

line surveillance data; the inadequate number of laboratory diagnostic facilities; and in adequate coverage with vaccines.

### ***Persistence of many serious communicable diseases***

In spite of the rarity of documentation of outbreaks of communicable diseases after disasters in developing countries, there is a consensus that the probability of outbreak is considerably higher in Latin America and the Caribbean than it is in the U.S.A. This opinion is based upon morbidity and mortality data in which patterns of many communicable diseases are at levels comparable to those in Europe and North America at the turn of the century (14). The most prevalent of these diseases are acute respiratory infection, tuberculosis, diarrheal diseases of various etiologies and diseases which are preventable through vaccination.

### ***Decline of some serious communicable diseases***

In counterbalance to the high levels of most of the communicable diseases transmitted by person-to-person contact, in most of Latin America and the Caribbean the classical diseases associated with disasters have declined or disappeared. The Americas have also been spared the widespread severe malnutrition and recurrent famines which have afflicted Africa and Asia.

### ***Lack of baseline surveillance data***

Lack of information regarding levels of communicable diseases between disasters in developing countries makes it extremely difficult for epidemiologists to confirm subsequent reported "increases" and to attribute them to an acute event. A medical team which moves into an area without previous health services or regular disease reporting may, for example, encounter clinical cases of typhoid fever or tetanus. When this happens it is frequently difficult for field workers or relief agencies to determine if an acute public health emergency exists or whether the true level of endemic disease is finally being appreciated. The potential of epidemic levels of communicable disease after disaster and the appropriate organization of surveillance systems are the subjects of Chapters 2 and 3.

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***Inadequate laboratory diagnostic facilities***

Documentation of communicable diseases such as typhoid or dengue fever is frequently frustrated after disasters in Latin America and the Caribbean when physicians rely exclusively on their clinical acumen to diagnose communicable diseases. This is the end result of medical curricula in which the effective use of the laboratory is not included, of poorly run microbiology laboratories in which the clinician or epidemiologist has little confidence, and of the policy of not providing adequate support to public health laboratories which are seen as too expensive, as using inappropriate technology, or as unnecessary to primary health care in developing countries.

***Inadequate vaccination coverage***

The probability of occurrence of vaccine-preventable diseases is related to the percentage of the population that has acquired natural immunity, and the percentage of unvaccinated susceptibles. Most of the vaccines in common use are directed against childhood diseases, such as diphtheria, pertussis, tetanus, poliomyelitis and measles. Indiscriminate or improvised vaccination programs are neither feasible nor effective in the aftermath of disaster. Therefore, the extent to which the children have completed their primary series of vaccinations before a disaster will determine the likelihood of epidemic after a disaster.

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