

*executive committee of
the directing council*



PAN AMERICAN
HEALTH
ORGANIZATION

*working party of
the regional committee*

WORLD
HEALTH
ORGANIZATION



76th Meeting
Washington, D.C.
June-July 1976

Provisional Agenda Item 14

CE76/8 (Eng.)
CORRIGENDUM
14 June 1976
English only

EMERGENCY ASSISTANCE TO GUATEMALA

Corrigendum

Page 3, last paragraph, where it reads "smallpox" it should read
"measles."



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76th Meeting
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Provisional Agenda Item 14

CE76/8 (Eng.)
24 May 1976
ORIGINAL: SPANISH

EMERGENCY ASSISTANCE TO GUATEMALA

PAHO/WHO Assistance to Guatemala after the Earthquake of 4 February 1976

Introduction

The earthquake occurred at 3:03 a.m. on 4 February, and originated along a geologic fault located in the area of the Motagua River, in the north of the country. It had an estimated intensity in the capital city of 6 on the Mercalli scale and a magnitude of 7.5 on the Richter scale at the epicenter, 60 kms from Guatemala City. Its duration was from 25 to 30 seconds. It affected, totally or partially, approximately one-third of the total area of the country, with an estimated population of 3,400,000 persons (Annex I).

I. Consequences of the Earthquake

a) For the Country

Total and immediate disruption of public services in the devastated area; destruction of more than 254,000 houses, leaving more than one million persons homeless, most of them from the economically weakest sectors of the community; serious damage to schools and other public buildings; and landslides and cave-ins which caused interruptions on highways and railroads, the forming of dams, and deterioration of the communications systems.

b) For the Health Sector

A total of 24,340 known dead and 98,566 injured (Annex I) gives an idea of the magnitude of the tragedy, in addition to the orphans and cripples resulting therefrom, the psychic disorders, impossible to quantify, caused by the earthquake and the 1,600 temblors which took place during the following months; and, finally, the epidemic outbreaks which, although few in number, contributed to the deterioration of the health of the population.

There was significant damage to the buildings and equipment of 14 hospitals, 27 health centers, and 71 health posts, which represent, respectively, 70, 51, and 39 per cent of the services of the Ministry of Public Health and Social Assistance in this area. During the first week, of the 3,000 available beds more than one-half represented provisional installations in field hospitals provided by certain countries. The working capabilities of auxiliary health personnel were decreased by death, illness, or calamity at home.

There was total or partial disruption of 75 urban potable water systems and of 242 rural water systems; 31 sewer systems and 66,000 sanitary latrines suffered varying degrees of damage, as did the systems for collecting and transporting garbage.

Initially, there was a limited shortage of food and a significant shortage of potable water; there was confusion and crowding of people in improvised shelters; and, with the lack of basic sanitation services, there was an increase in insects and rodents.

II. PAHO/WHO Assistance

From the initial moment, the Government decreed that a state of public disaster existed, and the Comité Nacional de Emergencia (National Emergency Committee, CNE) entered into action; one month later it established a Comité de Reconstrucción Nacional (National Reconstruction Committee, CRN).

One hour after the catastrophe occurred, a visit was made to the Minister of National Defense, President of the CNE. To him and to the Vice-Minister (and Acting Minister) of Public Health and Social Assistance, an immediate offer was made of all of the resources available in Guatemala; and the possibility of obtaining other resources was pointed out, should this become necessary.

The following personnel were on hand at the Zone III headquarters: 6 medical officers, 1 veterinary doctor, 3 sanitary engineers, 2 nurses, 1 statistician, 2 administrators, 1 technical specialist in malaria, 1 draftsman, secretaries and chauffeurs. The INCAP group was also available, composed of more than 60 professionals in various specialties.

On the basis of the initial information, an ad hoc organization was established at the Ministry of Public Health and Social Welfare. Four broad areas of action were established, to wit: medical care; epidemiological surveillance and control of communicable diseases; environmental sanitation; and food. Provision was also made for supplying administrative support for the foregoing (Annex II).

1. Medical Care

The principal objective was to organize emergency services and to maintain the minimum essential capability for caring for the affected population. Coordination with other agencies of the sector was established, as well as a regionalization of services in the area of the disaster; areas of duty were assigned to the hospitals, and field units were made ready for ambulatory and emergency care; and an information system was put into effect in order to know the availability of resources and the prevalent pathology.

Advice was given regarding the establishment of a plan for the use of auxiliary personnel, the setting up of field hospitals, and the training of human resources in rehabilitation.

INCAP took care of the communities of the high plateau, where it carries on its research and teaching programs, with a total of 20 professionals and auxiliary personnel. The immediate supply of potable water was achieved, and 60 emergency latrines were constructed. In Chimaltenango, two doctors were assigned to that departmental capital, as well as seven doctors from the Postgraduate Course in Public Health. Communities in El Progreso in the eastern part of the country were attended to by four doctors, eight nurses, and eight auxiliary personnel. Medicines and food were also sent.

The INCAP Clinical Center was made into a first-aid post and emergency hospital, with a capacity of 25 beds. Some of the equipment at the Institute, such as sterilization systems, was made available to the health authorities.

2. Epidemiological Surveillance and Control of Communicable Diseases

Zone Office and INCAP staff cooperated in the following programs:

a) prevention and control of water-borne diseases, through sanitation education, early hydration, and timely treatment of patients;

b) vaccinations, principally DPT, poliomyelitis, and smallpox for children under five years of age, which were begun in the capital city and then extended to all of the country;

c) prevention of respiratory diseases, aimed at the high-risk population (children, old people, cardiopulmonary patients). Tents and blankets were distributed in the places most affected by cold;

d) epidemiological surveillance, based on symptoms, and organized in hospitals, health centers, and health posts, in order to learn the prevalent morbidity, to direct the investigation of outbreaks, to evaluate actions in the health area, and to establish preventive and control measures;

e) investigation of small outbreaks of diarrhea, smallpox, influenza, and animal bites;

f) re-establishing and improving the network of laboratories in the affected area in order to provide support to the foregoing programs.

In addition, measures for the control and supply of food to the affected areas were studied with the livestock authorities, and coordinated with the food control and zoonoses authorities of the Ministry of Health. The quarantine programs at the airport and those for epidemiological surveillance of zoonoses were also reviewed to prevent the introduction of foot-and-mouth disease, as the country is free of this disease.

3. Environmental Sanitation

The PAHO engineering group in Guatemala, consisting of three engineers, served on a continuing basis for a month and a half in the División de Saneamiento Ambiental (Division of Environmental Sanitation, DSA) of the Ministry of Public Health and Social Welfare, providing support for its tasks as well as for those of the Institute for Municipal Development and of the Municipality of Guatemala. They were assisted in these actions by a consultant from CEPIS and two short-term consultants.

The following areas of cooperation were identified: (i) supplying the urban and rural sectors with water; (ii) quality control of water; (iii) rehabilitation of the "Santa Luisa" water purifying plant of the Guatemala aqueduct; (iv) evaluation of damage to the sewer systems; (v) disposal of excreta in the rural areas; and (vi) sanitation measures in camps and public establishments.

In addition to the foregoing, cooperation was rendered in (i) the preparation of manuals and instructions for the disaster victims, the management of solid wastes, the use of water-disinfecting tablets, and the design of a provisional chlorinator; (ii) the preparation of lists of equipment and material for emergency programs of environmental sanitation; (iii) the drawing up of immediate-action plans for various areas of sanitation which call for external financing; and (iv) the preparation of a detailed inventory of all of the human, physical, and financial resources available in the Executive Agency of the DSA Program of Rural Aqueducts (Annex II).

4. Food

The Zone Office and INCAP cooperated with the Government in organizing and programming the supplying of food provided by the World Food Program (WFP) and other agencies. After the emergency stage was over, food was supplied under the policy of food for work. The WHO official in Geneva who maintains liaison with WFP visited the country and made important recommendations regarding this program, basically as regards its use for supplying water to small communities.

5. Other Activities

As soon as the local circumstances allowed, the Director of PASB was informed of the magnitude and characteristics of the disaster, and the first requests for assistance were made. Permanent communication was maintained, not only with Headquarters to keep it up-to-date on the development of the situation and of the needs which were arising, but also with the Representatives in neighboring countries in order to coordinate the provision of certain items, while at the same time information was given regarding the situation of employees of the Bureau or their families, of fellows, etc.

Using an emergency fund of US\$150,000 from PAHO/WHO, medicines, medical supplies, biological products, and other material requested urgently by the Government were acquired. A small allocation was available for local purchases which were required immediately. Similarly, it was agreed with the Ministry of Public Health and Social Welfare that, in view of the paramount needs, a great part of the regular funds of PAHO allocated to the country for the current year for consultant or fellowship grants should be transferred and used for the purchase of transportation equipment essential during the rehabilitation stage for the four programs mentioned above.

In order to coordinate the activities and resources of the different agencies of the United Nations in the country, permanent contact was maintained with their executive staff, and meetings were held every two days, coordinated by the Resident Representative of the United Nations Development Program (UNDP), who also represented the United Nations Disaster Relief Organization (UNDRO). Thanks to the way in which the health sector was acting, a great part of the funds from UNDRO, the United Nations Children Fund (UNICEF), and WFP were channeled through the Health Ministry. In addition, meetings were held with personnel of the Organization of American States (OAS) in Guatemala and with the Assistant Director of that Organization; and work was carried on harmoniously with staff from the Center for the Control of Communicable Diseases (CDC) and the Central American Research Station (CARS) of El Salvador, with the Agency for International Development (AID), and with the Cooperative for American Relief Everywhere (CARE), CARITAS, and other agencies located in the country.

The Deputy Director of the Bureau, representing the Director, was in Guatemala during the days following the earthquake. He visited the disaster area along with the health authorities and decided with them on the form of further PAHO cooperation.

The Representative of the Bureau to the Inter-American Development Bank (IDB) accompanied a mission from that Bank to broaden and adjust to current needs a credit of US\$32 million already requested for hospital construction.

Nurses from the area but residing outside of Guatemala, as well as short-term consultants, have been supporting the activities of the Ministry in various fields.

Finally, it should be noted that the officer at Headquarters concerned with emergencies visited the country and provided an important personal study and an extensive bibliography on the subject.

III. Recommendations

1. To broaden the scope of Resolution XXX of the XVIII Pan American Sanitary Conference (Annex III);
2. To develop a work program which will make it possible to implement the recommendation on program areas contained in the Ten-Year Health Plan for the Americas 1971-1980, in that part relating to disasters (Annex III);
3. To complement the previous provisions by means of a resolution of the XXIV Directing Council which would broaden the field of action of the Bureau and would request the Member Governments of PAHO to broaden their activities as well, keeping in mind the following:

- To define and implement a PAHO policy to provide greater and more effective assistance to the governments both before as well as during and after disasters; such policy should have well defined strategies, a plan of action with concrete programs, and an appropriate administrative structure; and

- To request the governments to promulgate or implement legal provisions, standards, and preventive measures which may avoid some catastrophes or may decrease their economic and social impact, and to formulate complete emergency plans, making them known to all participating sectors and institutions.

Among the strategies for the Pan American Sanitary Bureau, the following should be noted:

- a) Formulation of an emergency plan based on those which the governments draw up for different types of disasters.
- b) Gathering and analysis of all available data regarding the subject, and the organization of an information system that would keep personnel up to date.

c) Maintenance of an inventory of human resources with experience in disasters, and the meeting of study groups or the holding of seminars to exchange ideas and experiences.

d) Training of Pan American Sanitary Bureau and Government personnel in the epidemiology of disasters, in emergency planning, and in rehabilitation, sponsoring the appropriate instruction in schools and faculties of health sciences.

e) Encouragement of operational and epidemiological research applicable to the countries of the Region.

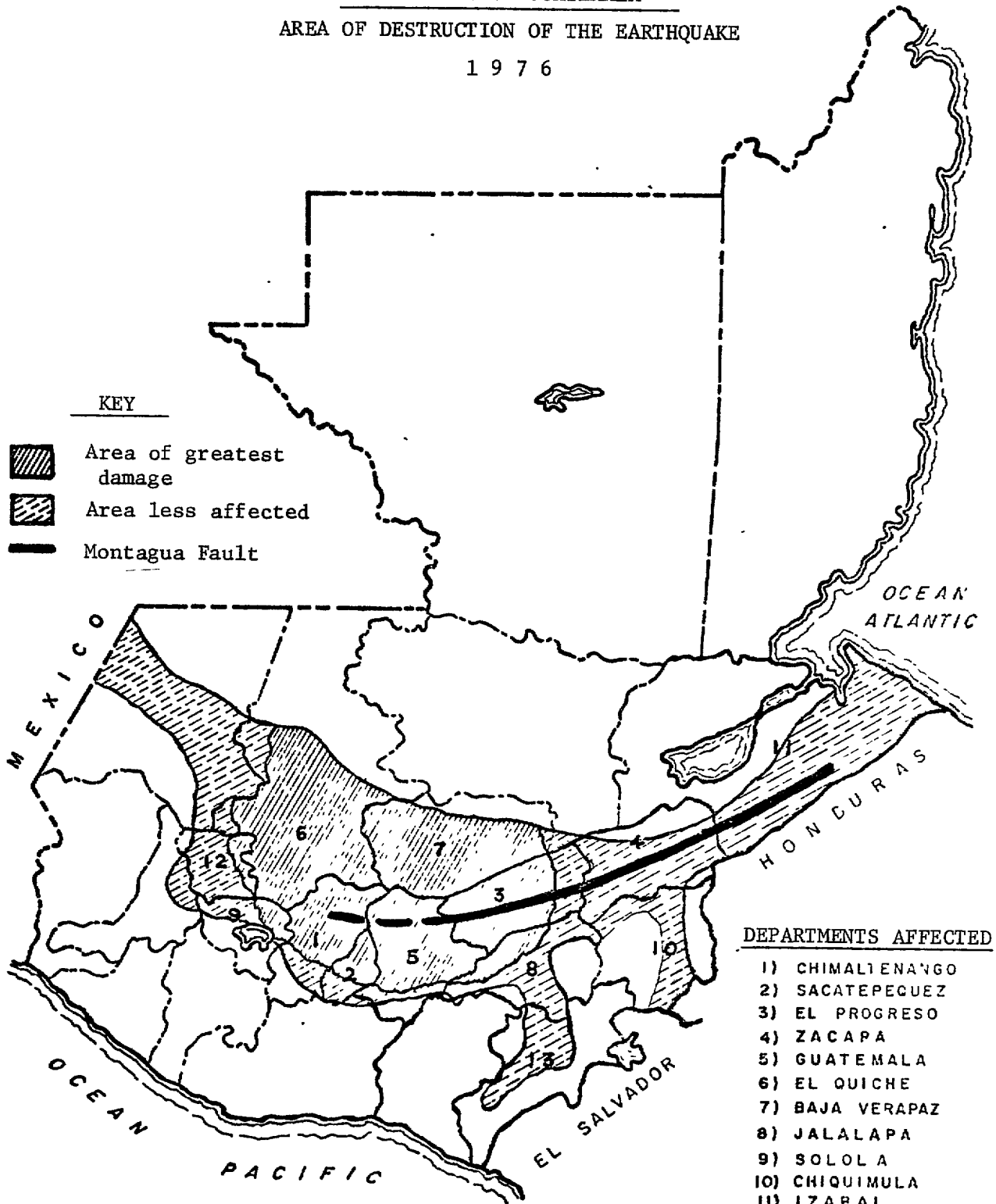
f) Drafting of guides, standards, manuals, etc., on administrative procedures, community education, and the organization of voluntary groups, etc.

g) Organization of an administrative structure with a Disaster Unit at Headquarters, with a clear definition of functions, authority, and responsibilities at the levels of Divisions, Areas, Centers, and Country Representations.




h) Increasing the emergency fund, allowing for rapid availability of its resources.

Annexes

REPUBLIC OF GUATEMALA
AREA OF DESTRUCTION OF THE EARTHQUAKE
1976



KEY

-  Area of greatest damage
-  Area less affected
-  Montagua Fault

DEPARTMENTS AFFECTED

- 1) CHIMALTENANGO
- 2) SACATEPEQUEZ
- 3) EL PROGRESO
- 4) ZACAPA
- 5) GUATEMALA
- 6) EL QUICHE
- 7) BAJA VERAPAZ
- 8) JALALAPA
- 9) SOLOLA
- 10) CHIQUIMULA
- 11) IZABAL
- 12) TOTONICAPAN
- 13) JUTIAPA

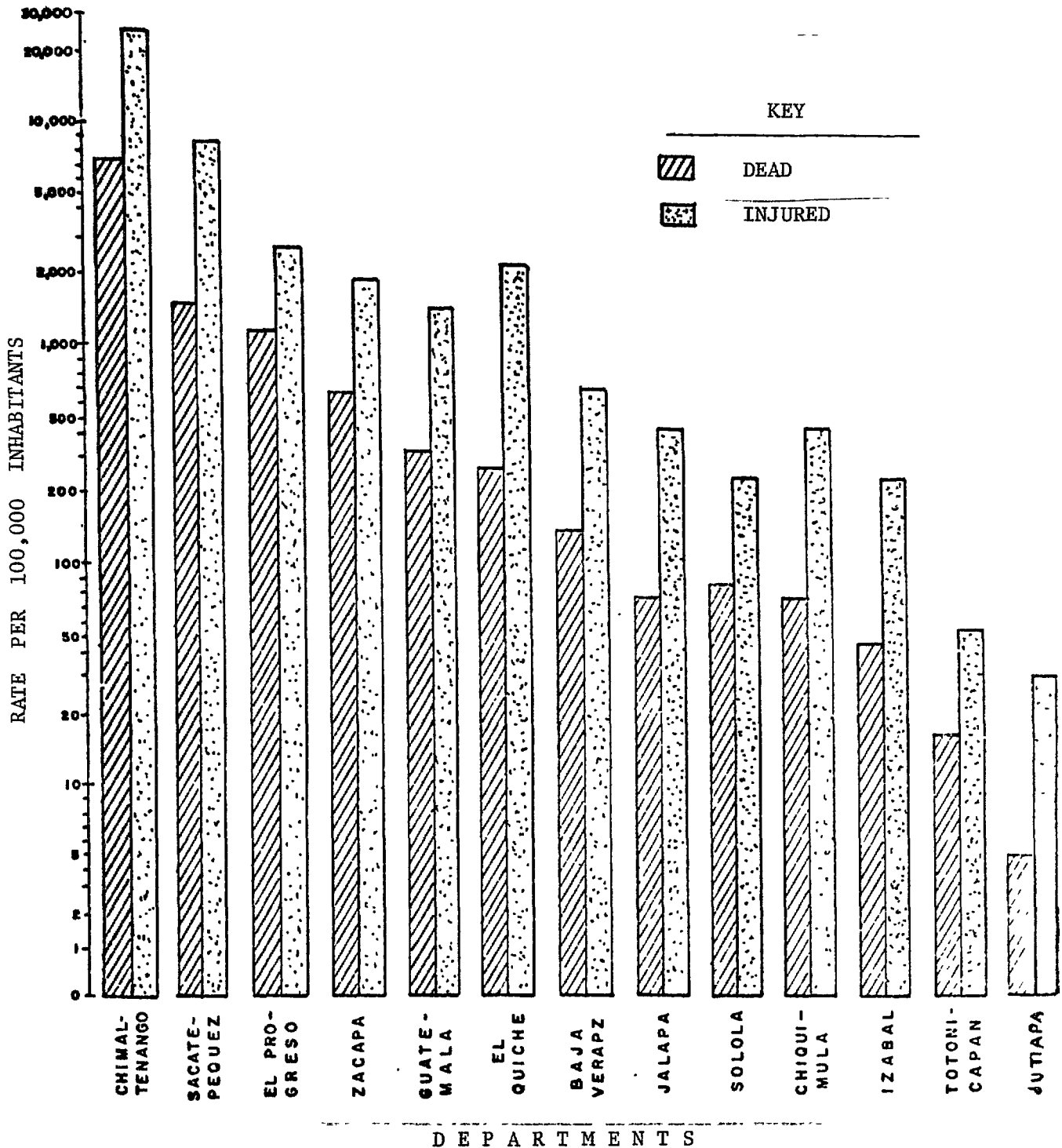
DEATHS AND INJURIES CAUSED BY THE GUATEMALA
EARTHQUAKE IN 13 DEPARTMENTS (*)
Rate per 100,000 inhabitants

Departments	Deaths		Injuries	
	No.	Rate	No.	Rate
Chimaltenango	15,175	7,337.7	53,195	25,722.1
Sacatepéquez	1,628	1,629.1	8,857	8,858.1
El Progreso	2,002	1,101.1	8,052	2,735.4
Zacapa	693	655.4	1,988	1,889.6
Guatemala	3,400	306.0	16,374	1,475.5
El Quiché	854	285.9	6,233	2,086.8
Baja Verapaz	152	142.1	718	671.3
Jalapa	91	77.1	473	400.6
Sololá	110	86.4	300	235.7
Chiquimula	91	77.1	473	400.6
Izabal	73	43.0	379	223.2
Totonicapán	27	16.2	89	53.4
Jutiapa	13	5.5	48	29.5

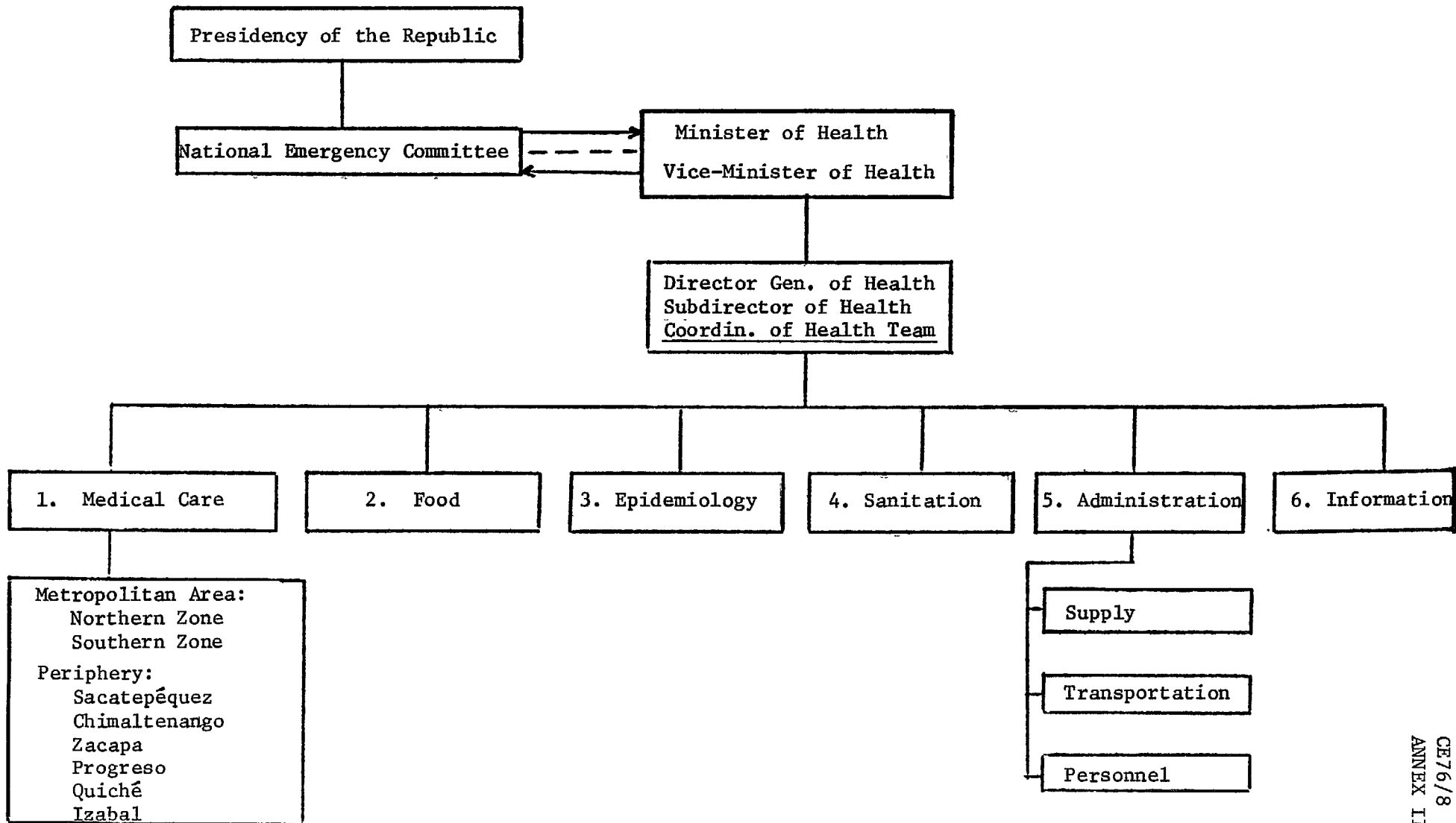
(*) Partial data

NUMBER OF DEATHS AND PERSONS INJURED IN 13 DEPARTMENTS AS A RESULT
OF THE GUATEMALA EARTHQUAKE. RATE PER 100,000 INHABITANTS

1 9 7 6



ORGANIZATION AND PLANNING OF THE POST-DISASTER ACTIVITIES
MINISTRY OF PUBLIC HEALTH



DOCUMENTS PREPARED BY THE DEPARTMENT OF ENVIRONMENTAL SANITATION (DSA)
OF THE MINISTRY OF PUBLIC HEALTH AND SOCIAL ASSISTANCE AND THE
PAHO/WHO SANITATION ENGINEERING WORKING GROUP HEADQUARTERED
IN GUATEMALA (GTIS)

1. PAHO/WHO (GTIS) and DSA, "Sanitary Conditions Prevailing in the Area Affected by the Earthquake," Guatemala, 10 February 1976 (First Report).
2. PAHO/WHO (GTIS) and DSA, "Environmental Sanitation Situation in the Disaster Area in Guatemala," Guatemala, 18 February 1976 (Second Report).
3. PAHO/WHO (GTIS) and DSA, "Emergency Program, Basic Rural Sanitation in the Disaster Area," Guatemala, February 1976.
4. PAHO/WHO (GTIS) and DSA, "Sanitation Plan in the Disaster Area, Rehabilitation of Rural Aqueducts and Construction of Sanitary Latrines," Guatemala, 16 February 1976 (blue).
5. PAHO/WHO (GTIS) and DSA, "Sanitation Program in the Disaster Area, with Partial Financing by UNICEF" (Preliminary Version), Guatemala, April 1976.
6. PAHO/WHO (W. Castagnino) and EMPAGUA, "Technical Report, Rehabilitation of the Santa Luisa Plant, Municipal Water Company (EMPAGUA)," Guatemala, February 1976.
7. PAHO/WHO (A. Castro) and INFOM, "Plan for the Rehabilitation of Urban Systems of Potable Water and Sewers Affected by the Earthquake, INFOM," Guatemala, February 1976.
8. PAHO/WHO (A. Castro) and INFOM, "Outline for a Program of Quality Control of Potable Water by INFOM," Guatemala, February 1976.
9. PAHO/WHO (M. T. Samayoa) and Works Directorate of the Municipality, "Advisory Services to the Municipality of Guatemala in Programming the Clearing and Cleaning Up of the City of Guatemala," March 1976.
10. PAHO/WHO (GTIS) and DSA, "Environmental Sanitation in the Disaster Area of Guatemala, 5 April 1976 (Third Report).
11. PAHO/WHO (GTIS) and DSA, "Inventory of Human and Financial Resources and of Equipment Available in UNEPAR"*, Guatemala, 11 February 1976.

*Unidad Ejecutora del Programa de Acueductos Rurales (Implementing Agency for the Rural Aqueduct Program)

RESOLUTION XXX

ORGANIZATION OF REGIONAL ASSISTANCE IN THE
EVENT OF DISASTERS EXCEEDING THE OPERATING CAPACITY
OF THE AFFECTED COUNTRY

THE XVIII PAN AMERICAN SANITARY CONFERENCE,

Cognizant of the proposal of the Government of Peru on the organization of regional assistance in the event of disasters (Document CSP18/26, Annexes I and II);*

Bearing in mind that natural disasters occur relatively frequently in certain geographic areas of the Hemisphere, and may occur sporadically in virtually all of them;

Taking into account that natural disasters may give rise to emergencies which, because of their magnitude in relation to the resources of the country itself, exceed the possibility of coping with them properly and make external assistance necessary;

Considering that a proper organization and national planning sometimes make it possible to prevent and always to reduce in large measure the consequences of natural disasters and as a corollary the magnitude of the emergency;

Recognizing that, in those countries which have not yet done so, it is necessary to establish agencies capable of coping with such emergencies and to plan their activities so as to make better use of national resources as well as to be in a position to request with precision and to use as effectively as possible external assistance, regardless of its origin;

Considering that because of the diverse origin and nature of external assistance, there is obviously a need for a coordinating agency whose main office must be in the country affected and under theegis of its authorities;

Taking into consideration that the existence of a proper national organization and prior planning of the use of resources to cope with emergency situations are essential to enable the country to establish the necessary coordination with agencies of the United Nations System, with the Inter-American Emergency Aid Fund, and with bilateral assistance agencies; and

*See PAHO Official Document 108.

Having taken note of the document submitted by the Director of the Bureau on the problem of emergency situations and existing arrangements for dealing with it (Document CSP18/26),

RESOLVES:

1. To recommend to the Governments, and especially to those of countries situated in geographic areas in which natural disasters are more frequent, that they make provision in their plans for the establishment of the necessary agencies in order to cope with emergency situations caused by natural disasters or for their improvement if they already exist.
2. To recommend to the Governments that they pay special attention to the planning of health measures to be taken in emergencies and that they assign it due priority.
3. To request the Director of the Bureau to study the method of collaborating with the Governments and provide them with the assistance they deem necessary for studying the situation, establishing the necessary agencies, and planning the work to be carried out in an emergency.
4. To request the Director to study existing external assistance arrangements and, in collaboration with the authorities of the health sector of the countries, to attempt to establish a procedure for coordinating and channeling regional assistance in the event of disasters exceeding the operating capacity of the affected country.

EXCERPT FROM THE TEN-YEAR HEALTH PLAN FOR THE AMERICAS¹

The frequent occurrence of natural disasters and other catastrophes in the Region has imposed on Governments, and especially on the health sector, serious responsibilities in coping with them. The task can be broken down into phases:

- a) prevention and action, including the improvement of alerting systems, observation, and communications on a worldwide, regional, and national scale, planning and creation or improvement of national and international structures and lines of operation for the solution of urgent problems at the critical stage;
- b) reconstruction, covering the study of special procedures by which the United Nations, international financing agencies, and countries can provide appropriate technical and financial aid through a system which can be put into operation in a short space of time;
- c) analysis of weak points in the infrastructure, which are very common in the developing countries and tend to collapse in emergencies. In this connection United Nations bodies and financing and technical assistance agencies in the various countries might urge Governments to make diagnoses, establish priorities, and finance specific projects.

¹Ten Year Health Plan for the Americas, Final Report of the III Special Meeting of Ministers of Health of the Americas, PAHO/WHO, p. 53.