

# WASH in health care facilities Post- Earthquake and Longer-term Sustainability

Nepal



# WASH Overview and Issues in Nepal

- 92 % population has access of basic water supply
- 64 % basic sanitation coverage.
- National target to have 100 % coverage with basic level water supply and sanitation by 2017
- Only 16 % people use treated water, but the performance is unknown.
- 82.2% of E.coli risk level in household water (MICS 2014)
- More than 41000 water supply schemes; functionality of water supply schemes is big issue
- 2000 schemes have been WSP practicing
- ODF focused sanitation movement, sustainability and total-ness is still issue of advancement.

Nepal has reduced  
open  
Defecation rate by  
56 %  
Since 1990

Source: JMP Report 2015

Sixteen countries have reduced open defecation rates by at least 25 percentage points

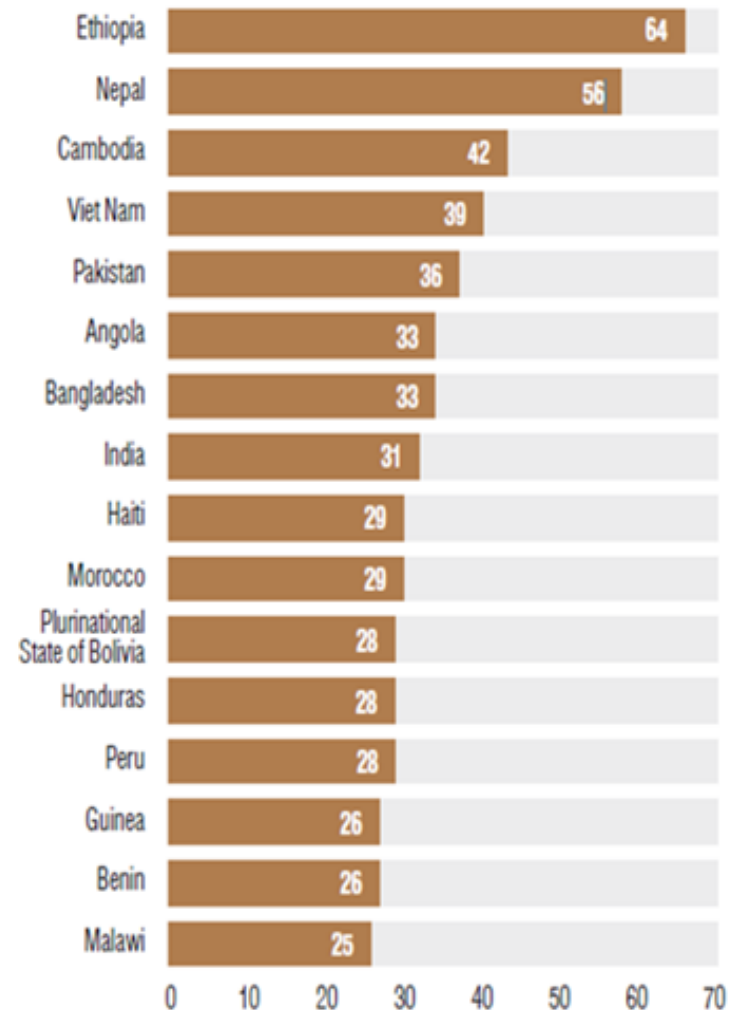
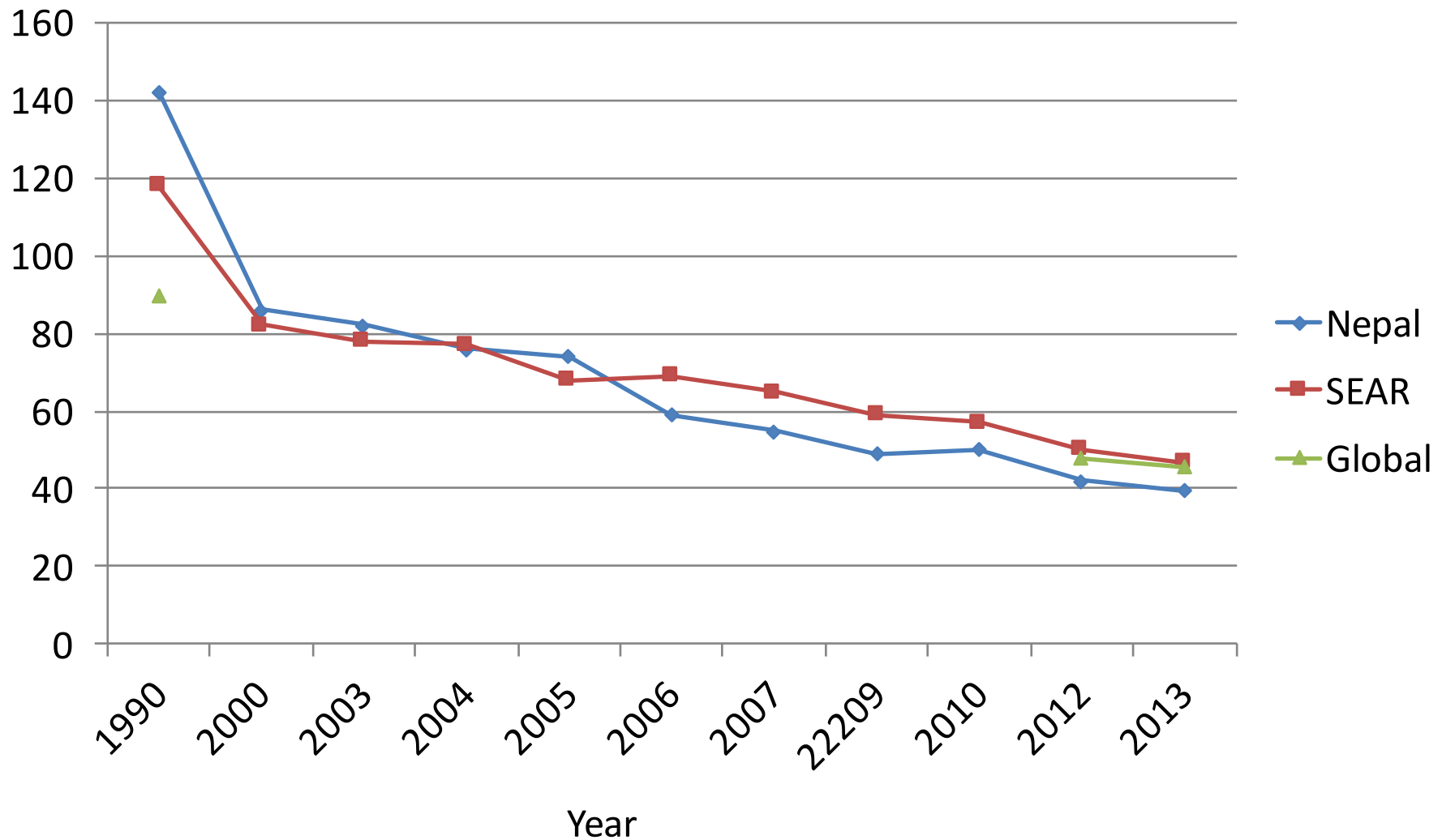


Fig.23

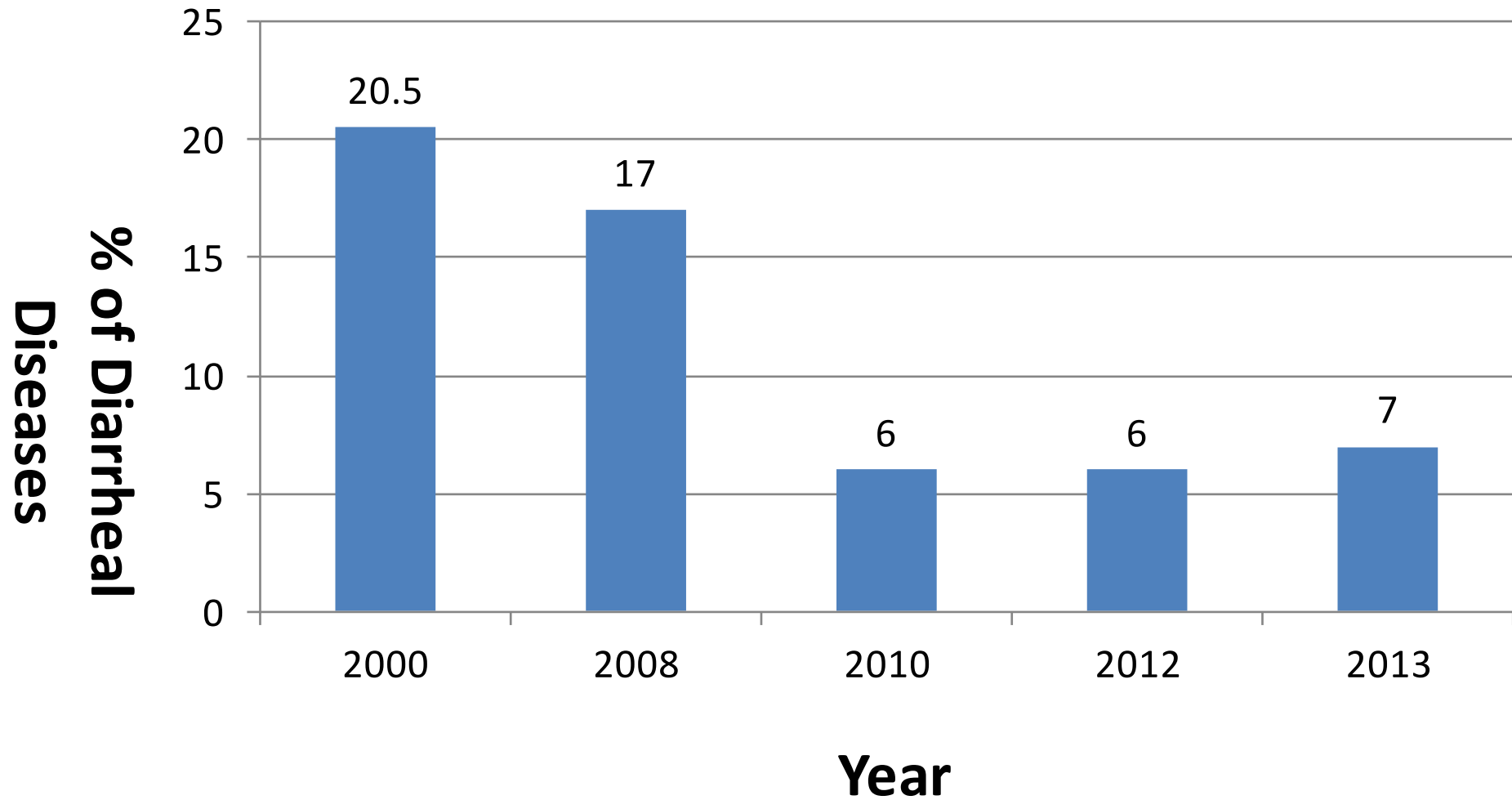
Reduction in the proportion of population practising open defecation, from 1990 to 2015 (%)

# Mortality rate under five in 1000 new births





# Causes (diarrheal death) among children (age <5)



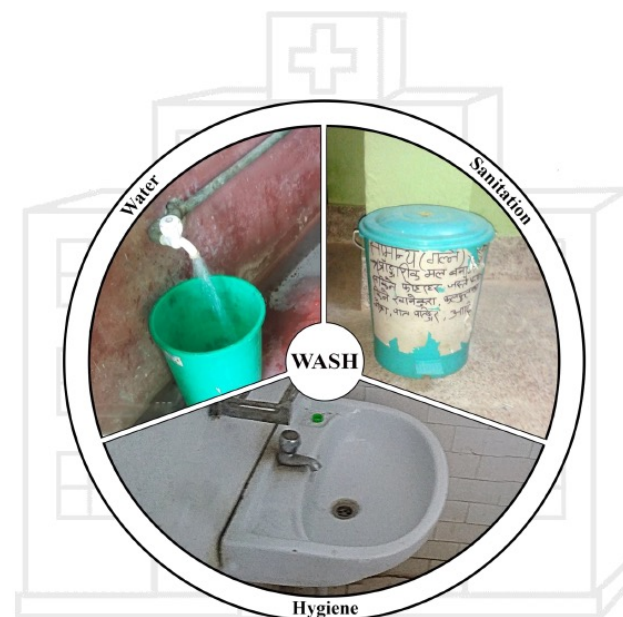
# WASH condition in HCFs in Nepal

## Environmental Health Condition of Hospitals in Nepal



1

## Assessment of Status of WASH Service Facilities in Health Institutions of Nepal



January, 2016

WaterAid Submitted to WaterAid Nepal  
Submitted by NFCC

6

# WASH condition in HCFs in Nepal

Study by	Study Year	Where	Water	Sanitation	Hygiene
WHO/CEPHE D	2011	31 selected hospitals from all 5 regions	Water Supply = 84 % WQ monitoring/treated = 9.7 %	Functional Toilet = 45 % Waste water management = 3.2 %, HCWM = 35.5 % ( 3.23 % well managed)	Hand washing facilities = 58% Knowledge on Hand washing = 58.0%
Water Aid/NF CC	2016	20 from Sindhuli, Siraha and Makwan pur districts	Water Supply = 90 % Treated water = 55 % WQ monitoring = 0 %	Availability of toilet = 98 % Functional toilet 75 % HCWM = 0 %	Hand washing = 55 %,

# Nepal Earthquake 2015



**25 April,  
Saturday  
7.8  
Magnitude**

# Earthquake loss

People affected	No.	Infrastructure Damaged	No.
Death	8891	Fully damaged private houses	602257
Injured	22309	Partially damaged private houses	285099
Livestock Loss		Fully damaged health facility	462
Big	16458	Partially damaged health facility	765
Small	36884	Affected schools	8308
Birds	460805	Fully damaged classrooms	19708
Fully Damaged Govt. buildings	2673	Major damaged classrooms	11046
Partially damaged Govt. Buildings	3757	Damaged toilet at school	1500
Total affected water supply Schemes			5207
Total damaged toilets			3,50,000

# Epidemic after Earthquake

(lesson learnt from Haiti)

		Haiti	Nepal
Date		Jan 12, 2010	25 April, 2015 12 May, 2015
Magnitude		7.0	7.8 & 7.3
Affected Population		3.5 M	7.0 M
Death		3,16,000	8,891
Cholera Outbreak	Cases	697,256	28
	Death	8534	0



# Water Quality Assessment

	Total Sample Tested	E-Coli seen in	% of contaminated sample	Remarks
IDPs at Kathmandu valley	98	25	25.5%	Immediately corrective measures applied
Health facilities (Kathmandu)	75	24	32 %	
Others districts	565	176	31.1%	
University Students (21) mobilized in 3 districts	190	106	55.8%	
EDCD, Water Quality Surveillance team	20	15	75.0 %	MPN method Sufficient ( 0.1 to 0.2 mg/L) FRC is found



**In Total :**  
**346/948 = 36.5 %**



# Monitoring of local water sources





# Poor sanitation ( toilet and waste management) examples





# Contd..





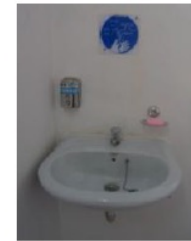
# HCWM in Foreign Medical Camps ( segregation to disposal ?)



# EQ Emergency response in 15 Community HCFs in Kathmandu as pilot interventions

- Alapot Health Post
- Sankhu Health Post
- Bishnudevi Primary Health Centre
- Chalnakhel Primary Health Centre
- Gokarna Primary Health Centre
- Mulpani Primary Health Centre
- Ramkot Primary Health Centre
- Sangla Primary Health Centre
- Satungal Health Post
- Thankot Health Post
- Seuchatar Health Post
- Budhanilkantha Health Post
- Bhadrabas Health Post
- Gothatar Health Post
- Khadga Bhadrakali Health Post

## Report on Earthquake Emergency Response- Improving WASH Facilities and Services in 15 Primary Health Cares (PHCs) at Rural Settings



Submitted to:  
World Health Organization (WHO)  
Country Office, Nepal  
Pulchowk, Nepal

Submitted by:  
Health Care Waste Management Program  
Health Care Foundation Nepal (HECAF)  
Vanasthali, Nepal

January 2016

# Interventions done

- Detail Assessment
- Training
- Material support
  - Water tanks
  - Water filters
  - Niddle cutters
  - Auto clave and other HCWM items
  - Maintenance/ construction of toilets and hand washing stations
  - Maintenance of sewerage connections / septic tanks
  - Hygiene kits



# Before the intervention



# Segregation of HCW



# Auto clave and Hand washing facility





# Handover of hygiene items and water filter to Health Post



# Dhading ( one of 14 most effected districts)



# Dhading ( one of 14 most effected districts)

- Death 715, Injured 4288,
- Health workers, Death - 1, injured - 3
- District Hospital -1, Primary Health Center - 2, HP - 50
- Fully Damaged - 29, Partially damaged - 18
- Overall management of WASH in district hospital
  - Temporary toilets
  - Bottled water supply / water purifier
  - Handwashing with soap
  - Patient were triaged to prevent contamination
  - Supports from many NGO/INGOs/Center
- Main problem
  - Space and manpower
  - Hospital waste management (open burning)

Some  
Selected  
WASH items  
are under  
process of  
distribution  
by WHO

SN.	Districts	Water Tank (1000 Ltrs)	Water Tank (500 Ltrs)	Commu Water Filter (Straw)	Niddle Cutter	Auto Clave (40 Ltr)	Auto Clave (20 Ltr)
1	Bhaktapur	10	10	15	10	2	10
2	Dhading	30	30	45	40	2	30
3	Dolakha	30	30	45	30	2	30
4	Gorkha	35	30	65	40	3	35
5	Kathmandu	25	25	65	40	3	30
6	Kavre	50	50	120	75	5	65
7	Lalitpur	15	15	40	30	4	20
8	Makwanpur	15	15	40	30	5	20
9	Nuwakot	50	50	80	50	3	50
10	Okhaldhunga	25	25	50	40	1	25
11	Ramechhap	30	30	45	30	2	40
12	Rasuwa	15	15	15	15	1	15
13	Sindhuli	20	20	45	30	4	20
14	Sindhupalchok	50	55	80	40	3	60
	<b>Total</b>	<b>400</b>	<b>400</b>	<b>750</b>	<b>500</b>	<b>40</b>	<b>450</b>



# WASH in HCFs ( Key finding)

- Water supply system is mostly connected with community supply
- MoH is not giving adequate attention to WASH in HCFs
- WASH facilities damaged with building of HCFs.
- Foreign Medical camps found help less to access WASH services unless local support



# Lesson Learnt

- Complete WASH package timely included in all MCKs taken as wise decision.
- WASH/HCWM can be improved if and only if health workers /staffs are motivated
- Nominal WASH item for a HCF are
  - Water Tanks
  - Water purifiers
  - Needle cutters
  - HCWM items including auto claves
  - Hygiene kits
  - Maintenance of toilets and Hand washing stations

# Recommendation

- Advocacy at higher level
- Clear role and responsibility of the partners
- Policy and protocol
- Institutional arrangement and coordination mechanism in MoH leadership
- Capacity Building / awareness campaign
- Resources
- Stock piles and vendors roster ( WASH items)
- Water safety plans (WSP) and total sanitation approaches in HCFs
- HCWM with sustainable/ non-burning technology

**Thank You**