

probably most important, step is the recognition and documentation of the fact that an unusual event, such as adverse health effects in humans or animals, has occurred. The time-tested and best method is a careful review of events, a tabulation of the adverse health effects, and the tentative conclusion that something of an unusual nature has occurred. This critical appraisal is best achieved by an epidemiological study.

5.2.2 Gathering of Epidemiological Data

The effects of the use of chemical weaponry (CW) would likely be more predictable in a society where conditions of sickness, malnutrition, or crowding would intensify the toxic response. These same populations, however, already have a high rate of morbidity and mortality. Identifying an outbreak of disease with high mortality and investigating it must, therefore, be undertaken against a background of illness that could obscure much of the potential effect of CW. Another problem is discriminating between an outbreak as the result of a CW attack and a natural disaster, such as the tragedy in Cameroon, or between a CW attack and a technological disaster, such as Bhopal (Dave, 1985; Sutherland, 1985; Suitcliffe, 1985), or Chernobyl (USSR).

As in the investigation of an epidemic, the immediate task is to confirm the existence of an outbreak (i.e., the occurrence of an excess number of events over what would be expected within a defined time and population [Binder and Sanderson, 1987]). If an outbreak is under way, the next task is to rule out most likely causes while investigating for CW. Since the effects of some CW could mimic diseases normally seen in the population, they can be reliably excluded only if the age/sex/socio-demographic pattern of the outbreak does not resemble the normal/background pattern for the disease it resembles. Pathological evidence will assist in