Pan American Health Organization

Regional Office of the World Health Organization

http://www.paho.org

Emergency Management of Health Events: Cholera

Emergency Preparedness and Disaster Relief Area

Haiti Background
Incident Management: Saving Lives

- Beginning of the outbreak with reported attack rate was as high as 10%, which decreased with time
- Internal debate between emphasis and energy on saving lives by building treatment facilities vs. focus on prevention
- Both are needed and neither can claim to be “real” life saver
- Prevention information and education was underfunded
- Mortality was lower in rural departments with ORS points with most basic care (ORS salts, education)
- Oral rehydration points reduces the burdens on CTC’s

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No memory of Cholera = Fear

- Terror over the fast-spreading cholera in rural areas
- Triggered violent witchhunt with 12 murdered on accusations of “black magic” to infect people in the Grande Anse region
- Government issued statement: Cholera is a microbe. The only way to protect yourself against cholera is to observe principles of hygiene
- Confusion over how to disease spreads also prompted attacks on cholera-treatment centers
- Riots against UN peacekeepers initially with rumors of the origin

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Panic & Emergency Management

- In Haiti, there was no institutional nor individual memory on how to treat cholera
- Doctors, nurses, and community didn’t know what to do
- Situation where we need broadest possible spectrum of communication (international media to local media)

"*Haitians are not familiar with cholera and in environments like this misinformation and rumors take root very fast. In cholera epidemics, 80% of cholera patients' lives can be saved through information: people need to know how to prevent transmission and identify and treat early symptoms especially if they are in remote areas where they cannot receive medical help*."

– **Comminit**, 25 October 2010 quoted UN Humanitarian spokesperson on Internews' communication activities for the cholera

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Foundations of Prevention & Control

- Treatment: oral rehydration salts (ORS)
- Prevention: improvement of and access to safe water and sanitation
- Preparedness: community mobilisation
- Intersectoral coordination

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Developing a health emergency plan: first steps

- Establish a planning committee with reps from all relevant sectors
- Agree (provisionally) on roles & responsibilities
- Designate who is responsible for what: lead agencies, individuals, spokespersons!
- Set deadlines and define baselines
- Identify resources (financial and human)
- Determine gaps and constraints

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Elements of a national health emergency plan

Section		Essential	Desirable
1. Preparing for an emergency			
1.1	Getting started	X	
1.2	Comm and and control	X	
1.3	Risk assessment	X	
1.4	Communication	X	
1.5	Legal and ethical issues		
	1.5.1 Legal issues	X	
	1.5.2 Ethical issues		X
1.6	Response plan by pandemic phase	X	
2. Surveillance			
2.1	Interpandemic surveillance		
	— General		X
	— Early warning	X	
2.2	Enhanced surveillance	X	
2.3	Pandemic surveillance		X
3. Case investigation and treatment			
3.1	Diagnostic capacity		
	3.1.1 Local laboratory capacity		X
	3.1.2 Reference laboratory availability	X	
3.2	Epidemiological investigation and contact management	X	
3.3	Clinical management	X	
4. Preventing spread of the disease in the community			
4.1	Public health measures	X	
4.2	Vaccine programmes		X
4.3	Antiviral use as a prevention method		X
5. Maintaining essential services			
5.1	Health services	X	
5.2	Other essential services	X	
5.3	Recovery		X
6. Research and evaluation			X
7. Implementation, testing and revision of the national plan		X	

Establishing an Incident Management System for Health Emergencies

- ICS consists of a standard management hierarchy and procedures for managing temporary incident(s) of any size.
- ICS procedures should be pre-established and sanctioned by participating authorities, and personnel should be well-trained prior to an incident.
- For more information refer to http://www.fema.gov/emergency/nims/IncidentCommandSystem.shtm

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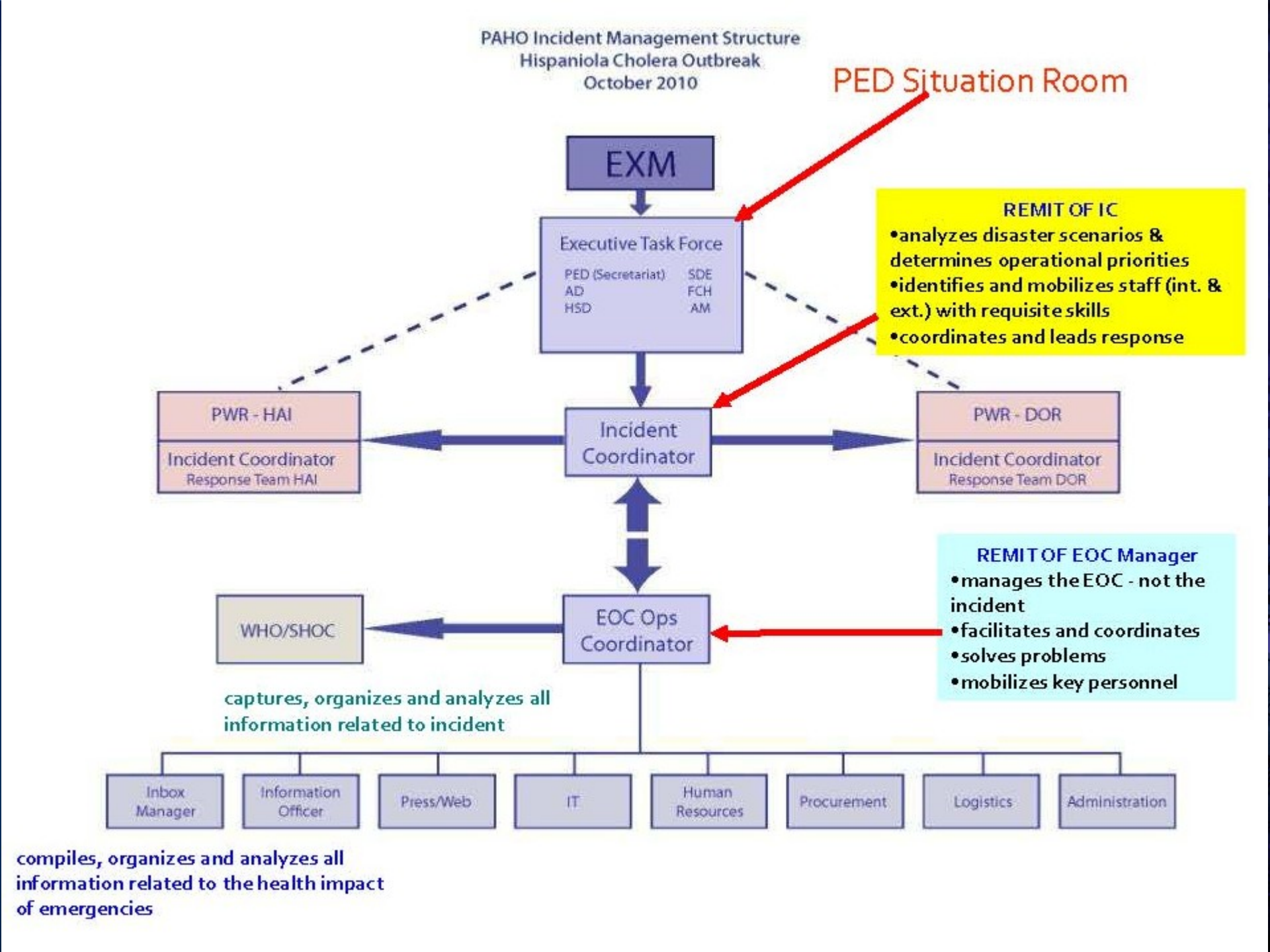
PAHO Incident Management Structure
Hispaniola Cholera Outbreak
October 2010
PED Situation Room
EXM
Executive Task Force
PED (Secretariat)
AD
HSD
SDE
FCH
AM
REMIT OF IC
•analyzes disaster scenarios & determines operational priorities
•identifies and mobilizes staff (int. & ext.) with requisite skills
•coordinates and leads response
PWR - HAI
Incident Coordinator
Response Team HAI
Incident Coordinator
PWR - DOR
Incident Coordinator
Response Team DOR
REMIT OF EOC Manager
•manages the EOC - not the incident
•facilitates and coordinates
•solves problems
•mobilizes key personnel
WHO/SHOC
EOC Ops Coordinator
captures, organizes and analyzes all information related to incident
Inbox Manager
Information Officer
Press/Web
IT
Human Resources
Procurement
Logistics
Administration
compiles, organizes and analyzes all information related to the health impact of emergencies

Alert, Response, Coordination

- Criteria to determine what constitutes an emergency
- Define categories/levels of response according to the scale of the incident
- Determine alert and standby procedures
- Determine lead/executive responsibilities
- Emergency Operations Centre
- Incident Management Mechanism

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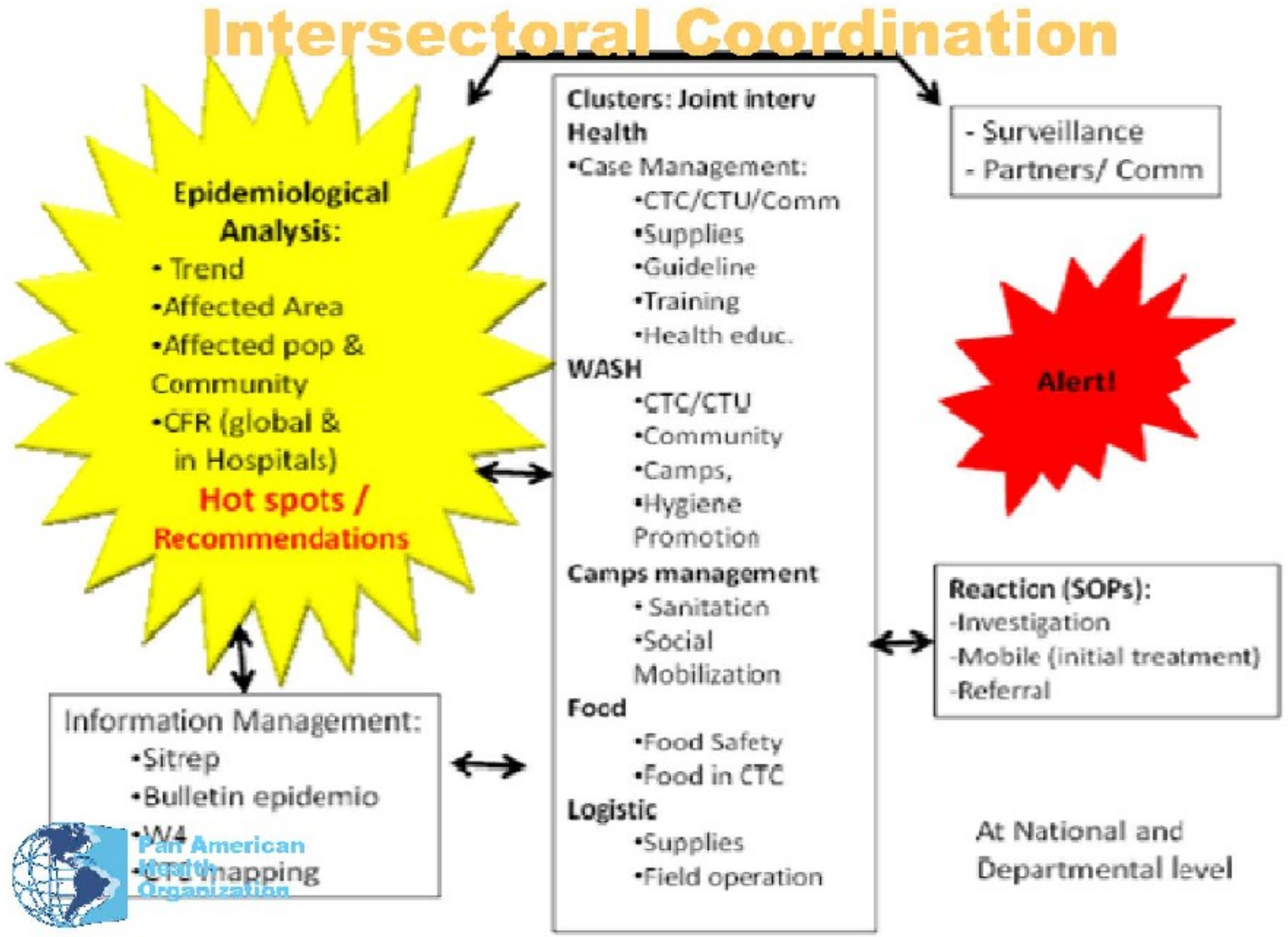
INTERCLUSTER ORGANISATION IN SUPPORT TO THE NATIONAL CHOLERA RESPONSE PLAN



Sanitation & Safe Water

- Expand and ensure access to clean water and sanitation
- All sanitation facilities and water sources are potential 'vehicles of transmission' and should be disinfected to prevent contamination.
- Boiling or disinfection of water with chorine solution (0.5mg/litre) are easy ways to provide safe drinking water

What to use for disinfection*:

Chlorine product	Hands and skin	Floors, clothes, bedding, equipment	Body fluids** (Rice Water stool, Diarrhea, Vomit treated in Ward confinement)
	Final concentration: 0.05% active chlorine	Final concentration: 0.5% active chlorine	Final concentration: 2% active chlorine. Wait at least 2 hours before dumping.
Household bleach (5% active)	0.1 liters of bleach to 9 liters of water (WRITE: 0.05%)	1 liter of bleach mixed with 10 liters of water (WRITE: 0.5%)	4 liters of bleach mixed with 6 liters of water (WRITE: 2%)
Household bleach (30% active chlorine)	Add 16 grams or 1 tablespoon to 10 liters of water (WRITE: 0.05%)	15 grams or 1 tablespoon to 1 liter of water (WRITE: 0.5%)	64 grams or 4 tablespoons to 1 liter of water (WRITE: 2%)
Calcium hypochlorite powder or chlorine granules (70% active chlorine)	7 grams or ½ a tablespoon to 10 liters of water (WRITE: 0.05%)	7 grams or ½ a tablespoon to 1 liter of water (WRITE: 0.5%)	28 grams or 2 tablespoons to 1 liter of water (WRITE: 2%)

* ALWAYS label the solutions with a permanent marker.
** Note that if chlorine is limited, body fluids can be treated with a final concentration of 0.5% chlorine, but the fluids must be held and occasionally stirred for at least 6 HOURS before dumping.

Education of Patient Caretaker (Family Member):
Inform the Patient Caretaker of their duties in terms of how the patient waste should be handled, where the bathrooms or latrines are located, where hand washing stations are located, and what food items (including at what time) the family is expected to provide and what food items the treatment center will provide.

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Network of cholera treatment centers

Cholera Treatment Unit (UTC)

A health centre, a mobile clinic or hospital that has set up a space (tent or room within the structure) to treat cholera patients. The UTC has capabilities in oral and intravenous rehydration.

Capacity: 2-20 beds
Open: 12 hours minimum

Cholera Treatment Centre (CTC)

A centre established to treat cholera patients. Ideally, separate tents or rooms are devoted to oral rehydration therapy, intravenous treatment and convalescence. It has the capacity to treat pulmonary oedema.

Capacity: 40-300 beds
Open: 24 hours a day, seven days a week

Oral Rehydration Posts: treat individuals who display non-life threatening symptoms

Risk Communications and Crisis Communications

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Why risk communication?

- Acute public health events are often unpredictable and unavoidable
- They are frequently marked by uncertainty, confusion, and a sense of urgency
- People’s behavior can impact the situation
- Communication through mass media is one of the quickest ways to disseminate information to a wide audience

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Communications

- Specific messages for specific audiences
- Clear lines of communication between key decision makers
- Clear protocols for communicating with press
- Access: which tools/mediums are easily accessible to which audiences?
- Technological constraints and illiteracy
- Contingency plans

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Conclusion

- Emergency Management of a health event requires a balance between technical response and political reality
- Risk and Crisis Communications key to effective response and must be properly resourced/ supported
- National Coordination mechanisms must be put in place before an event and be tested
- While appropriate treatment may prevent deaths, provision of safe water will prevent cases

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