

A fourth feature of the concept is that it permits a further subdivision of factors. Again for traffic deaths in the lifestyle category, the risks taken by individuals can be classed under impaired driving, carelessness, failure to wear seat belts, and speeding. In many ways the concept thus provides a road map which shows the most direct links between health problems, and their underlying causes, and the relative importance of various contributing factors.

Finally, the health field concept provides a new perspective on health, a perspective which frees creative minds for the recognition and exploration of hitherto neglected fields. The importance to their own health of the behavior and habits of individual Canadians is an example of the kind of conclusion that is obtainable by using the health field concept as an analytical tool.

One of the main problems in improving the health of Canadians is that the essential power to do so is widely dispersed among individual citizens, governments, health professions, and institutions. This fragmentation of responsibility has sometimes led to imbalanced approaches, with each participant in the health field pursuing solutions only within his area of interest. Under the health field concept, the fragments are brought together into a unified whole which permits

everyone to see the importance of all factors, including those which are the responsibility of others.

This unified view of the health field may well turn out to be one of the concept's main contributions to progress in improving the level of health.

(Source: Reprinted from: Marc Lalonde. "A New Perspective on the Health of Canadians: a Working Document." Ottawa, Canada, Information Canada, 1975.)

Editorial Comment

The health field concept has been developed in Canada as a framework for analyzing health problems and as a method for adjusting health policies toward the achievement of health for all by the year 2000. The preceding article has been selected for publication because it represents one of the new and controversial approaches to the use of epidemiology in the solution of health problems and because the dissemination of these approaches constitutes one of the central objectives of the *PAHO Epidemiological Bulletin*.

WHO Collaborating Centers for Viral Diseases

The development of a network of collaborating centers for reference and research on viruses began in 1947 with the establishment of a World Influenza Center in London by the Interim Commission of WHO to carry out worldwide surveillance of influenza. A second Center was soon created for the Americas (Centers for Disease Control, CDC, Atlanta, Georgia, USA). At present, institutions from national influenza centers are linked with the two collaborating centers through WHO. The Centers in Atlanta have agreed to:

- obtain, fully characterize, and preserve representative strains from outbreaks in different parts of the world and distribute them to research and vaccine production laboratories;
- advise on the strains which should be included in influenza vaccines;
- arrange for the training of research workers in specialized techniques;
- collect and distribute, in coordination with PAHO and WHO, epidemiological information about the occurrence of influenza in different parts of the world; and
- provide reagent kits for the national influenza centers.

The problems raised by large poliomyelitis epidemics, together with the development of an inactivated poliovirus vaccine (IPV) in the early 1950s and the need to identify properly many strains of coxsackie and echoviruses isolated in that decade, led to a series of collaborative studies under the aegis of WHO and to the creation of a network of WHO reference centers in 1953. In 1958 this scheme was extended to all other viruses of public health importance. In 1973 the distinction between centers dealing with enteroviruses and respiratory viruses was abolished since many of the centers were in fact working in both fields. Recent advances in certain fields such as hepatitis and special pathogens have led to the addition of new centers to cover these subjects. At present there are in the Region 18 collaborating centers in four countries: 14 in the United States, two in Brazil, and one each in Canada and Jamaica (Table 1). For practical reasons, a distinction has been maintained for influenza, viral hepatitis, mycoplasma, arboviruses, special pathogens, rickettsiae, and those centers which have a specific task rather than a wide range of reference activities.

Table 1. WHO collaborating centers for viral diseases in the Americas.

Area of activity	Institution	Location
For reference and research on influenza	Centers for Disease Control	Atlanta, Georgia, USA
For virus reference and reseach	Centers for Disease Control	Atlanta, Georgia, USA
	National Institute of Allergy and Infectious Diseases	Bethesda, Maryland, USA
	Baylor College of Medicine	Houston, Texas, USA
	Adolfo Lutz Institute	São Paulo, Brazil
	Laboratory Center for Disease Control	Ottawa, Canada
	University of the West Indies	Kingston, Jamaica
For reference and research on viral hepatitis	Centers for Disease Control	Phoenix, Arizona, USA
For mycoplasma reference and research	National Institute of Allergy and Infectious Diseases	Bethesda, Maryland, USA
For arbovirus reference and research	Centers for Disease Control	Fort Collins, Colorado, USA
	Yale University	New Haven, Connecticut, USA
	Evandro Chagas Institute	Belém, Brazil
For virus reference and research of special pathogens	Centers for Disease Control	Atlanta, Georgia, USA
For cell cultures	American Type Culture Collection	Rockville, Maryland, USA
For rickettsial reference and research	University of Maryland	Baltimore, Maryland, USA
	National Institute of Allergy and Infectious Diseases	Hamilton, Montana, USA
	Centers for Disease Control	Atlanta, Georgia, USA

The terms of reference of the viral diseases collaborating centers are: to provide reference services (identification of rare strains); prepare and distribute to national laboratories reference sera, antigens, and strains; take part in collaborative studies; cooperate with national laboratories and provide them with advice and training; give on request advice to governments and assist-

ance in epidemics; collect epidemiological information; and carry out applied research.

(Source: Epidemiology Unit, Health Programs Development and Research Coordination, PAHO.)



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