

Editorial

Epidemiological surveillance and its prospects in the Region

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Because of what epidemiology is and what it does — being a method of studying problems of health and disease within communities, being the basic investigative method and diagnostic tool of preventive medicine — and because the results of epidemiological investigations can lead to effective and scientifically sound preventive actions that are feasible and realistic, it is essential to make greater use of epidemiology in general, and in disease control in particular.

To achieve the expectations from epidemiological surveillance, it is essential that national authorities should have the capacity to:

- Measure and monitor the trend of the health status of their populations.
- Assess the levels and trends in exposure to factors that affect health, such as biological, social, economic, cultural and political factors.
- Detect and investigate health problems early in order to initiate appropriate remedial measures.
- Measure the impact of policies and interventions addressing particular health problems.
- Analyse and interpret epidemiological information and effectively communicate the results to the public and the decision-makers.

Development of these capacities and capabilities requires a change in knowledge, attitudes and practices on the part of the epidemiologists in the first place and also on the part of all who are involved in epidemiological work, the most important of whom are: front-line health workers (including private practitioners), universities and academic institutions, the community and the decision-makers.

The role of front-line health workers in any effective functioning of epidemiological services is basic. They are at the forefront of the battle and their input for strengthening surveillance is vital. They can be looked at as one of the most sensitive antennae of the whole system of surveillance; they are in the most strategic position for effective investigation of diseases. They have the opportunity to see diseases where have started or spread and they can trace the origin of outbreaks and epidemics while still in the early stages. It is essential to develop in front-line health workers an alarm system which is triggered without fail whenever there is a danger of unusual occurrence of diseases. They should not feel threatened if they report cases and a system of feedback to them must be developed; more importantly, a system for acknowledging their work is needed.

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Universities and academic institutions have an important role in the strengthening of national epidemiological capabilities. It is at these institutions that the various categories of health workers are introduced to the principles of epidemiology. Educators should use every possible chance to show students the actual underlying causes of illness, outbreaks and epidemics and they should work to foster in their students an investigative mind.

The community is an essential partner. Community participation should be ensured in the collection of epidemiological data, in review of the situation and its underlying factors, in the planning and implementation of actions to address the situation and in all the phases and stages of research. Community involvement will be a strong force which should direct decision-makers along the right course.

Decision-makers are of course prominent players. There is a need to ensure that epidemiological information reaches them in a form capable of convincing and converting them. It is unfortunate that some who call themselves public health officials try to please politicians by concealing information from them and creating an artificial picture. Such officials concur with what the politicians and decision-makers want to do, whether it is right or wrong. It can go even further, and instead of working to convert decision-makers to think and act epidemiologically, these public health officials work against the main principle of epidemiology, namely the truth, by threatening or even penalizing those working in epidemiology who have the courage to report cases of certain communicable diseases. Hence they confuse the whole system from the source of information to the decision-makers.

In order to ensure a better future for epidemiology in the Region, the following are needed.

- All health care workers, particularly at the peripheral level, should have a thorough understanding of the trends of disease occurrence and distribution.
- National human resources in the fields of surveillance and epidemiology should be developed and strengthened. The best and most cost-effective intervention is through the introduction of epidemiological principles in the preservice education of medical and paramedical staff.
- The relevant fields needed for proper epidemiological services should be developed and strengthened, particularly public health laboratory services.
- There should be a move beyond the traditional system of notifiable diseases surveillance, which is at present predominantly passive and of limited scope, to more active systems of broader scope involving all possible sources of data, including private physicians/peripheral health care workers, hospitals and public health units.
- Two-way communication between all sources of information on the occurrence of diseases and on control measures taken should be developed and enhanced.
- National capacities able to respond to the occurrence of diseases and to their effective control should be set up.
- Applied research in areas such as surveillance and the development of sensitive, specific and inexpensive diagnostic tools should be promoted and encouraged.