



Following the first cholera outbreak that took place in the country in 1970 and its reintroduction in 1991, large scale cholera epidemics have recurred in the country, the latest being in 2018. During the most recent cholera outbreak, the Nigerian Centre for Disease Control (NCDC) reported around 44,000 suspected cases and 836 deaths. Since 2011, the NCDC, along with health partners (SOLIDARITÉS INTERNATIONAL, MSF, Alima, Intersos,...) is in charge of detecting, investigating, preventing and controlling diseases of national and international public health importance, including cholera.

Key figures

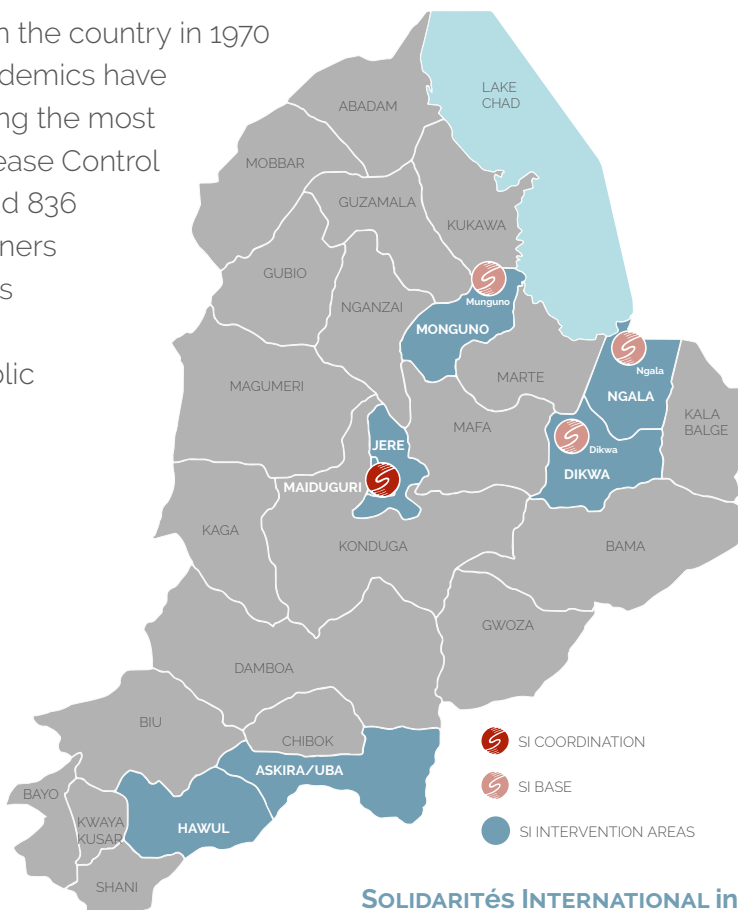
122 239 cholera cases between 2010 and 2017

3 713 deaths between 2010 and 2017

Case fatality rate: **3%**

Almost **300 000** euros allocated to SI since 2018

1 emergency response team in 2019



Summary

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1 Governance and national strategy

The NCDC, overseen by the Federal Ministry of Health, is, since 2011, in charge of detecting, investigating, preventing and controlling diseases of national and international public health importance, including cholera. It can activate a Public Health Emergency Operation Centre (EOC) to coordinate responses to major epidemics, as was the case with the 2018 outbreak. The Federal Ministry of Water Resources leads the water, sanitation and hygiene component of the response. The National Primary Health Care Development Agency carries out vaccination campaigns in affected states.

At state level, the EOC is in charge of applying the strategy under the umbrella of the State Ministry of Health. It is headed by the Commissioner of Health and the Director of Public Health in his absence. The EOC provides a multi-sectoral coordination mechanism to manage the full implementation of the emergency and prevention plans in response to cholera outbreaks and other key health threats.

The EOC includes

- (i) surveillance / epidemiology,
- (ii) laboratory diagnosis,
- (iii) case management,
- (iv) risk communication / social mobilisation,
- (v) Water, Sanitation and Hygiene (WaSH).

The WASH Sector provides a dashboard showing partners present in the field as well as achievements and gaps that can feed into the general Monitoring & Evaluation (M&E) at the EOC.

Clinical case definition

Acute Watery Diarrhea (AWD): at least three watery stools without blood in 24 hours, with or without dehydration.

Suspected cholera: AWD in patients over five years of age.

"Cholera outbreaks and deaths are completely preventable with the technology and tools we have today, such as those developed in the BAY states."

- Vimbayi Machiwana, Cholera Task Force Coordinator

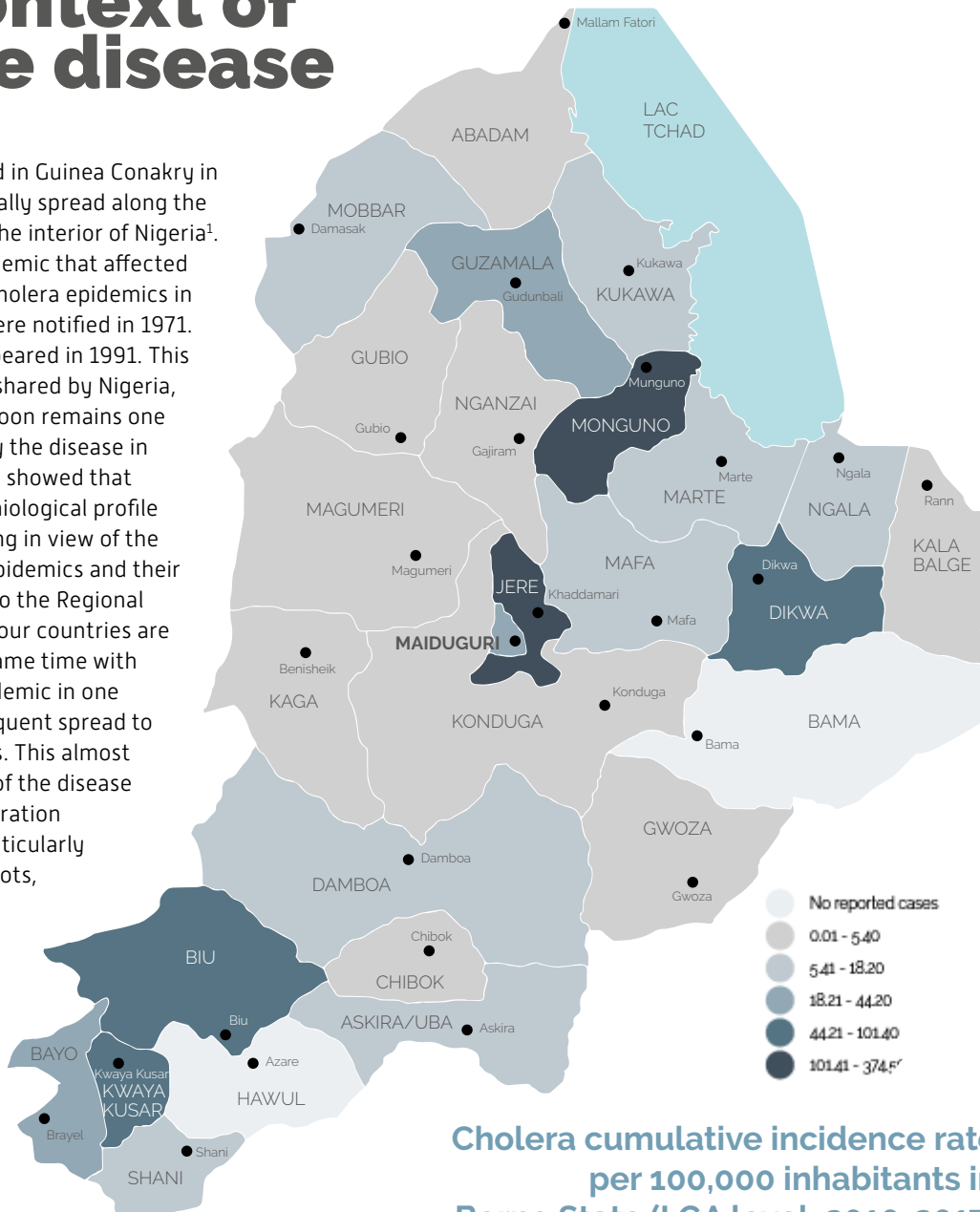
2 Context of the disease

Cholera appeared in Guinea Conakry in 1970 and gradually spread along the coast and into the interior of Nigeria¹.

This turned into a pandemic that affected West Africa. The first cholera epidemics in the Lake Chad Basin were notified in 1971. The disease then reappeared in 1991. This Lake Chad Basin area, shared by Nigeria, Niger, Chad and Cameroon remains one of the most affected by the disease in the region. Data trends showed that since 2009, the epidemiological profile of this region is worrying in view of the annual succession of epidemics and their incidence². According to the Regional Cholera Platform, the four countries are often affected at the same time with the outbreak of an epidemic in one country and the subsequent spread to neighbouring countries. This almost systematic expansion of the disease requires strong collaboration between countries, particularly between cholera hotspots, in terms of alerting, information exchange and coordinated responses.

The cholera burden in Nigeria is high despite its strong economic annual growth. 21.2% of the total reported cholera cases in West Africa between 2012 and 2017 occurred in Nigeria. Between 2010 and 2017, 122,239 cases were recorded in Nigeria, with 3,713 deaths (case fatality rate ≈3%). The majority of cases are concentrated in two zones: in the central north and northeast regions (states of Adamawa, Yobe, Bauchi, Kano, Kaduna and Katsina) and in Borno State, in which SI intervenes. During the most recent cholera outbreak in 2018, the NCDC reported around 44,000 suspected cases and 836 deaths, approximately 90% of which came from northern Nigeria states.

In Borno State, between 2010 and 2017, there were 7 cholera outbreaks that lasted an average of 18 weeks. 11.9% of total cases in the country were reported in this state³. The towns in which SOLIDARITÉS INTERNATIONAL is present are cholera hotspots of type II (medium-priority area with outbreaks of moderate frequency [3-4 outbreaks] and extended duration). The first outbreak



Cholera cumulative incidence rate per 100,000 inhabitants in Borno State (LGA level, 2010-2017)

Source: OCHA, WFP, UNICEF WCARO, Regional Cholera Platform, Health Min.

to which SOLIDARITÉS INTERNATIONAL responded was in August 2017, with over 5,000 cases and 60 deaths.

Cholera is a seasonal disease in Nigeria, with cases occurring mostly during the rainy season (June to October).

¹ Water, Sanitation and Hygiene and cholera epidemiology: an integrated evaluation in the countries of Lake Chad Basin, Mission report by Pierre-Yves Oger and Bertrand Sudre for Unicef

² <http://www.platformecholera.info/index.php/country-monitoring/nigeria>

³ Unicef, Cholera Epidemiology and Response Factsheet Nigeria, 2018. Available at: <https://www.unicef.org/cholera/files/UNICEF-Factsheet-Nigeria-EN-FINAL.pdf>

3 Context of intervention

Nigeria now has a population of over 200 million⁴, over half of which live in urban areas, while Borno State had a population of 5.6 million people.

Access to water and sanitation is critical in the entire country: in 2015, 69% of the total population had access to improved water sources and 29% had access to improved sanitation. Between 15% and 25% of the total population still practiced open defecation, especially in rural areas where this actually represents the social norm⁵.

In the BAY states (north-eastern states of Borno, Adamawa and Yobe), 7.1 million individuals are affected by the crisis precipitated by the resurgence of conflicts since 2009⁶. Approximately 80% of these individuals are currently displaced and forced to share resources with host communities; in Borno State, they are estimated to be almost 1.5 million⁷. 3.6 million people are estimated to be in need of WaSH facilities across the BAY States⁸. According to UNICEF, in February 2019, out of 168 sites referenced in Borno State, 57% do not meet SPHERE emergency standards for water (15L/person/day) and 58% do not meet sanitation standards (50 people/latrine). In the camps, water coverage can sometimes be as low as 5 litres/day/person, the number of persons per water facility above 500 and waiting time can exceed 2 hours. With regards to sanitation facilities, the situation is also worrisome with sometimes over 150 persons per latrine,

which encourages the practice of open defecation. In Borno IDP camps, most people do not have soap for handwashing, and only half know at least three key moments of handwashing.

Flooding, strong winds and sandstorms have resulted in substantial damage of WaSH facilities, and congested populations in displacement sites have led to an environment highly favourable to waterborne diseases, such as cholera.

Livelihood groups and risky practices to be considered in the strategies for cholera prevention and control in the north-east of Nigeria include:

- Funeral rituals, patient care and home visits,
- Informal trade, migrant fishermen, nomadic groups, arrival of new IDPs and returnees,
- Cross-border markets around the shores of Lake Chad⁹.

⁴ UN projection, <https://population.un.org/wpp/DataQuery/>

⁵ World Bank (2017) *A Wake Up Call: Nigeria water supply, sanitation and hygiene poverty diagnosis. WaSH Poverty Diagnosis*. World Bank: Washington D.C.

⁶ Nigerian Humanitarian Needs Overview 2019

⁷ UNHCR Population of concern situation map, December 2019, <https://data2.unhcr.org/en/documents/download/73504>

⁸ Nigerian Humanitarian Needs Overview 2019

⁹ National WaSH Cluster, *WaSH strategic framework for cholera risk reduction and response during the rainy season in N-E Nigeria*, May 2017



4 Epidemiological monitoring system

In Borno State, the Ministry of Health (MoH) is in charge of the surveillance of monitoring cholera on a regular basis, supported by health actors (including MSF, Alima and Intersos...).

For all suspected cases received at the Cholera Treatment Centres (CTC) or Cholera Treatment Units (CTU), analyses are sent to the Central Public Health Laboratory for confirmation. Once an outbreak has been confirmed and at least 10 positive results reported, it is not necessary to systematically collect specimens for all suspect cases. Weekly epidemiological bulletins are produced and shared with all health and WaSH partners. The CTCs and other health centres in which cholera patients are isolated also report through an Integrated Disease Surveillance and Response System (IDSR).

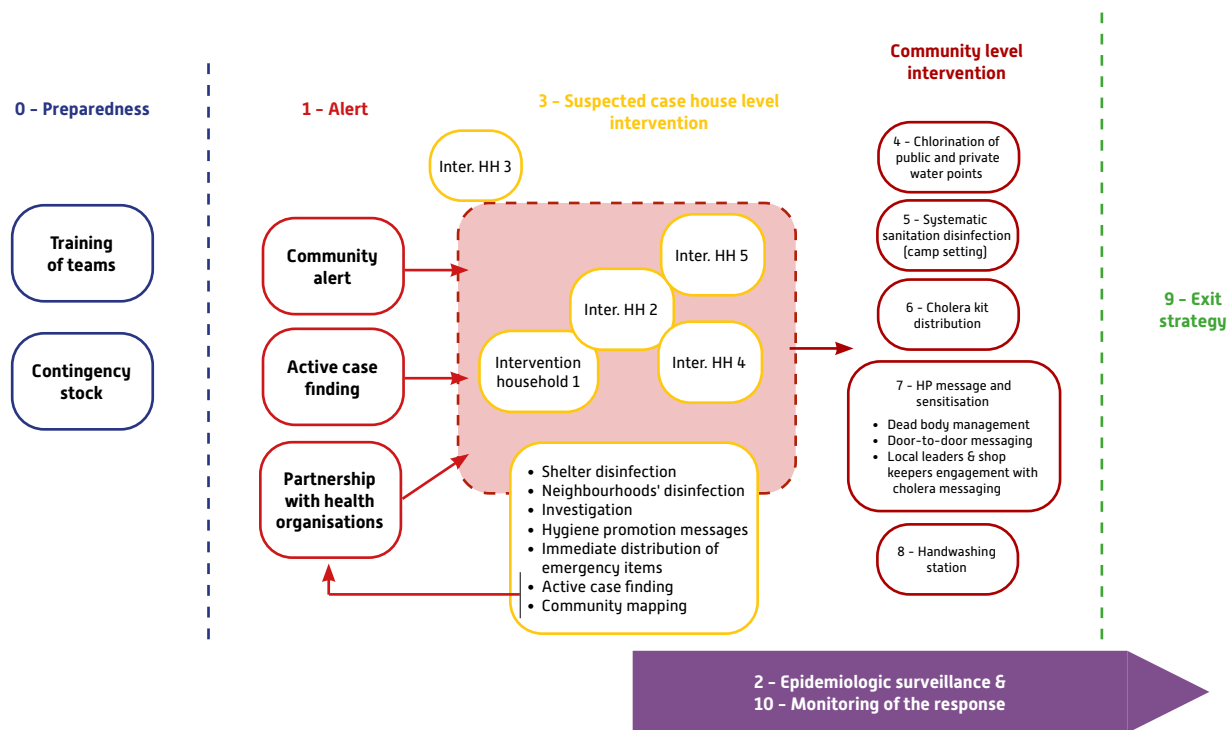
Daily EOC meetings also take place between all sectors to present epidemiological data and diverse responses to the outbreak. There is no official alert threshold to declare a cholera outbreak, and the response led and/or supported by the government often comes too late in the outbreak, with peak numbers having already been reached.

Finally, UNICEF has developed a mobile community platform called U-Report for members of the population to inform the Health sector of any suspected cholera cases to refer to the closest CTC/CTU. The U-Report is also being used to disseminate information on cholera prevention and treatment.



5 SOLIDARITÉS INTERNATIONAL's approach and methodology

SOLIDARITÉS INTERNATIONAL's approach to cholera response follows a five-step continuum: preparedness, alerts, household and community interventions and exit strategy.



CHOLERA PREPAREDNESS AT COORDINATION LEVEL

In April 2019, the Cholera Technical Working Group ("Cholera Task Force") was formed by the WASH Cluster. SOLIDARITÉS INTERNATIONAL was the first organisation to lead this Task Force in Borno State. The objective of the Cholera Task Force is to coordinate cholera preparedness and response among partners and the government in Northern Nigeria. This lead role in the coordination mechanisms enables SOLIDARITÉS INTERNATIONAL to work hand in hand with medical actors who operate in CTC and CTU; the organisation also receives continuous updates on cases from the Ministry of Health and WHO to be shared with partners in order to ensure a quick response to cholera outbreaks.

The following preparedness activities are conducted under SOLIDARITÉS INTERNATIONAL's leadership of the cholera Task Force:

- Mapping of all partners and possible activities per area of intervention (per LGA, ward and community);

- Identification of gaps in chlorination in hotspots and request for other partners to fill them;
- Updating of the Cholera preparedness and response plan;
- Compilation of available contingency stock in Borno State and identification of gaps;
- Development of a Kobo tool and dashboard by SI on behalf of the WASH sector for reporting. These show activities conducted by partners per week and the location of the cases that were treated at the facilities;
- Training of partners on WaSH SOPs (water chlorination, household disinfection, hygiene promotion...), with Catholic Relief Services;
- Coordination with the health sector on EWARS and SOPs for a joint intervention in case of an outbreak.



CHOLERA PREVENTION ACTIVITIES

SOLIDARITÉS INTERNATIONAL begins prevention activities well before the rainy season. Traditional WASH activities are conducted to increase access to water and sanitation, and hence prevent diarrheal disease outbreaks. New constructions and rehabilitations are done and water quality is regularly monitored to ensure that it is pathogen-free.

Water point committees are created or revitalised to ensure the management, maintenance and cleanliness of the water points; they are also provided with chlorine for chlorination. In addition, to avoid water contamination during water transport and storage, SOLIDARITÉS INTERNATIONAL conducts regular jerry can cleaning campaigns at water points to encourage communities to clean their storage containers with soap, especially during the rainy season.

Desludging of latrines, especially in crowded areas, and cleaning of the main drainage systems are organised as prevention measures. Solid waste cleaning campaigns are regularly conducted.

In terms of hygiene promotion, the team embraces an integrated approach, reinforcing sensitisation on improved hygiene practices and safe water practices. Hygiene promotion sessions at water points are intensified prior to cholera season and IEC material is installed for populations to have easy access to information.

EMERGENCY CHOLERA RESPONSE

SOLIDARITÉS INTERNATIONAL has an Emergency team responsible for preparing the organisation's cholera response through the prepositioning of contingency stocks (including cholera kits), training of field teams in each LGA and training/mobilisation of community members who perform chlorination of water points or disseminate hygiene promotion messages.

This team is also ready to deploy a cholera emergency pack in the case of an outbreak outside of the organisation's current areas of intervention. The pack consists in the chlorination of water points, household and CTC/CTU disinfection, cholera kit distribution and hygiene promotion activities.

In SOLIDARITÉS INTERNATIONAL's 4 areas of intervention in Borno State (Maiduguri, Mongno, Ngala and Dikwa LGA), its field teams implement a range of WaSH activities when alerted by health actors:

- In case of an alert of suspected cholera cases in a particular area, the team goes and conducts a deeper assessment to understand where the contamination might come from and try to address the root cause.
- A team of sprayers goes within 12 hours to disinfect the affected household's shelter and their neighbours' shelters within a radius of 30 metres, as well as surrounding public sanitation facilities. During these

visits, they distribute cholera kits to the household with a suspected case, and test the water quality (to check the level of Free Residual Chlorine (FRC): if it is below 0.5mg/l, they investigate and institute measures to increase it). In parallel, they train sanitation committees on latrine cleaning and its importance and equip them with cleaning kits (1 kit for 10 households in small informal IDP camps, 1 kit for 3 blocks of latrines in formal camps).

- SOLIDARITÉS INTERNATIONAL ensures daily chlorination of water points; the team trains and hires community relays who are in charge of this task, either through bucket chlorination during water distribution hours at hand pumps (early morning and evening), through batch chlorination where there is storage and online dosing pumps in the case of distribution systems. FRC is monitored by the community relays at water point level on a daily basis, and by SOLIDARITÉS INTERNATIONAL at water source and household levels to check the impact of transportation and storage on water quality.
- The Hygiene Promotion team distributes household kits for water treatment, handwashing and general hygiene to the suspected cases. The soap and Aquatab quantities are sized so as to meet the SPHERE standards of a household for 3 months, based on an average of 6 persons per household. The households in a 30 metres radius are given soap for handwashing.
- During burials, SOLIDARITÉS INTERNATIONAL teams trains the community leaders on how to spray corpses and on the management of corpses;
- Throughout these activities, messages on proper hygiene practices are continuously disseminated by dedicated hygiene promotion teams through door-to-door activities.

Cholera kit

The kit is composed of:

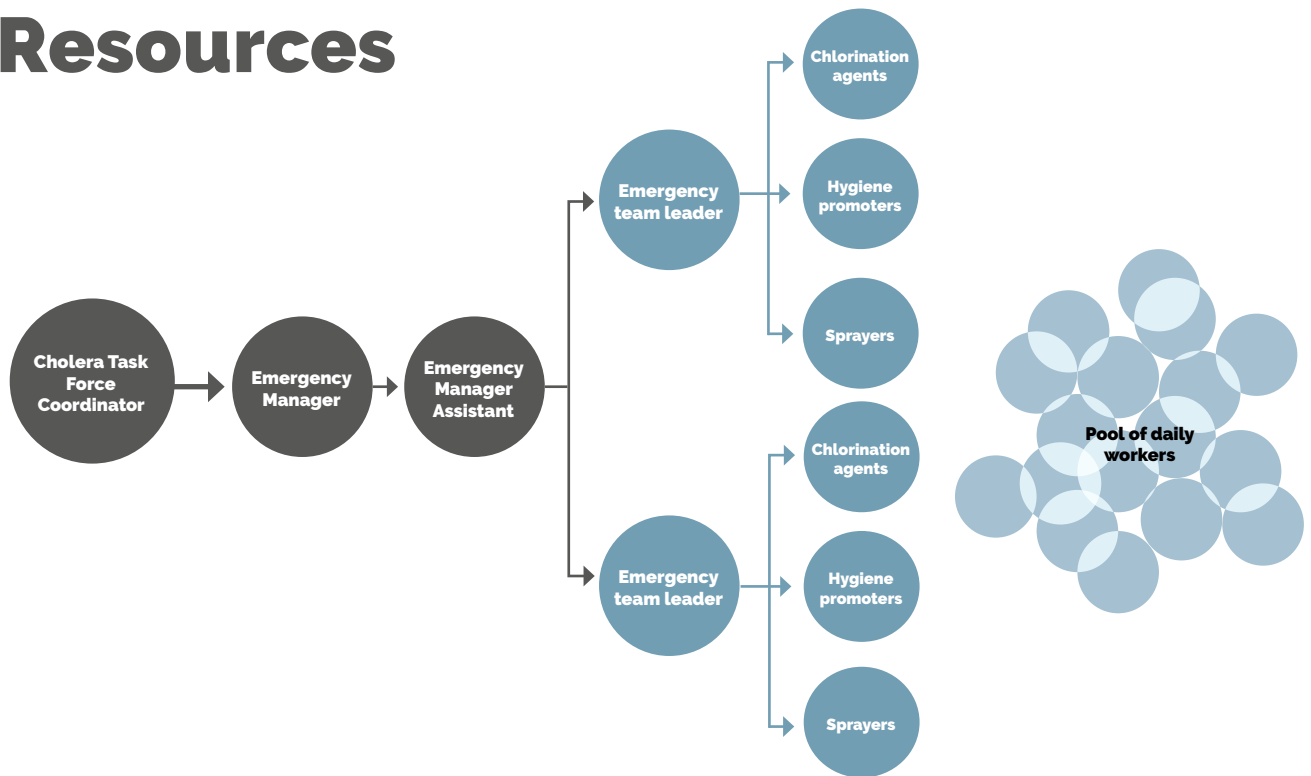
- 1x 20L** bucket with lid,
- 1x 20L** jerry can
- 1x 500 mL** cup,
- 1x 3L** kettle,
- 18x 250g** antiseptic soap,
- 18x 250g** bathing soap,
- 200x** Aquatab tablets (67 mg).

EXIT STRATEGY

In SOLIDARITÉS INTERNATIONAL's areas of intervention, exit is through informing communities of the scale back of some activities like household disinfection and cholera kit

distribution. Outside SOLIDARITÉS INTERNATIONAL's areas of intervention, activities are handed over to an organisation that has a presence in that area.

6 Resources



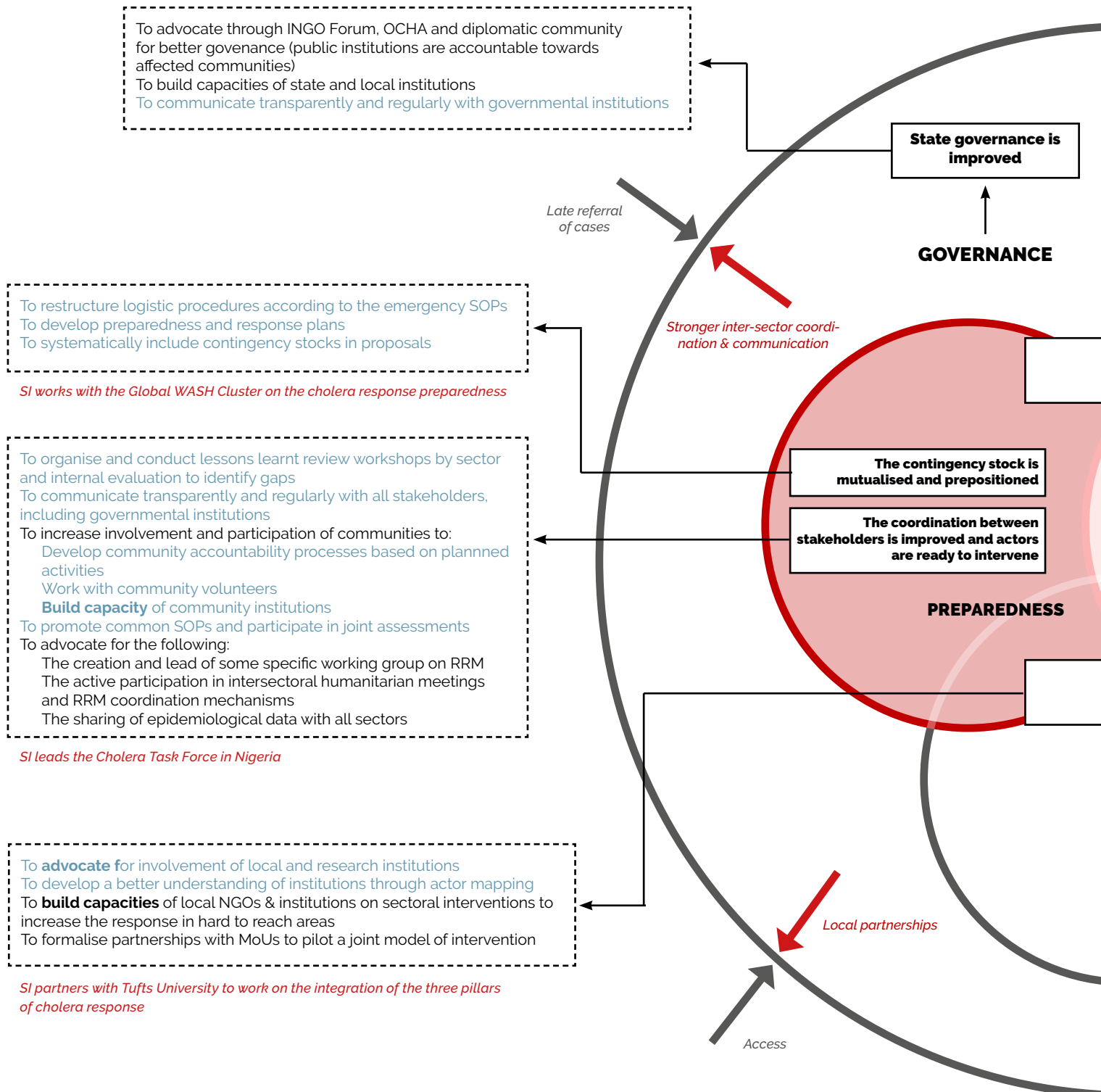
In 2019-2020, SOLIDARITÉS INTERNATIONALE has a team dedicated to cholera control managed by a Cholera Task Force Coordinator based in Maiduguri. This person is in charge of leading the Task Force in Borno state, which includes coordinating cholera preparedness and response among NGO and governmental partners. There

are pools of daily workers on each base ready to be deployed for hygiene promotion, household disinfection and chlorination. The regular WASH teams also carry out hygiene promotion and chlorination activities at water point level.



7

Fighting cholera as part of SI's programme to respond to emergency needs



SOLIDARITÉS INTERNATIONALE has been present in Borno State since 2016, and responded to the first cholera outbreak it witnessed in 2017. One of its main programmes is to provide multi-sectoral, life-saving humanitarian assistance

to vulnerable populations (Internally Displaced Populations and host communities) who are affected by conflict and by disease outbreaks. The mission developed a roadmap for this programme, some of which concern our cholera response (highlighted in blue).

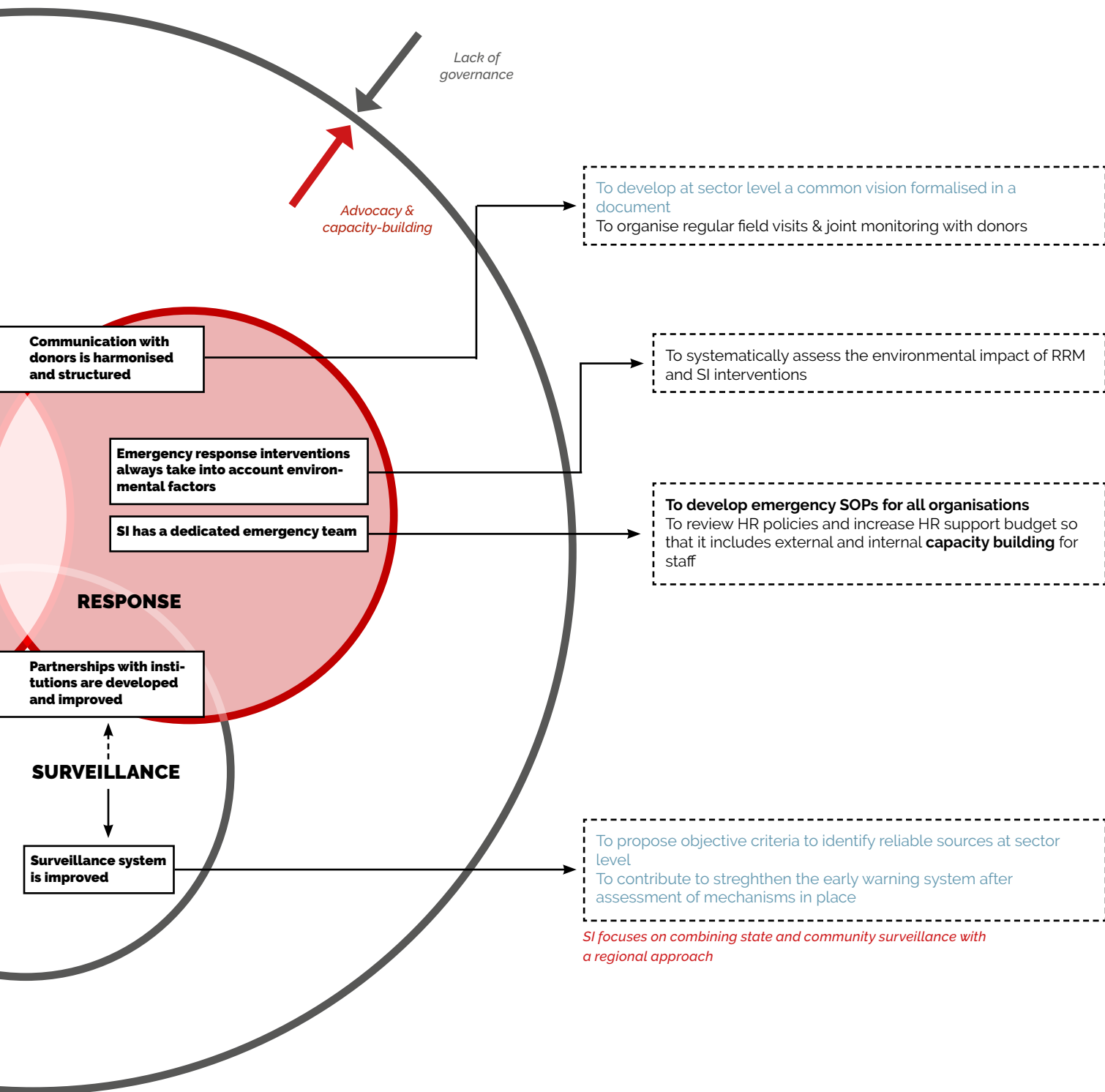
OUTCOMES
ACTIVITIES

GOVERNANCE PILLARS OF THE PROGRAMME
SI leads SI SPECIFICITIES TO ACHIEVE OUTCOMES

EXTERNAL FACTORS
SI EXPERTISE

SI SECONDARY INTERVENTIONS

SI MAIN INTERVENTIONS



8 Strengths and weaknesses



STRENGTHS / GOOD PRACTICES

Establishment of a Public Health Emergency Operations Centre prior to cholera outbreaks which allows for good epidemiological surveillance and information among actors.

Existing preparedness plans at sector level. These are intersectoral, including WASH and Health.

Establishment of a Cholera Task Force that looks at outbreak trends and coordinates partners for appropriate responses. SI is currently leading this technical working group and has recruited a dedicated Coordinator to coordinate preparedness and emergency response.

Early prepositioning of contingency stock at LGA level. Each SI base prepositions at least 900 cholera kits, chlorine for disinfection and water point chlorination, and protection equipment for disinfectors and chlorinators.

Good use of information and communication technologies, including mobile phones, to share information and convey messages using U-report. This is coordinated by the C4D department of UNICEF.

Training for WASH sector partners prior to an outbreak on water chlorination, household disinfection and hygiene promotion messages to convey.

Involvement of community leaders (traditional and religious) in disseminating messages prior to the outbreak as well as to help locate cholera cases in the communities during the outbreak.

Availability of funds for cholera response from donors allows for quick action in case of a cholera outbreak.

Timely reactions from partners, especially for HH disinfection.



WEAKNESSES

Weak coordination between actors at LGA level, which leads to gaps in interventions.

Important delay between the occurrence of first cases and response due to late referral from health partners.

Lack of funding or late release of funding for some partners who cannot intervene from the beginning of the outbreak due to a lack of capacity.

Low participation of government representatives, especially at LGA level, as they do not reside in the LGA anymore due to the violence and insecurity.

Unsafe hygiene practices from the population regarding open defecation and dead body management in particular – messages to be strengthened around those two topics.

Poor coordination between Health and WASH sectors in production of cholera sitreps.



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RESOURCES

Water, Sanitation and Hygiene and cholera epidemiology: an integrated evaluation in the countries of Lake Chad Basin

Pierre-Yves Oger & Bertrand Sudre

Ending Cholera: a Global Roadmap to 2030

Global Task Force on Cholera Control

De Vos Propres Yeux :

Nigeria - With the children of Maiduguri

Episode 2 Dirty hands disease

(<https://devospropresyeux.org/en/saisons/nigeria/episode-destination-maiduguri/>)

The ABCD Approach - approach focused on behaviour change determinants

(<https://www.solidarites.org/wp-content/uploads/2017/05/The-ABCD-Approach-2017.pdf>)

NIGERIA

CHOLERA RESPONSE

FACTSHEET - 2020

REPORT
SOLIDARITÉS INTERNATIONAL

PHOTOS
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