The Collection, Interpretation and Utilization of Data	30
Providing Feedback to the Field from the Central Level	38

Chapter 4: Operational Aspects of Disease Surveillance after Disaster 41

Field Investigation of Rumors and Reports of Communicable Disease 41

Gaining Access to Laboratories to Obtain Definitive Diagnoses and Support for Epidemiologic Investigations 44 Presenting Epidemiologic Information to Decision Makers 50 Surveillance during and after the Recovery Phase 51

Chapter 5: The Control of Communicable Disease after Disaster Environmental Health Management 53

Immunization 56
Chemotherapy 58
Quarantine and Isolation 60

Part II: Annexes

- List of Key Epidemiologic Contacts in the Western Hemisphere 63
- List of Pan American Health Organization Country Offices and Centers 71
- PAHO/WHO Collaborating Centers and Reference Laboratories for Selected Communicable Diseases of Public Health Importance 79
- 4. Summary of Sanitation Requirements during Disasters 85
- Factors to be Considered in Relation to Vaccination in Emergencies 89
- 6. References 91

Preface

A companion piece to the guide Emergency Health Management after Natural Disaster (Pan American Health Organization, Scientific Publication No. 407, 1981), this manual contains a more detailed presentation of the information in the "Epidemiologic Surveillance and Disease Control" chapter of the guide. The guide provides an overview intended to be of use to policy makers and the administrators responsible for health service delivery after the occurrence of disaster in developing nations. This manual, in which the scientific basis of and experience with the surveillance and control of communicable disease after disaster is summarized, is directed to an audience which consists of the senior technical officers involved in disaster relief. These will particularly be epidemiologists, specialists in disease control, sanitary engineers and senior medical officers.

The natural disasters of concern in both this manual and the guide include earthquakes, volcanic eruptions, floods, tidal waves and destructive winds (cyclones, hurricanes and tornadoes). Also briefly considered as disasters in their own right in this work are epidemics of communicable disease. Because of the close relationship between the conditions of communication of disease, the ecology, and nutrition, there is discussion here of such topics as drought, famine and manmade disaster, which are not covered in the parent guide. The time frame of this manual extends beyond the three to four week frame of the guide since the impact of communicable disease is often delayed for weeks or months after the acute event.

Scientific data for use in disaster epidemiology are scarce, yet there exists a plethora of subjective observations (which in the end may prove

to be correct). Consideration of the topics discussed here must be modified to comply with local conditions.

This document is an initial attempt to present this material in an organized fashion. Further documentation of the patterns of communicable diseases after disaster and further epidemiologic research will be needed to more completely understand problems. This will require sustained surveillance, long after the occurrence of acute events, on the part of national health authorities.

The general principles and observations in this manual are relevant throughout the developing world. Special emphasis is, however, given to the experiences and needs of Latin America and the Caribbean.