Sri Lankan Country Experience

Hospitals in Floods and Landslides: Responders and Survivors

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Hospitals in Floods and Landslides

Hospitals called upon to respond.

Hospitals affected by flood and landslides.

- Damage
- Impending damage
- Functional collapse

Hospitals in the Disaster Management Framework

- Disaster Management Act, No. 13 of 2005
- Ministry of Disaster Management (MODM)
 - Disaster Management Center (DMC)
- Ministry of Health (MOH)
 - Disaster Preparedness and Response Division (DPRD)
 - Hospitals connected to the DPRD via disaster management focal points management focal points.

National Public Health Emergency Operation Centre (PHEOC)

- Located at DPRD.
- Activation based on the extent and severity of the event.
- In contact with the National Emergency Operation Center of the DMC.
- Monitoring of the situation.
- Informing the responding hospitals.

Rapid assessment

- Data collection
 - Remote data collection
 - Field visits
- Field level data
- Hospital level data
- Sharing the results with national authorities

Emergency Drug List

Based on the concept of essential drugs

72 essential drugs.

• To conduct an out reach clinic for 100 patients.

Clinical guidelines

Soft tissue infection management guidelines.

Consulted the College of Surgeons.

Disseminated to the emergency medical teams.

Hospital response

- Potential for additional patients.
- Deployment of ambulances to the landslide sites.
- Need for deployment of emergency medical teams.
- Coordination with field health teams
- Over 100 emergency medical teams from hospitals were deployed at the peak of floods and landslides in 2016.

NHSL response to floods 2016

NHSL – Highest level of referral hospital in the country.

Sufficient surge capacity.

Called upon to deploy emergency medical teams.

Close coordination with the national PHEOC

NHSL response to floods 2016

• Incident commander – Deputy Director of the hospital.

Hospital incident command post - Deputy Director's Office.

 Operations were lead by an experienced nursing officer who is very experienced in disaster management.

Operations

- Required task from the hospital
 - Deploy medical teams
 - Provide medicines for the teams

- Hospital conference hall was converted into
 - Makeshift drug packaging area.
 - Team Deployment Area.

Emergency Drug Packs

Based on the emergency drug list

Water proof plastic carriers

Adult and paediatric drugs in two separate carriers

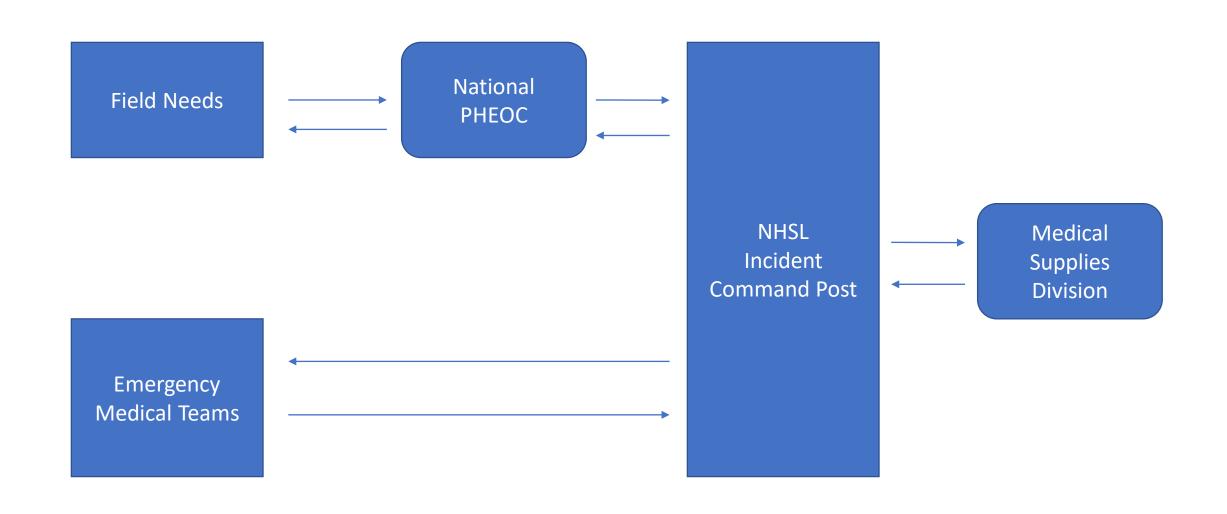


Accountability of drugs

 Drug packs were handed over to the pharmacist / dispenser of the team.

Responsibility to balance the drugs at the end of the day.

• Fast track replenishment of stocks at the NHSL.



Coordination with Tri Forces

Sri Lanka Army

Sri Lanka Navy

• Sri Lanka Air Force

Effects of floods and landslides in hospitals

- Damage of hospitals
- Evacuation
- Reasons
 - Roads to the hospital being blocked.
 - Impending risk of hospitals being affected by landslides.
 - Impending threat of hospitals being inundated.

Base Hospital Ayagama

Impending threat of landslides

• Effect - evacuation







Figure 3 : Makeshift Hospital at Divisional Secretariat

Divisional Hospital Rassagala

Impending threat of landslides

• Effect - evacuation



Figure 4: Landslide risk at the vicinity of the hospital



Figure 5: Cracks appearing in the OPD Building

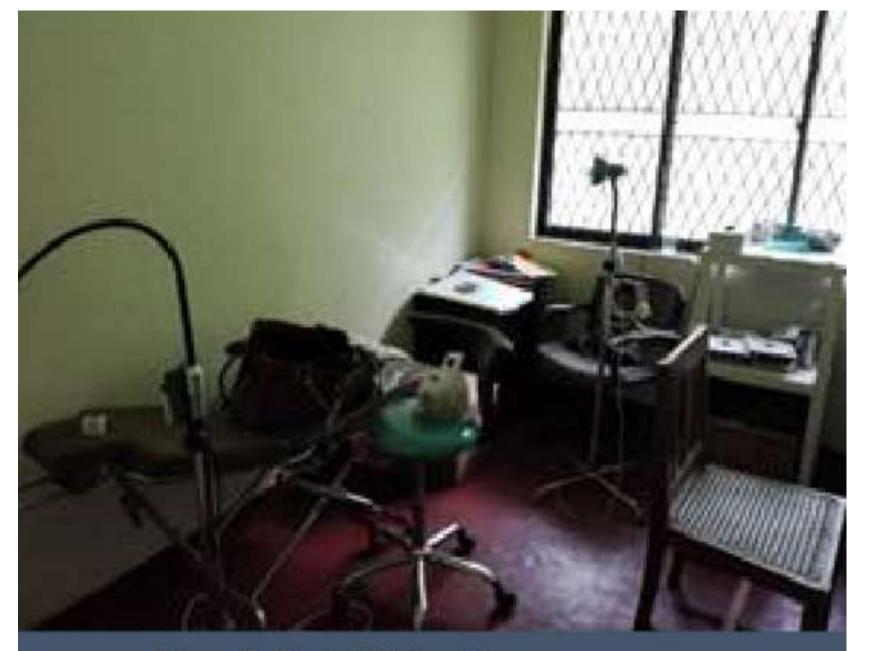


Figure 8: Dental Clinic at the new venue



Figure 9: Makeshift drug store

Divisional Hospital Hiniduma

Hospital inundated.

• Staff and part of the equipment were evacuated to the male ward which is situated in higher ground.

Some furniture and medical equipment damaged.

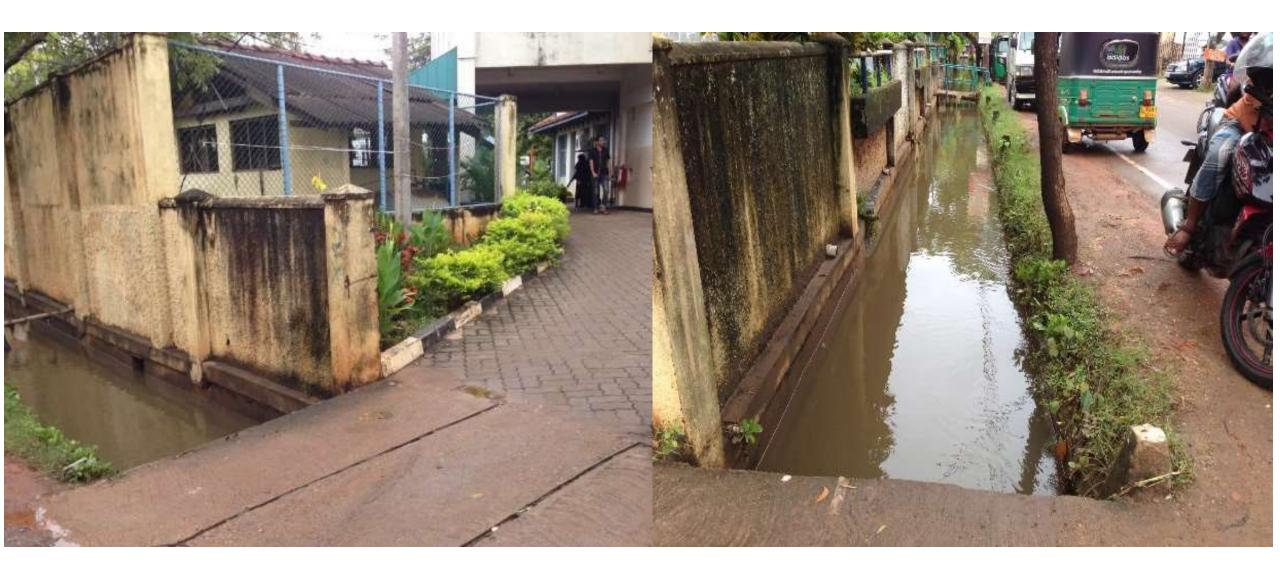
Hospital ambulance affected.

Base Hospital Chilaw

Urban floods affecting Base Hospital Chilaw.

• Some parts of the hospital inundated.

Risk of hospital generator being inundated.





















Before

After







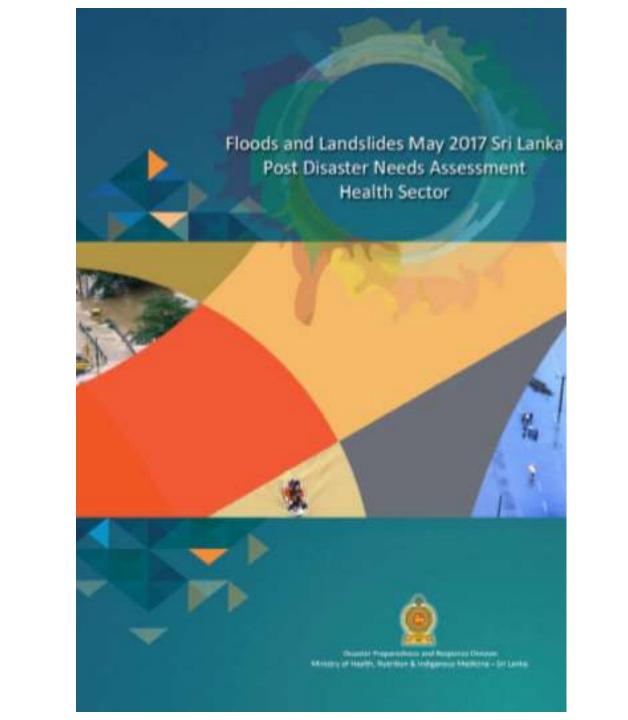
Post Disaster Needs Assessment

Data collection format was developed.

• Information gathered from the Regional Directors of Health Services.

 Rapid assessment teams of doctors specialized in disaster management were deployed.

Information triangulated.



Post Disaster Needs Assessment

 The Post Disaster Needs Assessment (PDNA) report was printed and shared with t

Ministry of Disaster Management

Ministry of Finance

Post Disaster Needs Assessment

UN Agencies

Other potential donor agencies

It was possible to provide financial assistance for the rehabilitation of

health institutions.

Challenges

• Deployment of emergency medical teams – ad-hoc manner.

Criticisms about emergency drug list.

• Sustaining interest in hospital disaster risk reduction in the aftermath of disasters.

Conclusions

Hospitals have satisfactory surge capacity.

Tri Forces are an asset.

Some hospitals vulnerable to floods and landslides.

PDNA useful tool for recovery.

Recommendations

Introduction of hospital emergency medical team deployment roster.

Advocacy for adherence to emergency drug list in disaster response.

Conduct hospital level risk assessments.

Recommendations

Relocation of highly vulnerable hospitals.

Insurance cover for hospitals.

• Implementation of Safe Hospitals Initiative.