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THE FAMILY'S HEALTH AND ENVIRONMENTAL SANITATION

by

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Introduction

The term "environmental sanitation" means the control of all those factors in man's environment which exercise or may exercise a deleterious effect on his physical, mental or social well-being¹.

The "family's health" means, for the purpose of this paper, its physical, mental and social well-being as a unit and as individuals in that unit.

It must be recognized at once that the environmental problems differ from one area to another and from one family to another within that area; that rural problems differ from municipal problems, that tropical environments create problems different from those of the arctic and temperate zones and that the economic and educational levels of people bear on any consideration relative to the solution of problems.

It is well established that there is a relationship between the provision of a sanitary environment and the state of health of the population and of families in the population. It is shown by the example of the reduced incidence of those diseases which are commonly acquired or transmitted from excreta, by contaminated water supplies, by insects, and by poor personal hygiene. It is shown by such figures as those in the United Nations Demographic year book² in which, for example, in the

Third Report of the WHO Expert Committee on Environmental Sanitation.

United Nations, Dept. of Economic Affairs (1952) Demographic Year Book, 1952, New York.

1952 edition, the death rate of the age group 1-4 years in inadequately sanitized countries is 30 to 40 times as high as for the countries with high levels of sanitation. It is shown by the morbidity and mortality statistics of nearly every country by a comparison of figures from the urban better sanitized areas with figures from its rural and usually less sanitary areas.

Among other relationships between a good environment and the healthy family may be mentioned the following³:

- a) The general improvement in health from improved hygienic conditions promotes a state of well-being in the family which is conducive to its social development.
- b) The resulting improvement in health and consequent rise in living conditions influences for good the attitude of the members of the family toward other improvements in their pattern of life.
- c) The provision of organized sanitary facilities, such as a potable water supply, leads to a considerable saving of time and labour, which should become available for productive work in the rural economy.
- d) There is considerable evidence that the diminished incidence of excremental and water-borne diseases which results from improvements in environmental sanitation is accompanied by a marked decrease in morbidity from other diseases, the etiology of which is not directly related to either excreta or contaminated water supplies.

Examples of other social and mental considerations may also be mentioned: the improved mental outlook and the creation of confidence and dignity inspired through improved housing or slum clearance - whether it be urban or rural; the creation of more time for other tasks and for leisure when water need no longer be transported great distances, usually by the women of the family; the greater cleanliness and more comfortable and aesthetic conditions in the home when the gamoosa and other animals have been removed to a secure but detached stable, the greater force for family cohesion and pride brought about when the home is pleasant, clean, permits privacy and is in a neighbourly and well-organized community.

³Third Report of the WHO Expert Committee on Environmental Sanitation.

A good environmental sanitation programme for a community will include provisions for village planning, village services, and community development. This means that villages expand and grow in an orderly manner which will not only improve their appearance and make them more livable but will further present and future municipal services, including sanitary services, helping to prevent the development of new slums. Such a programme will also facilitate municipal cleansing, abatement of nuisances and better control of insect and rodent vectors of disease.

2. What is involved?

Environmental sanitation is concerned with the family's health through the control or provision of the following:

- a) Sewage, excreta, garbage and refuse disposal.
- b) Water supplies.
- c) Housing.
- d) Milk and food supplies.
- e) Personal and public habits of cleanliness.
- f) Atmospheric pollution.
- g) Occupational environments where the individual and family members work.
- h) Insect, rodent and other vectors of disease.
- i) Other aspects of community orderliness and cleanliness.

3. Who is involved?

The work of bringing sanitation to the family concerns the entire public health team. This includes, in addition to the sanitary engineer, the sanitarians and sanitary assistants, the physician, nurse, nurse assistants, health educators and other allied specialized health personnel.

The work where the family is concerned must be through a unified approach. It is not sufficient that sanitary facilities be provided. They must be used and, more important, personal habits must be changed. The problem and its approach is better understood in the statement: SANITATION IS A WAY OF LIFE.

4. Where do we begin?

Every country should have a master or national plan for its public health services and for the programmes within which every service is covered; all objectives known; the steps by which these programmes will be implemented and set forth; the responsibilities of each service clearly defined.

The experience is too often that a country wants better sanitation for its families but has no organization responsible for doing the job. In some instances where organization exist, these may operate quite independently, for example from the health education section, the maternal and child health section, the school health section, etc. All such services must work together, with each knowing its duties, for maximum results.

Every country, every district within a country, and each section of a district will have local problems often unrelated or different from those in other areas. The first step after the organization is created, is to establish the order of priorities for work. For sanitation this will usually require surveys of the area by both the medical staff and the sanitation staff. Results of these surveys will establish:

- a) Major communicable disease problems.
- b) Number, location, and adequacy of sanitation facilities.
- c) Housing problems.
- d) Economic potential.
- e) Characteristics of the area and its population.
- f) Family relationships and community organization.

Based on the survey, it will be apparent that those items should be approached first from which may be derived the greatest benefit. As a rule these will point to water supply, excreta and sewage disposal, vector control, and school sanitation.

Once the fundamental needs of the family have been met, such as a water supply which is safe, ample and convenient, and a latrine or other means of disposal of excreta safely, the family can move forward in many ways to protect itself from disease. Education is the key which lets the family open the door. But without certain minimum sanitary facilities, education finds poor soil in which its teaching can take root.

5. How can the family help itself to better sanitation

Personal cleanliness is a virtue extolled by most religions. It is a keystone in the family's health programme. Such diseases or discomforts as communicable eye disease, typhus, plague, scabies, the dysenteries, ascariasis, lice, skin diseases, and many parasitic diseases, are frequently spread or contracted as the result of dirty bodies, dirty clothes, dirty living conditions. The family can do much to protect itself simply by keeping clean and keeping its living quarters clean.

With water conveniently placed in the home, in sufficient supply, bathing and washing of clothes at home will reduce the hazard from bilharziasis which develops when canals and rivers are used for such purposes. Personal cleanliness has its effect in reducing communicable eye disease, skin disease, infestations, etc.

The use of latrines reduces the pollution entering canals which will lead to infections of snails and the propagation of bilharziasis.

The use of latrines reduces the hazard of hookworm infection of the soil from which the worms may enter the skin of any family member who comes in contact with such soil.

The family can protect itself from the hazards of contaminated milk by always boiling it as a means of protection as near the time of consumption as possible or by insisting on the purchase and use of safe forms of milk and milk products.

Insects such as flies and mosquitoes carry disease. The family can protect itself from such insects by keeping its home clean and less attractive to insects; by screening or by using netting over beds, by eliminating domestic breeding areas, and by the use of insecticides.

Thorough cleaning, washing and peeling of vegetables and thorough cooking of all meat will provide protection against certain parasites. Storage of perishable food for long periods either before or after preparation should be avoided, unless refrigeration is available.

A member of the family who becomes ill with any disease which is transmitted through food, water, or milk should not prepare or serve food, or have any contact with the milk or water supplies used by the rest of the family.

The family can improve its housing. It can use light coloured spray coatings for inside walls. It can clean windows and where required, install additional windows. It can use chimneys for smoke removal. It can construct floors which are more easily cleaned and which will not hold dust and contaminated substance. It can construct stables which are entered by a separate door from that used by the family. The family can clean its stables at least twice a week and haul the manure directly to the fields. It can do such things if it is made aware of the hygienic benefits to be derived therefrom.

The family can join with others in the community to do those things which one family cannot do alone. Formation of cooperative societies, organization of health and sanitation committees, community action to eliminate or solve local problems, all these lie within the province and capacity of one family to initiate, if it has the will, although it sometimes needs to be shown the way.

3. The family can do all these things if:

- 1) There is a national sanitation organization to lead the way and show the family how these improvements can be made.
- 2) There is an education programme for the whole community including the schools, and reaching all members of the family.
- 3) There is provision for each family to help itself through the contribution of labour, supplies, etc. within its economic resources to the community effort.
- 4) All members of the public health team encourage and help the families in their efforts to acquire:
 - a) clean food and water
 - b) clean bodies
 - c) clean homes
 - d) clean communities