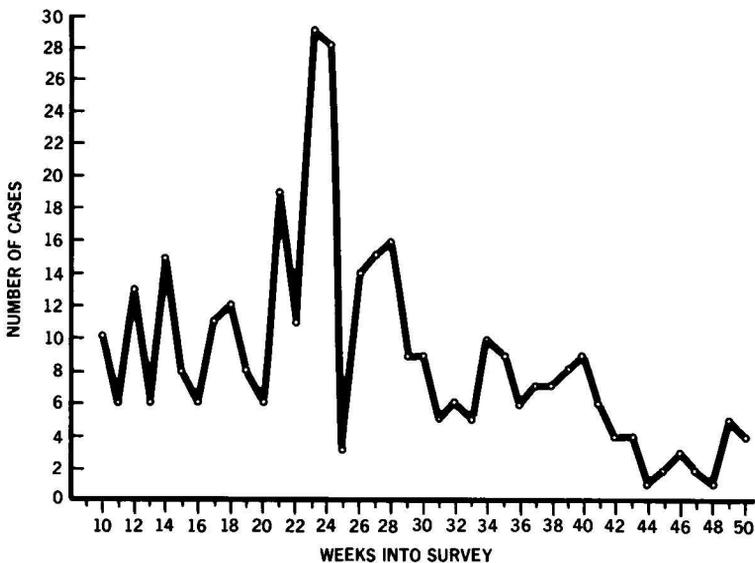


disease and in international relief operations in which members of the epidemiology staff may lack intimate knowledge of reporting units' proximity to each other. Well charted graphs can more sensitively indicate disease trends than numbers. This is demonstrated in Figure 4, in which reported cases of dog bites in Guatemala City following the earthquake in 1976 (37) are shown, and in Figure 5, in which reports of gastroenteritis in the disaster area are charted by weekly intervals (38). There are publications available about drafting epidemiologic visual material and graphs (39-43).

In summary, the epidemiologist and his superiors in the relief effort must anticipate that organizing effective postdisaster surveillance will itself lead to increased levels of reported disease, which may be real or only apparent. Some reports of increase in levels of disease will require field investigation, but despite efforts to document trends in the field it may be impossible to ascertain whether or not changes in levels are in fact real. However, there are three simple measures which will provide independent evidence of the validity of trends of reported dis-

**Figure 5: Example of Simplified Method of Surveillance of Epidemics in Zones of Disaster: Number of Reported Cases of Enteritis by Half-Week, Locality of Zaragoza, Guatemala, March 1-December 10, 1976**



ease. The following should be monitored in the weekly epidemiologic tabulations: the total number of potential reporting units; the percentage of units from which reports are submitted during the period of surveillance summaries the cornerstone of surveillance feedback. Better, such as the registration of refugees or the opening of clinics in new areas.

### **Providing Feedback to the Field from the Central Level**

Providing feedback is of particular importance to postdisaster surveillance, insofar as it promotes the cooperation of newly established reporting units and those which did not participate in the preexisting surveillance. Furthermore, many relief workers will not be familiar with the surveillance system and, even when they are, many give higher priority to providing health services than to carrying out daily or weekly surveillance reporting. Efforts to provide feedback will, however, be frustrated by limitations of diagnostic resources, epidemiologic manpower, communications and transport, as well as in obtaining access to existing facilities (e.g., space on helicopters, radio time and duplicating machines).

The situation which necessitates the relief effort, on the other hand, is a special one in that whatever feedback which can be provided is especially welcome. A disaster is invariably stressful to members of health teams in the field, be they of national or international composition, since they are placed in unfamiliar circumstances. Furthermore, most relief workers have little or no firsthand experience with disaster, and few feel they are adequately trained to cope with either the immediate or potential problems in public health. There is also personal concern about the risk of acquiring a communicable or tropical disease with which they may be unfamiliar. Relief workers are, moreover, particularly conscious of being isolated from one another and of their ignorance of events in adjacent areas. Factors such as these may explain why relief workers are so psychologically vulnerable, and prone to disseminating rumors of outbreaks. It is important to remember that these concerns are also shared by the general public, especially in areas where literacy is high.

These considerations render widespread promulgation of weekly surveillance summaries the cornerstone of surveillance feedback. Because few relief workers have training in epidemiology or significant

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