

AN APPROACH –

To the Development of Health

Sector District Disaster

Management Plans in the

Caribbean Region

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Introduction

The history and impact of natural disasters on the Caribbean Region is well known. When one considers that most of the islands of the English speaking Caribbean have surface areas ranging from eighty-five (85) to two thousand (2000) square miles, and a major hurricane extends over a ten thousand (10,000) square mile area, small islands which lie in the path of a hurricane are bound to be affected.

Further, many of our territories are ecologically vulnerable and subject to a wide range of other natural and man caused disasters including floods, volcanic eruptions, earthquakes, droughts, transportation accidents, fires (urban and wild), human, plant and animal diseases. The possibility also of chemical spills and mass food poisoning cannot be overlooked. In the past, the region has been repeatedly impacted by these incidents and the consequent loss of lives, human suffering and material damage have severely impeded economic growth.

Future development is directly related to the extent countries develop the capacity not only to prevent and mitigate the negative effects of disasters, but also to utilize their disaster management capabilities as a means of facilitating human and infrastructure development.

Significant efforts have been made by Caribbean countries to improve their disaster response capabilities. These countries are at varying stages in the institutionalization of disaster management programs. However, there are indications that the thrust of disaster management has not sufficiently taken into account the contribution of the community which is usually the point of impact and the first level of the response.

Preparedness planning at the regional, parish, district and village/community level is vitally important if people are to become involved and participate in measures to prevent and mitigate the negative effects of disasters as well as manage appropriately during the response and recovery phases. If sufficiently informed, prepared, and mobilized, communities could be a major resource in disaster management, ultimately leading to improvement in national response capabilities and the overall process of development.

At the individual and family level, disaster preparedness must be viewed as a continuum progressing from the socialization period where safety measures are instituted and taught in the home with family members adhering to safe practices; planning for, and responding appropriately in the event of an emergency.

At the community level, principles and practices of Emergency Preparedness could be integrated into National Health and Family Life Education Programs, and Nursery, Elementary, Secondary and Tertiary Schools Curricula including the Caribbean Examinations Council (CXC) Examination System.

Preparedness as a continual state of readiness will continue to be reinforced in professional and technical education, as well as through the education/training of community groups particularly youth groups, women's organizations, service organizations, and other community groups.

Experience has taught us in the Caribbean that in the aftermath of a hurricane health facilities, particularly hospitals, which are generally structurally vulnerable can be "victims" of the disaster. For example, Hurricane Gilbert struck Jamaica in 1988, damaging approximately ninety (90%) of health facilities including major hospitals. On Montserrat, several health facilities including the main hospital were also severely damaged by the Impact of Hurricane Hugo in 1989. Further, in the aftermath of a disaster, communication and transportation systems between health facilities can be severely disrupted, resulting in difficulty in transporting injured persons from one area to the other to receive care.

It seems reasonable therefore, to ensure that each community is prepared to respond in the event of a disaster relying on its own resources particularly in the first forty-eight (48) hours. An active, well informed and organized community will be able to respond initially to the disaster impact, and identify their needs for outside assistance.

The Organization of National Disaster Management Programs

The organization of National Disaster Management Programs may be viewed as a sub-system of the overall National Governmental or Administrative System. Ideally, administrative functions, as well as the provision of goods and services, are decentralized and delegated in a hierarchical manner from Central Government to Regional/ Parish/ County administrative bodies, then to administrative District Councils/Committees, and finally to Village/Community/Neighborhood administrative entities.

Conceptually, this is the overall model of administration in the Caribbean, which may differ from country to country. For example, at the intermediate level of the administrative network, Guyana has Regions, Trinidad and Tobago has Counties, and Jamaica has Parishes. Most of the smaller states have Parishes. However, common to all countries these intermediate administrative bodies are comprised of Districts.

A District is a specifically delimited administrative sub-unit. It forms the interface between the intermediate level, that is, the Regional/Parish/County level, and the peripheral level of the administrative system. Within the District are further sub-divisions regarded as peripheral. These are the villages/communities/neighborhoods. In effect, Districts are incorporated into an overall administrative scheme whereby a number of Districts may constitute a Region/Parish/County, and a conglomeration of regions, parishes or counties make up the country. Ideally, the District should be a pivotal element in the administration of peripheral units, and indeed a paradigm for the entire administrative system.

This concept is emphasized in the model for the Disaster Management Program as outlined in this paper. Though developed for the district level, the approach could be applied to the development of disaster management programs at any level of the National system: Central, Intermediate, or Peripheral.

1.1 Central Level

Within each Caribbean country there is a Central Emergency Organization responsible for disaster management. Key response sectors usually represented at this level include: Police, Defense, Fire, Planning, Finance, Health, Public Works and Utilities, Education, Agriculture and Fisheries, Communication, Transportation, Non-government Organizations, Commerce and Industry.

1.2 Regional/County/Parish Level

At the Regional/County/Parish Level, a similar structure, though on a reduced scale should exist. A committee comprising key response sectors and community members should be responsible for coordinating disaster management activities in the districts within that particular region, parish or county.

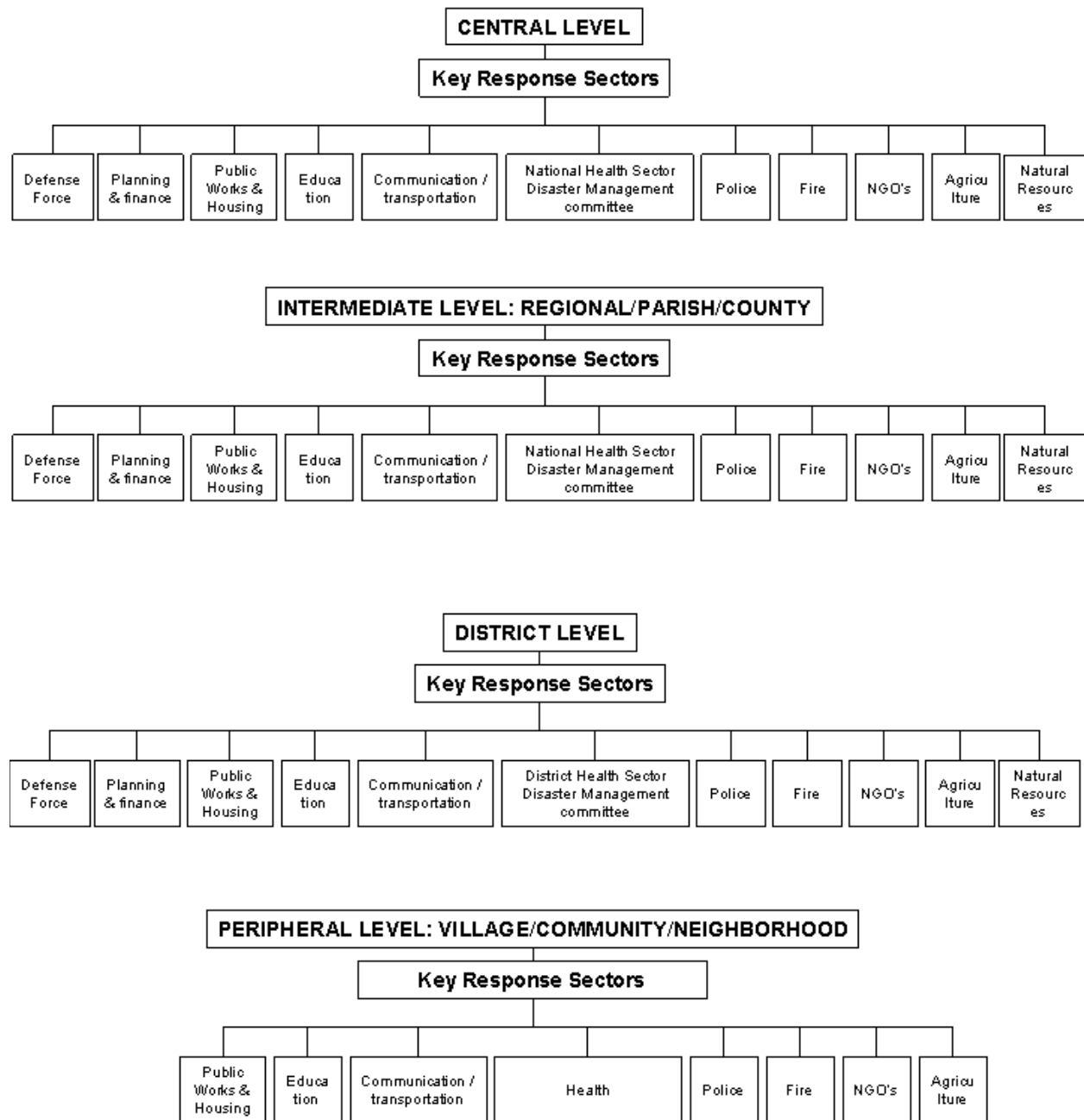
1.3 District Level

Depending on the size and other characteristics of the District, there could be a replica of the structure at the Intermediate level, being responsible for disaster management activities within the district.

1.4 Village/Community/Neighborhood Level

At this level, a representative group of the village/community should also be involved in emergency preparedness and response, and be responsible for sensitization of Individuals, families and groups within the community to prevention and preparedness activities. Ideally, the 'bottom up' approach to emergency preparedness planning, from community level, to district level, to parish level, should improve the particular country's overall state of readiness, and response in the event of a disaster.

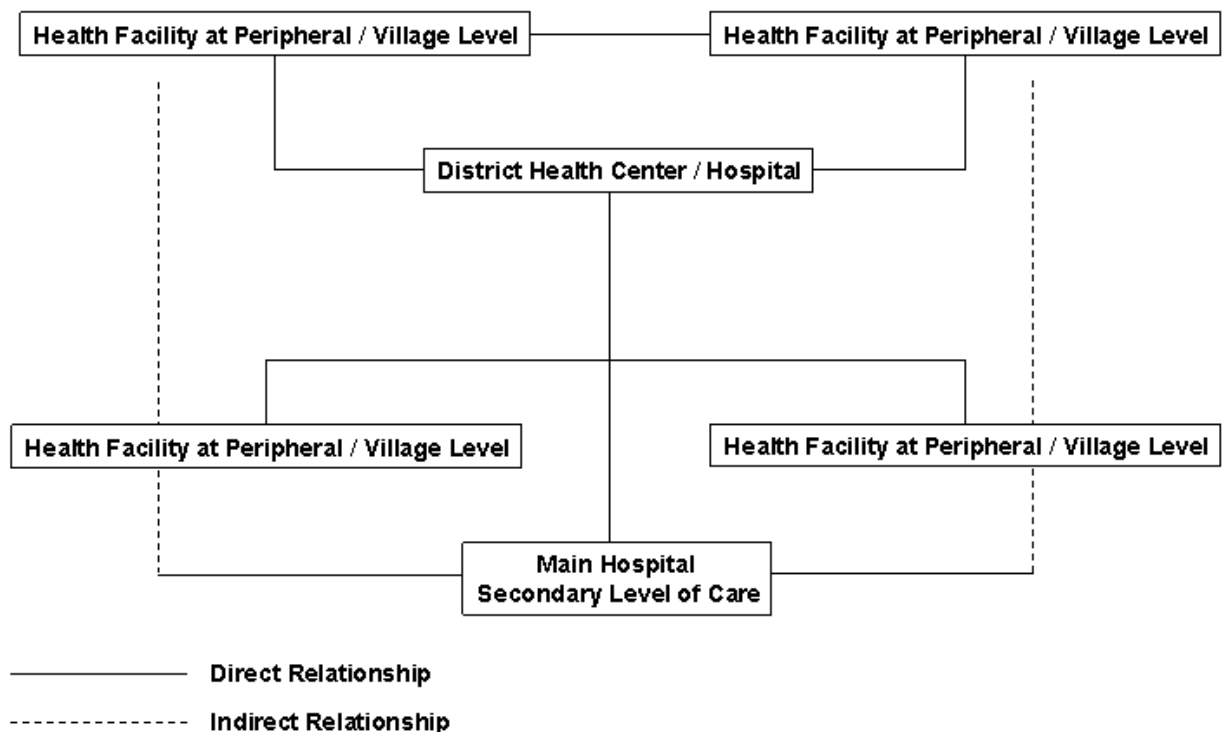
Table I Organization of Disaster Management at Central, Intermediate, and Peripheral Levels and the relationship to the Health Sector.



Organization of Health Services

In most of the smaller Eastern Caribbean Countries, the Organization of Health Services relates to defined levels of health care with primary health care services being delivered in designated health facilities (Type I Health Centre or Health Post/Clinic) at the village or peripheral level. More complex health care is provided through a Health Centre (Type III) and/or a hospital at district level with referral linkages to the main hospital at the secondary level of care. Table II depicts this structure.

Table II Organization of Health Services at the District Level in the Smaller Eastern Caribbean States



In major disasters, the health sector has a vital role particularly in the first seventy-two (72) hours. The organization of health services in a country is a key element in facilitating preparedness planning, and effective response. The health sector disaster management plan must take into account the organization, structure, relationships, and referral network of existing health services in the particular country. In fact, "Disaster Management" should be developed as a program area within health services management, relating to defined levels of health care and interfacing with the primary health care strategies of Health and Family Life Education, Inter-sectoral Coordination, Community Participation, and the Team approach.

Vitaly important too are the coordination mechanisms of the National Emergency Organization and the enabling relationships between the Emergency Committees at the Central, Intermediate, and Peripheral levels. Of importance also is the integration of the Health Sector Plan for disaster management as a component of the overall National Emergency Management Plan at all levels of the system. The District Health Sector Plan must be in consonance with the National Health Sector (Ministry of Health) Plan for Disaster Management and with the organization and structure of existing health services.

District Health Sector Disaster Management Committee

Since 1980, the Health Team concept in health services programming has been actively promoted in the Caribbean as part of the primary health care strategy. Some countries have functional District Health Teams which, depending on the size of the District and the available manpower resources, comprise the Community/Public Health Nurse, Family Nurse Practitioner, Environmental Health Officer, Medical Officer, Nurse Midwife or Primary Care Nurse, Pharmacist, and representation from the Community. The Nutritionist and Health Educator at Central Level are usually available for support to the team.

It seems logical, therefore, for this already established team to be the group responsible for the District Health Sector Disaster Management Program. This team will collaborate with the District Emergency Organization, and the Disaster Management Plan for the health sector is developed as a component of the overall Emergency Plan for the particular district.

The District Health Sector Disaster Management Committee should have specific Terms of Reference for its functioning. (See Annex 1 for Suggested Terms of Reference for the District Health Sector Disaster Management Committee).

The District Health Sector Disaster Management Plan

Pre-Requisites To Planning

Recognition of need by Health Personnel and Community Members.

Commitment by key members of the District Health Committee to plan and implement. All members of the District Health Team should be involved in the planning process including the Public Health Nurse, Environmental Health Officer, Family Nurse Practitioner, Pharmacist, Medical Officer, Nurse Midwife and Community Health Aide.

Coordination of the District Health Team with the District Emergency Organization and the Ministry of Health. In the absence of a functioning District Emergency Committee, the Health Sector could take the lead role in initiating and serving as catalyst to mobilize members of the community in developing an Emergency Management Plan.

District Profile/Assessment to include data on:

(a) Demographic Characteristics:

- Population by village and age group
- Location and size of district
- High Risk/Vulnerable areas
- Map of area indicating hazards
- History of Disasters
- Types of disasters to which the district is prone

(b) Community Resources including shelters, ham radio operators, schools, churches, non-governmental organizations, communication and transportation systems etc.

(c) Health System

- Health Facilities and health personnel by population area and category of personnel.
- Vulnerability Analyses of health facilities

- Organization of Health Services
- Health Information on:
 - Natality
 - Morbidity typical of area e.g., communicable diseases, chronic conditions
 - Mortality: principal causes of death by age group
 - Environmental Health: Water source, supply and quality; sewage and solid waste management;
 - Vector and rodent control.
- Communication within and between health facilities
- Transportation facilities within the district health system
- Source of power and water supply to health facilities
- Supply management: drugs, equipment and other material

Methodology For Developing The Plan

- Meeting of key members of district health team
- Appoint Coordinator who is accountable for plan
- Analyze data collected on district
- Develop Outline of Plan
- Give out assignments for writing specific sections of the plan with target dates for completion
- Collate and compile written sections of plan
- Review of completed work by key members of the team
- Prepare draft plan
- Distribute to health personnel in district, and appropriate personnel and agencies including District Emergency Committee for review comments and approval where necessary.
- Finalize plan
- Orient all staff to plan
- Integrate Health Sector plan in overall District Emergency Plan
- Simulation Exercise to test plan: Drills, Desktop exercises
- Review plan annually and revise as appropriate

Framework For Health Sector Disaster Management Plan

The Disaster Management Plan could be developed within the comprehensive phases of disaster management, namely:

- General Preparedness
- Warning
- Response
- Recovery

Preparedness Phase

Preparedness is a continuous activity and in this phase the major activities include:

- Education/Training of Health Personnel with particular reference to resuscitation and life maintenance procedures and techniques.
- Education/Training of Community Members in First Aid and Rescue, and compilation of a resource list.
- Collaboration with other key response sectors (District Emergency Preparedness Committee).
- Vulnerability Analysis of health facilities and remedial action.
- Development of Plans and Procedures, to manage in the event of a disaster.
- Procurement and storage of essential supplies, equipment and material.
- Inventory of resources and preventive maintenance of equipment.
- Mutual Aid agreements to ensure assistance is available at Local and National levels.
- Simulation Exercises and Drills.

Warning

In this phase, the focus is on:

- Dissemination of information on the disaster situation and also to remind community of safety measures to be taken.
- Review of emergency procedures and action plans.
- Ensuring that systems planned for are in place and in working order.
- Supervision of evacuation of high risk individuals and groups to shelters.
- Security of health facilities, or one area in health facility, to reduce vulnerability.

Response

The emphasis is on:

- Immediate damage/needs assessment
- Management of Casualties
- Evacuation/Referrals
- Coordination of health staff and volunteers
- Health Care in Shelters
- Management of maternal, pediatric, and medical / surgical emergencies
- Collection and Dissemination of Information
- Monitoring of Environmental Health and Safety
- Epidemiological Surveillance
- Public Health Information/Education
- Emotional/ Psychological Support to health staff, other response sectors and community members.

Recovery

The emphasis is on:

- Continued damage/needs assessment
- Restoration of normal health (primary care) services
- Rehabilitation of health facilities and services
- Documentation of health sector response and experiences

Outline of Content Areas for the Disaster Management Plan

PART I

- Summary of District/Community Assessment
- Summary of Health Situation in District to include: Health System Organization, Structure, Relationships, Resources, Vulnerability.
- Rationale for, and Purpose of, Disaster Management Plan
- Types of Disasters to which the Country and District are prone
- Definition of Disaster in Context of District

PART II Organization

Organizational Relationships

- Describe the Organization of Disaster Management at National, District and Local/Village Levels (Organization Chart)
- Health services and organizational relationships within the District and with other levels of health care including the Ministry of Health.

Command Centre

Identify:

- Structurally sound and centrally located Health facility as Command Centre with alternate Site.
- Functions and responsibilities of Command Centre and health personnel
- Staffing pattern by category of health personnel
- Communication facilities and alternate sources
- Emergency Power and alternate sources
- Transportation and alternate sources
- Mechanism for management of information
- Essential supplies, food, maps etc.
- Hours of Opening

On site management (pre-hospital care)

- Depending on the nature, type and severity of the disaster, a team is identified to respond to the disaster site. The primary function of this team is:
 - Initial damage/needs assessment
 - Triage, tagging, resuscitation and stabilization of injured
 - Evacuation/Referral to receiving centers for treatment
 - Coordination of Transportation
 - Communication with Command Centre and other agencies
- Critical resources for on-site management include: well equipped ambulances, or other appropriate form of transportation; staff with expertise in life maintenance procedures; adequate and functional equipment, material, supplies and drugs; and good communication linkages between transportation, the Command Centre and receiving centers.

Operational Program Areas

In the response phase, the major program areas for the health sector are:

(a) Health Care

- Management of Mass Casualties
- Continued Management of Chronic Conditions e.g.. Hypertension, Diabetes, Cardiac
- Management of Maternal, Pediatric, and Medical/Surgical Emergencies
- Emotional/Psychological Counseling

(b) Environmental Health and Safety Including Vector Control

- The priorities for Environmental Health are:
 - Damage/Needs Assessment
 - Monitoring Water Supply for acceptable levels of quality and quantity.
 - Managing solid and sewage disposal to avoid the risk of disease transmission from pre-disaster levels.
 - Public Health Information/Education

(c) Control of Communicable Diseases

- Knowledge of morbidity and mortality patterns in the district is a useful guide for recognizing unusual disease patterns. Routine health information on morbidity also serves as a guide in estimating the number of persons, other than those injured, who may need health care.

(d) Epidemiological Surveillance

- The health status of individuals in shelters particularly, and in the community in general as well as existing sanitary conditions should be monitored daily. The diseases for which the health team should be particularly alert are:
 - Infantile Gastroenteritis
 - Upper Respiratory Tract Infections
 - Infectious Skin Conditions particularly Scabies
 - Conjunctivitis
 - Leptospirosis

- Dengue Fever
 - Other Diseases which may be endemic to the District
- Use format for daily report (See sample at Annex (III)).

(e) Food and Nutrition

- Severe shortage of food is not anticipated but the distribution and transportation systems may be disrupted. The priorities are:
- Evaluation of available stocks
 - Equitable distribution of food supplies to those in need
 - Food inspection
 - Community Education e.g. food preservation, storage
 - Prevention of food poisoning
 - Monitoring the nutritional status of vulnerable groups namely, pregnant and lactating women, infants and young children and the elderly.

(f) Public Health Information/Education

- The Health Sector has the primary responsibility to ensure dissemination of relevant information throughout all phases of the disaster. The information provided should include simple messages relating to disease prevention, health promotion, safety measures for personal hygiene, water, food, solid and sewage waste disposal, operating schedule of health services post disaster etc.

(g) Supply Management

- Ensure that a system is in place for identification, procurement, storage, distribution and control of critical supplies, material and essential drugs.

(h) Management of Communication and Transportation Systems

- Communication - Identify communication mechanisms:
- Within each health facility in the district, and also between health facilities and the Command Post
 - With District Emergency Organization
 - With other agencies including NGOs,
 - Wills Ministry of Health
 - Annex list of alternate communication systems, e.g.. police radio, ham radio operators etc.
- Identify
- Transportation currently in use by district health team
 - Annex list of owners of other vehicles which could be used; if necessary, e.g. buses, private vehicles, boats.
 - Helicopter landing sites.

Immediate Damage/Needs Assessment

- Obtain information as a basis for decision making on:
- Geographical Area(s) affected
 - Injury to, and death of, Health Personnel

- Number, type, severity and disposition of casualties
- Degree of Physical Damage to:
 - Health Infrastructure, Homes and Shelters
 - Number of homeless persons
- Status of: Roads; Communication Network and Transportation facilities; Power Supply; Water Supply; Sewage and Solid Waste Disposal
- Number of Dead and Missing Persons
- Outbreak of Communicable Diseases
- Need for additional personnel, supplies, equipment, materials, and essential drugs.
- A more detailed damage/needs assessment will be done during the post disaster period.
- Annex standardized reporting form for use by health personnel (See sample at Annex IV).

Functions and Responsibilities of Health Personnel

- Identify functions and responsibilities of health personnel during the General Preparedness, Warning, Response and Recovery Phases for: Health Personnel at Command Post e.g. Community Health Nurse, Family Nurse Practitioner, Medical Officer, Environmental Health Officer, Pharmacist, Record Clerk, Driver.
- Health Personnel at local and district levels e.g. nurses, environmental health officers, medical officers, community health aides.

Monitoring and Evaluation

This activity takes place at two levels, namely:

- (a) During the preparedness phase when preparedness measures will be monitored, simulation exercises and drills evaluated, and areas of strengths and weaknesses identified and used to improve the Disaster Management Plan.
- (b) In the event of a disaster, monitoring of the situation is a continuous activity. This element of monitoring and evaluation is one of the main functions of the Command Centre. The effectiveness of the response, the use of resources, and the effect of other activities at all levels will be evaluated. This information on the health sector's response will be disseminated to, and discussed with, all health personnel. The experiences and lessons learnt, should be documented and used to further prepare personnel, and update and improve the disaster management plan.

Action Cards:

Include in Annex for use by Health Personnel in Command Centre, and at local and district levels.

List of Suggested Annexes

The following is a suggested list of Annexes which may be used to serve as a guide to health personnel:

- Map of the District
- Names, addresses, and telephone numbers of members of the District Health Team (Call Out List)
- Names, addresses and telephone numbers of members of the District Emergency Committee
- Name, Location, and Capacity of Shelters, and Names of Shelter Managers

- Command Centre Check List
- Action Cards
- List of emergency supplies, drugs and other material
- Names, and Location of trained first-aiders and volunteers
- Form for recording number, types, and disposition of casualties
- Form for daily Shelter Report
- Form for Disease Surveillance Report
- Post-Disaster Needs Assessment Report Form
- Transportation Inventory

Resources to implement the Plan

→ After completion of the written plan it is important for the health team to identify what resources are needed to facilitate the implementation of the plan. The district health team has a responsibility to make representation for, ensure and monitor acquisition of needed resource, during the preparedness phase.

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ANNEX I Suggested Terms of Reference for the District Health Sector Disaster Management Committee

Preparedness Phase

- Collaborate within the framework of established policies and procedures with other key sectors and NGOs including the District Emergency Committee in:
 - Preparing a district profile
 - Identification and mapping of hazards and potential risks
 - Hazard reduction
 - Selection of Shelters and evacuation areas
 - Developing an overall Emergency Management Plan for District
- Develop the Health Sector component of the District Emergency Management Plan.
- Maintain an inventory of resources locally and nationally.
- Procure and store essential supplies, equipment, drugs etc.
- Ensure Vulnerability Analyses of health facilities and remedial action as necessary.
- Arrange/confirm mutual aid agreements.
- Ensure education/training of health personnel.
- Promote and participate in Community Education in Emergency Preparedness.
- Identify building and alternate site to be used as a Command Post.
- Ensure simulation exercises and drills at least annually to test the effectiveness of the disaster management plan.

Warning Phase

- Depending on the nature, type, and severity of the Impending disaster:
- Disseminate information during the pre-alert and alert phases to all health workers in the district.
- Call a meeting (in the Command Centre) of the Health Sector Disaster Management Team.
- Collaborate with the District Emergency Organization
- Review action plans
- Secure buildings (health facilities)
- Secure and store files, equipment, supplies etc
- Advise personnel in other areas to prepare themselves, families and health facilities
- Arrange distribution of critical supplies and equipment to outlying areas
- Ensure communication and transportation systems are in place and In working order
- Check on emergency power and water supply in Command Post
- Ensure maps, stationery, food and emergency supplies are in place in Command Centre

- Deploy staff to areas of need
- Collaborate in arrangements for evacuation of high risk and vulnerable groups e.g., pregnant women, children, the elderly and disabled to shelters or hospitals as appropriate

Response Phase

- Establish and maintain the Command Centre
- Deploy health personnel including volunteers
- Collect and analyze information from all areas in districts for needs/damage assessment
- Use information as a basis for decision making
- Arrange visits of the Command Centre Team to the disaster area for first hand information
- Arrange for distribution of critical supplies, material and equipment
- Coordinate with District/Parish Emergency Committee and other key sectors
- Coordinate Health Sector Activities: namely,
 - Immediate needs/damage assessment
 - Management of Casualties
 - Epidemiological Surveillance
 - Vector Surveillance and Control
 - Environmental Health and Safety
 - Nutrition Surveillance Provision of Health Services to Shelters Continued Management of Chronic Diseases, Maternity, Pediatrics and Medical-Surgical Emergencies Ensure maintenance of adequate transportation and communication Provide Public Health Information/Education
 - Arrange relief for health workers who have worked long hours

Recovery Phase

- Continued Needs Assessment
- Restore primary health care services including critical environmental health services as soon as possible.
- Participate in the rehabilitation of health facilities and services.
- Document activities and experiences and utilize lessons learnt to improve disaster management.

ANNEX II Daily Shelter Surveillance Form

SHELTER:	NAME	LOCATION: VILLAGE/TOWN
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SHELTER MANAGER: _____ DATE: _____

TELEPHONE: _____

DEMOGRAPHICS AND HEALTH CONDITIONS:

Demographics and Health Conditions	Under 5		Over 5		TOTAL	
	Males	Females	Males	Females	Males	Females
Total persons in Shelter						
Fever (100F or 38C						
Fever and Cough						
Fever and Rash						
Fever, Vomiting and Abdominal Pain						
Jaundice						
Water Diarrhea						
Bloody Diarrhea						
Conjunctivitis (Pink Eye)						
Skin Infection						
Injuries						
Dog Bite						
Snake Bite						
Domestic Violence						
Other (Specify)						
TOTAL						

ENVIRONMENTAL HEALTH CONDITIONS

WATER SUPPLY:

Available

Yes: _____ Quantity: _____ gallons No.: _____

Source:

Public System (Pipe) _____ Rain _____ Surface _____ Ground _____ Other (Specify) _____

Treatment:

Chlorinated _____ Filtered _____ Boiled _____

Other (Specify) _____

Water Storage

Available: Yes _____ Volume _____ gallons

SANITARY FACILITIES:

No. of Toilets _____ Working Conditions _____ Accessibility _____

Other (Specify) _____

SOLID WASTE MANAGEMENT:

Solid Waste Collected/removed daily Yes _____ No _____

Are Plastic Bags and Bins Available Yes _____ No _____

VECTORS:

Mosquitoes _____ Rodents _____ Flies _____ Bats _____ Snakes _____

ITEM LIST	LIST OF SHELTER NEEDS
Number of persons requiring meals Number of persons requiring basic medication (specify) Water Supply Needs Sanitary Facilities Needs Plastic Bags Needs	

ANNEX III Post Disaster Surveillance Report

HOSPITAL/HEALTH CENTER-POST:	NAME	VILLAGE/TOWN
REPORTING OFFICER: _____		DATE: _____

HEALTH CONDITIONS:

Demographics and Health Conditions	Under 5		Over 5		TOTAL	
	Males	Females	Males	Females	Males	Females
Fever (100°F or 38°C)						
Fever, Vomiting, and Abdominal Pain						
Fever and Cough						
Fever and Rash						
Jaundice						
Water Diarrhea						
Bloody Diarrhea						
Conjunctivitis (pink eye)						
Skin Infections (specify)						
STIS (Specify)						
Injuries: Mild						
Moderate						
Severe						
Dog Bite						
Snake Bite						
Rat Bite						
Domestic Violence						
Other (Specify)						
-						
-						
TOTAL						

Laboratory	Number of Samples Taken	Supply Stock Available Y/N
Malaria Blood Smear		
Dengue Sample		
Rectal or Stool Swab		

ANNEX IV Initial Damage Assessment Form

(Immediate Post-Disaster)

Country _____ Disaster _____	Reporting Area _____ Contact person _____ Impact date & time _____			
Communication lines open? Yes/No Phone ____ VHF ____ HF ____ Ham Radio ____ Other ____				
Pop. _____ Homeless _____ Injured (1) _____ (2) _____ (3) _____ Total _____ Dead _____ Missing _____				
Health Personnel: Affected _____ Available _____ Required _____				
	DESTROYED	DAMAGED	DISRUPTED	NO DAMAGE
FACILITIES: Hospitals Health Centers Bi-medical equipment Homes Shelters Airport Roads Bridges Schools Government Buildings				
WATER: Source Storage Treatment Distribution				
UTILITIES: Telephone Electricity Radio Sewage Television Fuel Storage Solid Waste				
FOOD PROTECTION: Wholesale and Retail Food Stores Distribution System				

CRITICAL SUPPLIES	ADEQUATE	INADEQUATE	REQUIREMENTS
Drugs Dressings Medical Equipment Chlorination Equipment Other			
Name: _____ Designation: _____			

ANNEX V Suggested List of Emergency Equipment and Drugs for District Clinics

DRESSINGS	QUANTITY
Sterile gauze	12 pkls.
Tulle Gras	1 box
Bandages Assorted	4 dozen
Elastocrepe	4
Elastoplast	2 tins
Paragon/plaster	6 tins
DRUGS	
Ergometrine 0.5 mg	4 ampoules
Vitamin K 10 mg	2 ampoules
Pethidine 50 mg	4 ampoules
Dextrose 5%	2 litres
Analgesics	100 tabs
Atropine	4 ampoules
Adrenaline 1 cc	4 ampoules
Aminophylline 250 mg	2 ampoules
Laisix 10 mg	2 ampoules
Piriton 5 mg	(20 tabs) & 5 ampoules
Phebobarb 1 /2 g	5 ampoules
Insulin	24
Antibiotics	
Sterile water	
Oral Rehydration Salts	12 pkts
MISCELLANEOUS	
Paper cups	100
Straws	25
Paper bags	12
Water containers- 5 gals	6
Large plastic bags	25

Insect repellent	1 battle
Air freshener	1 can
PhisoHex	1 bottle
Detergent	1 box
Paper towels	4 rolls
Toilet paper	8 rolls
Airways	4
Thermometers	6
Cotton wool	2 lbs
Medicine cups	3 doz.
I.V. Lines	6
Calhlons and Butterflies	
Q-tips	1 box
Triangular bandages	12
Large safety pins	2 doz
Tourniquet	2
Cord Clamps	2
Matches	. 2 boxes
Flashlights and batteries	
Action Cards	
Stationery Pens, pencils, paper clips, rubber bands	
Masking tape	1 roll
Waterproof Wallet for stationery	1
Pampers	2 boxes
Can opener	1
Mersilk - sutures 3.0	1 box
Catgut - sutures 3.0	1 box
Gloves (size 7 & 8)	1 doz. Pairs
Needle Holders	2
Artery Forceps	6
Dissecting Forceps	4
Dressing scissors	2
Alcohol	1 bottle
Eusol	1 bottle
Mercurochrome	1 bottle

BNT Ointment or Antibiotic cream	2 boxes
Zylocain 1 /2% - 1 %	1 bottle
Dettol\Cetavalon	1 bottle
Lancets	10
Tongue depressors	1 box
Salbutomallnhaler	2
Urine catheters (size 18)	4
Mucus extractors	6
Gastric Tubes	2
Needles	
21 gouge	50
23 gauge	50
25 gauge	50
Splints	
Leg	6
Feet	2
Arm	10
Syringes	
10 cc	10
5 cc	20
2 cc	50
Add at last minute	
8 oz feeding bottles	12
4 oz feeding bottles (with sterile water)	12
Milk for infants	12 tins

Adapted from: Grand Bay District Disaster Management Plan, Dominica 1989