



Webinar: “cholera control, elimination and platform”

1. Introduction

- What is cholera?

START AT 2PM – GMT or

2. Monitoring of the epidemiological situation in the region (WCAE)

- Repartition of cholera per country and evolution
- Epidemiological basin and transborder exchanges

DAKAR time

Moderator:

Julien Graveleau: jgraveleau@unicef.org

3. Cholera platform

- What do we do?
- Who are we?

Financial partner:



4. Regional strategy against cholera

- Shield and Sword against cholera
- Roadmap towards elimination
- Progress on the roadmap

More information:

www.platfomecholera.info

5. What Can you do? Get involved!

1- Introduction

What is cholera?

- Cholera is a waterborne disease caused by bacterium *Vibrio Cholerae*
- Cholera is an extremely virulent disease that can kill healthy adults within hours.
- Untreated, the case fatality rate can be as high as 50%
- About 75% of people infected with cholera do not develop any symptoms.
- It takes between 12 hours to 5 days for a person to show symptoms
- Cholera can cause explosive, widespread epidemics

More information:

<http://www.who.int/cholera/en/>



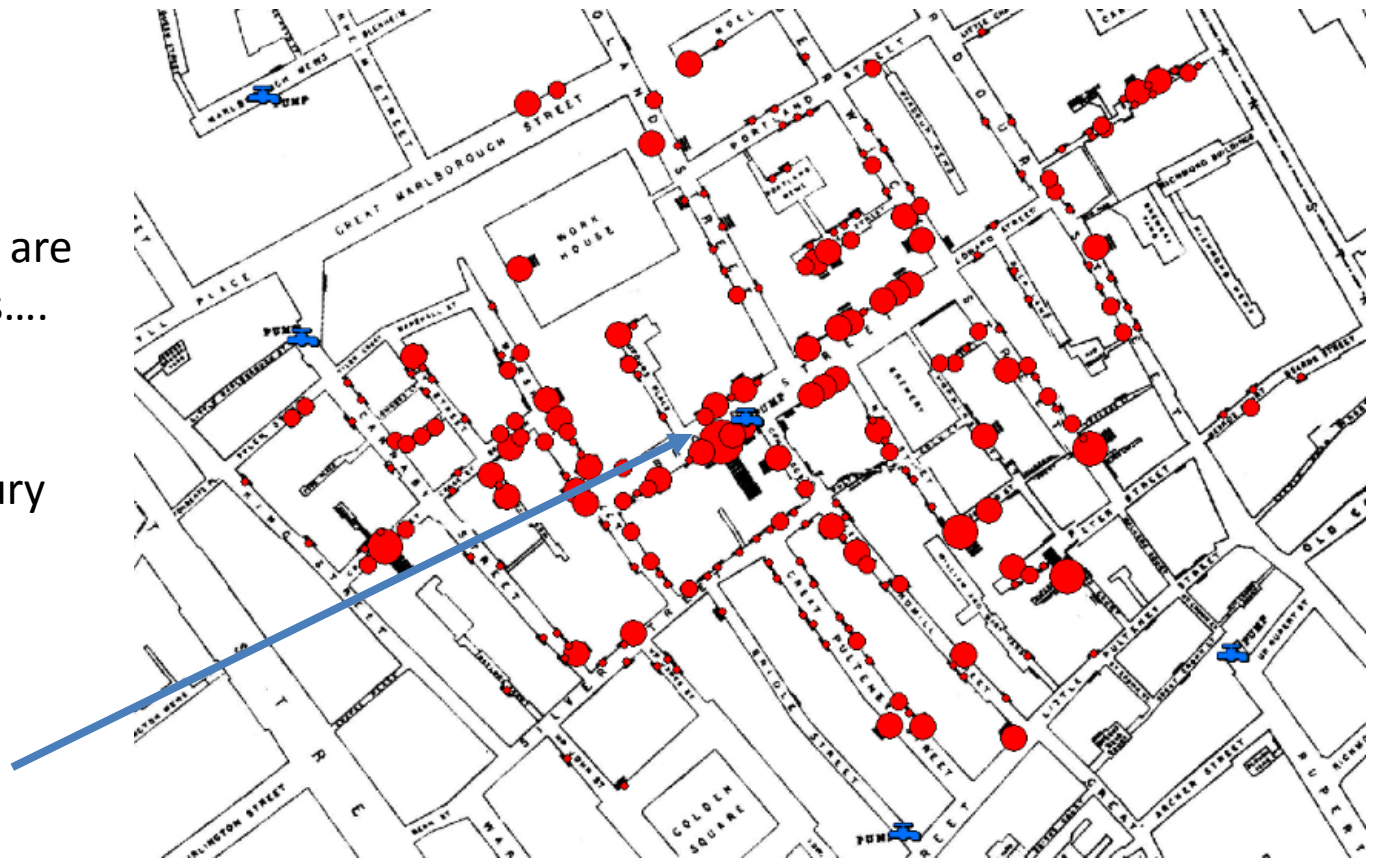
Quick Facts about cholera in Africa

- Cholera kills an estimated 95,000 people per year and sickens more than 2.9 million (Ali et al., 2015).
- In 2016, 54% of all reported cholera cases were from Africa (WHO, 2017).
- Between 2000 and 2015, 83% cholera deaths reported by WHO occurred in sub-Saharan Africa.
- The burden of cholera is disproportionately borne by the young, with children under five having the highest incidence of cholera (Ali et al., 2012).
- A global strategy on cholera control was launched in 2017 (by GTFCC) to reduce by 90% the number of deaths from cholera worldwide by 2030 and to eliminate the disease in at least 20 countries worldwide.

1- Introduction

Methods of control are known since the 50's....

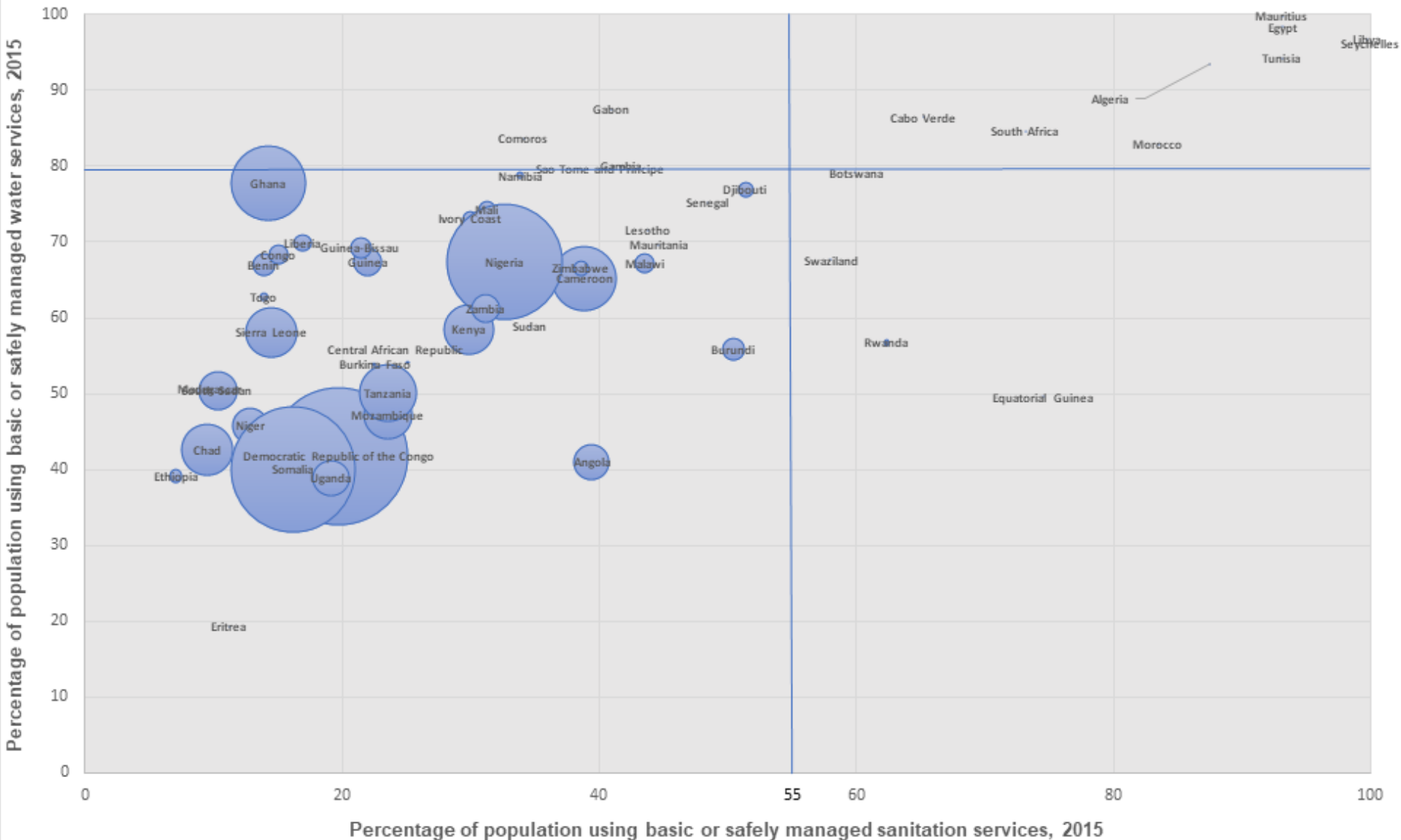
... of the 19th century



John Snow (1813 – 1858)

Mapping of cholera cases
(London 1854)

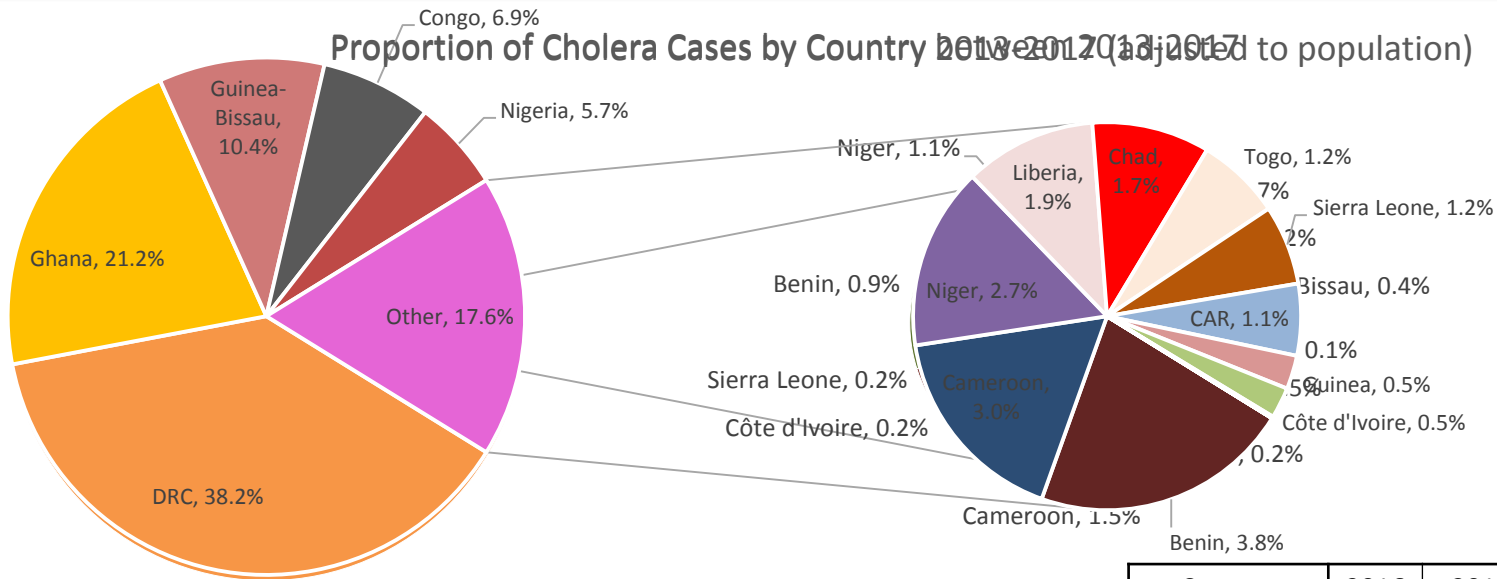
Number of reported cholera cases in 2010-2016 versus basic water and sanitation access in African countries



Water and Sanitation coverage (JMP, 2015) at country level in Africa versus average cholera reported cases (2010—2016)

2. Epidemiological situation: Cholera WCAR

Proportion of Cholera Cases by Country between 2017 (adjusted to population)



Sources: WHO Global Health Observatory, Plateforme Cholera WCA

Pays	2016	2017	Statut
Cabo Verde	0	0	Cholera-free country
Gambie	0	0	Cholera-free country
Gabon	0	0	Cholera-free country
Mauritanie	0	0	Cholera-free country
Sao Tome	0	0	Cholera-free country
Senegal	0	0	Cholera-free country
Equatorial Guinea	0	0	Cholera-free country

Diminution ou Stable

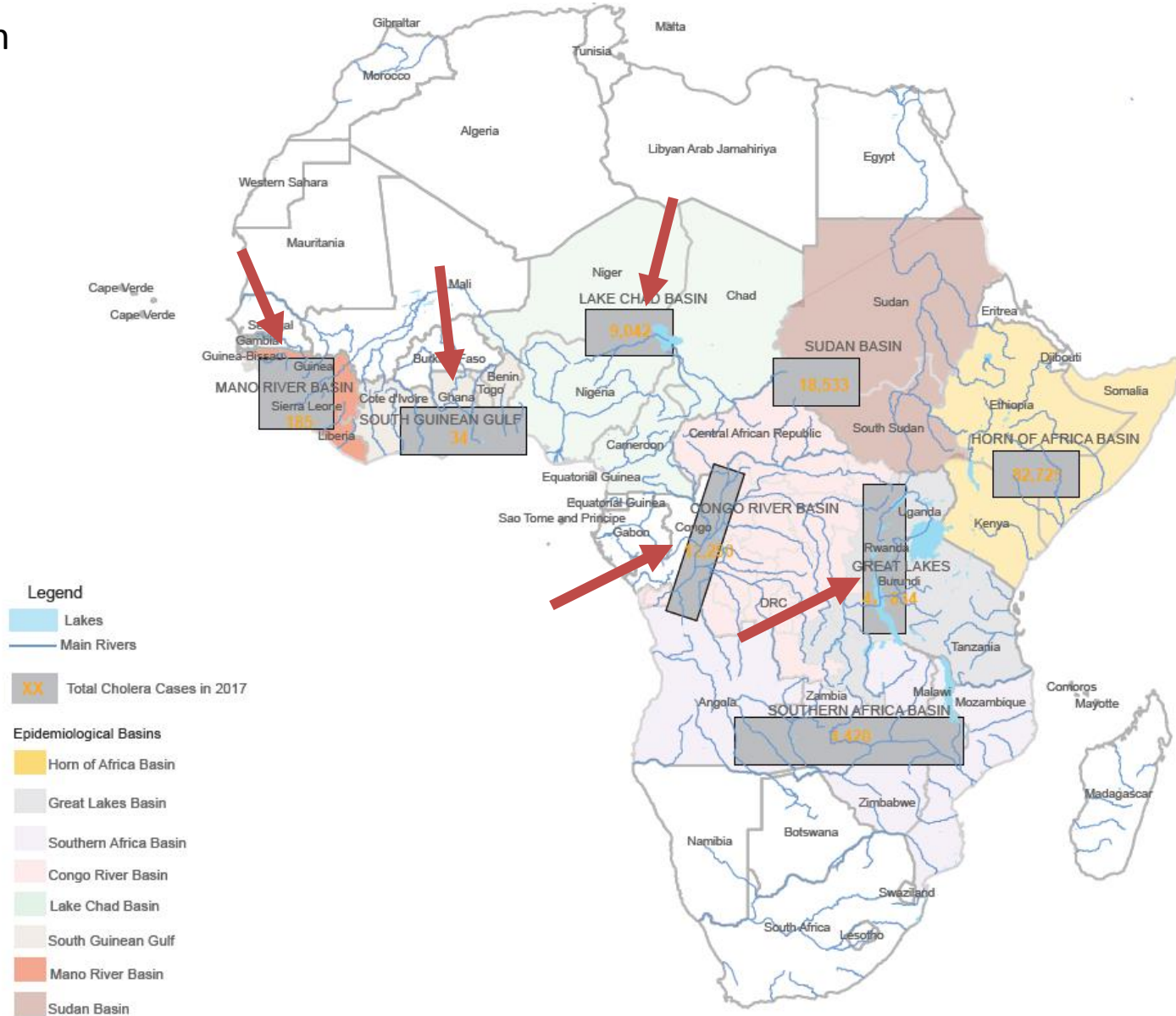
Augmentation

Country	2016	2017	Tendency 2016-2017
Congo	18	0	-100%
RCA	265	0	-100%
Togo	2	0	-100%
Benin	874	10	-99%
Ghana	724	16	-98%
Niger	38	1	-97%
Cameroon	78	28	-64%
Burkina Faso	0	0	
Guinea Bissau	0	0	
Mali	0	0	
Senegal	0	0	
Liberia	155	157	1%
Guinea	0	1	
Cote d'Ivoire	16	24	50%
Sierra Leone	0	11	
DR Congo	28170	55028	95%
Nigeria	768	9013	1074%
Chad	0	1248	

2. Epidemiological situation: Cholera WCAR

5 main cholera basins in West and Central Africa

Congo River Basin
Lake Chad Basin
Guinean Gulf
Mano River Basin
Great lake



3. Cholera Platform: What do we do? – 4 pillars

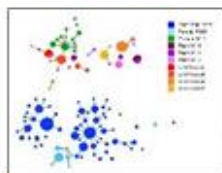
Information and knowledge management

www.platformecholera.info

Coordination



Support Research



Regional Cholera updates



Advocacy and studies for long term prevention

Advocacy notes



Promote long-term solution

Develop investment plan in hotspot

Monitoring of progress



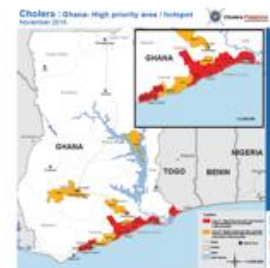
Reinforcing existing mechanisms (National cholera elimination plans)

Transborder workshops



Support National Strategic plan & Preparedness

Define hotspots areas



Support response to cholera outbreaks

Support Preparedness: Plan, contingency, capacity-building

Emergency response and technical support



3. Cholera Platform: Who are we?

Objective: The cholera platform's objective is to **improve cholera control and prevention** across Africa

- Under UNICEF's leadership, the platform is a coordinating body comprised of WASH actors, epidemiologist, laboratory specialists, anthropologists and health actors in West and Central Africa (Extension to East- Southern Africa).
- Humanitarian and Development NGOs; Academics; UN agencies (IOM, WHO, OCHA, UNICEF); Donors (OFDA, ECHO...); IFRC/ICRC; National Red Cross; Ministries (Planning, Health, WASH, Civil protection); Intergovernmental organizations (OCAL, ECOWAS, CEEAS...)
- Bi-monthly communication to 600 people in 40 countries
- 26.141 visitors and 228.000 "clicks" on webpage in 2017: www.platformecholera.info

3. Cholera platform: What kind of information are available?

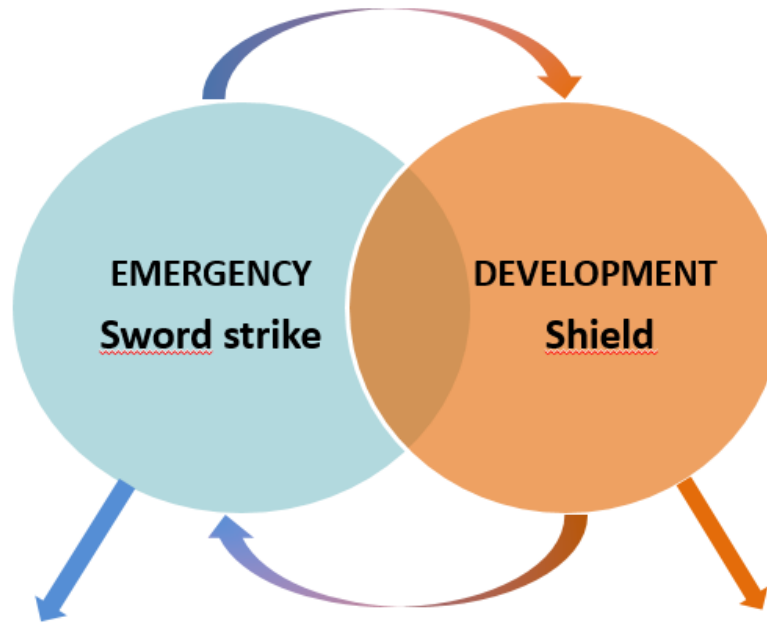
www.platformecholera.info or www.choleraplatform.info

- Hotspots maps for 14 countries
- All the cholera studies or research done by platform partners over past years
- National cholera strategy for élimination and/or Emergency preparedness plans
- Monitoring and progress towards élimination of cholera
- Investissement plans in hotspots areas by countries
- Factsheets by countries
- Epidemiological cholera updates (bimonthly)
- Strategies: « Shield and Sword »; Roadmap
- Training modules on cholera
- Workshop and meeting reports
- ArcGIS on-line (real time mapping of cholera WCAR) –May 2018
- Pratical tools: cholera keys hygiene messages, videos...

3. Regional strategy against cholera: “Shield and Sword”

“The fight against cholera is both an emergency and development issue”

The “**sword strike**” aspect involves intervention during an outbreak, in affected areas enabling rapid response to support live-saving activities.



The “**shield**” feature is characterized by sustainable and preventive WASH interventions in hotspot areas conducted outside of epidemic periods

Emergency actions to **STOP OUTBREAK**

Long-term actions to **ELIMINATE CHOLERA**

“UNICEF does not only target the consequences of an outbreak, but also prevents it by targeting the root causes.”

The “**sword strike**” aspect involves intervention during an outbreak, in affected areas enabling rapid response to support live-saving activities.

- Early and targeted **Emergency Response** in affected areas through:
 - case management to save-lives
 - surveillance to anticipate propagation
 - WASH response to stop the outbreak
 - Community mobilization for behavior change
 - Emphasis on multi-sectorial coordination
 - Organization Oral Cholera Vaccine campaigns
- Response based on **preparedness** and on transmission context, population and high risk practices



Bucket chlorination - DRC

Advantages

- Strong and immediate impact
- Experienced staffs/partners
- Well known strategy against cholera
- Good support from Emergency donors and actors

Drawbacks

- Keep doing the same activities year after year with no long-term impact
- Mutation of the vibrio adapting itself to repetitive activities.
- Possible fatigue from actors

The “**shield**” feature is characterized by sustainable and preventive WASH interventions in hotspot areas conducted outside of epidemic periods

- **Roadmap toward elimination of cholera**
 - Identification of cholera hotspots
 - Field investigation
 - Long term intervention in cholera hotspots
 - Monitoring and impact study
- **Preventive actions** during high risk season or/and in vulnerable areas



Handpump borehole

Advantages

- Long-term and sustainable impact
- Contribute to SDGs
- Cost efficiency through targeting hotspots and avoiding repetitive and costly emergency response
- Equity and resilience based approach

Drawbacks

- Limited support from development actors to work on cholera
- Limited number of impact studies of such approach
- Recent concept / lack of visibility and understanding

Platform: operational roadmap towards elimination of cholera

re



Ultimate Goal

Contribution to the rolling out of the *Global Ending Cholera Roadmap 2030* in sub-Saharan African countries

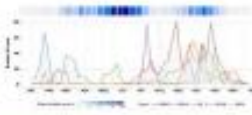
Way forward

Step 1

Evidence based studies to inform the risk: sub-regional & country level epidemiological tabletop studies for identification of cholera hot spots at district level

Benin Cholera Epidemiology and Response Factsheet

- ✓ Outputs
- ✓ Social and environmental drivers: assembly, practices and livelihood groups at risk
- ✓ Operational classification (cluster) by country (Benin: quantity of key parameters)
- ✓ Policies and key interventions aligned to LOCAL VULNERABILITY



Step 2

- Field investigation at community for WASH+ diagnosis and in depth epidemiological study (risk assessment)

- Identification of programmatic response according to the context (tailor made)

Example of programmatic response for fishing villages along the Guinean gulf

Identification of epidemiological, WASH, socio-environmental and health risk factors

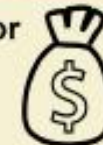


1. Institutional: role of health services, health coverage, cross-border link
2. Administrative: responsibility of local authorities regarding local cholera elimination plan
3. Community linkage: manage the complexity of diversity and inclusion, assert the public interest
4. Infrastructure: facility and public latrines, jerrycans and tanks
5. Commercial: through social marketing to make available HWTS
6. Behavioral: with increasing knowledge, attitude and hygiene practices for behavior change

Local Plan for Cholera Elimination

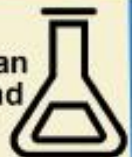
Step 3

Develop an Investment Case for WASH in cholera hot spots (cost benefit analysis)



Step 4

Advocacy through presentation of evidence based studies to Humanitarian and Development Partners to target and leverage funding in cholera hot spots



Platform: operational roadmap towards elimination of cholera

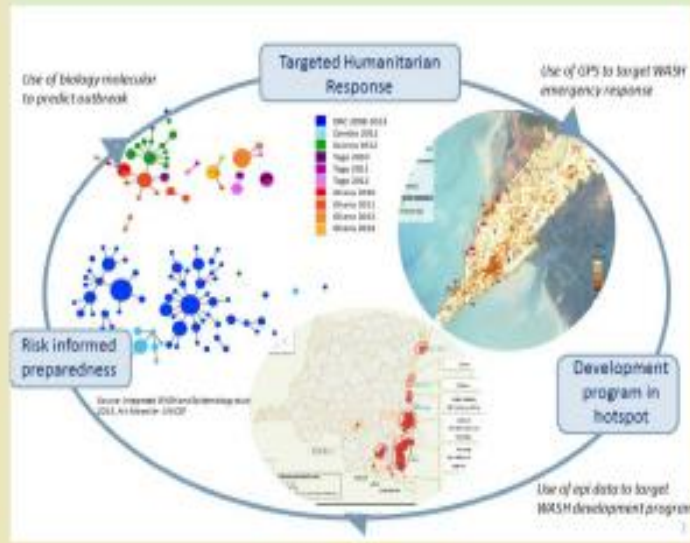
Step 5

- Carry out sustainable WASH+ intervention in communities regularly affected
- Oral Cholera Vaccination can bridge the gap between identification of needs and time to complete implementation of sustainable WASH Intervention

Step 6

- Sustainability check in cholera hot spots
- Impact study

Regional cholera strategy: an evidence based approach



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www.unicef.org/cholera
www.platformecholera.info



“By focusing on the highest incidence districts first, effective targeted interventions could eliminate 50% of the region’s cholera by covering 35 million people, which is less than 4% of the total population” (Lessler & al., March 2018)”

Step 1: Studies to identify hotspots (14 countries)



What is a cholera hotspot?

A cholera hotspot is a geographically limited area where environmental, cultural and/or socioeconomic conditions facilitate the transmission of the disease and where cholera persists or reappears regularly. Hotspots play a central role in the spread of the disease to other areas.

Hotspot studies have been conducted to date in twenty-two African countries (14 WCAR; 8 ESAR).

70% of cholera cases and high presency in 12 hotspots

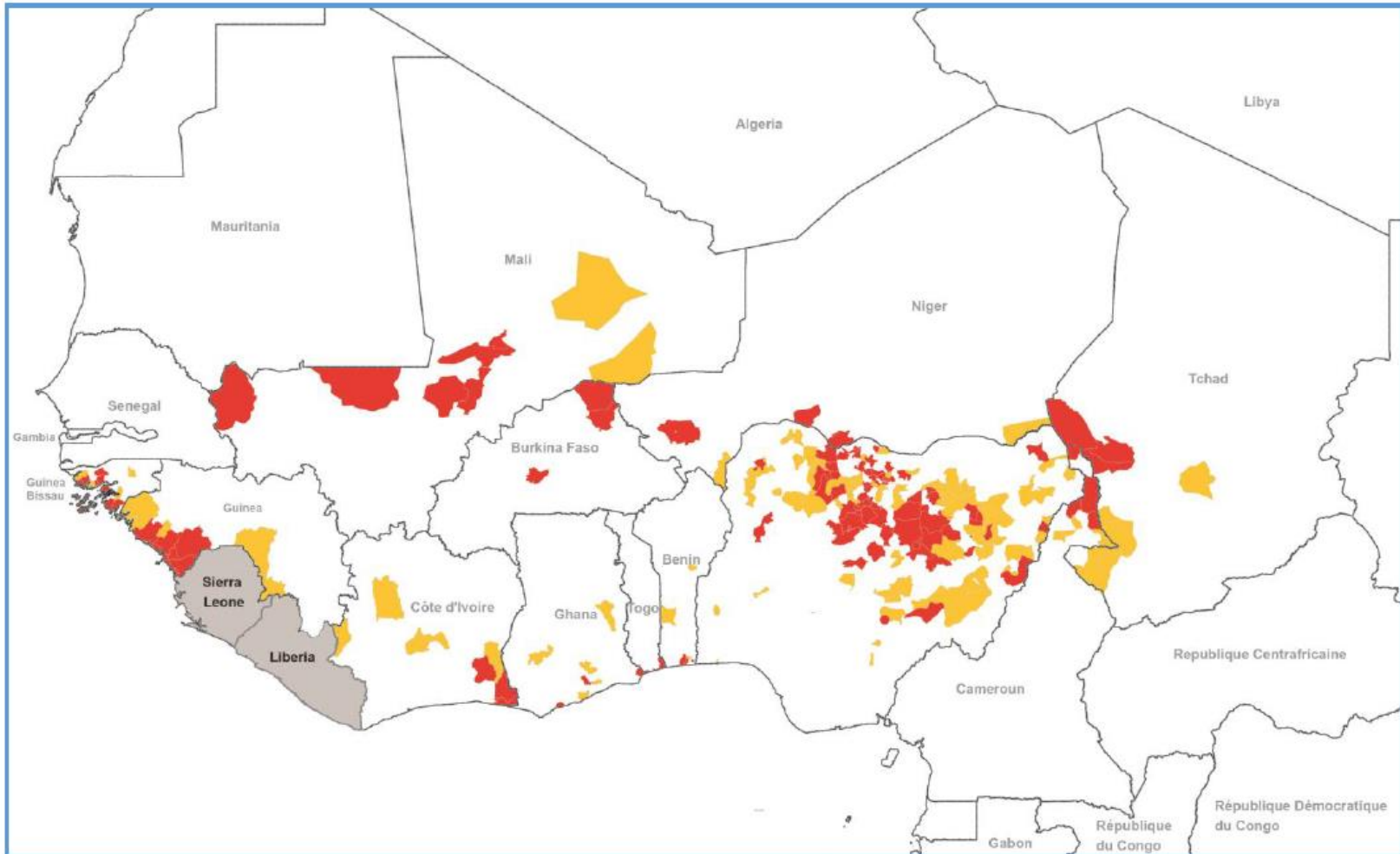
¹ average weekly cholera cases over 5 years timeframe

² percentage of weeks with cholera over 5 years timeframe

HEALTH ZONE		Epidemiological level ¹	Presency rate of cholera ²
Katanga	KALEMIE	18	96%
	KINKONDJA	13	51%
	MOBA	10	70%
	NYEMBA	14	93%
Sud Kivu	FIZI	26	97%
	KADUTU	15	62%
	MINOVA	18	97%
	UVIRA	26	97%
Nord Kivu	GOMA	24	100%
	KARISIMBI	18	84%
	KIROTSHE	19	96%
	MWESO	18	89%

Mapping of cholera hotspots (West Africa)

Cholera Hotspots



The map above shows the cholera hotspots in West Africa. The red indicates high priority areas with high frequency of outbreaks and long durations and the yellow shows the medium priority areas with moderate duration of outbreaks. Liberia and sierra Leone are shown in grey as studies were not conducted in these countries.

Step 2: Field investigation for diagnosis and identification of programmatic response (7 countries)

HEALTH ZONE OF KINKONDJA

Province : **Katanga**

District : **Haut-Lomami**



- Population: **234.000**
- Moyenne épidémique: **13 cas/semaine**



- Attaque rate: **1.38%**



- Presency rate: **51%**
- Typology: **A (endemic)**

- Water coverage : **20%**

- Alternative water : **lake**

- Sanitation coverage : **<5%**

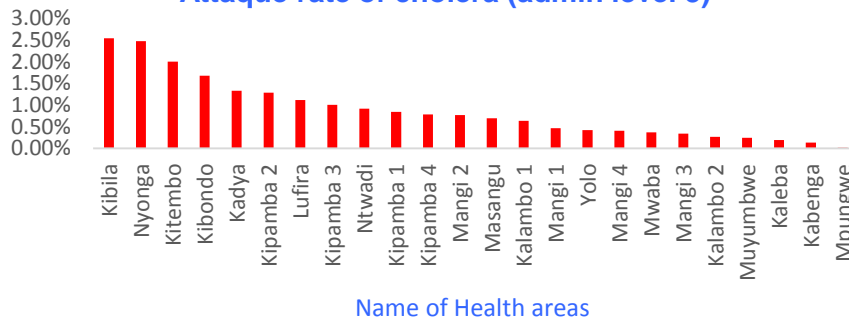


Field observations



Group discussions + technical assessment

Attaque rate of cholera (admin level 3)



Features:



Wetland / lakes



Flood area



Fish trade



Islands populated



Difficult road access



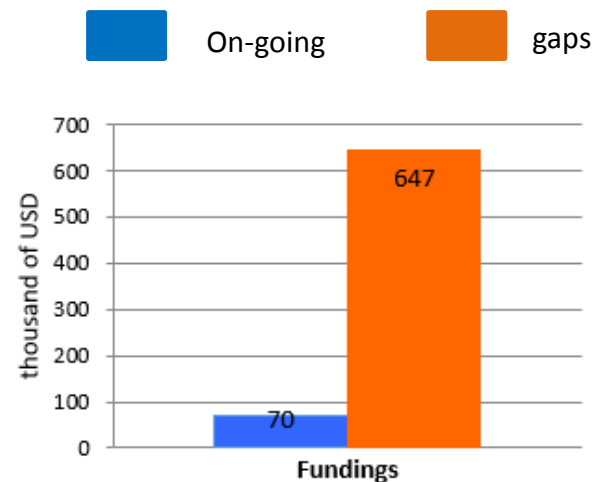
Rural population



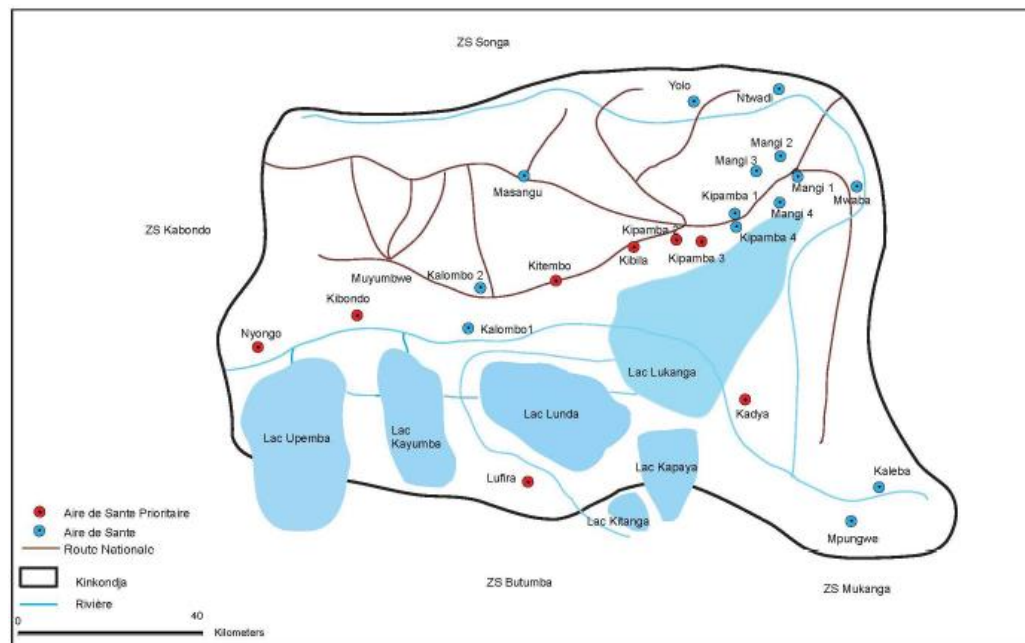
Lack of NGOs / Capacity

Step 3: Investissement plan (7 countries)

Targetted health Areas	GAPS	Budget
Nyonga	<ul style="list-style-type: none"> Rehabilitation hand-pump 11 new boreholes CLTS 	113.500 USD
Kibondo	<ul style="list-style-type: none"> 10 new boreholes CLTS 	110.000 USD
Kibila	<ul style="list-style-type: none"> Mini-gravity flow system CLTS 	60.000 USD
Kipamba 4	<ul style="list-style-type: none"> 4 new boreholes 1 solar elevated water tank CLTS 	80.000 USD
Lufira	<ul style="list-style-type: none"> 2 solar elevated water tank OCV on islands CLTS 	100.000 USD
Kadya	<ul style="list-style-type: none"> Rehabilitation hand-pump 2 solar elevated water tank CLTS 	83.500 USD
Kitembo	<ul style="list-style-type: none"> OVC on islands 1 solar elevated water tank CLTS 	100.000 USD

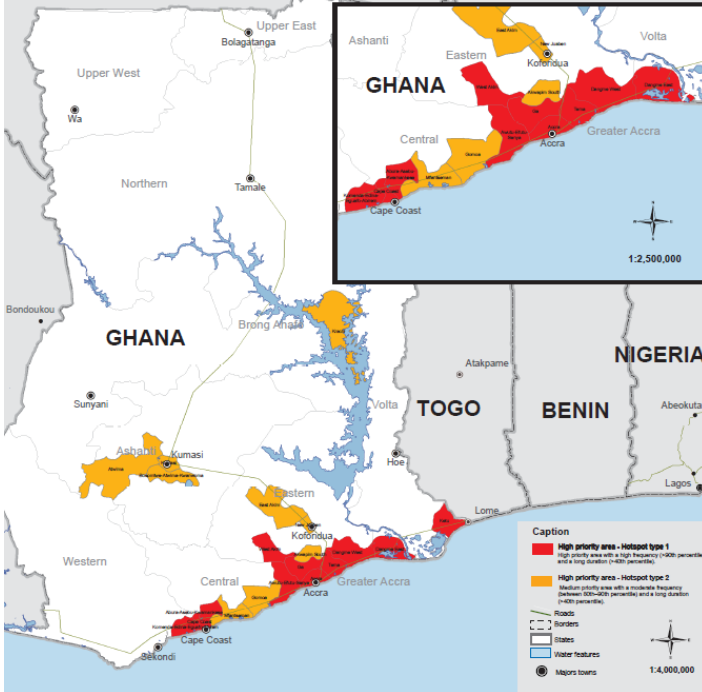


Total funding needs: 717.000 USD



Step 4: Advocacy (7 countries)

Ghana Cholera prevention Actions to reduce cholera risk in hotspot



3,4 millions USD,
an estimated budget to reduce risk of cholera in Ghana.

Actions and recommendations defined based on a dedicated integrated study targeting cholera hotspots communities in Ghana, in Greater Accra Metropolitan Area (GAMA)

Advocacy leaflet

Factsheet

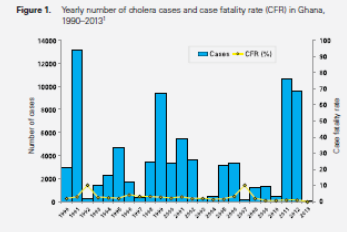
CHOLERA OVERVIEW

Cholera was first reported in Ghana in 1970. Since 1990 and up to 2010, the overall yearly trend showed a decrease over time in size. However, there have been large outbreaks in 2011 and 2012 and cases have been reported each year (Fig. 1).

Between 1998 and 2013, epidemiological surveillance reported 55,784 cases with 1,095 fatalities (case fatality rate = 2%).¹

Main outbreaks were reported in the densely populated regions of **Greater Accra** and **Ashanti**, and in bordering coastal regions.

Ghana is affected by cross-border outbreaks mainly from Nigeria and Togo, especially along the Guinea coast.



CHOLERA DISTRIBUTION

The four regions along the coast, **Greater Accra**, **Central**, **Western** and **Volta** represent over 70% of cholera cases between 1998 and 2013. This is driven by large outbreaks in **Greater Accra** region.

In the middle of the country, the main outbreaks were recorded in the densely populated **Ashanti** and **Eastern** regions which border **Greater Accra** region, with nearly 18% of registered cases.

In the North of the country, less than 10% of cholera cases were reported.

Outbreaks in **Greater Accra**, **Central** and **Eastern** occurred at similar times all-year round and were connected as a result of movement between these regions. Separate sporadic outbreaks in other regions appeared to be seasonal, emerging around June and September for **Ashanti** region and the northern part of the country. These seemed to coincide with rainy seasons and festivals when there was increased movement within and between regions.

Outbreaks in Ghana usually spread towards neighbouring countries from the south of Cameroon to Guinea Bissau through migrant fishermen and commercial trade.

Figure 2. Cumulative incidence of cholera by commune in Ghana, 1998-2013²

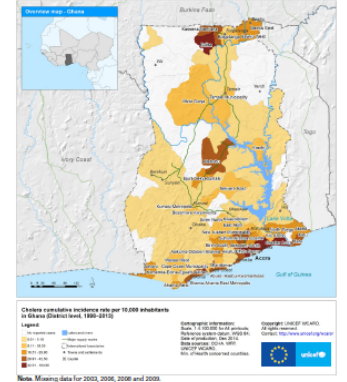
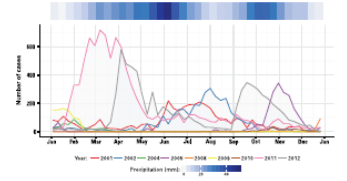


Figure 3. Weekly number of cholera cases and median of estimated ten-day precipitation in Ghana, 2001-2013²



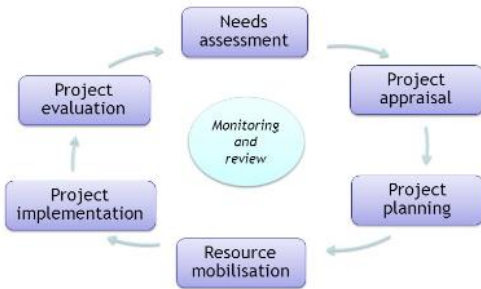
Country	Duration (years)	Beneficiaries	Budget (euro)
Ghana	3	1.000.000	3.400.000 €
Benin	3	85.000	1.329.000 €
Guinea	5	895.000	4.500.000 €
Niger	3	235.000	1.825.200 €
Chad	3	193.000	1.307.000 €
Togo	3	76.470	974.000 €
DR. Congo	5	3.933.000	34.600.000 €

Estimated budget

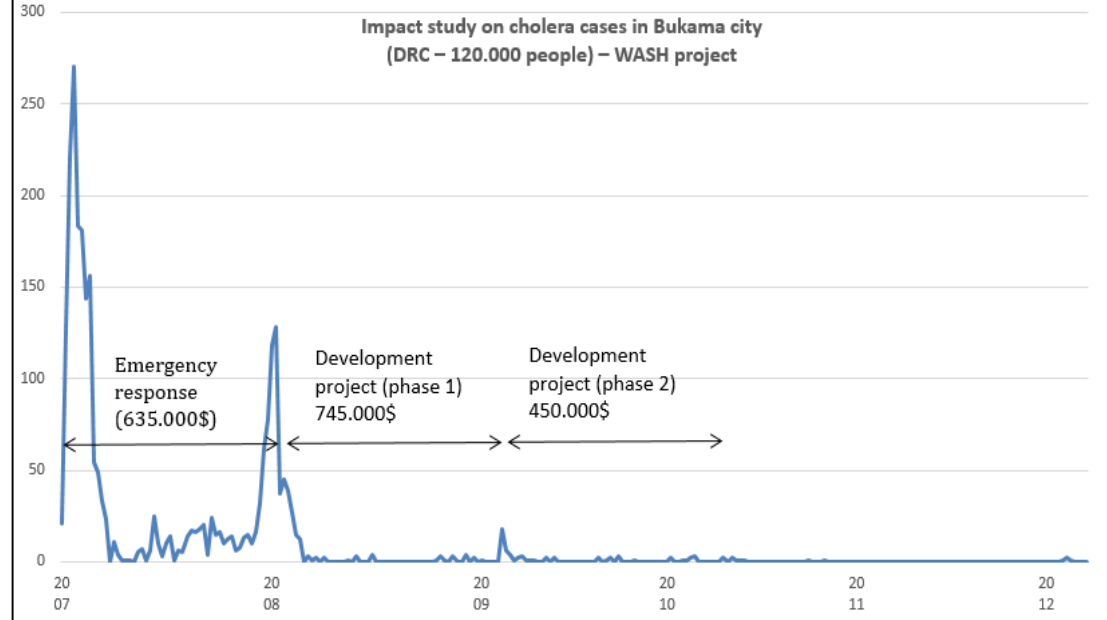
Step 5: Sustainable intervention (1 country)



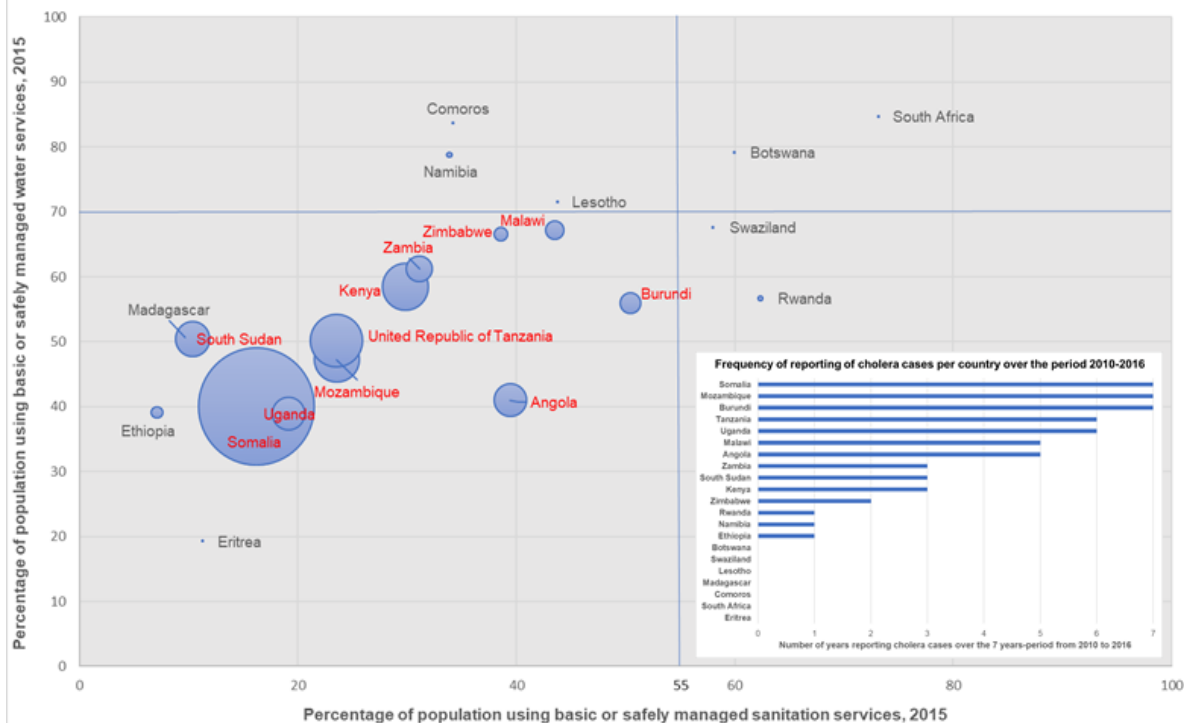
Project Cycle



Impact study on cholera cases in Bukama city
(DRC – 120.000 people) – WASH project



Number of reported cholera cases in 2010-2016 versus basic water and sanitation access in ESAR countries



Step 6: Impact study/
sustainability check /
Evaluation of project cycle
(0 country)


	National strategic plan	cholera hotspot map	Field investigation	Investment case / plan	Advocacy	Sustainable intervention	Monitoring / Impact study
	Step 0	Step 1	Step 2	Step 3	Step 4	Step 5	Step 6
Benin							
Burkina Faso							
Cameroon							
Central African Republic							
Chad							
Congo							
Congo (RD)							
Cote d'Ivoire*							
Ghana							
Guinea							
Guinea Bissau							
Liberia							
Mali							
Niger							
Nigeria							
Sierra Leone							
Togo							

Analysis of Cholera Free Status of Countries in West and Central Africa
- based on 3 consecutive years without cholera cases reported -

Country	Cholera Free Status in 1997	Cholera Free Status in 2007	Cholera Free Status in 2012 (before cholera platform)	Cholera Free Status in 2017	Objective 2030
Benin					elimination 2030
Burkina Faso				Consolidation Cholera-free	Cholera-free
Cabo Verde		<i>Cholera-free*</i>	<i>Cholera-free*</i>	<i>Cholera-free*</i>	Cholera-free
Cameroon					elimination 2030
Central African Republic		<i>Cholera-free*</i>			elimination 2030
Chad					elimination 2030
Congo					Control
Congo (RD)					Control
Cote d'Ivoire*					elimination 2030
Gabon	<i>Cholera-free*</i>	<i>Cholera-free*</i>	<i>Cholera-free*</i>	<i>Cholera-free*</i>	Cholera-free
Gambia			<i>Cholera-free*</i>	<i>Cholera-free*</i>	Cholera-free
Ghana					Control
Guinea				Consolidation Cholera-free	Cholera-free
Guinea Bissau				Consolidation Cholera-free	Cholera-free
Guinee Equatorial	<i>Cholera-free*</i>		<i>Cholera-free*</i>	<i>Cholera-free*</i>	Cholera-free
Liberia					elimination 2030
Mali				Consolidation Cholera-free	Cholera-free
Mauritanie				Cholera-free	Cholera-free
Niger					Control
Nigeria					Control
Sao Tome	<i>Cholera-free*</i>		<i>Cholera-free*</i>	<i>Cholera-free*</i>	Cholera-free
Sénégal				Cholera-free	Cholera-free
Sierra Leone					elimination 2030
Togo					elimination 2030
Nb of Country Cholera Free	3	3	5	11	19?

**Some data to be confirmed*

4- Get involved in the fight against cholera!

- 
1. **Prioritize cholera hotspots with WASH** development programs and vaccinations campaign. Reach SDGs 6.1 & 6.2 in priority areas to have bigger health impact.
 2. **Advocate externally** (to government, WASH and Health actors, donors) to target priority hotspots areas.
 3. Your organization support and participate to the elaboration of **national multisectorial strategic plan** to eliminate cholera
 4. Take into account cholera risk in **emergency preparedness** plan (internal to your organization or as clusters/OCHA/Gvrt) -> Plan before rainy season (contingency stock, capacity building).
 5. Communicate with cholera platform in case of an **alert** in your working area.
 6. Collect and transmit: **evidence-based study, impact study, success story on cholera**
 7. Carry-out **field studies in hotspots** areas to define programmatic priorities and their cost (especially if working in this area).
 8. Organize national **communication events** for countries reaching cholera elimination

Any questions?

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for every child

<http://www.platfomecholera.info/>

For more information and to discuss partnerships on
projects like the Cholera Platform, please get in touch:

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