Disease surveillance thresholds

14 September 2023

Key points

- The above standards apply to refugee camps and to out-of-camp (including urban) situations.
- Prepare an outbreak preparedness and response plan. Ensure that sampling materials and transport media are available onsite for the infectious agents most likely to cause a sudden outbreak.
- Train healthcare staff and community health workers to detect and report potential outbreaks. Provide refugees and host populations with simple information on the symptoms of epidemic-prone diseases; inform them where they can go for help.
- A disease outbreak occurs when the number of cases of disease exceeds what would normally be expected in a given community, geographical area, or season.
- An epidemic occurs when an infectious disease spreads rapidly to many people.

1. Overview

A disease's potential to cause an outbreak determines whether it should be under surveillance. An ‘alert threshold’ (or ‘epidemic threshold’)) indicates the level of incidence above which a disease requires an urgent response. Each disease has a specific threshold that depends on its infectiousness, other determinants of transmission, and the degree to which it is locally endemic.

Disease control measures must be specifically developed to halt transmission of the disease agent that causes the outbreak. Often, knowledge of the agent is already available to guide the design of appropriate control measures. In general, response activities include: controlling the source or preventing exposure (for example, by improving water outlets to prevent cholera); interrupting transmission or preventing infection (by mass vaccination to prevent measles, or use of LLINs to prevent malaria); or modifying host defences (by prompt diagnosis and treatment, or
chemoprophylaxis).

2. Main guidance

Emergency standard

- Diseases for which a single case may indicate an outbreak: cholera, measles, acute flaccid paralysis/polio, yellow fever, viral haemorrhagic fevers.
- Malaria: 1.5 times the baseline over the previous 3 weeks.
- Watery diarrhoea: 1.5 times the baseline over the previous 3 weeks.
- Bloody diarrhoea: 5 cases.
- Meningitis: 5 cases or 1.5 times the baseline over the previous 3 weeks.

Longer-term standard

The above standards apply to emergencies and long-term situations.

3. Links

UNHCR Public Health iRHIS The Sphere Handbook

4. Main contacts

UNHCR Public Health Section, Division of Programme Support and Management. At: hqphn@unhcr.org