

Setting priorities in communicable disease surveillance



EPIDEMIC AND PANDEMIC
ALERT AND RESPONSE

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Objective and scope of these guidelines

Combating communicable diseases depends upon surveillance, preventive measures and where appropriate, outbreak investigation and the institution of control measures.

Developing and strengthening communicable disease surveillance and response at the national level requires a substantial and long-term commitment of human, financial and material resources. This investment begins ideally with a systematic review of the national priorities for surveillance.

Each country needs to periodically assess its overall surveillance system so that this continues to reflect national disease control priorities, improves efficiency and takes advantages of new methods and techniques to strengthen surveillance.

These guidelines aim to assist public health professionals at national level in the process of prioritization of communicable diseases/health events for public health surveillance. They represent a prototype for prioritization of communicable diseases, and describe the different steps in a prioritization exercise using a consensus methodology based on the Delphi method. They may need to be adapted depending on the organization of surveillance within a country, or for use in international collaborative settings where disease priorities may differ from those at national level.

Prioritization is part of the process to strengthen a national surveillance system for communicable diseases and can be used as an aid in making decisions for resource allocation. Once the priorities are set, the adequacy of the existing surveillance system to cover the most important diseases needs to be reviewed and, if necessary, revised. Alternative methods of surveillance need to be considered and areas for improvement need to be identified.

These guidelines focus on the prioritization of diseases for national surveillance but a similar process can be carried out to determine a list of communicable diseases for which a group of countries wants to undertake international, regional or cross-border surveillance. This will lead to a different list of diseases and different criteria, but the prioritization technique remains the same.

The document is organized as follows: The introduction focuses on why, when and how to do a prioritization exercise; the following section describes the different steps of the prioritization exercise; and the final section covers the post-workshop activities.

Introduction

Why prioritize?

The main objective of this prioritization exercise is to make the best use of limited human and financial resources for disease surveillance, taking into account changing needs. Priority setting is necessary to ensure that both planning and resource allocation are rational, explicit and transparent.

A national surveillance system (be it mandatory or voluntary) should cover the diseases of public health importance in that country. Surveillance systems are usually developed over time, with new diseases being added and few removed. This often results in a long list of diseases for surveillance, impairing the ability of the system to perform efficiently. In many surveillance systems data are collected which never result in public health action, whereas new threats are considered insufficiently or not at all.

Public health risks change over time therefore priorities should be reviewed periodically.

- Some diseases are no longer a national public health threat and yet they remain on the national list of mandatory reportable diseases (e.g. leprosy in Western Europe); others, such as severe acute respiratory syndrome (SARS) and bovine spongiform encephalopathy (BSE), are emerging diseases with a public health impact but are often not under surveillance.
- Diseases evolve as antigenic variants expand their host or geographical range (e.g. meningococcal disease due to *Neisseria meningitidis* serotype W135, influenza due to type H5N1, cholera due to *Vibrio cholerae* O139), or as antibiotic resistance develops. The role of surveillance in the fight against these diseases has increased.
- Advanced technology and improved knowledge impact on surveillance strategies and methods. Rapid diagnostic tests and information technology may allow earlier detection and better control and therefore reduce the cost of surveillance and control and augment the feasibility of surveillance.
- The introduction of new vaccines and control programmes alters the surveillance objective and leads to different surveillance methods. For example, countries engaged in measles elimination require immediate case-based reporting whereas countries with low measles vaccine coverage may need weekly aggregated data collection because of a high incidence of cases.
- As demographic characteristics of populations change due to lower birth rates and longer life expectancy, new risks may be expressed. Similarly, an increase in the number of immunocompromised people may lead to an upsurge in diseases which were previously under control.

In order to capture data on the most important diseases and conditions and not to overstress the surveillance system, priorities have to be set.

Determining priorities is a process of assessing the relative importance or value of alternative concerns. Difficult decisions may need to be taken about how resources can be most effectively deployed.

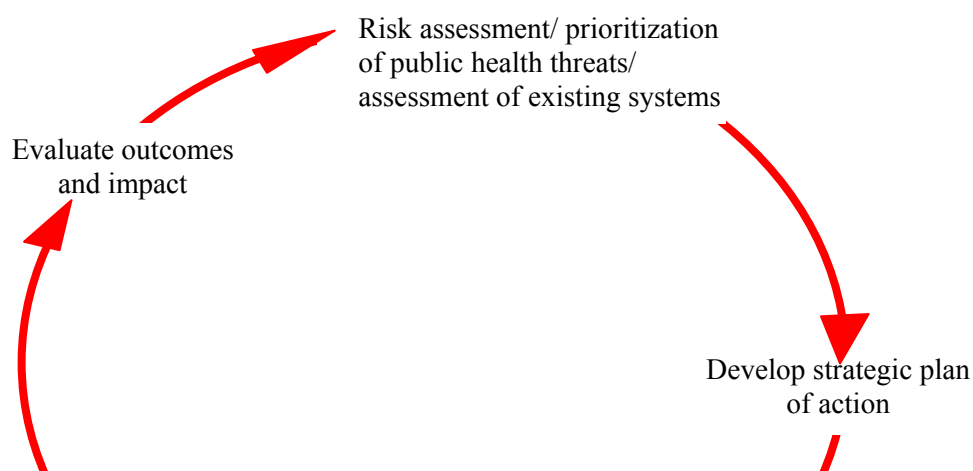
When to prioritize?

All countries should review their list of priority diseases for surveillance periodically to see if it reflects current needs. Prioritization only makes sense if it happens within the right context; political endorsement of the process and willingness to accept the results of the exercise are prerequisites.

Good opportunities to revise priority diseases are:

- as an initial step to strengthen national surveillance, either before or immediately after the assessment of the existing system and before the development of a plan of action to strengthen the system (figure 1);
- as part of the process of evaluation of surveillance functions;
- when there is a change in the national health policy or in the International Health Regulations;
- following an outbreak, to take advantage of lessons learned and public pressure and political will to change;
- whenever there is a new threat, or a new disease.

Figure 1: Cycle illustrating surveillance systems strengthening activities



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