

CHAPTER 4

THE EPIDEMIOLOGY OF DISASTERS

by

Michel F. LECHAT

Definitions: In any discussion of disaster epidemiology, the first essential is to define a disaster and, more specifically, a natural disaster. For the World Health Organization, a disaster is "a situation which implies unforeseen, serious and immediate threats to public health". And the Committee on the Challenges of Modern Society (CCMS) defined a disaster as "an act of nature or an act of man, which is or threatens to be of sufficient severity and magnitude to warrant emergency assistance". The crucial point is the need for assistance, and it seems fair to say that a disaster is any unforeseen and sudden situation with which the affected community cannot cope.

Social sciences can be helpful here in describing how individuals and social groups deal with the stresses and strains of daily life - diseases, death in the family, interpersonal conflicts, unfulfilled expectations, social and material deprivation. These are individual crises and those who undergo them have to find their own solutions according to the models of acceptable behaviour within their own social or cultural group. There are, for example, socially recognized ways of handling an incurable disease, the loss of a relative, bankruptcy, or a car crash. These individual disasters do not induce change in society as long as they occur at random in time and place. Clustering of such disasters, however, may upset the ecological and social balance and produce effects which far exceed what might be expected from the simple addition of individual sufferings.

Of course, what might constitute a disaster for one community might not necessarily do so for another. Some populations with high exposure to disasters develop a kind of social adaptation which has been described