

Human Environmental Studies

● (1630)

Miss Aideen Nicholson (Trinity): Mr. Speaker, in Canada certain environmental problems such as poor sanitary conditions and accompanying communicable diseases are no longer the greatest cause of mortality and morbidity as they still are in many other countries. As a result of progressive measures introduced by the federal government, the provinces, and municipalities, conditions such as inadequate, unsafe water supplies, and poor or non-existent waste disposal have been eliminated in many regions, and are being brought under control elsewhere.

As these classical causes of human suffering and death have been eliminated, other environmental hazards to human health have become apparent. These often exert their effects in a more subtle way. Many are the direct result of man's social and economic development, notably as a result of industrial development and urbanization. Well known problems of this type include the release of mercury from chlor-alkali plants and the emission of lead from automotive exhausts or from industrial smelters.

Even our increased opportunities for leisure bring environmental hazards to health; for example, amateur pottery has brought hazards of lead poisoning from incorrect glazing techniques, and the pollution problems associated with cottage development around many of our lakes are well known.

I believe we have recognized the importance of environmental factors in relation to human health. Much of the emphasis in the Department of Health document "A New Perspective on the Health of Canadians" is concerned with the importance of preventive measures as a means of reducing human illness, death and suffering, and perhaps as a more cost-effective way of maintaining good health than the traditional medical approach of diagnosis, treatment and cure. Environmental factors, and the need to control their influence on human health, figure prominently in the propositions set forth in the "New Perspective" document which proposed courses of action to identify and bring under control those physical and chemical factors and psycho-social influences that, together with microbiological agents, make up the ecosystems that most directly affect human health.

Toxicologists of the Health Protection Branch are conducting research on a number of chemical agents in our air, soil, and water in order to determine the degree of pollution that people can tolerate without serious effects on health. The results of these investigations will continue to be used, together with all other available relevant scientific evidence as part of the ongoing monitoring of the indications for control of the environment, including the workplace environment, in order to safeguard health.

The influence of physical factors such as heat, light, noise and ionizing radiations on health and well-being is also being studied by the Health Protection Branch.

Several of these programs, such as that relating to ionizing radiations, have been in existence for many years, but others are relatively new or have recently been greatly expanded. For example, in recent months research to identify potential toxic chemicals in drinking water has been intensified. As new concerns arise, the Health Protection Branch has responded by adapting its research priorities.

[Mr. Harquail.]

Perhaps a good example of this is provided by the present concern over asbestos fibres in drinking water.

The identification of significant amounts of asbestos in drinking water was first accomplished by scientists of the Health Protection Branch a few years ago. The health significance of the discovery that water supplies in certain areas contain relatively high levels of asbestos was, and remains, uncertain. Officials of the branch have worked closely with their colleagues in the United States to design extensive investigations that may be expected to resolve this question; these officials continue to receive and evaluate the results of these studies as they become available. At the same time other scientists in the branch are involved in the development of methods that could be used to monitor drinking water for asbestos fibres if it should become apparent that there is good reason to develop regulatory standards because of a health hazard. Others are studying the possibility that asbestos fibres in water could become airborne and consequently available for inhalation through humidifiers.

These are some of the ways in which the Department of Health is addressing the problem of identifying risks to human health from environmental agents. Of course the work directly carried on by the department is augmented by research on the influence of environmental agents on cells, tissues, and organisms, undertaken mainly by university laboratories sponsored under the national health grants' scheme by the Medical Research Council and by the National Research Council.

Having defined the nature and degree of environmental health hazards it becomes essential to control those agents that pose a threat to human health and well-being. At the federal level a number of acts of parliament may be used in particular cases, depending on the nature of the hazardous agent, the medium, whether air, water consumer products, in which the agent occurs and on the nature of the population at risk, be it general population or workers. We must recognize also that the provinces have significant responsibilities in relation to health matters.

In the context of environmental health issues there is a good deal of federal-provincial co-operation in order to co-ordinate programs and to attempt to get results which will lead to a more uniform standard of health protection across Canada.

Under the aegis of the Subcommittee on Environmental Health of the Advisory Committee on Community Health, a federal-provincial committee reporting directly to deputy ministers of health, the Canadian drinking water standards and objectives are currently being revised. Another working group of this committee has recently completed an in-depth study of the incidence of asbestos-related disease in Canada and has recommended steps that ought to be taken by the appropriate authorities at the federal and provincial levels to confer a greater degree of protection for workers who come into contact with asbestos as a result of their employment.

Another group is at present considering a number of occupational health problems including the development of model legislation for use in Canada, and an assessment of occupational health manpower needs and training.