

# Cholera: Entry for Strengthening Surveillance System in Zanzibar

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# Outline of presentation

- Background
- Surveillance Structure & Reporting
- Key issues and challenges
- Way forward
- Summary



# Background

- Semi-autonomous region of Tanzania with total population of 1.4 million. Health is Non-Union matter, two Ministries of Health
- Two major island (Unguja and Pemba)
- Zanzibar has recorded 17 outbreaks of cholera since 1978.
- The recent outbreak was in 2016/2017. All districts and 236 (70.7%) out of the total 334 Shehiyas affected.
- Three districts (Urban, West and Cake-Chake) are worst affected with 80-94% of their Shehiyas reported cholera.
- The Revolutionary Government of Zanzibar decided to have a multi-sectoral cholera elimination plan (ZACCEP)



# Service Delivery in Zanzibar

**Physical Access  
excellent!**

Tertiary Hospital  
Maternity Hospital +Mental  
Hospital  
(n=1)

District Hospital  
(n=3)

Primary Health Care Centres  
(n=4)

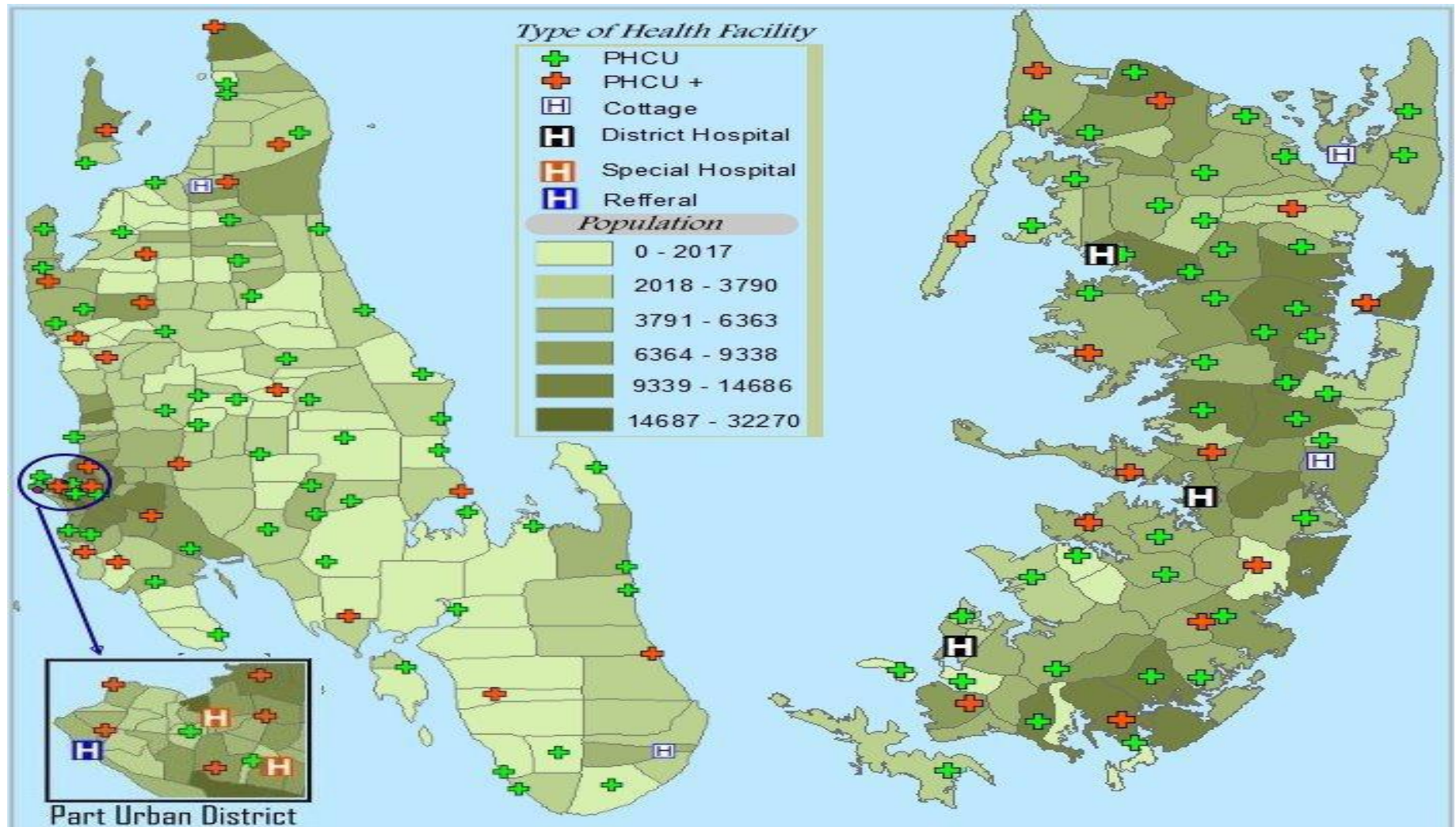
Primary Health Care Unit +  
(n=34)

Primary Health Care Units  
(n=100)



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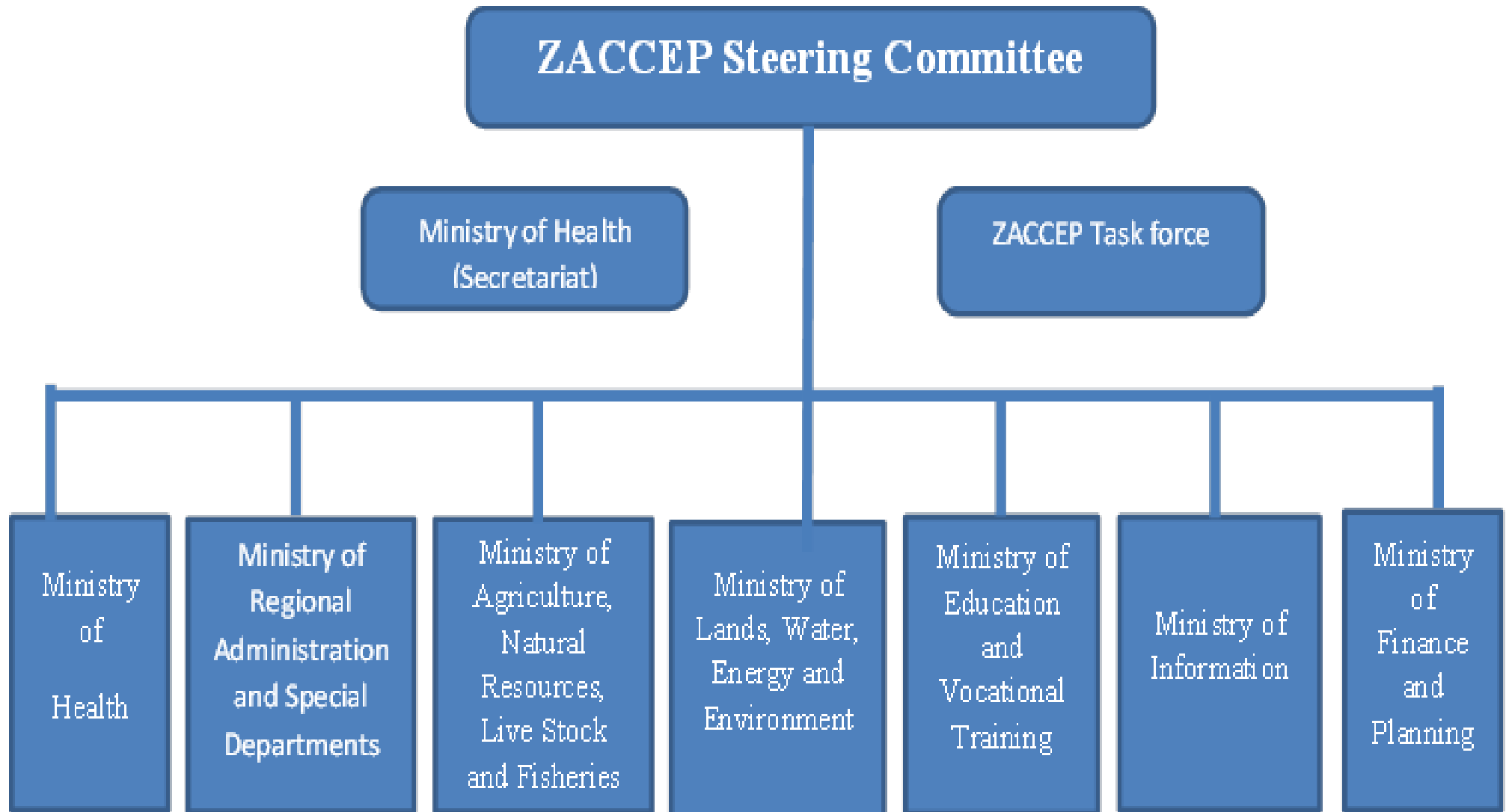
# Physical Access to Health Services



# ZACCEP 2018-2027



# Zanzibar Cholera Elimination Coordination



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# Surveillance Structure

## **Integrated Diseases Surveillance and Response (IDSR)**

- Zanzibar has adopted the WHO Technical Guideline for integrated diseases surveillance in 2010.

## **Disease/Program Specific Surveillance:**

- Malaria information System
- Neglected Tropic Diseases surveillance;
- Maternal and Child Health surveillance (Wiring Mothers)
- Electronic Medical Recording System (EMRS)
- Nutrition survey and surveillance





# Two Surveillance Systems

- **MOH Surveillance System**

Health Facilities → District Surveillance Officer → Regional Surveillance Officer → National Health Information System

- **Local Government Surveillance System**

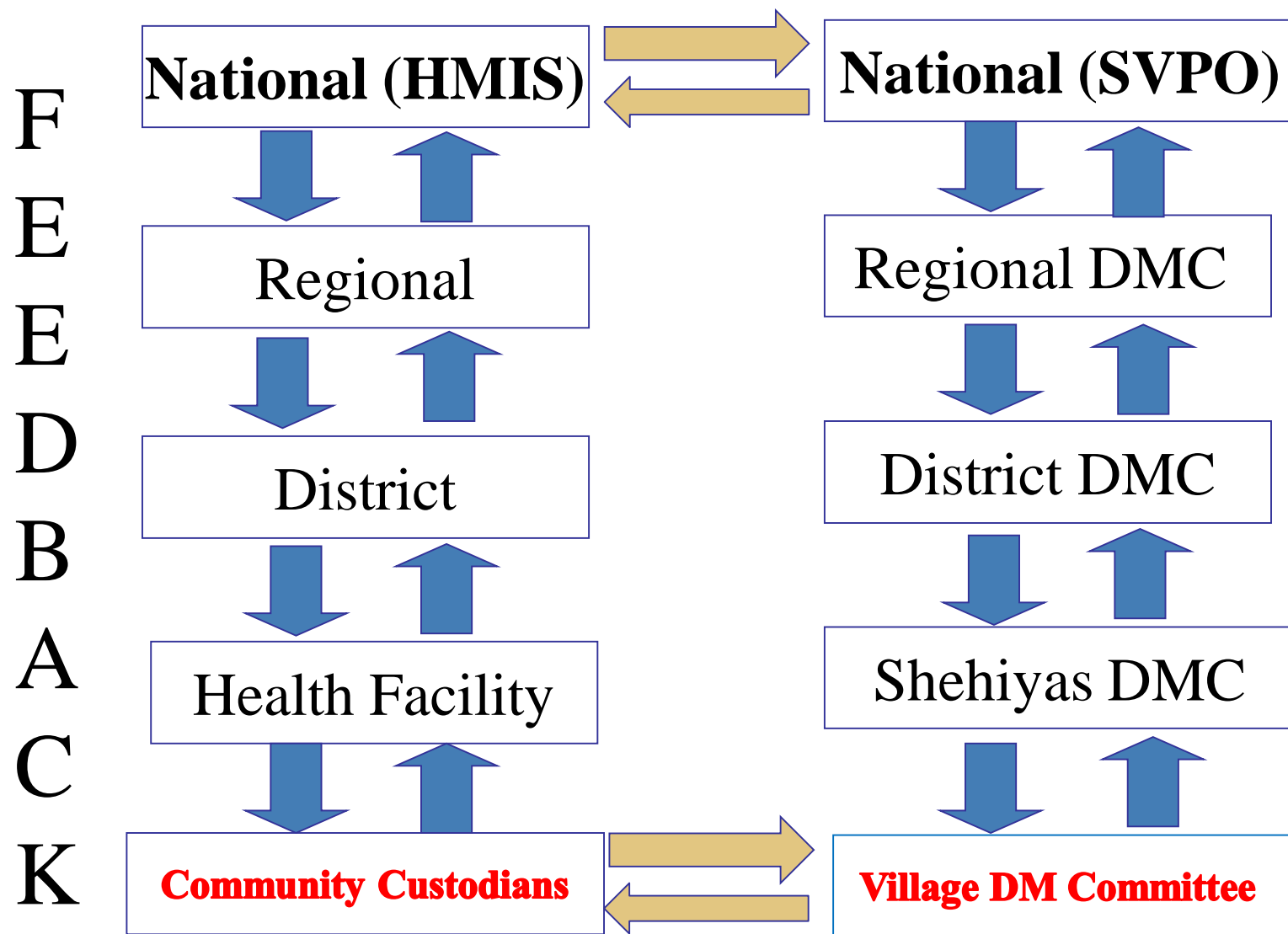
Linked to the National Security and Disaster Management System

Village Administration → Shehiyas (two to five villages) → District Security Management → Regional Security Management → National (at Second Vice President Office)



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# Structure of surveillance system in Zanzibar





# Cholera Line List Reporting Format

S/N	Name of patient	Age	Sex	Region	Distrcit	Shehia	Locality(Street, Village or Mtaa	Occupaion	Date seen at facility	Date of onset	Diarrhoea (Yes/no)	Vommiting (Yes/No)	Fever (Yes/No)	Others	Dehydration status ( No, Some, Severe )	Others	Sample taken(Yes /No)	Lab results (Positive or	Drinking water source(ZA/WA/Well,	Admitted (Yes/No)	Place of admission	Treatment given	Outcome (Died,Discharged, sill sick)	Date of outcome	Comment
1	MUDRIK Mwinyi	27	M	Urban West	West B	Melinne			28/Mar/17	28-Mar-17	Yes	Yes			Severe		Yes	Negative		MMH-MMW		Discharged	24/Mar/17		
2	Bakar Juma	33	M	South	Central	Mwera			28/Mar/17	28-Mar-17	Yes	Yes			Severe		Yes	Negative		MMH-MMW		Discharged	28/Mar/17		
3	Said Ali Hamad	24	M	Urban West	West B	Kama			28/Mar/17	28-Mar-17	Yes	No			Severe		Yes	Positive		MMH-MMW		Discharged	26/Mar/17		
4	Rahma Said Mohammed	4	F	Urban West	Urban	Chumbuni			24/Apr/17	24-Apr-17	Yes	Yes			Severe		Yes	Positive		MMH- Cot word A		Discharged	1/May/17		
5	Abdi Omar Bakar	28	M	Urban West	West B	Tomondo			2/Apr/17	2-Apr-17	Yes	Yes			Severe		Yes	Negative		MMH-MMW		Discharged	4/Apr/17		
6	Zulfa Mohammed Kombo	32	F	North	North B	Bumbwini			2/Apr/17	2-Apr-17	Yes	Yes			Severe		Yes	Negative		MMH-FMW		Discharged	4/Apr/17		
7	Ruqayya Shauri Khamis	27	F	North	North B	Donge Pangani			2/Apr/17	2-Apr-17	Yes	Yes			Severe		Yes	Negative		MMH-FMW		Discharged	4/Apr/17		
8	Khamis Juma	50	M	Urban West	Urban	Kilimani			2/Apr/17	2-Apr-17	Yes	Yes			Severe		Yes	Negative		MMH-MMW		Discharged	3/Apr/17		
9	Mohd Suleiman	33	M	Urban West	West B	K/samaki			8/Apr/17	8-Apr-17	Yes	No			Severe		Yes	Negative		MMH-MMW		Discharged	9/Apr/17		
10	Hamad Khamis	23	M	Urban West	West B	M/Kwerekwe			18/Apr/17	18-Apr-17	Yes	Yes			Severe		Yes	Negative		MMH-MMW		Discharged	19/Apr/17		
11	Kombo Ali Kombo	3	M	Urban West	West A	D.bovu			19/Apr/17	19-Apr-17	Yes	Yes			Severe		Yes	Negative		MMH- Cot word A		Discharged	21/Apr/17		
12	Omar Mussa Kombo	26	M	Urban West	Urban	K/Pura			20/Apr/17	20-Apr-17	Yes	Yes			Severe		Yes	Negative		MMH-MMW		Discharged	25/Apr/17		
13	Yumna Mohammed Abdallah	18	F	Urban West	West B	Fuoni			22/Apr/17	22-Apr-17	Yes	Yes			Severe		Yes	Negative		MMH-FMW		Discharged	25/May/17		
14	Asha Khamis Faki	60	F	Urban West	West B	B/Sudi			21/Apr/17	21-Apr-17	Yes	Yes			Severe		Yes	Negative		MMH-FMW		Discharged	23/May/17		
15	Mtumwa Ame Juma	65	F	Urban West	Urban	K/Pura			20/Apr/17	20-Apr-17	Yes	Yes			Severe		Yes	Negative		MMH-FMW		Discharged	24/Apr/17		
16	Radhia Kikoti Daniel	24	F	Urban West	Urban	Chumbuni			27/Apr/17	27-Apr-17	Yes	Yes			Severe		Yes	Positive		MMH-MMW		Discharged	29/May/17		
17	Sarafina Dominet	75	F	South	Central	Mwera			27/Apr/17	27-Apr-17	Yes	Yes			Severe		Yes	Negative		MMH-FMW		Discharged			
18	Mohammed Juma Hamad	45	M	Urban West	Urban	K/Pura			30/Apr/17	30-Apr-17	Yes	Yes			Severe		Yes	Positive		MMH-MMW		Discharged	4/May/17		
19	Hafidh Salmin	30	M	Urban West	West B	Kinuni			10/May/17	10-May-17	Yes	Yes			Severe		Yes	Negative		MMH-MMW		Discharged	14/May/17		
20	Seif Ali Shija	65	M	South	Central	Mwera			8/May/17	8-May-17	Yes	Yes			Severe		Yes	Negative		MMH-MMW		Discharged	12/May/17		



Region.....

District.....

Locality (Village/Street).....

Health facility.....

Name of the Deceased		
Age (years)		
Sex (Male/Female)		
Occupation		
Date and time of admission (If admitted)	Date:	Time :
Date of onset of illness		
Symptoms & signs (Tick after the appropriate response)		
		Diarrhea
		Vomiting
		Dehydration status : Moderate Severe
		Others (mention).....
Specimen taken for laboratory investigation (Tick the appropriate response)		
		Yes Investigation Results (mention)
		No
Treatment given (Tick the appropriate response)		
		Intravenous Fluids
		Antibiotics
		Oral Rehydration Solutions
Place Death Occurred (Tick the appropriate response)		
		Home
		On the way to Cholera Treatment Centre or Health Facility
		At Cholera Treatment Centre or Health Facility
Date and time of death	Date:	Time :
Burial Process (Tick the appropriate response)		
		Buried by relatives, unsupervised by environmental health personnel
		Supervised by environmental health personnel
Burial place (Tick the appropriate response)		
		Home grave yard
		Public cemetery
		Special area for Cholera



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# Key Issues and Challenges

- Inadequate human and financial investment for surveillance (donor supported information systems).
- Ad-hock and inconsistent Surveillance TWG meeting.
- Absence of Emergency Operation Center (EOC) to coordinate emergency response
- Unsustainable infrastructures (internet, software) for data collection and management → Program/Disease surveillance
- SMS based information sharing (when credit is not available, reporting fails)
- eIDSR supported by WHO, worked for few weeks and staff returned back to business as usual



# Measures to address challenges

- Capacity building through mentorship and on-the-job training through deployment of Field Epidemiologists.
- Convene and support regular meeting of sub-groups/TWGs including Surveillance.
- Proposals for creation of Emergency Operation Center (EOC).
- Advocacy for re-institute of HMIS/DHIS2 expert currently in private practice as consultant and avoid high turn-over.
- Support development of policy guidelines for Health Information System and Advocacy for more financial and human resource allocation for HIS/surveillance



# Conclusion

- National Information System should not be compromised by project/disease specific information system → fragmentation & weakening).
- Soliciting donor support while advocating for increased domestic resources for stronger HIS/surveillance system .
- Investing and strengthening exiting structures and coordination mechanisms is key for building a stronger emergency response system (IHR-2005 Core capacities)  
Avoid creation of too many structures
- Use unconventional emergency alert/information for timely response





# Thank You!



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