

ANNEX A

Benchmarks of Achievement in Disaster Health Preparedness

In a CIDA evaluation conducted in 1990, an evaluation matrix was developed. This matrix identified key program activities to be assessed in each country in terms of their program status. The present evaluation team decided not to use the matrix approach, but rather to look at the overall program, then develop a simple, preliminary checklist of possible benchmarks to measure progress towards disaster health preparedness achievements.

In the absence of an actual disaster, benchmarks have been somewhat difficult to identify. The development of these for periodic monitoring and evaluation is of interest to both PAHO/EPD and OFDA. Preliminary discussions suggested both an interest and need for benchmarks.

The evaluation team has developed some preliminary suggestions for process indicators or benchmarks that can be used for monitoring activities in the region. It recommends that the earlier-proposed, post-disaster postmortems would be an ideal source for the identification and refinement of measures. These benchmarks should be of value in determining progress of disaster PMP activities. During the course of the post-disaster postmortems the validity and usefulness of the suggested benchmarks might be tested. Additional measures can be identified during this process.

The following list represents a very preliminary cut at developing benchmarks of progress in disaster health preparedness. They are intended to be suggestive, to promote discussion, and are in no way definitive.

**A Preliminary Checklist of
Disaster Health Preparedness Benchmarks**

- I. Overall project management and evaluation
 - a. Is there a National Emergency Committee (or Commission)?
 - 1) How frequently does it meet?
 - 2) Who are the members?
 - b. Is there national support of Disaster PMP activities?
 - c. What is the annual national budget for Disaster PMP activities?
 - 1) For MOH Disaster PMP activities?
 - 2) For National Emergency Committee?
 - 3) For Civil Defense?
 - d. For each Disaster in the past five years:
 - 1) Was there a post disaster evaluation?
 - 2) Was a report produced?
 - 3) Was there follow-up to check if recommendations were implemented?
 - 4) What was the recommendation implementation completion rate?
- II. Educational training materials
 - a. How many disaster related publications have been released by PAHO in the past five years?
 - b. What has been the unsolicited distribution of the publications (by affiliation and country).
 - c. What is the solicitation rate from the CDD by affiliation and country during the past three years?
- III. Support to national programs
 - a. How many training courses have been funded by PAHO during the past five years?
 - b. Who attended each course (number by title, post, discipline and organization or affiliation)?
 - 1) Where are these people working today?
 - 2) What are their positions?
 - 3) Percentage drop-out from disaster PMP job related activity.
- IV. Mass casualty management
 - a. Who has the lead role for pre-hospital casualty management?
 - b. Are there formal guidelines for pre-hospital casualty management?
 - c. Have the pre-hospital agency personnel received training in triage?
 - 1) Percent of personnel trained.
 - 2) When was the last training in triage conducted?
 - d. Is there a national plan of action for mass casualties?
 - f. Which agencies participated in the development of the national plan?
 - g. Are there regional teams trained in mass casualty management?

- h. How many hospitals are there in the country by region?
 - 1) How many hospitals have developed a hospital disaster plan? (Percent completion rate)
 - 2) How many hospitals have conducted vulnerability studies?
- V. Field assessment of health needs
 - a. Is there a rapid assessment field epidemiology team at the national, regional, local level in a country?
 - b. During the last five years, what were the methodologies used to identify health, water and sanitation needs in populations affected by disasters?
 - c. Were reports prepared that detail identified health, water and sanitation needs?
 - d. In countries where routine surveillance activities were increased, what is the status of routine surveillance activities? Are the surveillance systems sensitive?
 - e. During cholera activity in the country since 1991:
 - 1) What percent of reported cholera cases were laboratory confirmed?
 - 2) What percent of reported suspected cases were discarded due to absence of laboratory confirmation?
- VI. Cooperation with other regions
 - a. How many international conferences outside of AMRO were attended by PAHO Regional Staff?
 - 1) By PAHO sub-regional staff?
 - 2) By country program personnel?
 - b. How many copies of *Disasters* are sent to non-AMRO countries?
 - c. How many copies of *Disasters* are sent to non-AMRO country program managers? (Percent of non-AMRO countries receiving *Disasters* newsletter).
 - d. How many post-disaster assessments in non-AMRO countries have been attended by:
 - 1) PAHO regional staff?
 - 2) PAHO sub-regional staff?
 - 3) AMRO country program directors?
- VII. Other indicators/questions to be addressed?
 - a. What is the budgetary process for PAHO activities?
 - 1) What is the budgetary commitment of external assistance by agency?
 - 2) What is the lead time for budgetary allocation by agency?
 - b. Are there constraints in planning due to insecure budgetary allocation?

ANNEX B

STATEMENT OF WORK

Evaluation of Emergency Preparedness and Disaster Relief Coordination Project

I. Purpose

The purpose of this evaluation is to:

1. Provide a review of information and evaluative analysis of the present status of the project towards the objective of determining whether the project is fulfilling its intended purpose.
2. Render an evaluative analysis of the impact of the project on the effectiveness of the country health sector contribution to programs primarily in emergency preparedness and secondarily in response. (Effectiveness = achievement of satisfactory progress towards stated objectives.)
3. Analyze how effectively and efficiently the project is in dealing with the constraints to country program achievement of preparedness and response in a sustainable manner. (Efficiency = at an acceptable cost compared with alternative approaches to accomplishing the same objectives.)
4. Assist the implementing agency, Ministries of Health, USAIDs, NGOs, and private firms by proposing solutions, technical and institutional-organizational, to the constraints of coordinating health sector preparedness and response.
5. Extract lessons learned that will assist the implementing agency in developing criteria for the purpose of tracking country program progress consistently over time, including criteria for phasing assistance to moderate, low and zero funding levels.
6. Build, in a collaborative fashion with PAHO and country program officials, on existing indicators of performance results through developing and testing new indicators that underscore mid-to-long term impact, in terms of people-level impact, institution-building capacity, and phasing of donor or donor-coordinated support. (Impact = positive and negative effects resulting from the project.)

II. Background

The purpose of the Emergency Preparedness and Disaster Relief Coordination Project (EPDRC), implemented by Pan American Health Organization (PAHO), is to:

- promote and support the establishment or strengthening of a technical program in the Ministry of Health responsible for ongoing pre-disaster planning and coordination of relief activities of the health sector in case of natural or manmade disaster;
- promote and support the training of the human resources required for an effective health response to emergency situations; and
- stimulate close cooperation between the Ministry of Health, other health institutions, non-governmental organizations, the civil defense and the representatives of the international community both before and during emergency situations caused by natural and manmade disasters.

In the broad context, the project is a response to Latin American and Caribbean (LAC) countries' increasing vulnerability to natural and manmade disasters resulting from an increase in population and human settlements occurring in high risk areas. In the narrow context, the project is designed to identify and respond to needs and requests expressed by disaster prone countries for technical assistance in improving the health sector's response to major disasters. PAHO's role as a specialized technical agency in the health field is to support LAC national health sectors in emergency preparedness. PAHO supports the health sector so that this sector can face more rapidly and efficiently the health problems in the aftermath of almost any type of disaster.

The project has been largely supported by the Canadian International Development Agency, with approximately 20% funding by the Agency for International Development (A.I.D.), through its Office of Foreign Disaster (OFDA). OFDA's funding is directed more at support of the preparedness than the response activity.

Components of the Project are: (1) Overall Project Management and Evaluation, (2) Educational/Training Materials, (3) Support to National Programs, (4) Hospital Preparedness, (5) Training of Environmental Health Professionals, (6) Field Assessment of Health Needs, (7) Technological Disasters, and (8) Cooperation with other WHO Regions. OFDA's support is mainly directed towards numbers 1-4 and 6, while numbers 5 and 7 are not of direct interest.

Expected outcomes of the Project are, among others:

- acceptance by participating countries of the need for a national preparedness program
- progress in the development of such a program
- improved techniques, staff training, and hospital preparedness in responding to major accidents
- training courses in disaster management and environmental health, including use of materials published through the program in curricula of training institutions and universities

III. Scope of Work

The evaluation of the Emergency Preparedness and Disaster Relief Coordination Project will be carried out in Costa Rica, Ecuador, El Salvador, and Honduras within the timeframe of June 30-July, 26 1993.

A. Focal Points and Key Evaluation Questions

Several points of focus and key evaluation questions based on the definition of project components and activities outlined below should be evaluated from the perspective of (1) people-level impact and (2) and institution/organization-building capacity. While the focal points of the project are by no means mutually exclusive, to the extent practical each should be observed and evaluated separately by, respectively, the specialist in disaster epidemiology and the evaluation/institution-building/training specialist. Attention will be given to the application and development of performance indicators in evaluating these components. The focal points of this evaluation and the key questions are as follows:

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| 1. Focal Point | Management: The extent to which the project has been supportive of national health and related preparedness and response institutions |
| Questions | (a) how effective is the formulation and implementation of preparedness and response policies and guidelines?
(b) how effective is the planning, management, and monitoring and evaluating of preparedness programs and activities from technical and managerial perspectives? |
| 2. Focal Point | Education and Training: How effectively the project has supported country institution development of key functions |
| Questions | (a) how adequate is the technical and scientific base in preparedness and relief management in the health field?
(b) how well developed are the informational and training materials for health and related professionals?
(c) how effective are the educational programs in raising general public awareness in the essentials of disaster preparedness? |
| 3. Focal Point | National/Regional Response to Disasters: The capacity of national and regional health sector programs in emergency preparedness and response. |
| Questions | (a) how responsive is PAHO technical and material assistance to the needs of country-level health disaster preparedness programs? (b) what is the level of priority assigned to health preparedness by high national authorities? |

(c) what is the extent of technical cooperation among countries in the region in context of PAHO technical assistance?

(d) what is the quality of coordination and technical standardization by Ministries of Health of all private and public sector contributions to health preparedness and relief activities?

4. Focal Point Mass Casualty Management -- Hospital (but including other health care institution) preparedness to respond to mass casualties on-site and in hospital facilities

Questions (a) what is the capacity to technically plan and implement hospital emergency preparedness and mass casualty management?
(b) what is the degree and quality of cooperation among regional and international organizations and agencies in technical training?
(c) what is the extent and quality of cooperation among emergency medical care providers in metropolitan areas?

5. Focal Point Communication of Health Needs Information: Communications among national health institutions/emergency preparedness-response institutions in order to better use technical information in decision-making (Disaster Information Center; SUMA -- computerized logistical data base)

Questions (a) how effective is the flow of information based on immediate post-disaster needs assessments, educating public and media, and the PAHO-based information exchange system? (b) what is the extent and quality of international agency cooperation in assessment and dissemination of disaster-related health needs information?

6. Focal Point Inter-Regional Cooperation: Exchange of experience between LAC and other regions in order to strengthen regional and national health disaster preparedness programs

Questions (a) what is the degree and quality of collaboration with other World Health Organization regions in exchange of information on experience, particularly country experience in managing such programs? (b) how successful is the exchange of visits by national disaster coordinators and provision, on request, of consultants' services?

B. Development of Indicators

A special concern of this evaluation is the collaborative development of meaningful and useful indicators of performance or results. This concern is intended to help PAHO and participating countries institutions in coordinating emergency preparedness and disaster relief programs and in managing those programs for results. Probably the critical guiding question here is "what

constraints must PAHO overcome if it is to achieve its intended results?" The concern with indicators is also intended to help OFDA in making the choices of where to invest its funds in support of multilateral efforts in relief and preparedness. Furthermore, attention to indicators will also be useful to OFDA in monitoring and evaluating PMP's program support.

Indicators which are integral to managing performance in the area of preparedness and response are presently not well developed. An impact indicator such as "lives saved" would seem to be and, for certain purposes, is a significant indicator. How that kind of measure will directly aid PAHO, participating country relief and preparedness officials, or OFDA in managing programs is not altogether clear. That situation would suggest that some emphasis needs to be placed on developing lower-than-impact-level or intermediate indicators of program results. These are indicators lying on a continuum somewhere between impact and input measures. Examples of input indicators are "number of professionals exposed to new concepts of mitigation" and "number of persons trained in mitigation practices." These are useful for project monitoring and management purposes, though not necessarily useful for managing longer-term results.

An example of an intermediate measure (at least for some participating countries) might be "key disaster areas identified." This could be labeled a measure of institutional development, since it reflects the capacity to carry out a complex set of technical-professional actions. Logically related are indicators demonstrating that disaster areas are being monitored, e.g., "level and type of resources devoted to monitoring disaster areas" or "a disaster information response system with designated trigger points in place." An example of a logistics-effectiveness measure might be "extent of post-disaster homelessness," an indicator of the speed and adequacy of response. A combined logistics-institutional measure might be "correct skills mix resourced for response to disaster." Longer-term measures are useful in managing such areas as basic health needs, as in the earlier example, "lives saved" or "reduced level of illness."

The consultants will, in the context of the above discussion of indicators, work with PAHO/Washington and participating country officials in developing several salient indicators for each of the focus areas and in response to the key questions posed in III A.

IV. Evaluation Approach and Methodology

This evaluation combines elements of both a formative or process evaluation and an impact evaluation. These are defined briefly in the context of the EPDRC Project evaluation.

Formative evaluation -- an evaluation for the purpose of determining progress of a project still underway so that lessons learned can be applied; usually participatory and attempts to rely on stakeholders as important source of information and interpretation.

Impact Evaluation -- an evaluation for determining longer term positive and negative effects of a project or program; purpose is to provide managers with analyses of the results of activities and of issues related to an agency's or organization's assistance policies.

The methodology includes review of relevant documentation; review and analysis of any relevant statistical data; interviews with assistance agency officials in Washington and in-country; interviews with host-country officials and staff who are directly implementing project components; site visits for purpose of observing process and results of project component activities; application and development of performance indicators (see III. B.)

V. Evaluation and Team Composition

The evaluation requires two consultants, as follows:

- one specialist in health/epidemiology who must carry out evaluative research and analysis of health preparedness conditions in developing country institutions and be familiar with the A.I.D. project and program cycle
- one specialist in evaluation, institution development, and training who must carry out evaluative research and analysis of developing country health institutional and organizational support of preparedness and response

For purposes of team leadership, the health specialist/ epidemiologist will be designated as team leader for the consultancy.

VI. Logistics and Scheduling

Prior to the field component of the evaluation, the consultants will spend two days in Washington, D.C. to work with the contractor to detail their functions and schedules, meet with A.I.D. and PAHO officials for informational purposes and, review relevant documentation. At that time country visit schedules will be reviewed with the consultants. These visits and appointments with key institutions, agencies and organizations will be set up in advance. The fieldwork portion will be carried out in approximately 20 working days and finalization of the report in Washington five working days. A total of 30 working days is devoted to the evaluation. The consultants' collaboratively-written and integrated report will be presented as their final draft prior to or at the end of the 30 day period.

VII. Reporting Requirements

The final report must be completed and approved by August 13, 1993.

VIII. Work Plan

A detailed work plan for the health specialist/epidemiologist and the evaluation/institution-building specialist will be developed with the consultants during their Washington visit. By that time the sequence of country visits will have been decided and detailed schedules of work can then be determined.

Filename: PAHOWSOW (John P. Mason 5/29/93)

ANNEX C
PERSONS INTERVIEWED

WASHINGTON, DC

Dr. Claude deVille, Director PED/PAHO

Pat Bittner, PED/PAHO

Jose Luis Zeballos, Epidemiologist/PED/PAHO

Barry N.Heyman PhD, Assistant Director Prevention,
Mitigation and Preparedness OFDA/USAID

John Mason, BHM

Brad Michaels, BHM

COSTA RICA

M.Sc. Luis Diego Morales, National Emergency Commission

Paul Bell, OFDA/USAID Regional Advisor

Ricardo Burmudez, OFDA/USAID

Dr. Hugo Prado, Regional Advisor/PAHO/PED

Ms. Elle Vissner, PAHO

Dr. Eduardo Acosta, PAHO/SUMA project

Ms. Helena Molin Valdes, IDNRD/ Regional Program LAC

Dr. Maranghelo, Ministry of Health Epidemiologic Surveillance

Dr. William Vargas, University of Costa Rica

Dr. Contreras, Ministry of Health Planning Division/Disaster Preparedness

Dr. Roberto Sayers, Director Hospital de Limon/Social Security

Dr. Roberto Galva, Director Hospital de Alajuela
CATSS members

Rene Carrillo, OFDA/AID South American Advisor

Sr. Juan Luis Contreras (representing Sr. Miguel Carmona, President), Red Cross Costa Rica

Dr. Francisco Carrallo, Red Cross Costa Rica

Sr. Gustavo Ramirez, Red Cross International/LAC Regional Office

Dr. Isabela Barrientos, Red Cross International/LAC Regional Office

Dr. Rodriguez, Social Security/Costa Rica National Level

Dr. Ruiz, Social Security/Costa Rica National Level

Dr. William Vargas, Public Health, University of Costa Rica

Lic. Ricardo Perez, Documentation Center

Dr. Luis Paulino Hernandez, Director Hospital Calderon Guardino

M.Sc. Gabriel Mejia, Director del Trabajo Comunal Universitario.
(T.C.U.) Vicerectoria de Accion Social. Universidad de Costa Rica.

Dr. Pena, PAHO WPR Costa Rica (by telephone)

HONDURAS

Autoridades de COPECO

Dr. Ricardo Ochoa Alcantara, Ministry of Health

Dr. Godofredo Andino, Ministry of Health/Disaster Preparedness/GTI

Lic. Jorge A. Aldana, COPECO/GTI

Ing. Dario R. Ciliz, UNAH/GTI

Bassya Rafaelia Avilez, Ministry of Health/GTI

Kenia Marina Caceres, SECPLAN/GTI

Maruicio Ricardo Aguilar Robles, Ministry of Foreign Affairs/GTI

Maria Elisa Alvarado, Red Cross Honduras/GTI

Will Renan Diaz, Ministry of Education/Department of Environmental Education/GTI

Jose Maria Navarro, Red Cross Honduras/GTI

Rodil Henriquez, COPECO/GTI

Oscar E. Fernandez, Red Cross Honduras/GTI

Ing. Roberto Demas Alonzo, Vice President CEPREDENAC
(Coordinating center for prevention of natural disasters in Central America)

Ing. Ernesto Rojas, USAID/OFDA

Ing. Carlos Flores, USAID/OFDA
Vice Minister of Foreign Affairs

Katia Cooper, UNDP Honduras

Dr. Cesar Hermida, PAHO WPR-Honduras

Ing. Maricio Aguilar, National Autonomous University of Honduras

Ing. Alina Aguirie Mejia, UNAH/Engineering Faculty

Ing. Dario Roberto Calix, UNAH/Office of Scientific Investigation

Dr. Marco A. Zuniga, UNAH Geophysics/Physics Faculty

Inf. Juan Ramon Elvir, UNAH/Rectory

EL SALVADOR

Dr. Villegas, PWR-El Salvador

Dr. Valencia, PAHO

R. Prosperi, PAHO

Ing. Nunez, PAHO

Dra. Delmy Zelaya de Hernandez, MSPAS
Sr. Reynaldo Cordova, COEN
Dr. Rafael Antonio Narvaez, Vision Mundial
Dr. Luis Antonio Villatoro, Director Bloom Pediatric Hospital
Lic Nelson Amaya Larromana, Ministry of Foreign Affairs
Lic. Abigail Castro de Perez, Ministry of Education
Lic. Gladys de Cortez, Ministry of Education
Ing. Carlos Adrian, Ministry of Education
Dr. Antonio Luzi, Italian Cooperation
Lic. Lidia Esperanza Castillo, Director CEPRODE
Sr. Juan Antonio Sibrian, Red Cross El Salvador
Lic. Sergio David Gutierrez, Red Cross El Salvador
Dr. Carolina Paz Paredes, Facultad de Medicina - UES

ECUADOR

Dr. Luis Jorge Perez, PAHO/SubRegional PED
Lic. Vanessa Rosales, PAHO
Dr. Italo Barragan, PAHO WPR-Ecuador
Dr. Jose Vincente Cedeno, Ministry of Public Health
Dr. Ramiro Estrella, Central University of Ecuador
Dr. Hernando Rosero, Central University of Ecuador
Dr. Guillermo Troya, University of the Andes
Dr. Minard Hall, National Politechnical School

Ing. Maria Augusta Fernandez, OFDA/USAID

Sonny Low, OFDA/USAID

Dr. Hugo Merino, Red Cross Ecuador

Ambassador Manuel Romero, Chancellery

Dr. Ricardo Mena, Partners of the Americas

Yolanda Dubois, PNUD/Ecuador

Gen. Edgar Vasconez, Civil Defense

Lic. Fernando Molina, Civil Defense

Dr. Luis Granja, Ecuadorian Trauma Society

Sr. Alejandro Santander, Red Cross Ecuador/Director of EMTs

Dr. Nelo Manciatti, Trauma Surgeon, Pablo Arturo Suarez Hospital

Ing. Agustin Rengel, ETAPA (phone interview)

Ing. Hugo Cobo, ETAPA (phone interview)