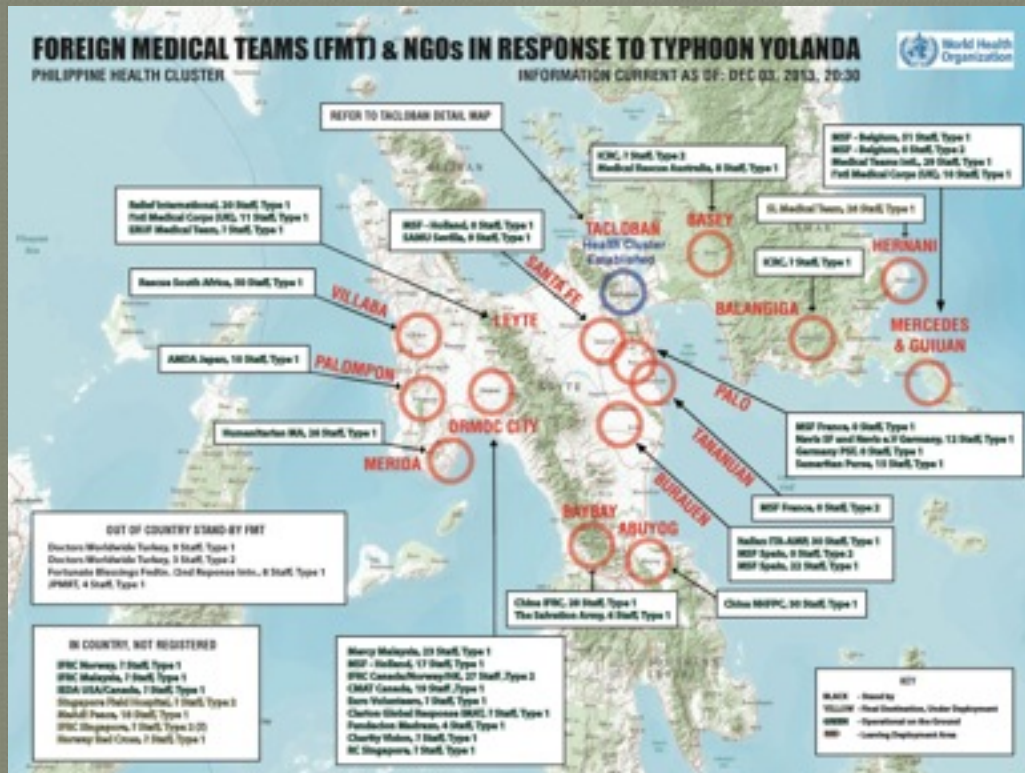


# Lessons from Typhoon Yolanda: The Health Sector Response



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Department of Health

# Typhoon "Yolanda" Storm Surges



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# NOVEMBER 8



ESTIMATED COST  
OF DAMAGE:

**Php 36.7 billion  
(USD 119 M)**

# Initial Estimates of Damage of Health Facilities in Regions IV- B, VI, VII, VIII

Provinces	BHS	RHUs	Hospitals	Total No. of Health	Estimated Amount*
<b>Region VIII</b>				<b>996</b>	<b>3,928,512,300</b>
Leyte			17	249	1,205,618,500
Norther			11	138	661,555,900
Biliran			2	57	187,636,900
Eastern			12	206	723,485,200
Souther			8	99	385,290,500
Western			11	246	704,925,300
DOH-				1	60,000,000
<b>Region VII</b>				<b>60</b>	<b>21,880,000</b>
Cebu	43	15	2	60	21,880,000
<b>Region VI</b>				<b>1,216</b>	<b>49,932,500</b>
Aklan			9	161	5,244,000
Antique			6	176	10,528,500
Capiz			6	310	4,085,000
Iloilo			14	569	30,075,000
<b>Region IV B</b>				<b>8</b>	<b>82,060,000</b>
Culion,		7	1	8	82,060,000
<b>GRAND</b>	<b>1,888</b>	<b>292</b>	<b>99</b>	<b>2,280</b>	<b>4,082,384,800</b>

\* Includes infra and/or equipment costs for affected hospitals, RHUs and BHS



## Critical Timelines

- Immediately after impact
- First 6 hours after the injury has been sustained
- First 24 to 72 hours
- After 1 week

## Wounds Encountered In Disasters

- Fractures
- Lacerations
- Avulsions
- Amputations
- Punctured wounds
- Animal bites
- Wounds associated with chronic medical illness
- Neglected infected wounds and gangrene
- Tetanus

Wounds /Injuries	Cyclone Nargis	Haiti Earthquake	Typhoon Yolanda
Lacerations	X	X	X
Incised	X	X	X
Punctures	X		X
Abrasion	X	X	X
Skin Avulsions			
Fractures		X	X
Amputations		X	
Animal Bites			X
Wounds associated with chronic illness			X
Infected wounds	X	X	X

## Management And Care of Wounds

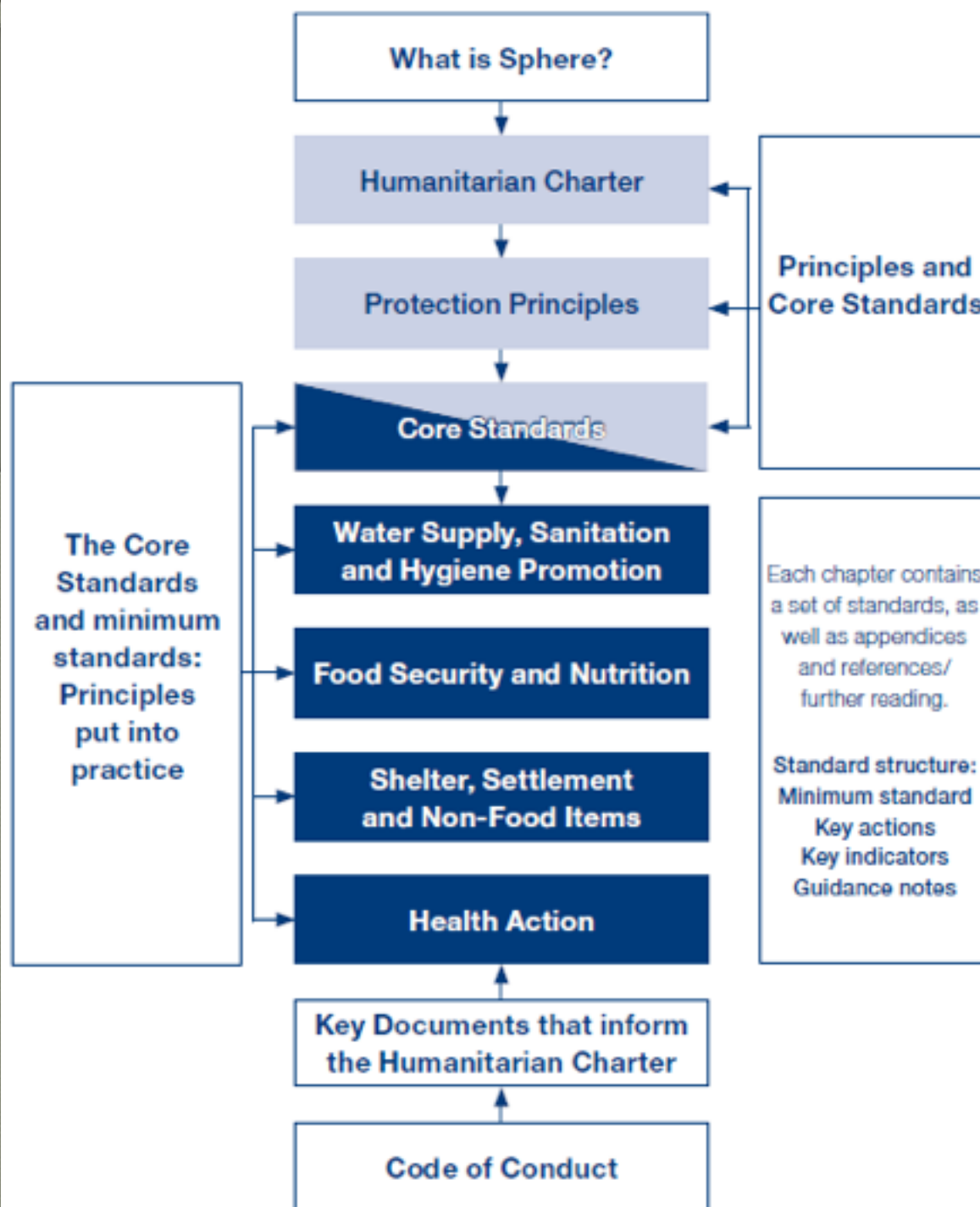
- Government Medical Teams
- NGO Medical Teams
- Foreign Medical Teams
- Military Medical Teams
- First Aid Philippine Red Cross





## Work Interoperability

- Referral system
- Teamwork collaboration
- Inter - team referral
- Sharing of resources
- Case Management Transfer
- Definitive Care
- Sharing of Expertise and Logistics









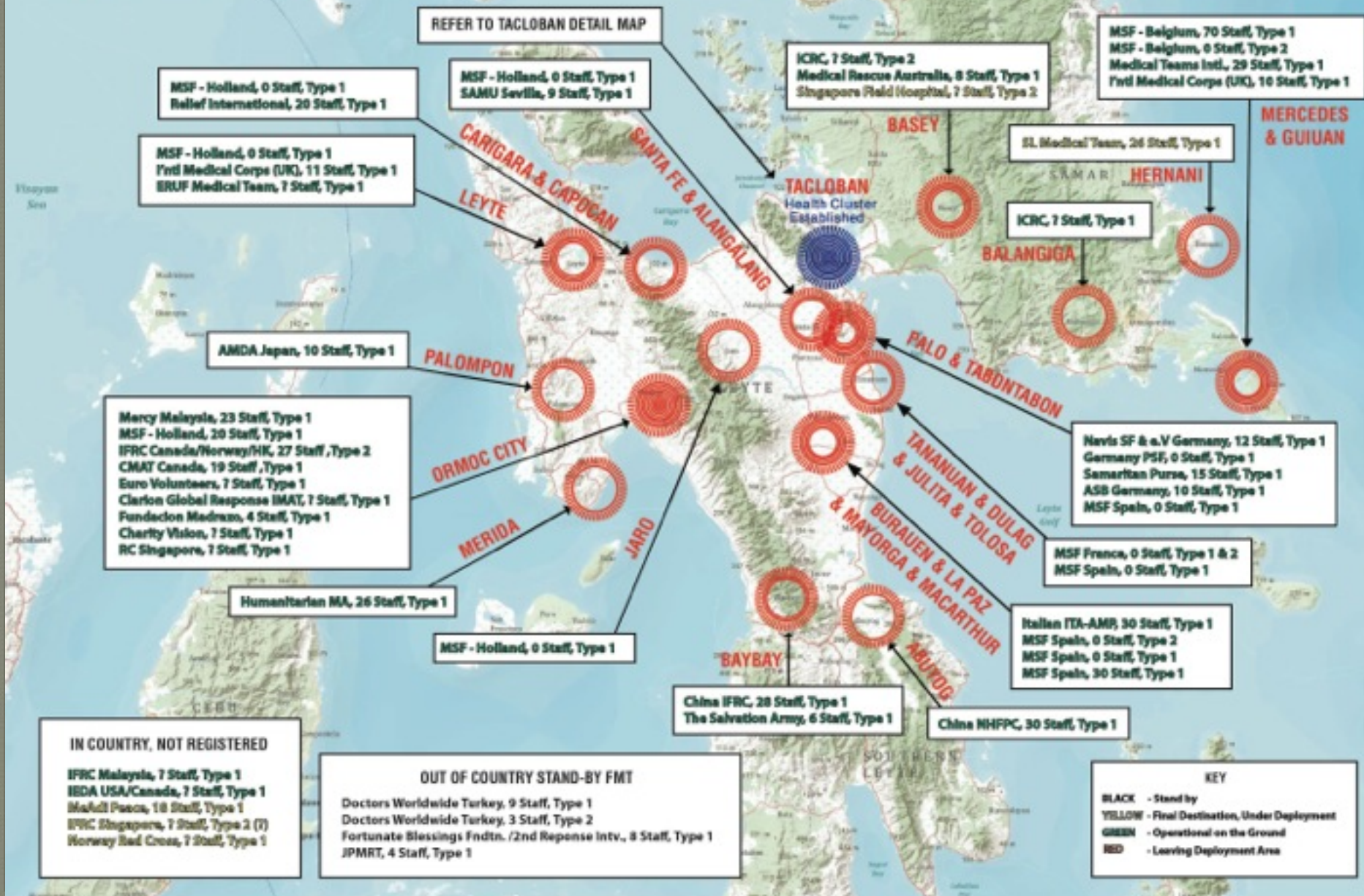


# FOREIGN MEDICAL TEAMS (FMT) & NGOs IN RESPONSE TO TYPHOON YOLANDA

PHILIPPINE HEALTH CLUSTER



INFORMATION CURRENT AS OF: DEC 04, 2013, 18:00



REFER TO TACLOBAN DETAIL MAP

MSF - Holland, 0 Staff, Type 1  
Relief International, 20 Staff, Type 1

MSF - Holland, 0 Staff, Type 1  
SAMU Sevilla, 9 Staff, Type 1

ICRC, 7 Staff, Type 2  
Medical Rescue Australia, 8 Staff, Type 1  
Singapore Field Hospital, 7 Staff, Type 2

MSF - Belgium, 70 Staff, Type 1  
MSF - Belgium, 0 Staff, Type 2  
Medical Teams Intl., 29 Staff, Type 1  
Intl Medical Corps (UK), 10 Staff, Type 1

MSF - Holland, 0 Staff, Type 1  
Intl Medical Corps (UK), 11 Staff, Type 1  
ERUF Medical Team, 7 Staff, Type 1

IL Medical Team, 26 Staff, Type 1

**MERCEDES & GUIUAN**

ICRC, 7 Staff, Type 1

AMDA Japan, 10 Staff, Type 1

Mercy Malaysia, 23 Staff, Type 1  
MSF - Holland, 20 Staff, Type 1  
IFRC Canada/Norway/HK, 27 Staff, Type 2  
CMAT Canada, 19 Staff, Type 1  
Euro Volunteers, 7 Staff, Type 1  
Clarion Global Response (MAT), 7 Staff, Type 1  
Fundacion Medrxn, 4 Staff, Type 1  
Charity Vision, 7 Staff, Type 1  
RC Singapore, 7 Staff, Type 1

Navis SF & a.V Germany, 12 Staff, Type 1  
Germany PSF, 0 Staff, Type 1  
Samaritan Purse, 15 Staff, Type 1  
ASB Germany, 10 Staff, Type 1  
MSF Spain, 0 Staff, Type 1

Humanitarian MA, 26 Staff, Type 1

MSF France, 0 Staff, Type 1 & 2  
MSF Spain, 0 Staff, Type 1

MSF - Holland, 0 Staff, Type 1

Italian ITA-AMP, 30 Staff, Type 1  
MSF Spain, 0 Staff, Type 2  
MSF Spain, 0 Staff, Type 1  
MSF Spain, 30 Staff, Type 1

China IFRC, 28 Staff, Type 1  
The Salvation Army, 6 Staff, Type 1

China NHFPC, 30 Staff, Type 1

**IN COUNTRY, NOT REGISTERED**  
IFRC Malaysia, 7 Staff, Type 1  
IEDA USA/Canada, 7 Staff, Type 1  
Medall Peace, 18 Staff, Type 1  
IFRC Singapore, 7 Staff, Type 2 (7)  
Norway Red Cross, 7 Staff, Type 1

**OUT OF COUNTRY STAND-BY FMT**  
Doctors Worldwide Turkey, 9 Staff, Type 1  
Doctors Worldwide Turkey, 3 Staff, Type 2  
Fortunate Blessings Fndtn. /2nd Respnse Intv., 8 Staff, Type 1  
JPMRT, 4 Staff, Type 1

**KEY**  
BLACK - Stand by  
YELLOW - Final Destination, Under Deployment  
GREEN - Operational on the Ground  
RED - Leaving Deployment Area

# What have been done?

- As the Health Cluster lead, DOH provided support to 151 registered foreign medical teams as well as other local and international NGOs through:
  - Deployment coordination
  - Technical advice through provision of local protocols and guidelines
  - Health services report consolidation
  - Early disease warning detection and response





# What have been done?

- Facilitated the acceptance and quality control of donated medicines and medical supplies
- Health promotion activities and other public health advisories
- Provision of cadaver bags
- Assistance to NBI and LGUs in the management of the dead



# What have been done?

- Deployment of composite team with toxicology experts to manage the secondary event of oil spill in Barangay Botongan, Estancia, Iloilo



# What needs to be improved?

In consideration of the magnitude of Typhoon Yolanda and the *new normal*, there is a need to:

- Modernize logistics and supply management for emergency health sector response
- Ensure Hospitals and health facilities to remain functional during disasters
- Acquire equipment and Improve capacity of response teams
- Review health emergency preparedness and response plans
- Analyze and develop systems for health services especially for mega disasters



# Recommendations/Research Ideas

- Increase the logistics capacity and lifelines for health sector response:
  - Emergency communications system
  - Air Transport to, and within the affected areas
  - Emergency logistical needs such as generators, hospital tents, etc.
- Build resilient health facilities
  - Hospitals as the last facility standing
  - Hospitals as hubs for energy, water, logistics, communications, and shelter
- Develop self-sufficient teams
  - Properly equipped Mobile surgical, public health teams
  - Physically and psychologically prepared teams to withstand the disaster conditions



# Recommendations/Research Ideas

- Improve preparedness, response, and rehabilitation planning across different levels
  - Include worst case scenarios/ mega disasters
  - Consolidation of top-bottom and bottom-up planning
- Strengthen systems for service delivery
  - Improved inter- and intra-operability among all responding agencies
  - Improved information management systems
  - Improved logistics management systems



## Lessons:

### A. Factors for Better Patient Outcome

- Timeliness of intervention
- Competency of Health Personnel
- Adequacy of Service Providers
- Available logistics
- Team Work

### B. Existing Partnerships and Agreements

- Facilitates Movement and Entry of Responding Countries , Teams and Partners