unit in the health department or ministry and this should occupy a position at the same level as other major programme activities. This unit should plan and co-ordinate sanitation activities within the health department. It should also provide consultative services to other official agencies as well as to professional and civic organizations and institutions.

At the provincial or city level, it is advisable to organize a sanitation section under the leadership of a sanitary engineer. This unit should plan and co-ordinate sanitation activities with the other major health services at the provincial or city level. It should also provide consultative services to the other health units, to official agencies and professional and civic organizations, and to the environmental health unit at the local level.

A local unit under the leadership of a sanitarian is also suggested. It could be under the technical supervision of the provincial sanitary engineer and administratively under the local health officer. Its size would depend on the administrative organization of the country, the population served and the demand for its services. In more developed communities, the local unit might be under the leadership of the sanitary engineer.

The line of communication between the units at different levels should be direct to minimize delay in the implementation by the local units of sanitation policies and programmes recommended at the national level.

#### 4.9 Evaluation

Evaluation, which is an essential process in the planning and implementation of sanitation projects, should be a function of the sanitation units at all levels. An assessment must be made of the achievements in relation to goals, time, personnel, expenses, and the effect of the achievements on the progress of the programme and on future undertakings. This function is not only important in the evaluation of sanitation programmes but also for purposes of national health planning.