ZIMBABWE MULTI-SECTORAL
CHOLERA ELIMINATION PLAN
2018 - 2028

World Health Organization

HIGHERLIFE FOUNDATION
Investing in People for Africa's Prosperity

CHOLERA SECRETARIAT ZIMBABWE
The 10 year promise to eliminate cholera: 2018 - 2028

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His Excellency, President, Emmerson Mnangagwa, Vice President and Minister of Health and Child Care, Constantino Chiwenga, Vice President Kembo Mohadi, Former Minister of Health and Child Care, Obadiah Moyo

PREAMBLE

As the Government of Zimbabwe, we recognise that the health of a nation is critical to its development. In line with Sustainable Development Goal #3, we are committed to 'Ensure healthy lives and promote wellbeing for all at all ages'. This is articulated in the National Health Strategy 2016-2020 Equity and Quality of Health: Leaving No One Behind. In order for us to leave no one behind our approach needs to be comprehensive and strategic, tackling the myriad diseases and illnesses affecting our people, of which cholera is one.

Although it is considered a medieval disease, cholera continues to be a major public health threat with a global presence. Across the globe an estimated four million cholera cases and over 140,000 deaths are reported each year. Africa sees a large number of these cases with 17 countries affected by cholera with over 150,000 cases, resulting in 3000 deaths.

Zimbabwe is among those impacted by the scourge of cholera with outbreaks following a somewhat cyclical pattern, coinciding with the rain season. The last 10 years have seen two major outbreaks, one in 2008/09 which resulted in over 100,000 cases including over 4,000 deaths, and another in 2018/19, where there were 10,000 cases with 69 deaths across the 21 cholera hotspot districts in the country, with the nation's capital Harare, among the worst affected.

The most recent outbreak in 2018, brought us to the realization and the need for lasting solutions to dealing with cholera in our country. His Excellency, The President instructed the instructed my cabinet to set up an interim inter-ministerial committee seized with both the short term and long term solutions to end cholera in Zimbabwe. Our interventions in 2018 taught us that there was a need for a multi-stakeholder approach that involves government, the private sector and development partners. Through the Cholera Secretariat of Zimbabwe we convened a National Task-Force for Cholera Elimination which put together this Multi-Sectoral Cholera Elimination Plan for Zimbabwe.

Following the outbreak in 2018, we understood the need for lasting solutions to dealing with cholera in our country. I instructed my cabinet to set up an interim inter-ministerial committee seized with both the short term and long term solutions to end cholera in Zimbabwe. Our interventions in 2018 taught us that there was need for a multi-stakeholder approach that involves government, the private sector and development partners. Through the Cholera Secretariat of Zimbabwe we convened a National Task-Force for Cholera Elimination which put together this Multi-Sectoral Cholera Elimination Plan for Zimbabwe.

This document outlines the roadmap for Zimbabwe to eliminate cholera in line with our 10 Year Promise to eliminate cholera by 2028. In keeping with international best practices, our plan is guided by the Global Task Force on Cholera Control (GTFCC) global roadmap. We recognise that eliminating cholera requires concerted efforts to prevent the disease by implementing a variety of measures - such as long term Water, Sanitation and Hygiene (WASH) in areas most affected by cholera, and by containing outbreaks through early detection and rapid response to alerts. Additionally, there is the need for an effective mechanism of coordination for technical support, resource mobilisation and partnership at the local and national levels.

Our approach brings together the necessary players and actors across five pillars critical to the elimination of cholera: 1) Public Health Emergency Preparedness and Response, 2) Water, Sanitation and Hygiene (WASH), 3) Infrastructure Rehabilitation, 4) Community Empowerment and 5) Innovative Financing and Resource Mobilisation. We need to solve the challenge of access to clean and safe water and sanitation, a critical component in the fight against cholera. Part of the WASH interventions requires us to fix the infrastructural challenges that affect the provision of clean water to the public. In addition, we need strong public health systems and dynamic advocacy and community participation to ensure that our work is a success.

Zimbabwe is also seized with strengthening surveillance and laboratory capacity to ensure early detection and quick response to contain outbreaks at early stages. Our commitment to the development of the Public Health Emergency Operations centre (PHEOC) is part of this system's strengthening that will assist in how we deal with outbreaks should they occur.

The government firmly believes that the plight of cholera is not something that should be affecting our country in this present day and so we have a commitment to our people to eliminate the disease by 2028. Achieving this goal will assist us to realise the vision of Zimbabwe attaining upper middle income status by 2030. This plan is critical to our efforts and we look forward to its implementation and seeing a cholera free Zimbabwe by 2028.

ACKNOWLEDGEMENTS

When the cholera outbreak occurred in 2018, our Government rapidly set up an interim inter-ministerial cabinet committee, chaired by the Ministry of Local Government & Public Works, to devise strategies that could be used to tackle the disease threatening the lives of our people. National efforts in containing the outbreak required collaboration with various line ministries, as well as interventions of multiple stakeholders including our developmental partners, international organisations, the private sector and civil society organisations.

The coordinated response to the 2018 outbreak informed our decision to establish a National Task Force on Cholera Elimination (NTFCE) comprising all the relevant stakeholders working towards cholera prevention, to develop this Multi-Sectoral Elimination Plan for Zimbabwe.

We appreciate the work carried out by the NTFCE, co-chaired by the Ministry of Local Government & Public Works and the Ministry of Health and Child Care, to bring us to a stage where we have a national document that speaks to the elimination of cholera in Zimbabwe. We are grateful to all the other partners who make up the NTFCE for their commitment to the 10 year promise of eliminating cholera by 2028.

This roadmap document would not have been possible without the input of the numerous stakeholders working across the five pillars namely 1) Public Health Emergency Preparedness and Response, 2) Water, Sanitation and Hygiene (WASH), 3) Infrastructure Rehabilitation, 4) Community Empowerment and 5) Innovative Financing and Resource Mobilisation. We greatly appreciate the time and effort that was taken to contribute to the production of this document. Gratitude must also be expressed to the critical technical support provided by the World Health Organisation without which this elimination plan would not have been possible. We would like to thank Higherlife Foundation which heeded the national call to establish the Cholera Secretariat of Zimbabwe and has provided technical and logistical support towards the roadmap document. We appreciate the efforts of all specialised skills and individuals who have contributed in innumerable ways to this document.

Finally, our gratitude to all those committed towards providing quality health services to the people of Zimbabwe. We hope this roadmap document will play an integral part of the work that you do in complementing efforts to see us eliminating cholera by 2028.

.....

Signed

Hon. Gen. (Retd) Dr. C. G. D. N Chiwenga "GCZM"
Vice President of the Republic of Zimbabwe and Minister of Health and Child Care

DECLARATION - of commitment to eliminate cholera in Zimbabwe by 2028

We, the National Task Force on Cholera Elimination (NTFCE) as concerned citizens, call for a commitment from the public sector, the private sector, development partners, philanthropists and the people of Zimbabwe to support our goal to eliminate cholera by 2028. We affirm the vision of our nation in which cholera no longer presents a threat to public health, and through implementation of the national cholera elimination plan defined as: End Cholera Now: The 10 Year Promise, we commit to mobilise, leverage and advocate for the elimination of cholera in Zimbabwe by 2028.

We recognise that cholera is a disease of inequity - an ancient illness with increasing infections and deaths in the most vulnerable communities in Zimbabwe; this is exacerbated by lack of access to service provision. Controlling cholera is therefore a moral obligation and is a critical first step towards achieving the Global Task Force for Cholera Control (GTFCC) target for countries affected by cholera to reduce cases by 100% by 2030; and for 2022, to reduce cholera cases to less than 50%, achieving less than 1 % fatality rates. The Regional Framework for Cholera Prevention and Control signed by 47 African Health Ministers in August 2018 calls for a 90% cholera outbreak reduction, particularly among vulnerable populations and in humanitarian crises. Access to safe water, sanitation and hygiene (WASH) is a key priority under this framework, calling for increased investments in clean water, safe sanitation and hygiene for vulnerable communities.

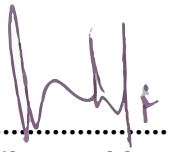
We acknowledge that every death from cholera is preventable with the tools we have today, placing the goal of eliminating cholera within our reach. The multi-sectoral approach to cholera control outlined in the GFTCC roadmap and in the Regional Framework for Cholera Prevention and Control can prevent cholera outbreaks. By targeting cholera-prone and high-risk areas, both urban and rural, known as "hotspots" and promoting community engagement, we will not only reduce the cholera burden, but also effectively prioritise and advance the delivery of WASH solutions to those most in need, achieving maximum impact.

We avow that cholera outbreaks like the critical one in 2008, and the most recent one in September 2018 should not happen again and commit to supporting national efforts to prevent any outbreaks through early detection, immediate responses and rapid containment of potential cholera threats.
We pledge to invest in the prevention of cholera, which is not only affordable, but will ultimately allow significant cost savings compared with average annual costs of continuously responding to cholera outbreaks. In addition to existing national budgets, we will strive to engage innovative financing strategies which stretch beyond merely financial instruments to yield tangible results, but introduce capacity to improve program delivery and provide new solutions to public health challenges such as cholera.

We declare that now is the time to accelerate action against cholera at country level and our efforts must be harmonised with regional and global best practices. To this end, we will engage with the GTFCC platform, share and learn from the Global Roadmap which is currently being implemented to inform national efforts. We will synchronise our efforts, resources and investments at national level in support of Government efforts towards a coordinated, multi-sectoral approach to cholera control, adopting a pillar based approach that factors current efforts on the ground. Collectively, we will support the Government to set realistic and achievable goals for cholera elimination in Zimbabwe.

We commit to full support for implementation of the National Cholera Elimination Plan (also known as the National Roadmap) and agree to convene on a quarterly basis to share updates, evaluate both programmatic and financial progress, and confirm the path to 2028. As NTFCE members, we hold ourselves accountable for the targets outlined in the national plan and pledge to act in unity and with urgency to realize a Zimbabwe free from the threat of cholera.

SIGNED by National Task Force for Cholera Elimination (NTFCE) members on this day, Friday, 12 July 2019, in Kadoma, Zimbabwe



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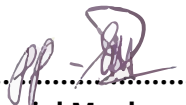

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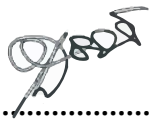

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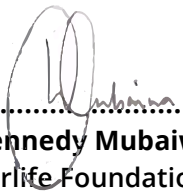

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ABBREVIATIONS

AMR	Anti-microbial Resistance
ICBS	Community Based Surveillance
CES	Cholera Elimination Secretariat
CFR	Case Fatality Rate
CHCs	Community Health Clubs
CTC/CTU	Cholera Treatment Centre/ Cholera Treatment Unit
EBS	Event Based Surveillance
EHT	Environmental Health Technician
EMA	Environment Management Authority
GHSA	Global Health Security Agenda
GTFCC	Global Task Force on Cholera Control
HERU	Health Emergency Response Unit
IACCH	Interagency Coordination Committee on Health
IDSR	Integrated Disease Surveillance and Response
IMS	Incident Management System
IPC	Infection Prevention and Control
IV	Intravenous
JEE IHR	Joint External Evaluation – International Health Regulations
JMP	Joint Monitoring Programme for Water supply,sanitation, and Hygiene
MAI	Mean Annual Incidence
MICS	Multiple Indicator Cluster Survey
MoF	Ministry of Finance

MOHCC	Ministry of Health and Child care
MoLGPWNH	Ministry of Local Government, Public Works and National Housing
NFI	Non-Food Items
NCU	WASH National Coordination Unit
NTF	National Task Force
NWRMP	National Water Resources Master Plan
OCV	Oral Cholera Vaccine
ODK	Open Data Kit
ORPs	Oral Rehydration Points
ORS	Oral Rehydration Solution
PCR	Polymerase Chain Reaction
PHEOC	Public Health Emergency Operating Centre
PPE	Personal Protective Equipment
SOP	Standard Operating Procedure
SSS	Salt Sugar Solution
TOC	Theory of Change
UNICEF	United Nations Children Fund
WARU	WASH Emergency Response Unit
WASH	Water, Sanitation and Hygiene
WHO	World Health Organisation
ZINWA	Zimbabwe National Water Authority

Arise and Shine Glen View Clean Up Campaign - Oct 2018

EXECUTIVE SUMMARY

Cholera, a diarrheal disease caused by the bacterium Vibrio cholera, is spread mainly through contaminated water and food. Symptoms include acute onset of diarrhea and vomiting, muscle cramps, and body weakness. If untreated, the infection can result in rapid dehydration and death within 24 hours, and the case fatality rate (CFR) may exceed 50%. With proper and timely rehydration, the CFR can be less than 1%.

Cholera remains a major public health problem as the disease continues to affect more than 47 countries worldwide, predominantly developing countries where access to clean and safe water and sanitation remains a serious challenge. Globally, an estimated four million cholera cases and over 140,000 deaths are reported annually. In 2017, over 150,000 cholera cases, including 3000 deaths giving a CFR of 2.3%, were reported from 17 countries in the African Region (68th Session, Regional Committee for Africa, 27-31 August 2018. Regional Framework for Implementation of the Global Strategy for Cholera Prevention and Control, 2018-2030).

Based on findings of outbreak investigations, reports review, the persistence of cholera in these places points to weaknesses in water and sanitation infrastructure and services, high risk hygiene and social practices, gaps in surveillance and healthcare systems. The inadequate political and financial commitments are contributing to prolonged recurrent outbreaks. More than 80% of affected countries report insufficient financing to meet their water, sanitation and hygiene (WASH) targets.

In Zimbabwe, studies done in the past and a recent one by UNICEF in 2018 indicated that cholera is endemic and displays a seasonal pattern which correlates with the rainy season (November to April/June). Generally, most cases are recorded in five (Mashonaland West, Mashonaland Central, Mashonaland East, Manicaland and Masvingo) out of the country's 10 provinces, including suburbs of Harare reporting 69.5% of the burden. The recent outbreak in Zimbabwe (in 2018 – 2019), affected several suburbs of Harare, and spread to other parts of the country including districts of Murehwa in Mashonaland East, Gokwe and Mberengwa in Midlands province. The outbreak in Harare was due to consumption of contaminated water from shallow wells and boreholes, poor sanitation, overcrowding, unplanned settlements compounded by poor hygienic practices. This was associated with broken sewerage pipes resulting in waste material seepage into boreholes causing water contamination in Glenview and Budiriro which happened to be the epicenters of cholera in 2018 and then later spread to other parts of the country. The outbreaks detected outside Harare were traced back to the epicenters of Harare.

In 2017, the Global Task Force on Cholera Control (GTFCC) launched the Global Cholera Control Strategy, which has the following two objectives: 1) to eliminate cholera in at least 20 countries, and, 2) to reduce cholera mortality by 90%. The Strategy is organized around three axes namely Early detection and response to contain outbreaks; Prevention of disease occurrence by targeting multisectoral interventions in cholera hotspots; and Effective mechanism of coordination for technical support, resource mobilization and partnership.

In July 2019, the Zimbabwe National Task Force on Cholera Elimination (NTFCE) endorsed the high-level framework for the National Cholera Elimination 10-Year Roadmap. This multisectoral plan is a product of close collaboration of different sectors and partners and was reviewed during the planning workshop held in Kadoma on 11-12 July 2019. The workshop brought together main stakeholders including key health partners, line ministries and other interested groups in the Water and Sanitation Sector both locally and internationally. The plan seeks to address

the Joint External Evaluation (JEE) – International Health Regulations (IHR 2005) recommendations as well as to consider key strategies and approaches defined in the National Action Plan for Health Security (NAPHS) currently at the stage of completion, and the status of cholera preparedness in the country.

In this Roadmap, emphasis is placed on WASH including infrastructure for ensuring adequate water and sanitation coverage focused on the cholera hotspots. In the short term, and as a complementary measure, Oral Cholera Vaccination (OCV) campaigns should be implemented in the cholera hotspots. Attention is also placed on interventions that aim at strengthening the health system and resilience.

A detailed multi-year monitoring and evaluation framework will be used to track progress on implementation of the key intervention strategies articulated in the plan. For each intervention, the implementation plan provides operational details, timeframe, cost, lead government agencies, and potential partners involved. To minimise bottlenecks, consideration has been made for anticipation of potential challenges and risks, as well as proposed measures for mitigation covered under each pillar. Measures to ensure inclusivity of key societal aspects geared to equity have been taken into consideration. To achieve the objective, the criteria for attainment will be guided by a functional surveillance system and demonstrable preparedness by all stakeholders.

INTRODUCTION

In line with the United Nations (UN) Sustainable Development Goal (SDG) 3, the government of Zimbabwe through the Ministry of Health and Child Care (MoHCC) has prioritized improving quality of life for all its citizens. This will be achieved by effective implementation of the National Health Strategy 2016-2020 and addressing existing gaps such as funding for routine healthcare and emergency response identified in the preceding strategies, 2009-2013 strategy and its extension 2014-15 (National Health Strategic plan, 2016-2020)

In July 2019, the National Task Force on Cholera Elimination (NTFCE) took on the mandate and declared the elimination of cholera in the country by 2028 and endorsed the development of an inclusive Roadmap, guided by the Global Task Force on Cholera Control (GTFCC).

The 10-year plan emphasises the engagement of multiple stakeholders through a comprehensive roadmap five key pillars, which would not have been possible without the input of the numerous stakeholders working across the five pillars namely 1) Public Health Emergency Preparedness and Response, 2) Water, Sanitation and Hygiene (WASH), 3) Infrastructure Rehabilitation, 4) Community Empowerment and 5) Innovative Financing and Resource Mobilisation. The advocacy for this plan will be based on guiding principles, brand identity, clear strategic approach, messaging, positioning and targeted populations (hotspots), political will, and buy-in of key stakeholders (multi-sectoral: inter-ministries, WHO, UNICEF, MSF, BMGF, Dalberg, WASH Partners, funders, civil society; including private sector and media).

Zimbabwe

Zimbabwe is a landlocked country in the southern Africa region surrounded By Mozambique, Botswana, Zambia and South Africa (figure 1).

Zimbabwe covers a surface area of 390,757 square kilometres and has 10 provinces, 63 districts, and 1,200 wards. The total population is 13,061,239 people of which over 50% are women. The urban population is 4,284,145 (33%) (ZDHS 2015).

Zimbabwe has only one city with a population exceeding 1 million, and that is Harare, with 1.56 million people. The second largest city is Bulawayo with 703,000 people. It is estimated that the country's total population will exceed 15 million people by 2020. The population of the provinces of Zimbabwe according to census results is shown in Table 1.

Zimbabwe recognizes 16 languages and customary practices with a mixture of both traditional and modern organizational arrangements in its administrative and legislative structures especially in rural elective councils when it comes to governance.

Figure 1: Map of Zimbabwe

Table 1: *The total mid-2017 population of Zimbabwe was projected to be* ***14,542,200*** *people.*

PROVINCE	POPULATION
Bulawayo	653,337
Harare	2,123,132
Manicaland	1,752,698
Mashonaland Central	1,152,520
Mashonaland East	1,344,955
Mashonaland West	1,501,656
Masvingo (Victoria)	1,485,090
Matabeleland North	749,017
Matabeleland South	683,893
Midlands	1,614,941
Zimbabwe	***13,061,239***

Source: ZDHS 2015& MICS 2014

BACKGROUND

Overview of global strategies relevant for cholera

Cholera is an acute, diarrheal illness caused by infection of the intestine with the toxigenic bacterium Vibrio cholera serogroup O1 or O139. Infection is often mild or without symptoms but severe in 20% of the cases characterized by profuse watery diarrhoea, vomiting, and leg cramps. It affects both children and adults. Without treatment, death can occur within hours [Sack et al., 2004].

Cholera, has largely been eliminated from industrialized countries through proper water and sewage treatment, but still remains a significant cause of illness and death in many low income countries. Sub-Saharan Africa bears the brunt of global cholera burden. The region is broadly affected by many cholera cases and outbreaks that can spread across countries [Gaffga et al 2007]. This reflects the lack of access to basic sanitation, clean water and health care [WHO, 2012]. Cholera outbreaks have been reported across Africa and the ecological zones have broadly been defined on the basis of case reporting. Countries have been classified into those that have reported local outbreaks and those that report imported cases only (Mapping the Risk and Distribution of Epidemics in the WHO African Region: A Technical Report, May 2016).

Cholera mostly affects poor communities with; low socio-economic status, and the most vulnerable being those residing in overcrowded areas with limited safe water and sanitation services, including unplanned mass urbanization. According to WHO-UNICEF joint annual report on water and sanitation (2015 data), 663 million people globally lack access to safe drinking water and over 2 billion people drink water from sources contaminated with faecal matter. Furthermore, displacements due to conflicts, natural disasters and extreme climatic changes are contributing to favourable conditions to cholera outbreaks in many settings globally.

Cholera outbreaks tend to be recurrent with clear seasonality and pattern in most endemic areas. Based on findings of outbreak investigations, reports review, the persistence of cholera in these places point to weaknesses in water and sanitation infrastructure and services, high risk hygiene and social practices, gaps in surveillance and healthcare systems. Inadequate political and financial commitments are contributing to prolonged recurrent outbreaks. More than 80% of affected countries report insufficient financing to meet their water, sanitation and hygiene (WASH) targets, as well as those for water quality, a major component of SDG 6 (Financing Universal Water, Sanitation and Hygiene under the Sustainable Development Goals; UN-Water Global Analysis and Assessment of Sanitation and Drinking-Water GLAAS 2017 Report).

Due to these factors cholera remains a major public health problem. Globally, an estimated four million cholera cases and over 140,000 deaths are reported annually. In 2017 alone, over 150,000 cholera cases, including 3000 deaths (case fatality rate (CFR) of 2.3%), were reported from 17 countries in the African Region. More than 90% of these cases were from six high burden countries, raising concern about potential further increase of the cholera burden, including large scale outbreaks in big cities (68th Session, Regional Committee for Africa, 27-31 August 2018. Regional Framework for Implementation of the Global Strategy for Cholera Prevention and Control, 2018-2030).

Due to the increasing recognition of the threat epidemics pose to global security, beyond its impact on human health [GHSA 2015; WHO 2015; GHRF 2016], cholera has been identified as one of the diseases targeted for control and elimination. Low income countries, where the burden of infectious diseases are also generally high and the

health systems are ill equipped to even respond to the basic health needs of the population, face greater vulnerabilities to the consequences of epidemics, setting back hard earned health and socio□economic gains. With the increased global connectivity and human population movement and economic interdependence the risk and consequences of infectious diseases spreading across borders has grown dramatically and the threat to global health security can no longer be ignored (https://www.who.int/health-security/en/).

During the Seventy-First World Health Assembly in May 2018, resolution WHA71.4 urged Member states to prioritise control of Cholera and eventually attain elimination in those countries affected. Due to the high and increasing cholera burden and numerous challenges, the Global Task Force on Cholera Control (GTFCC) developed a global roadmap to end cholera by 2030. At the 68th session of Regional Committee meeting of Africa Health Ministers held in Dakar, Senegal, 28 – 31 August 2018, the Resolution to eliminate cholera in the Africa Region was adopted. The WHO AFRO developed a Regional Implementation Framework with key milestones to guide Member States to implement the global strategy to achieve elimination of cholera by 2030. These include enhancing epidemiological and laboratory surveillance, mapping of cholera hotspots, increasing access to timely treatment, strengthening partnerships and community engagement, increasing investments in clean water and sanitation for the most vulnerable communities, and promoting research. Increased political and financial commitments, along with monitoring and evaluation of implementation will be required.

Zimbabwe, has adopted a strategy aimed at elimination of cholera coordinated by an inter-ministerial committee with a secretariat at Higherlife Foundation.

HEALTH SYSTEM IN ZIMBABWE

Health Systems Organization and Status

Zimbabwe assumed the Primary Health Care approach in 1980 and its health system is structured accordingly. The health services delivery levels include primary, secondary, tertiary (provincial) and quaternary (central) facilities shown in ***Table 2***. The majority of these health facilities are at primary care level, which refer complicated cases to the next levels of care. Mission and private sector facilities provide considerable services mostly in rural and urban areas respectively.

Community Health Workers;
Within the Zimbabwean health system, Village Health Workers (VHWs) have been at the frontline of the primary healthcare workforce since the 1980s. Selected by community members, VHWs go through training for 5 months and deliver a wide range of preventative and curative services. In terms of diarrhea including cholera control, they participate in surveillance (community based diseases), sensitizing communities on diarrhoea prevention and control, promotion of use of home based oral rehydration (SSS), child growth and monitoring, contact tracing at village level and early health care seeking at the nearest health facility. They also contribute to structures for community participation at the local levels such as the Village Development Committees (VIDCOs) and Ward Development Committee (WARDCO), and at facility levels through Health Centre Committees (HCC) and Hospital Advisory Boards (National Health Strategy for Zimbabwe, 2016-2020).

A key challenge has been that these structures are not always functional. The Health Strategy 2016-2020 highlighted opportunities to use existing Primary Care Nurses (PCNs) together with the VHWs and Environmental Technicians to improve community involvement at the primary care level. The involvement of other community cadres and traditional leadership was also expected to increase demand for services, community and individual responsibility for their health status.

Empowering communities to participate in health services planning and providing multiple forums and opportunity for active involvement at various levels is critical in building community ownership and responsibility. This is expected to contribute to sustainability of activities for cholera control including dissemination of messages on WASH and maintenance of facilities e.g., for hand washing and water points. Community consultations showed communities' concern about accessing quality services, availability of medicines and equipment, patient transport, inpatient facilities such as beds, food and ablution facilities, amongst other things. The strategy is meant to address these expectations, contribute to strengthening systems and structures of accountability at all levels, and coordination ***(Figure 2)***.

Health System Context
Various studies and surveys carried out in Zimbabwe over the recent years point towards the inadequacies of the six health system building blocks (human resources; medical products, vaccines and technology; health financing; health information; service delivery and leadership and governance) that are prerequisites for a functional health delivery system according to WHO.

The Zimbabwe 2016 - 2020 National Health strategy was developed based on the Zimbabwe Agenda for Sustainable Socio-Economic Transformation (Zim-Asset) and the Sustainable Development Goals. The coming in of the new dispensation in 2017, saw the formulation of Transitional Stabilization Programme (TSP) a two year programme running from October 2018 to December 2020. The functionality of the health

care delivery system has been influenced by a number of factors including:

a) Inadequate management:
Health management has weakened as a result of high attrition rates of experienced health service and programme managers. This has an impact on supervision and monitoring and is evidenced by reduced quality of service provision, access to essential drugs and supplies which has been greatly reduced with stock availability ranging between 29% and 58% for vital items and 22% and 36% for all categories of items on the essential drugs list since 2008. Vital items should always be 100% available. Medical equipment, critical for diagnosis and treatment has exceeded its life span and requires urgent replacement. Shortage and disruption of transport and telecommunications has impacted on key programs including patient transfer, immunisations, malaria indoor residual spraying, drug distribution, supervision of districts and rural health centres. The overall low funding for health influences level of performance.

b) Expenditure on health;
Government funding for health has generally improved since 2009 reaching a peak in 2012 of 8% of total government expenditure, though this remains below the Abuja declaration commitment of 15% of total government expenditure. The public health expenditure pattern shows that 80% goes to salaries, and curative services consume a disproportionate amount of what remains meaning that preventative services and research receive relatively less (National Health Strategic plan, 2016-2020).

c) Overall burden of diseases;
The top causes of OPD utilization in 2014 include Acute Respiratory Infection (ARI) at the top (31%). During the same year, the top five causes for: under-fives visits were ARI, diarrhea, skin diseases, diseases of the eye, burns and other injuries; and for the five years and above age group, it was ARI, skin diseases, burns and other injuries, malaria and diarrhoea. Epidemic prone diseases that are a threat to public health in Zimbabwe include diarrhoeal diseases such as typhoid, dysentery and cholera, and zoonotic diseases such as anthrax, rabies and plague.

d) Water and Sanitation;
Seventy-six percent (76%) of household members had access to improved sources of drinking water, and only 35% of household members reported using improved sanitation facilities (MICS, 2014). Challenges still remain around open defecation, low use of improved sanitation, safe disposal of faeces and hand washing in the country, which suggests that a significant number of the population is at risk from water and sanitation related diseases. Food monitoring is at 56% according to the 2014 MICS report (based on iodized salt monitoring).

Overall, the health system must be strengthened to respond to the burden of communicable and non-communicable diseases; reproductive, maternal newborn child health and adolescent issues; and public health disease surveillance and disaster preparedness and response. Interventions must be evidence based and supported by robust research and development. A key intervention is strengthening of the primary care system including community systems as the entry point to the health care system.

Health Status
A systematic review of existing reports, data and evidence regarding the performance of the health sector shows that Zimbabwe still faces a double burden of communicable and non-communicable diseases. It is prone to epidemic diseases including diarrhoeal diseases and outbreaks of anthrax and rabies, highlighting the critical importance of public health surveillance and a disaster preparedness and response

programme. HIV prevalence remains relatively high at 15% amongst adults, and gains achieved to date are threatened by the deteriorating indicators and risky behaviors amongst the youth and increasing number of teenage pregnancies (see table 3).

On the other hand, non-communicable diseases are emerging as a major cause of morbidity and mortality in the country. Of equal importance, the nutrition status of children remains poor.

Despite the threat of a near collapse of the health system in 2008, the health system has largely remained resilient enough to provide basic services to the majority of the people. In addition, life expectancy for Zimbabweans increased from 34 years in 2006 to 58.5 years in 2015, with women at 61.3 years compared to men at 56.2 years (WHO 2013). However, challenges remain in terms of service gaps and more importantly quality of services to ensure effective coverage. Furthermore, improving quality of services and equitable access means that health workers must be available when needed with the right attitudes and work ethics to meet user needs.

Addressing these challenges requires strengthened service delivery including primary care and hospital services, adequate human resources for health as well as creation of an enabling environment.

In response to the current burden of diseases the Ministry of Health and Child Care (MOHCC) has priority disease control programmes including: Priority 1-Communicable disease programmes, and priority- 4 Public health surveillance and disaster preparedness and response programmes.

This strategy seeks to sustain and improve these flagship programmes as part and parcel of a holistic response to the current disease burden and potential risks of disasters.

If the Primary Healthcare Approach is to be implemented effectively, strong community systems need to be strengthened beyond supporting the Village Health Worker (VHW). The role of traditional and local leadership, community structures and community participation needs to be elevated for health interventions to be effective and sustainable over time. Communities play a major role not just in receiving the services they need, but also in co-production of these services and their funding and governance (National Health Strategic Plan, 2016-2020).

Table 2: Health Facilities profile for Zimbabwe

Facility Level/Managing Authority	All Facilities	Hospitals	Primary Health Facilities
Central Hospitals	6	6	0
Provincial Hospitals	8	8	
District Hospitals	44	44	
Mission Hospitals	62	62	
Rural Hospitals	62	62	
Private Hospitals	32	32	
Clinics	1,122	0	1,122
Polyclinics	15	0	15
Private clinics	69	0	69
Mission clinics	25	0	25
Council/Municipal Clinics/FHS	96	0	96
Rural Health Centre	307	0	307
Totals	***1848***	***214***	***1,634***

Source: ZDHS 2015& MICS 2014

Figure 2: Community Level Structures, and reporting lines

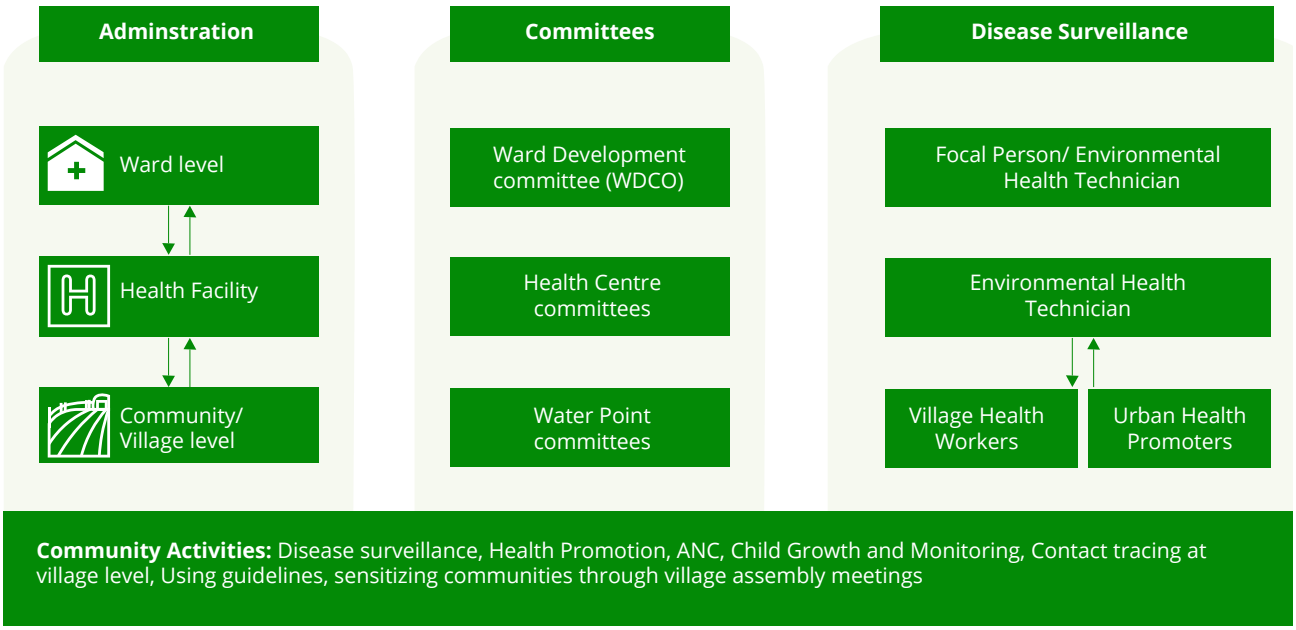


Table 3: *Indicators of Health Status Zimbabwe*

Indicator	Status	Source
Maternal Mortality rate	651 per 100,000 live births	ZDHS2015
Infant Mortality rate	50 deaths per 1000 live births	ZDHS2015
U5 Mortality rate	69 deaths per 1000 live births	ZDHS2015
Total fertility rate	4.0 births per woman	ZDHS2015
First Antenatal visit	31.2%	MICS 2014
Children under 2 years immunized	???	???
Institutional deliveries	72% (also by non-professional staff)	ZDHS2015
Skilled Birth Attendance	78%	ZDHS2015
Contraceptive Prevalence rate	67.4%	ZDHS2015
DPT3 coverage (Routine)	83.4%	ZDHS2015

Source: ZDHS 2015& MICS 2014

OVERVIEW OF THE DISEASE EPIDEMIOLOGY IN THE COUNTRY

Historical Perspective (1972 – 2018);

Zimbabwe recorded its first case of cholera in 1972 in Mashonaland East Province, along the Nyamapanda border. From 1992, cholera occurred in approximately 10 year cycles followed by five year cycles until 2002. Since then, outbreaks have occurred almost on an annual basis in particular in the main urban centres and vulnerable districts along the borders ***(table 4).***

Between August 2008 and July 2009, Zimbabwe faced an unprecedented cholera outbreak, which resulted in 98, 592 cases and 4 288 deaths (CFR=4.3%). This is so far the largest recorded outbreak where 60 out of 63 districts in the country were affected. This outbreak contributes 84% of all cases and the CFR of 4.3%, well above the 1% WHO threshold.

Cholera distribution

Distribution of cholera is markedly heterogeneous, with the five most affected provinces (Mashonaland West, Mashonaland Central, Mashonaland East, Manicaland and Masvingo) reporting 69.5% of the burden. During the period 1998 – 2018, the northern and eastern provinces reported a combined 75% of all cholera cases, the highest proportion reported by Mashonaland West (22.5%), Harare (17.1%), and Manicaland (15.7%) Provinces. The most affected districts tended to be located along the northern and eastern border with Zambia and Mozambique as well as along main routes to Harare (Figure 4).

Response to Cholera outbreaks

Response to cholera outbreaks is coordinated through a multisectoral, multidisciplinary incident management system (IMS) headed by the Ministry of Health and Child Care. Under the IMS are thematic areas, namely: Coordination and resource mobilization, WASH, Case Management, Social Mobilization, Surveillance and Laboratory, Vaccination and Logistics with defined terms of reference. Government Ministries, partners and other stakeholders who contribute to the response work under these thematic areas based on their expertise.

Health system strengthening

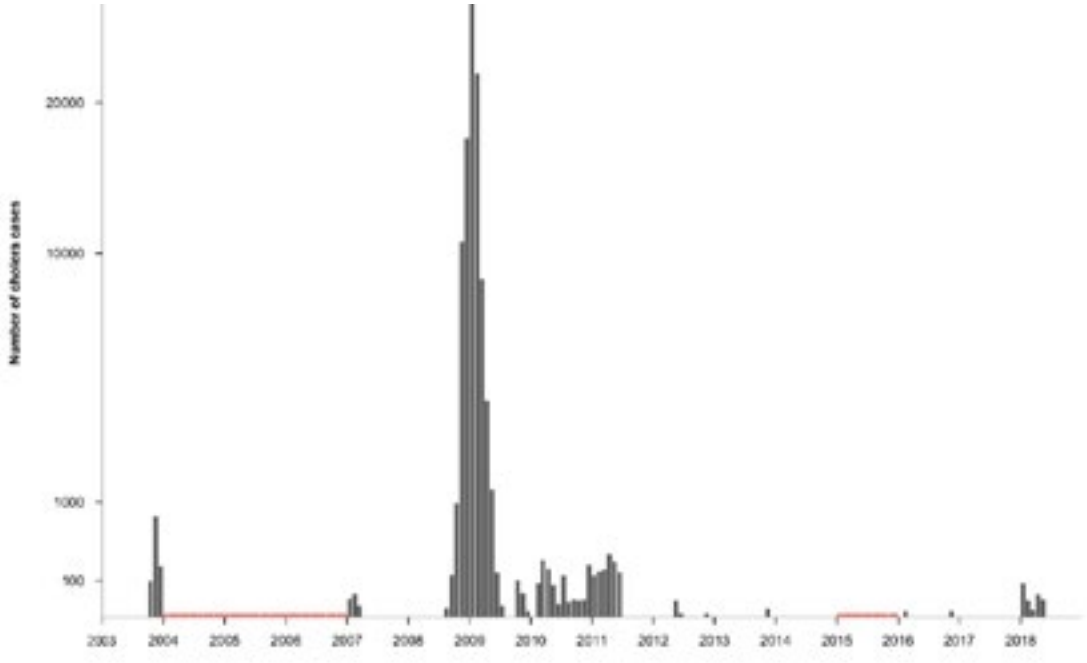
Some of the health system strengthening steps that have been taken in order to enhance response to outbreaks include: provision of incentives for staff; pooling resources for maintaining core health services at the primary level through supply of primary care packages (e.g. Zimbabwe Informed Push System), training of Rapid Response Teams (RRTs), adaptation of IDSR technical guidelines, development and dissemination of disease specific guidelines like cholera, typhoid, anthrax and rabies. Progress has also been made through the establishment of cluster coordination systems, establishment of the Cholera Coordination and Control Centre (C4) as precursor to Public Health Emergency Operating Centre (PHEOC), revitalization of the Village Health Worker programme and improved political commitment through formation of the Inter-ministerial committee.

Risk factors for cholera in Zimbabwe

Key drivers of cholera outbreaks include but are not limited to: open defecation (44% in rural areas – MICS 2014); use of unprotected water sources; improper handling, preparation and or transportation of an infected corpse; consumption of contaminated food and or water at funerals and other gatherings; limited access to oral rehydration solutions at community level which increases the severity of dehydration and risk of mortality; inadequate surveillance; and barriers to access and healthcare seeking (61.4% of all reported deaths in 2008-2009 outbreak occurred in the community).

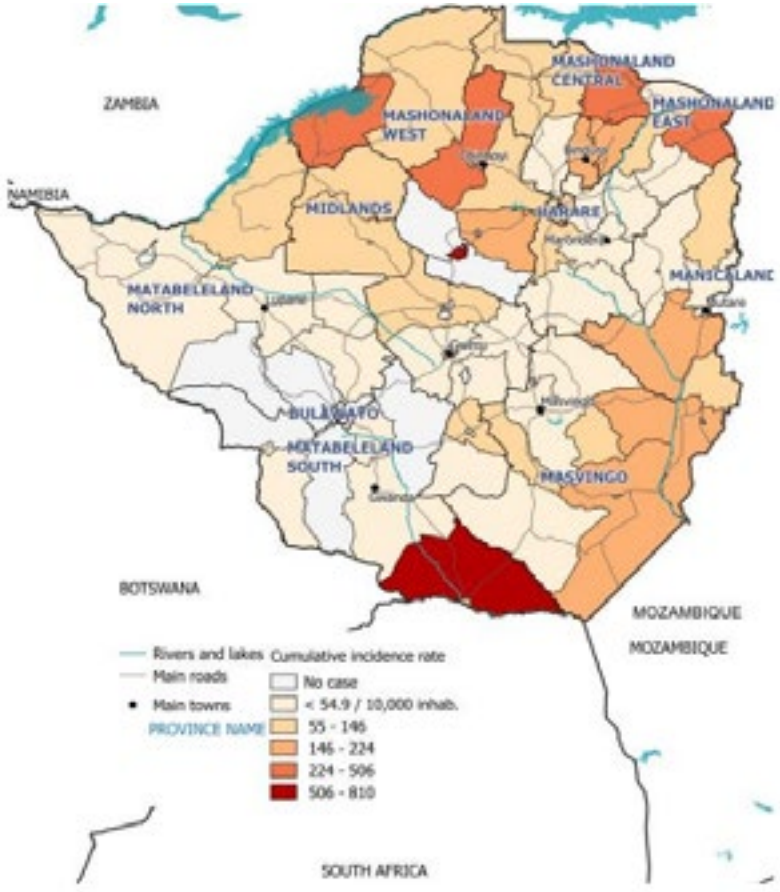
Other risk factors may include: being a child under five, being a woman of childbearing age.

Figure 3: Zimbabwe Cholera Cases and Case Fatality 1992-2018



Source: UNICEF Data

Figure 4: Cumulative incidence of cholera by district in Zimbabwe, 2007 – 2017



Source: *Zimbabwe Cholera Fact Sheet, UNICEF*

Risk for the population residing in rural areas was greater than those in urban areas in 2008, mobile population (age 15-44) in urban areas and refugees / displaced people in camps.

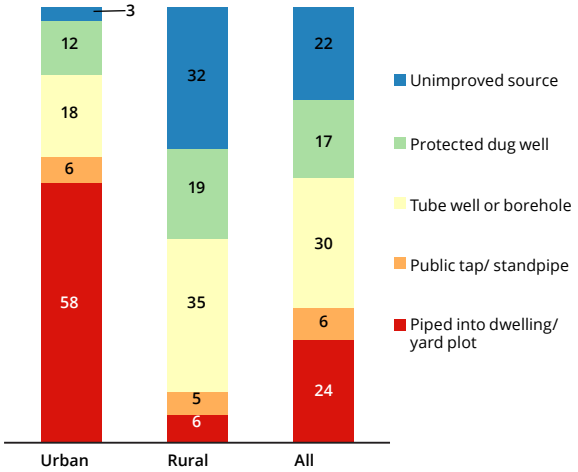
The annual occurrence of outbreaks since 1998 suggests that Zimbabwe is prone to cholera. The largest outbreak of 2008/09 comprising of 84% of all cases, was linked to imported cases from neighbouring countries and occurred at a time of weak health system, characterized by; critical shortage of skilled health workers, shortages of critical essential medicines and supplies and medical technologies, dilapidated health infrastructure, unreliable health information system and weak surveillance systems, poor service delivery, poor access to health services and limited availability of Oral Rehydration Salts. Due to hyperinflation, financing for health was at its lowest during this period. Sixty out of 62 districts of the country's districts were affected. However, investigations conducted during the recent outbreak, 2018/19 in Harare found no travel history in index case.

Use of unsafe water sources.

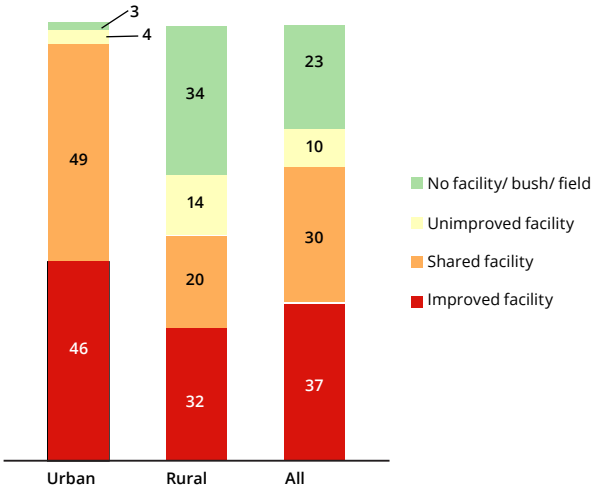
Whereas more than half of urban households (58%) drink water that is piped into the dwelling, yard, or plot compared with 6 percent rural households, the availability is affected by erratic supplies. In the end people resort to use of a tube well or borehole. In rural areas, tube wells or boreholes are the main source of drinking water (35%), followed by protected and unprotected dug wells (19% and 16%, respectively) ***(figure 5a).*** Underground water may be grossly contaminated by leakages from a dilapidated sewerage system. Leakages in the water reticulation system resulting in massive (>60%) treated water being lost in transit and water shortages especially in urban areas. However, the fact that fewer households treat their drinking water; most households (86%) do not treat their drinking water with 80% among urban households and 88% among rural households (ZDHS 2015), predisposes both urban and rural population to transmission through this mode. Overall, 14% of households in Zimbabwe are using an appropriate treatment method: 19% in urban areas and 11% in rural areas. The trends in terms of proportion of households using an improved source of water remained similar between the 2010-11 ZDHS (79%) and the 2015 ZDHS (78%). Water treatment practice at both the source and within households reduces the risk of spread of diarrhoeal diseases including cholera.

Figure 5 (a) and (b): Household drinking water and toilet facilities by residence

5 (a): Percent distribution of households by source of drinking water



5 (b): Percent distribution of households by type of toilet facilities



Poor sanitation

Overall, 23% of households do not use any toilet facility, especially in the rural areas (34%). However, when compared to the previous survey, this figure shows an improvement in rural areas, from a coverage of 39% (2010-11 ZDHS) (Figure 5b). The situation is worsened by the fact that 63% of households do not have access to hand washing facilities with soap and water (2017 WHO/ UNICEF JMP for Water Supply and Sanitation). Studies have shown that handwashing with soap and water can reduce the incidence of diarrhoeal diseases by up to 44% (Burton et. al).

Just about 4 in 10 households in Zimbabwe usually use improved toilet facilities, defined as non-shared facilities that prevent people from coming into contact with human waste, and reduce the risk of transmitting cholera, typhoid, and other diseases. Shared toilet facilities, considered improved facilities, are common in urban areas.

The other risk factors include overcrowding, compounded by poor hygienic practices. Unplanned settlements, poor waste management, food vending under unhygienic conditions exacerbated the situation. Certain religious and cultural practices discourage seeking medical care, washing dead bodies, hand shaking at funerals also promoted transmission. During the outbreak in 2018, the link between the humanitarian and developmental initiatives, contributed to effective outbreak response. Integrated delivery of WASH and other interventions were critical in interrupting transmission especially in high risk areas. Long term WASH interventions are required to prevent recurrence of cholera outbreaks.

Lessons learnt

A National Joint Cholera Response Review meeting was conducted in November 2018. The following were identified as lessons learnt:

I. Coordination is key to optimizing response effort. The importance of multisectoral engagement in emergency response and, in recent cholera outbreaks has contributed to effective cholera response. Multisectoral coordination during the cholera outbreak of 2018, the civil protection committees at various levels led by the Ministry of Local Government and the Inter-Agency Coordinating Committee on Health (IACCH) has also contributed to the success of controlling the cholera outbreaks.

II. A functional surveillance system is key to early outbreak detection and response. Zimbabwe has registered improvement around surveillance and has built local capacity for real time reporting. This has enabled fast detection and response to outbreaks. Capacitation of health workers in IDSR has improved their interpretation and use of data at local level.

III. Laboratory capacity is critical for detection, confirmation and management of outbreak. The district laboratories were supported with consumables to conduct Rapid Diagnostic Tests (RDT), culture and sensitivity tests. Laboratory support for the 2018 outbreak was very commendable with results of rapid tests conducted as well as culture and sensitivity, and with good correlation between the RDT and culture results.

IV. Mobilization of human resources from non-affected districts/provinced enhances capacity to respond.

V. During the cholera response it was noted that the City of Harare was able to mobilize human resources for the response within the local authority and beyond and thus contributed to effective response.

VI. Long term WASH interventions are required to prevent recurrence of cholera outbreaks.

The response was able to link the humanitarian and developmental initiatives, and this also contributed to effective response

VII. Addressing behaviors and religious/cultural practices is key to reducing transmission. Correct information is necessary for the communities to take appropriate action to prevent infection or to get immediate assistance when they get infected. The sustained information dissemination through the district structures made the people's perception of risk remain high and to quickly adopt responsible behaviors as advised.

VIII. Political will is essential for effective response. Political commitment in the cholera response was evidenced by the personal involvement of the President, Minister of Health and Child Care and other senior MOHCC staff, provincial and district health leadership.

The Public Health Emergency Operations Centre (PHEOC)

The Public Health Emergency Operations Centre (PHEOC) is a structure at national level formed to provide effective coordination of the national response to all Public Health Emergencies (PHEs) including disasters.. The centre has linkages to the provinces and local authorities and international level to provide technical guidance, monitor and evaluate emergency response activities.

The PHEOC has 4 components namely people (5 core staff members and between 15 and 50 surge staff members in case of outbreaks/disasters), processes (which may be routine in stable times or escalated in outbreaks/disasters), place (for operations) and information (which is high tech and interconnected to all service delivery levels, across sector and partners, and communicates with neighbouring countries in the region). There are gaps in some areas, in terms of:

- **Human resources** - there are 2 major activity areas i.e., Public Health Emergencies and Department of Civil Protection (DCP), two separate entities that at times create conflict. There is no zoonotic officer. DCP does not respond to certain public health emergencies, or responds late.
- **Processes** - the PHEOC is currently only at National Level and there is no multihazard assessment in times of peace/stability
- **Place** - the building is ready but not yet functional
- **Information** - technology is not yet there (it is still in concept frame) and inadequate sharing of information from different areas

What is Working Well:

- **Human Resources** - a functional structure, the National level response to Public Health Emergencies is active, a preparedness plan is in place, and the Permanent Secretary for Health has allocated a focal point for each core capacity. Inter-agency coordination structures for health are working well; whereas the building is not yet in use, the responsible persons at the National level are working from their main offices and adequately coordinating responses to Public Health Emergencies. The District Health Information System is being used for decision making and Surveillance, and contributing to the weekly IDSR report being generated.

What is not working Well:

- **Processes** - Intersectoral collaboration e.g. with the veterinary services, there is no linkage for reporting under One Health for human and zoonotic diseases, real time reporting is not yet there intersectorally, deployment of resources is slow from National to service delivery point levels, and there is no standby emergency fund.

What Has Been Done So Far: staff is in place and being trained with support from Centers for Disease Control and Prevention (CDC) and WHO,

and a study tour is being planned under WHO. The Department of Civil Protection is updating their disaster preparedness plans, Food and Agricultural Organisation (FAO) assisted development of ways for Environmental Health and Veterinarians to work together at pilot phase, and Standard Operating Procedures are in place; the structure has been identified and waiting to be furnished.

Key Challenges and Risks: There exists incessant power cuts, which may affect connectivity and surges in power, which may blow the system and the risk of brain drain. The mitigation measures include, back up green energy such as solar farms which could be integrated into the PHEOC building plans, use of surge protectors and explore ways of staff motivation through various staff retention schemes.

To ensure effective coordination of PHEOC activities, will be required to operate through established structures for epidemic preparedness and response at all levels with clear guidelines and accountability emphasized ***(Figure 7)***. An important question for operational research would include; what qualitative difference in efficiency and effectiveness in outbreak/disaster response can be seen before and after implementation of the PHEOCs?

Table 4: Cholera Cases and Deaths in Zimbabwe, 1972 - March 2019

Year	Cases	Deaths	CFR (%)	Location (Province)	*Number of districts affected*
1972				Mashonaland East	***1 (Midzi district)***
1972				Mashonaland Central	***1 (Mt Darwin)***
1982/1984??					
1991/1992??	4081			6	
1998/99					
2000					
2001					
2002					
2003					
2004					
2005					
2006					
2007					
2008/09	98592	4288	4.3		***62/63***
2010	1022	22	2.2		***4***
2011	1140	45	3.9		***4***
2012	22	1	4.5		***1***
2013	2	0	0		***1***
2014	0	0	0		***No***
2015	42	0	0		***6***
2016	4	1	25		***2***
2017	6	3	50		***3***
2018/19	10671	68	0.63	Mashonaland Central, Harare, Manicaland, Masvingo, Midlands	***23***

NB: Blank spaces mean no data

Source: National Health information and surveillance, Ministry of Health and Child Care, Zimbabwe.

Commitment of Zimbabwe to tackle cholera as a priority

The National Task Force on Cholera Elimination (NTFCE) met on the 11th and 12th July 2019 and endorsed the high level framework for the National Cholera Elimination 10-Year Roadmap for Zimbabwe. It was noted, previous efforts and goals around cholera have all focused on control. With the recent developments and guidance of the GTFCC the Task Force directed a new commitment to eliminate Cholera by 2028. The Declaration recognizes both national and global instruments, which include the TSP, MoHCC Frameworks and Goals on Communicable and Non-Communicable Diseases, the 2018 African Health Ministers Declaration, the GTFCC goals and objectives, and the key provisions in SDGs 3 and 6. This gives the Zimbabwe Roadmap on cholera elimination a local context with a global alignment.

Five Thematic Pillars have been formulated to address both underlying determinants and manifest causes of cholera. These Thematic Pillars bring together stakeholders from the health, infrastructure, local government, financing and education spheres, making Zimbabwe's Cholera Elimination Roadmap a truly multi-sectoral agenda. Recognising the importance of Local Authorities as key implementers of the roadmap activities, representation will be widened at both the NTFCE and Thematic Pillar levels. This will include other stakeholders in Faith-based organizations, local authority associations (Urban Councils Association of Zimbabwe (UCAZ) as well as Association of Rural Districts Councils of Zimbabwe (ARDCZ). The Ministries of Primary and Secondary Education and Youth, Sport, Art And Recreation and Culture will be included in the Pillar on Advocacy and stakeholder engagement, as well as the WASH Pillar on health education and promotion, amongst others in the implementation process.

It was also resolved that there will be other Sub-Committees, several sub-group combinations that will be built around public health, WASH and infrastructure that will integrate the issues of community and financing. Below are the key resolutions that were made at the meeting:

1. The NTFCE will meet quarterly but with ad hoc meetings in between.
2. The Head of State shall sign off NTFCE to ensure highest political will.
3. The Cholera Elimination Secretariat (CES) Zimbabwe and other key stakeholders / partners will formulate robust awareness and governance plans jointly to ensure all awareness plans and communications are properly synchronized for maximum national impact. Hence, the Secretariat will share a broad advocacy strategy with NTFCE members and current WASH campaign partners.
4. The NTFCE is to attend to governance issues, operationalization of the declaration and endorsing the national awareness campaign, once it is received from the Cholera Secretariat Zimbabwe.

Arise and Shine Glen View Clean Up Campaign - Oct 2018

CHOLERA ELIMINATION ROADMAP

The strategy is in line with the Global Roadmap, an initiative that aims to reduce global cholera deaths by 90% and eliminate the disease in at least 20 countries by 2030. As part of the cholera prevention and response activities, a comprehensive package of services will be offered in an integrated manner nationally, at households, communities, institutions and public places to mitigate the risk of cholera outbreaks. Achieving these global objectives will require implementation through multisectoral cholera coordination mechanism that aligns government and national actors, GTFCC, partners and key stakeholders through a common strategy along three axes: 1) early detection and response to contain outbreaks early 2) a multisectoral approach to prevent and control cholera in hotspots 3) an effective mechanism of coordination for technical support , resource mobilisation and collaboration at national and global levels.

The multisectoral cholera control activities will be along five pillars (thematic areas):
1) Public Health Emergency Preparedness and Response, 2) Water, Sanitation and Hygiene (WASH), 3) Infrastructure Rehabilitation, 4) Community Empowerment and 5) Innovative Financing and Resource Mobilisation. The cross-cutting domains include: Monitoring and Evaluation; Research; mainstreaming of gender and disability across activities of all pillars.

Cholera cannot be eliminated by one entity. To attain elimination status, requires each one to take part in the fight against cholera by ensuring a clean environment where we work and stay, including basic practices of washing hands properly. It is important that this Cholera Roadmap is co-owned by relevant sectors.

Process of Work
A comprehensive situation analysis was conducted covering the five pillars and taking into consideration good lessons learnt and best practices during response to previous outbreaks in the country. The key activities included; review of cholera epidemiology, identification of hotspots, interviews and consultative workshops were conducted and discussed topical issues with representatives from each of the five pillars, and ascertained key contextual factors that can affect spread of the disease, policy and regulatory frameworks, stakeholder analysis and country's capacity to implement activities across the five pillars. Highlights from the interviews and consultative workshops are summarized in ***Section 3.1*** of the plan.

Situational analysis
Cholera hotspot is defined by GTFCC as a geographically limited area where environmental, cultural and /or socioeconomic conditions facilitate the transmission of the disease in such a way that cholera persists or reappears regularly (e.g episodic epidemics). The GTFCC recommends that countries identify "cholera hotspots" as priority areas for interventions, including use of oral cholera vaccine in the short term, while longer-term measures, such as water and sanitation infrastructure, are being addressed or developed.

The Ministry of Health and Child Care (MOHCC) in collaboration with other key stakeholders, Cholera Secretariat with support from WHO held a series of meetings and consultations to identify cholera hotspots for Zimbabwe. Ward level was selected over the district to improve sensitivity, as classification using districts did not yield any 'high priority' areas using the cholera excel tool provided by GTFCC.

Ward level cholera case data for the last five years (2015-2019) was used. Line listing data was analysed as it provided information on place of residence, health facility/treatment Cholera Treatment Centre or Unit (CTU/CTC), linked to

health facility catchment population and Ward (s) served. Where a health facility catchment population overlaps more than one Ward, in addition to where it is located, all implicated Wards were included in the analysis. The Wards were then categorized by District and Province.

Based on the GTFCC definition for hotspots, and recommended methodology for cholera elimination; two key indicators were used, i.e, the mean annual incidence (MAI) over the past five-year period, and cholera persistence indicator (proportion of weeks during which cholera was reported from these Wards during the five year's period). For classification purposes, the MAI exceeded a threshold of 60/100,000 population, and Persistence of 2%.

Wards that reported no cholera cases or reporting a MAI <5/100,000 were excluded from additional analysis. These cut-off thresholds were based on assessments by MOHCC officials in the Health Information and Surveillance sub-directorate in consultation with WHO, determining this to be appropriate when considering cholera risk in the country.

Ninety-five out of 1,200 wards (7.9%) in the country reported at least one case of cholera during the period 2015-2019. The Mean Annual Incidence (MAI) for wards that reported cholera range from 0.9 to 694.4 per 100,000 population. Wards with MAI <5/100,000 were excluded from further analysis, leaving 81 wards (classified according to risk as: 13 high, 30 medium, and 38 low) categorized as hotspots for cholera in Zimbabwe. These 81 wards were all in 16 districts within 7 provinces namely, Mashonaland West, Manicaland, Harare, Mashonaland East, Midlands, Masvingo and Mashonaland Central. A total of 1,652,940 people (12.7% of the population) of the national population resides in these 81 wards.). The findings are summarized in **tables 5, 19 (Annex 1**), and **figure 6.**

Mapping of stakeholders - government, partners, private sector

There are over 25 organizations (local and international NGOs) involved in cholera emergency preparedness and response, in particular WASH activities, including; surveillance, WASH and nutrition, water quality management and borehole drilling. The response type varies; emergency works, normal long term, regular, school hygiene promotion and NFIs distribution, distribution of PPEs for health facilities and water provision at treatment centres. To further strengthen community involvement and sustainability of these activities, trainings are conducted for Health Care Workers. These organizations operate in over 26 districts in 10 provinces (Harare, Chitungwiza, Mashonaland East, Midlands, Manicaland, Masvingo, Mashonaland Central, Matebeleland North, and Mashonaland West). A detailed mapping of key stakeholders, 4 Ws (WHO, WHAT, WHERE and WHOM) is shown in **Annex 1.**

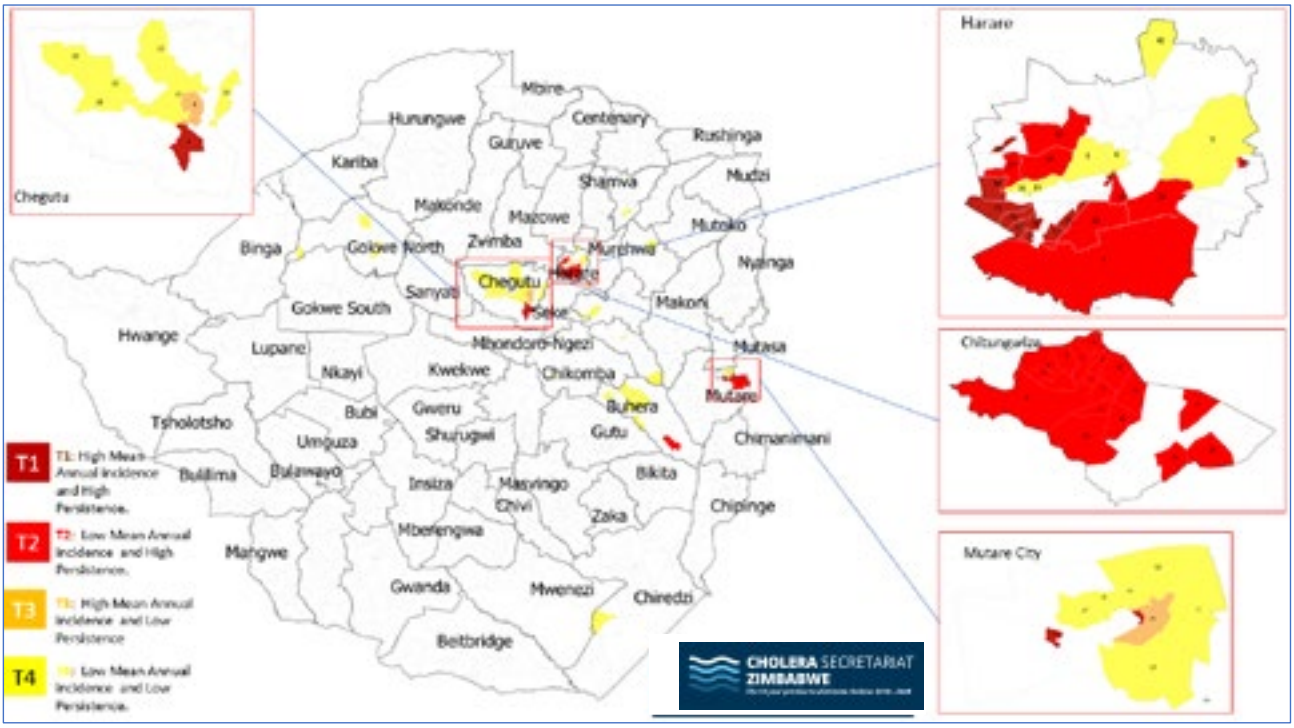
Mapping of existing plans, programmes, initiatives relevant for cholera at national level

1. National Health Strategy, 2016 - 2020
2. National Cholera Outbreak Emergency Preparedness and Response Plan, February 2019
3. National Strategic Plan for NTDs and STHs, Zimbabwe
4. National Action Plan for Public Health Security (NAPHS), 2019-2023
5. National Plan for upscaling of demand led Sanitation (Sanitation and Hygiene)
6. National Water Resources Master Plan (NWRMP), 2020-2040
7. Humanitarian response Plan (HRP) (access to water and Sanitation)
8. District Development Fund (DDF), Ministry of Rural Resources and Water Development
9. Zimbabwe Cholera Control Guidelines, Fourth Edition, September 2019

Table 5: Hotspot Indicators Threshold Values Applied Per Hotspot Type

Type of hotspot	Mean annual incidence (80th percentile value)	Proportion of weeks reporting cholera (50th percentile value)	Interpretation
T1	>60/100,000 persons	>2%	High Mean Annual incidence and High Persistence
T2	≤60/100,000 persons	>2%	Low Mean Annual incidence and High Persistence
T3	>60/100,000 persons	≤2%	High Mean Annual incidence and Low PPersistence
T4	≤60/100,000 persons	>2%	Low Mean Annual incidence and Low Persistence

Figure 6: Map showing Cholera hotspots, Zimbabwe



Data Source: Ministry of Health and Child Care, Zimbabwe

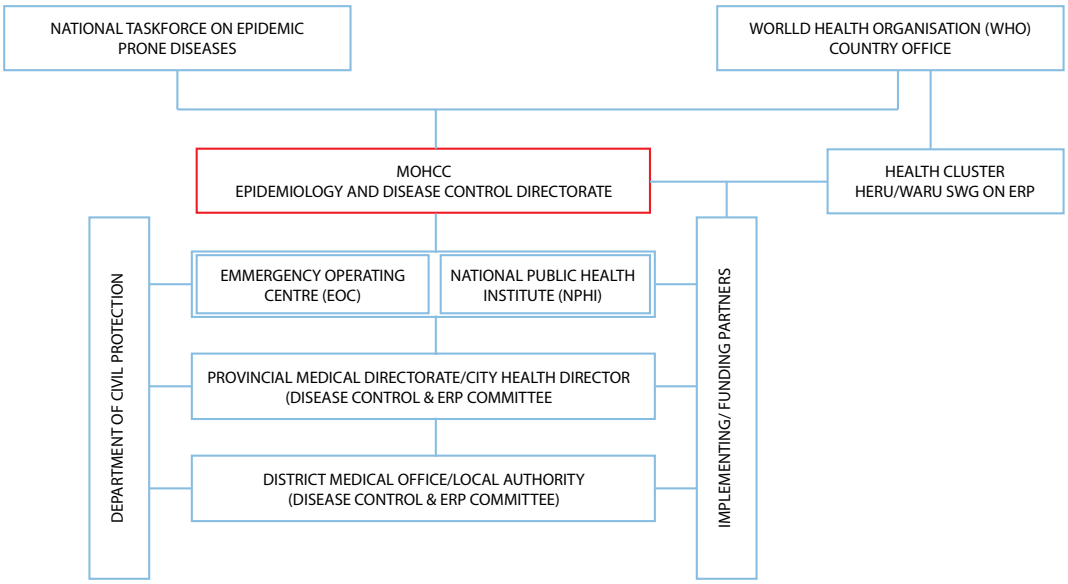
10. IDSR Technical Guidelines, February 2012
11. Handbook for the Public Health Emergency Operations Centre (PHEOC), Epidemiology and Disease Control Directorate, MOHCC., November, 2019
12. PHEOC Legal framework, November, 2019

The national Health Emergency preparedness and Response Framework

The Director Epidemiology and Disease Control (EDC) is responsible for operations of the PHEOC during and in between disaster/emergencies. Activation of various levels of operation is by the Permanent Secretary (PS) for Health and Child Care through communication to the top management and other Departments (Inter-ministerial meeting) represented by Permanent Secretaries (working party of Senior Officials).

The standing arrangements for EPR include; the national EPR task Force, IACCH. Within the MOHCC, the management of outbreaks and health related disasters is coordinated through Department of Epidemiology and Disease Control (EDC).

Figure 7: The National Health Emergency Preparedness and Response Framework



The PHEOC is set to strengthen the capacity of EDC in responding to all public health events including disasters and ensure the Ministry's stewardship role in coordinating management of such events. The proposed establishment of the National Public Health Institute (NPHI) which is an amalgamation of; the National Institute of Health Research, Government Analyst Laboratory, and National Microbiology Reference Laboratory is linked to the EOC and EDC. This will strengthen capacity of the MOHCC to implement a critical function of coordination of relevant Institutes/Organizations, training, research and development. In the event of an outbreak or other public health emergency, the Incident Management System is established according to WHO guidelines (WHO, ERF guidelines).

Validation meeting

In January 2020, a validation meeting held with key stakeholders, reviewed cholera elimination Roadmap strategies focusing on the 81 cholera hotspots, ongoing activities, gaps/challenges and proposed recommendations were incorporated in the roadmap.

Water Guard distribution in Glen View - Sept 2018

OCV exercise in Glen View - Sept 2018

ZIMBABWE'S GOAL AND COORDINATION MECHANISM

Coordination mechanism for cholera

To achieve the Global Roadmap objectives requires strong country level coordination and accountability across different sectors, highlighted as the Global Roadmap's Axis 3 (Establishing effective coordination mechanism for technical support resource mobilization and collaboration at national and global levels) as well as integrating monitoring and evaluation and developing capabilities. This is critical in the development and harmonization of multi-sectoral policy frameworks and partnerships, to facilitate cross-sectoral coordination mechanisms at different levels of government and across sectors for achieving cholera control or elimination.

Local and international partners at different levels of the sector have been mobilized to work together towards achievement of the common goal in the multi-sectoral multi-year plan for elimination of cholera in Zimbabwe. The national Cholera Plan for elimination takes into consideration existing initiatives that are aligned to objectives stated in the Global Roadmap, with clear roles and responsibilities among all stakeholders and partners.

Presidential and Cabinet commitment towards a comprehensive strategy is expected to inspire national response and trigger the much needed revamping and development of sectors in particular water and waste systems. Higherlife Foundation has provided a catalytic fund. On recommendation by the Government, Higherlife Foundation is coordinating NTFCE (a cabinet committee) by setting up and supporting the cholera Secretariat. NTFCE is leading Roadmap development and implementation. The Secretariat coordinates various stakeholders in developing the Roadmap.

Leadership and coordination of the Multi-Sectoral Cholera Elimination Plan, 2019 – 2028 will be provided by the Office of the President or Chief Secretary to the President and Cabinet. There will be structures to ensure the Multi-Sectoral Plan is effectively implemented and progress reported to the Office of the President regularly. Guidance will be provided in the development of a leadership and coordination strategy including meetings, frequency and reporting.

National Taskforce and the Cholera Partnership

The National Taskforce on Cholera Elimination brings together key representatives from Government, development partners, civil society and private sector to support the Inter-ministerial Cabinet Committee. The main objective of the NTFCE is to provide national level strategic leadership and coordination of technical roadmap, governance issues related to response and secretariat functions. The Cholera Partnership consists of the National Taskforce members as well as institutions and organizations engaged at the subcommittee level. This includes development partners, local authorities and municipalities; public health and WASH NGOs; community groups and advocates; as well as development finance institutions. The partnership is composed of 40-50 agencies working together to achieve elimination. The structure will be replicated at provincial and district levels, and will be responsible for: Water Sanitation and Hygiene (WASH) and Infrastructure Rehabilitation, Public Health Emergency Preparedness and Response i.e. Case management, Surveillance. Laboratory, Oral Cholera Vaccination etc. and Community Empowerment.

The Secretariat

The Cholera Elimination Secretariat with oversight provided by the steering committee will serve as a point of coordination for all stakeholders. The Secretariat will: facilitate and monitor roadmap progress; provide technical and administrative support, operations and recruitment; monitoring and accountability; capacity building, resource mobilisation and research; advocacy and stakeholder engagement.

Phase 1 (2019-2020)	Phase 2 (2021-2023)	Phase 3 (2024-2028)
• Preparation for implementation of multi-sectorial plan • Development and launch of the multi-sectorial elimination plan • High level Resource mobilisation meeting • Establishment of cholera control focal point person across multiple sector • Revision and finalisation of M & E Framework covering all pillars • Development of behaviour change community strategy • Implementation on OCV campaign in all cholera hotspots • Capacity building (including case management, surveillance and other multi-sectorial implementation staff • Monitoring and Evaluation of progress of implementation.	• Scale up implementation of the multi-sectorial plan focus on the 81 cholera hotspots • Focus on implementation of surveillance systems at community , health facility and laboratories , and district levels • Risk communication and community engagement to promote behaviour change • Restructuring and improvement of WASH facilities in the communities and health facilities • Monitoring and Evaluation of the processes • Cold chain supplies and equipment alongside the OCV preventive campaigns with improvement of WASH infrastructure in the hotspots • Operation research • Mid-term evaluation of the programme and re-plan • Review programme activities	• Health system strengthening to improve surveillance, case management through supportive supervision and mentoring • Other implementing sectors to plan and implement regular mentoring visits to mitigate any arising issues and ensure delivery of quality service • Maintenance and repair on cold chain equipment and WASH infrastructure • Reinforcement of behaviour change and communication strategy • Impact evaluation of the multi-sectorial plan • Dissemination of the findings to the national and international audiences • Development of process for certification of cholera-free districts.

Figure 8: Zimbabwe cholera elimination implementation Timelines

ENHANCED CHOLERA ELIMINATION STRATEGY

In the fight against cholera, the approach has mainly been favouring responsive actions that have limited and often short –term effectiveness. There is an urgent need to address the issue of recurring outbreaks: 2008/09 over 100,000 cases including over 4000 deaths; 2018/19, over 10,000 cases with 69 deaths were recorded. The roadmap seeks to address longer term interventions which invariably aim at both consolidating preparedness, and contribute to the development agenda in the National Development Plan (NDP) of attaining status of high middle income country by 2030. The development of multisectoral cholera elimination plan, high level advocacy, coordination, innovative financing and resource mobilization, and political will, avails opportunity for attainment of some of the broader goals of the NDP. A comprehensive monitoring and evaluation system as well as operational research will be critical ensuring progress towards elimination goal and contributions through different pillars and sectors to prevent cholera and other acute diarrhoeal diseases. This will necessitate comprehensive strategies that not only address cholera but also other acute diarrhoeal diseases of public health concern and underlying factors for transmission. The strategy will build on existing structures and functions of different sectors with targets in line with the Roadmap e.g., PHE, WASH cluster.

Aim: To reduce morbidity and mortality due to cholera, and eventually achieve elimination in Zimbabwe by 2028.

Objectives:

1. To strengthen surveillance and laboratory capacity to ensure early detection and quick response to contain outbreaks at early stage
2. To ensure a multisectoral approach to prevent cholera in hotspots in Zimbabwe
3. To put in place and sustain an effective mechanism of coordination for technical support, resource mobilisation and partnership at the local and national levels.

Considering the available evidence on the history of cholera, prevailing and potential risk factors associated with it in Zimbabwe, an enhanced multi-sectoral, multidisciplinary cholera elimination plan has been developed. The plan is guided by the Global Task Force on Cholera Control (GTFCC) global roadmap including aligning indicators to ending cholera in 2030. Efforts to Eliminate cholera require concerted efforts to prevent cholera through the implementation of a set of measures - such as long term WASH in areas most affected by cholera and by containing outbreaks through early detection and rapid response to alert.

Zimbabwe's Cholera Elimination road map is aligned to The Global Taskforce on Cholera Control (GTFCC) strategy "Ending Cholera—A Global Roadmap to 2030". Under the global initiative, cholera will be controlled or eliminated through a framework of six pillars :- i. Leadership and Coordination ii. Water and Sanitation iii. Surveillances & Reporting iv. Health Care System Strengthening v. Use of Oral Cholera Vaccine (OCV) vi. Community Engagement **(Figure 9)**. WASH and OCV that must be simultaneously implemented in line with GTFCC pillars . In line with these six pillars, Zimbabwe has adopted 5 multisectoral pillars 1) Public Health Emergency Preparedness and Response, 2) Water, Sanitation and Hygiene (WASH), 3) Infrastructure Rehabilitation, 4) Community Empowerment and 5) Innovative Financing and Resource Mobilisation. These will be operationalised in eight sub pillars which are discussed in detail below.

Figure: 9 Global Taskforce on Cholera Control Multi-sectoral Framework To End Cholera

School children in Glen View read cholera IEC material - September 2018

LEADERSHIP AND COORDINATION

Policy, Leadership, Coordination and Legal Framework

Coordination is key to optimizing response effort. Multi-sectoral coordination during the cholera outbreak of 2018, the civil protection committees at various levels led by the Ministry of Local Government and the IACCH contributed to the success of controlling the cholera outbreaks in a short time with low case fatality rate.

Strategic objectives for Leadership and Coordination:

Target: To have a functional and effective leadership and coordination mechanism for cholera elimination under office of the President established

Strategic objective 1: Ensure presence of very strong political commitment, effective inter-Ministerial and inter-agency coordination and multisectoral engagement of all stakeholders

Strategic objective 2: Ensure systematic coordination of multisectoral cholera elimination activities at all levels

Strategic objective 3: To monitor and report on implementation progress of cholera interventions and impact

Leadership and coordination mechanisms will be consolidated, with terms of reference for identified positions at all levels of governance, and working with key stakeholders develop operational plans with clear targets and indicators building on what is already in existence. Clear reporting lines across different sectors to the highest level will be established for accountability. Clear SOPS will be developed to guide the process. The NTFCE will focus on implementation of the strategy, monitoring and evaluation of its effect, and report to the highest level and feedback to the beneficiaries with focus on cholera hotspots.

Key functions of Leadership and Coordination

1) Establish Inter-Ministerial committee and review terms of reference for the NTFCE and development of National Operational plan
2) Conduct assessment of cholera preparedness in all districts with focus on hotspots
3) Assess feasibility of enacting legislation that enforces penalties levied by Environmental Management Act (EMA) including on local authorities
4) Establish multisectoral technical working groups to adapt and harmonise cholera elimination operational plans at national, provincial, district and ward levels
5) Actively advocate at all levels for the endorsement of the plan in hotspots
6) Development of resource mobilization plans and mobilise resources for implementation of the National Cholera Elimination Plan
7) Develop protocols to establish early warning protocols and multisectoral teams
8) Conduct regular meetings with all stakeholders to update and evaluate progress on implementation activities and develop corrective actions as needed.
9) Mainstream media engagement
10) Develop policy, legislation, protocols for establishment and operationalization of PHEOC and NPHI.
11) Establish a framework for Research development in collaboration with National Institute for Health Research (NIHR) and Universities.
12) Strengthen collaboration with Department of Civil Protection, Unit Emergency Operations Centre.

PUBLIC HEALTH EMERGENCY PREPAREDNESS AND RESPONSE

Strong coordination of the national preparedness and response functions to cholera, other disease outbreaks and other public health related emergencies including disasters is critical for guidance and effective mitigation of impact at all levels. There is also need for establishment and refurbishment of infectious diseases hospitals.

Strategic objectives for Public Health Emergency Preparedness and Response:

Target: To have a functional and effective coordination mechanism for cholera elimination at all levels. The major part of this component to be covered under the National Action Plan for Health Security (NAPHS).

Strategic objective 1: Establish a mechanism for effective coordination of EPR at all levels of governance

Strategic objective 2: Development of capacity for leadership and administration of EPR at national, provincial, district and health facility levels.

Strategic objective 3: To monitor and report on implementation of cholera elimination activities at all levels.

Key Functions of Coordination of National Preparedness and Response

1) Support establishment and operations of the National Public Health Emergency Operations Centre (PHEOC)
2) Install technologies for managing PHEOC information (hardware, installation of IDSR module into DHIS2), and build capacity for adaptation of modules at local Universities
3) Develop operational plan and establish sub-national PHEOCs
4) Develop plan for integration of sub-national PHEOCs at national level, at sub-regional level (SADC centred in Zambia) and Regional level (AFRO)
5) Drafting of Food Safety Act.
6) Develop national health policy taking into consideration national Health Strategic plan and human resources for Health
7) Develop mechanism for increasing financing to pollution remedies
8) Advocate for the development/review of legislation regulating human settlements and provision of essential services.
9) Review and print National cholera control guidelines and SOPs
10) Establish SOPs for cholera coordinating programme at national, provincial and district levels
11) Strengthen system for cholera logistics and supply chain management including establishment/strengthening mechanism for stockpiling in districts with hotspots wards
12) Conduct simulation exercises for outbreak preparedness and response
13) Build/strengthen capacity for leadership, administration of high and middle level managers including DHEs and at Health facility level.
14) Conduct supportive supervision in the hotspots
15) Establish and refurbish Infectious Disease Hospitals, one in each of the provinces
16) Conduct stakeholder analysis, logistics needs assessment and develop logistics plan
17) Include item on Food for cholera patients and staff within the costed operational plan for CTUs/CTCs
18) Establish an E-monitoring system for logistics such as vehicle use, medicines and sundries, disinfectants.

SURVEILLANCE

Zimbabwe is committed to build and maintain robust surveillance systems for priority diseases in the human, animal, and environmental sectors, for all levels through IDSR. Furthermore, decentralized integrated systems are being planned to efficiently track antimicrobial resistance in the human, animal, and environmental domains. Laboratory capacities for diagnostic and susceptibility testing exist, and the scope of their functions is also expected to be expanded. Additional developments include: Rapid Disease Notification System, and the DHIS2. Building on these structures and initiatives is expected to strengthen the capacity to detect and respond more effectively and rapidly to public health threats in the country including cholera and other acute diarrhoeal diseases of epidemic potential, thereby contributing to health system strengthening.

Zimbabwe has rules, legislation, laws, regulations, administrative requirements, policies, and other government instruments that support some of the IHR (2005) components. These will have to be assessed to determine if they facilitate full implementation of IHR (2005) for early detection, confirmation of suspected cases and response at all levels.

Cholera is one of the priority national notifiable medical conditions. Through the alert threshold, response is instituted with one suspected case reported. Once there is one laboratory confirmed case, response activities are scaled up including WASH interventions, community engagement and case management.

Strategic objectives for Surveillance:
Target: To Improve surveillance for timely detection and confirmation of cholera to quickly respond to outbreaks.

Strategic objective 1: To improve epidemiological and laboratory capacities to rapidly detect and confirm cholera (Rapid Diagnostic Tests and Culture capacity), and assessment of antibiotic susceptibility of the bacteria and tracking strains.

Strategic objective 2: Enhance capacity for integrated disease Surveillance system and response (IDSR), for timely detection, confirmation, reporting, and timely response to cholera outbreaks and monitor impact of the cholera control interventions, tracking national progress to elimination or control.

A key step in controlling cholera and reducing deaths is to strengthen and integrate Early Warning Surveillance Systems, including investigation of suspected cholera cases (require laboratory culture capacity and RDTs at District and Health facility levels). Well-functioning laboratories are critical to confirm Vibrio cholerae as causative agent and monitor outbreak, including testing for antibiotic sensitivity and track strains. Strengthening epidemiological surveillance of clinically suspected cholera cases, supported by strong laboratory capacity as well as environmental surveillance activities including WASH, food safety and hygiene monitoring will be critical to detect outbreaks early and monitor cholera burden in hotspots.

Key functions of surveillance

1) Strengthening capacity of multidisciplinary multi-sectoral rapid response teams (RRTs) for alert verification and outbreak investigation in cholera hotspot areas
2) Training of laboratory personnel on culture and isolation of cholera samples, and use of cholera RDTs in cholera hotspots
3) Strengthening/Building capacity for specimen (stool, food and water) management (sampling, transportation,

storage, cultures and antibiotic susceptibility at district level and molecular epidemiology to link outbreaks at national level.

4) Enroll Central reference in quality assurance program for stool cultures or Polymerase Chain reaction (PCR)
5) Assessing current laboratory capacity and developing master plan for laboratory development including laboratory information and quality assurance systems
6) Establishing an efficient system for procurement of cholera laboratory services (equipment, reagents) at district laboratories.
7) Provide training /refresher for health workers in IDSR, field epidemiology, Event based surveillance (EBS) and reporting
8) Equipping health facilities with modern electronic tools for eIDSR and sustaining mechanism for transmission of data
9) Establish/operationalize Cross-border collaboration and building of strong sub-regional preparedness and response strategy.
10) Establish/strengthen capacity for Community based disease surveillance integrated in on-going Community Based health programmes
11) Monitoring and Evaluation of the surveillance performance, community health status, identify gaps and strengthen the system
12) Develop and disseminate clinical laboratory guidelines standard Operations Procedures (SOPs) for collection, transportation and storage of laboratory specimens.
13) Adopt Global Task Force on Cholera Control (GTFCC) standardized tools for data collection and analysis (e.g., report templates, situation analysis) and disseminate data at all levels to all partners including global level
14) Train/refresher and equip environmental surveillance officers (field testing kits, reagents) for testing and treatment of drinking water sources using standardized tools (in collaboration with WASH).
15) Strengthen healthcare systems to ensure that cholera is well integrated with other disease control programmes, and surveillance is sustained in pot-outbreak phase
16) Equip health facilities with cholera RDTs and capacitate primary care nurses on

HLF NFI distribution - Sept 2018

CASE MANAGEMENT

Over the years, the country has witnessed rapid response to and reduction in case fatality rate (CFRs) from cholera (2018 outbreak, overall CFR = 0.68% and reduced duration compared to previous outbreaks). This is partly due to investments that have been made to strengthen the health system.

The health sector is mainly responsible for responding to outbreaks in terms of case management and surveillance.
Lessons from the previous outbreaks showed key factors associated with poor case management included; high case fatality rate at onset of outbreak due to inadequate access to treatment for geographic, social or financial reasons; lack/shortage of experienced manpower and inadequate materials, delayed healthcare seeking, lack of dedicated transport for patient referral to CTC/CTUs, limited capacity for managing complicated cases and patients with comorbidities (e.g., diabetic patients with cholera) cultural or religious factors against treatment, as well as low awareness. The CFR in specific areas (hotspots) remains high (> 1%).

Strategic objectives for Case Management:

Target: Reduction of transmission and overall death due to cholera by 90% by end 2028

Strategic objective 1: Reduction of CFR; by 2020 reduction by 50%, by 2024 reduction by 100% and 2028 elimination
Strategic objective 2: To ensure availability of infrastructure for early access to quality treatment as soon as symptoms appear.
Strategic objective 3: To strengthen/establish healthcare systems by ensuring availability of adequate medical supplies, trained human resources including at community level.
Enhancing case management will be achieved through strengthening healthcare system to anticipate cholera outbreaks (readiness) through capacity building of human resources for health involved in all interventions of cholera response.
Thorough data analysis and review reports of previous outbreaks will guide mapping 'hotspots' for cholera. The pre-positioning of resources for diagnostics and treatment (laboratory reagents, RDTs, culture media for confirmatory test, medication and Infection Prevention and Control (IPC) materials will be carried out in these areas by setting up provincial buffer stocks in districts with hotspot wards.

Patient care will also be strengthened by adhering to standard operating procedures, treatment guidelines and protocols on ORS, IV Fluids and antibiotics, the assessment and management of comorbidities, implementation of emergency WASH at Health facility level and at community level for maintaining Infection Prevention and Control and research.

Potential risk includes; high staff turn-over in the sector, and management of patients in the private sector. These concerns will be addressed through; induction and orientation of new staff, and address knowledge gap between private and address the knowledge gap between the private and public sector.

To ensure effectiveness of this domain it is necessary to have a strong leadership and coordination at national level (therapeutic committee, EDC MOHCC), provincial level (PEDCO), district (DMO), health facility (nurses in charge); and community level (village health worker).

Functions of Case management

1) Disseminate national cholera control guidelines to all provinces, districts, and health facilities including CTCs/CTUs
2) Strengthen capacity of District Level Rapid Response Teams in epidemic preparedness and response

3) Strengthen capacity of Healthcare workers on appropriate steps for clinical management, IPC and WASH, and referral
4) Build capacity of CTC/CTUs health workers in prevention and control of fecal-orally transmitted diseases
5) Build capacity among Community health care workers on preparation and administration of ORS, SSS.
6) Designate Health facilities that can be used as CTC/CTUs and those that regularly receive suspected cholera cases
7) Keep inventory of Healthcare workers trained in cholera case management including staff in CTC/CTUs in hotspots
8) Develop staff deployment plan (surge capacity) for anticipated outbreaks to minimize staff shortage.
9) Stockpile and prepositioning of Non-Food Items (NFIs) at Central level and at provincial, district levels in cholera hotspots wards.
10) Ensure access to safely managed water and sanitation services (including safe management of healthcare waste) in all health facilities including CTC/CTUs in hotspots.
11) Include cholera guidelines in pre-service as part of curricula in the medical and nursing schools
12) Ensure availability of well-equipped gender sensitive CTC/CTUs in hotspots to improve access and provide quality patient care.
13) Ensure availability of ambulances for patient referral
14) Strengthen capacity for supervision of health care providers including case management audit
15) Strengthen communication and transport systems for staff working at CTC/CTUs as well as supervisors.

Community public health education in Glen View

ADVOCACY AND COMMUNITY EMPOWERMENT

An epidemic of cholera can be quickly controlled when affected populations know how to protect themselves and relatives and the community is actively engaged to limit spread of the disease.
As the cholera elimination strategy promotes a multi-sectoral approach with different pillars of interventions that will all require community engagement for its success, these activities should be brought under one umbrella to leverage its strengths and available resources.
Risk communication strategies include setting up of risk communication systems; internal and partner communication and coordination; public communication; engagement with affected communities; dynamic listening and rumour management; comprehensive community engagement plan for long term behavioral change and in preparedness for outbreaks. The current health promotion and communication programme (sub-directorate) under MOHCC collaborates with partners from other sectors of the health system, and at community level the CHWs (Ward development officers). This constitutes a foundation for development of social mobilization strategies for Elimination of cholera.

Strategic Objectives for Advocacy and Community Empowerment:
Target: Acceptance of cholera preventive and treatment behavior among 90% of the population in identified hotspots by 2028.

Strategic objective 1: To promote cholera prevention in public settings (including schools, markets, religious/faith based groups, taxi and bus ranks/terminals, villages, recreational places, racial, ethnic or cultural groups, adolescent and women groups) among 90% of the population in hotspots by 2028.

Strategic objective 2: To mobilise relevant multi-sectoral stakeholders for all six pillars at district, provincial and national levels, to provide an enabling environment for cholera prevention among 90% of the population in the identified hotspots by 2028.

Thorough community engagement will be used to promote cholera control strategies, hygiene promotion, risk factors for cholera transmission and managing WASH facilities working with community leaders as agents of change. To enhance early detection and response to contain outbreaks, community engagement efforts will focus on educating communities on cholera prevention behaviors, case finding, promote increased fluid intake and early healthcare seeking. In terms of advocacy, focus will be on building partnerships, documentation of best practices and progress towards cholera control and elimination. Findings from assessment of knowledge, attitude and practices on cholera and; local risk factors will be utilized to consolidate focused behavior change messages.

Target audience
Within the hotspots target will include: Community leaders: councilors, traditional leaders, Ward development Committees, food handlers,
Opinion leaders: church leaders, headmasters, traditional healers, nurses. Others include; schools, faith based organisations, Health volunteers, and commuters.

Functions of Advocacy and Community Empowerment
1) Develop and disseminate a national community engagement plan and communication strategy to be integrated in other pillars.
2) Engage communities on issues related to cholera and advocate for correct legislation and prioritisation
3) Promote existing practices including clean-up campaigns for health and hygiene promotion
4) Engage communities to increase

preventive behavior including improved personal hygiene, solid waste management, household water treatment and handling, and food hygiene and safety practices.

5) Promote use of ORS including SSS at households and community levels.
6) Strengthen multi-sectoral health promotion plans and budgets for cholera targeting hotspots, cross-border areas and vulnerable populations.
7) Build capacity for Health workers, community volunteers and media on cholera control.
8) Develop relevant materials in collaboration with the community for distribution to the community (e.g., Information, education and communication on cholera symptoms, how to report cholera cases, where the treatment facilities are located, safe burial practices
9) Promote media advocacy to increase frequency and quality of media coverage about cholera target decision makers and people with influence and media managers decide which topics to cover, how and when.
10) Build capacity for risk communication, social mobilization for community leaders, opinion leaders and accountability.
11) Conduct research which will guide community engagement plan and risk communication strategy.
12) Develop and strengthen structures (i.e., local governance, community participation platforms and risk communication techniques) including private sector engagement in statutes and enforcement on housing settlements
13) Develop mechanism for documentation of health promotion interventions especially success stories to share with the public
14) Diversify sources of information: Establish call centres for health information and assistance 24/7, and community level information desks and kiosks so that people can get information quickly in addition to going to health clinics
15) Explore electronic health promotion messaging opportunities – partnering with the private sector during and between outbreaks.

OCV Administration in Glenview - 2018

WATER, SANITATION AND HYGIENE (WASH)

WASH is the key intervention to long-term cholera elimination. There is a need for collective effort to realise basic sanitation and water services. Recurrence of cholera is an indication of challenges and gaps in the sector, in particular: low access and coverage, open defecation, poor hygiene and dilapidated structure, unplanned and un-serviced human settlements, quality of water and deteriorating situation especially around Harare and a number of Urban Authorities.

Achieving basic levels of WASH not only prevents cholera, but also fulfils the human right to access water and sanitation. Zimbabwe is a signatory to the SDGs (SDG 6 covers WASH), and as such no one should be left behind in the process to fight cholera.

A real time reporting system on WASH called Rural WASH Information System) has been implemented in the rural areas but not in urban areas. This system needs to be harmonised/ synchronised with other Ministry of Health information systems.

Water quality monitoring is key to ensure the standards of sanitation and hygiene are achieved. Currently, the water quality monitoring kits are inadequate to cover national needs. Only one kit per district is available instead of one kit per Ward.

Strategic objectives for Water, Sanitation and Hygiene:

Target: Access to safe drinking water, and adequate sanitation and solid waste management at all service levels.

Strategic objective 1: To strengthen the WASH and solid waste management surveillance, preparedness and emergency response in cholera hotspots.

Strategic objective 2: To enhance the rehabilitation and expansion of water supply, sanitation, hygiene and solid waste management in cholera hotspots.

Strategic objective 3: To improve access to sustainable adequate safe water supply, sanitation, hygiene, and solid waste management services in cholera hotspots.

Strategic objective 4: Strengthen and empower Local Authorities through the creation of appropriate Legislative Framework by an enactment of an Act of Parliament and/or provision of a Statutory Instrument.

Ensuring basic water, basic sanitation, basic hygiene practices and solid waste management is vital for the successful prevention of cholera. The immediate WASH and solid waste response will focus on WASH surveillance, preparedness and prioritizing and accelerating the provision of "basic services" to the cholera hotspots, whilst on the long-term, sustainable solutions will be sought to ensure basic WASH and solid waste management practices to wider populations. There is a need for preparedness at all levels, access to clean drinking water and good infrastructure.

1) Develop/update guidelines e.g., including WASH for IPC in CTU/CTCs, water quality surveillance, WASH in affected and at risk populations, preparedness and logistical plans for distribution of commodities, SOPs and strategies related to WASH in emergency settings and determine dissemination plan.
2) Support sanitary inspections and mapping of water facilities, and stakeholders for WASH management in the cholera hotspots by province, district, wards and community.
3) Explore legislation review to increase availability and sustainability of use of household water treatment (HWT) supplies (e.g., through PPP, waiver of taxes on water and treatment products, local production of HWT supplies).
4) Establish/strengthen an early warning WASH and solid waste surveillance system.
5) Establish/strengthen rapid emergency

WASH, solid waste and Health response teams (RRTs) for field investigation, risk evaluation and immediate response.

6) Provide and promote access to basic drinking water sources (either household-connection, public stand pipe, borehole, protected spring or rain water collection) within a 30-minute round trip.

7) Strengthen capacity for water quality surveillance in urban and rural areas, and utilization of data for action

8) Provide and promote access to basic solid waste services (subscribing to available systems, promote private sector participation)

9) Engage with communities in interventions promoting good sanitation, hygiene and solid waste management practices including hand-washing facilities, and use of Oral Rehydration Solution

10) Develop and implement Action plans for management of contaminated water sources

11) Strengthen capacity for WASH and IPC in CTUs/CTC including distribution of guidelines, job aids and supplies (HTH, containers)

12) Training in infection prevention and control (IPC) for healthcare workers, CHWs, mortuary attendants, undertakers, public or private transport operators

13) Community awareness on IPC during cholera outbreaks (household water treatment, hand washing, facility waste disposal, patient transportation, fomites and environmental disinfection).

14) Develop SOP for managing burials, funeral workers, disinfection procedures in mortuaries and parlours, transportation, community level IPC SOPS on water treatment chemical standards for communities and institutions.

15) Establish and train IPC focal persons at community, village level (VHWs), school, special groups (religious, cultural, migrant (refugee) and institutions (prisons).

16) Establish/strengthen school health clubs to promote hygiene

17) Operate media campaigns disseminating cholera-related materials

18) Celebrating national days related to WASH

19) Strengthen/establish water treatment and water quality monitoring systems at source, facility and household levels.

20) Promote and provide hand-washing facilities with soap and water in all health facilities, public places next to toilets, food preparation and serving areas, schools, churches and workplaces focusing on hotspot areas

21) Design and prepare harmonized WASH and solid waste management related materials for advocacy and promotion in cholera hotspots

22) Strengthen legal and policy framework for the regulation and enforcement of WASH and solid waste management (including alignment and updating of existing policy, development and enforcement of new policies and share best practices across districts/areas)

23) Invoke Public Health Act to ensure that objectors comply

24) Conduct research to inform basic hygiene interventions and community engagements to manage WASH resources/to promote safe hygiene practices

25) Ensure stockpile and logistics of non-Food items (NFIs) and hygiene items.

Sewer pipe rehabiliation Glen View - 2018

URBAN AND RURAL WASH INFRASTRUCTURE

Because of its importance nationally and being capital intensive, WASH infrastructure especially in hotspots areas/districts has been addressed separately. The focus is on the infrastructure sector and rehabilitation of water and waste systems. Through consultative workshop, discussions covered the following aspects; policy and legislation; WASH infrastructure interventions; maintenance and upgrading of water and sewer treatment plans; identification and construction of new water sources; extending water and waste water distribution systems to un-serviced formal settlements; development of sanitation facilities (household and institutional); and improved utility efficiency.

Drilling of boreholes especially in urban centres to increase supply of potable water is not a sustainable solution because even the borehole water may not be clean and safe for drinking.

The current water treatment plants need to be optimised before new sources of water are financed.

Strategic objectives for Urban and Rural WASH Infrastructure:
Target: Renovate, overhaul and install water & sewer infrastructure in targeted hotspots.

Strategic objective 1: To improve bulk water access and treatment
Strategic objective 2: To increase capacity of clean water transmission storage and distribution.
Strategic objective 3: To strengthen the capacity of wastewater management (collection, transmission, treatment and disposal) in hotspots.

1) Map existing strategic water sources including feasibility studies in hotspots for development of water supply.
2) Conduct WASH interventions in hotspots [e.g., Water supply – water infrastructure quick fixes (rehabilitation of hand pumps, replacement of filtration systems and/or chlorination system), provision of chlorinated water;
3) Finalise WASH and Infrastructure Masterplans with focus on hotspots to identify gaps and develop appropriate solution
4) Increase clean water transmission, storage and dissemination for cholera hotspots through construction of water supply systems (e.g., expanding piped network) and reducing non-revenue water through advocacy and empowerment
5) Construct and promote on-site and off-site sanitation networks (bulk and decentralized sewerage systems, repair and expand sewer pipe network, reduce sewer infiltration), fecal sludge management systems in the hotspots
6) Prioritise and address large scale WASH Infrastructure interventions:
Repairs, maintenance, upgrades & installation of water & sewer treatment plants (including stockpiling water treatment chemicals, expanding treatment plant capacity and water quality testing)
7) Identification and construction of new water sources: Increase bulk raw water access (construction of new dam, desilting existing dams)
8) Repair and provision of plant and equipment.
9) Provision of water treatment chemicals and water testing kits,
10) Immediate intervention: testing and treating communal water points including shallow wells at rural homesteads,
11) Waste disposal management at rural community level targeting the girl child, and
12) Establishment of community based self-help projects and other participatory community engagements platforms

Table 7: Priority activities for WASH Infrastructure

Sub domain	Phase 1(2019-2020)	Phase 2(2021-2023)	Phase 3(2024-2028)	Required technology & innovation	Required skills & capacities
Water Infrastructure	Policy and legislation: - Completion of NWRMP -Alignment of National water policy to the current legislation - Framework agreements on procurement of water chemicals	Duty free for water and wastewater materials and consumables			
Community Water Supply	- water quality sampling and testing; - community awareness campaigns; - increasing water points; providing alternative water sources, to meet the standard of minimum of 20 litres of water per person, per day - enforcement of water extraction regulations; - capacity building (Training and equipping of the community – e.g. pump minders)	- Provision of water testing kits at community neighborhood level - water harvesting (Rainwater and surface water); - upgrading existing infrastructure; - increase portable water points; - planned settlements	- decentralization of wholesome water quality testing; - planned settlements; - reticulated Water Supply to cover new areas	- mapping water points on GIS; - online monitoring; - online chlorination	
Bulk Raw Water Access	- pollution control, - desiltation of dams, maintenance & rehabilitation of existing water sources, - drilling of new boreholes, - completion of existing projects, - research, - feasibility studies, - raising public awareness	- pollution control, desiltation of dams, - new dam & weir construction, - drilling of new boreholes, - completion of existing projects, - research, feasibility studies, - public awareness,	- desiltation of dams, - new dam & weir construction, - drilling of new boreholes, - research, - public awareness	Research: - to mitigate effects of climate change, - for new technologies, Migration from bush pumps to solar powered communal piped water schemes	financial capacity, technological skills, as well as planning and management
Bulk Water Treatment including Water Quality Monitoring and Surveillance	Awareness on use of dams (nets, cans), stop polluting water sources, investigate alternative raw water sources, rehabilitation of aged infrastructure and equipment, facilitate the acquisition of water treatment chemicals, capacity building	expansion of treatment plants •	design of new plants, employ technology in treatment system	Remote control of the plant activities. (SCADA)	• modern treatment methods e.g., - New chemical formulas - train water works attendants, technicians and engineers; • exchange programs with other cities (international) • home initiated exchange programs e.g.; - twining with other councils • research and development

Sub domain	Phase 1(2019-2020)	Phase 2(2021-2023)	Phase 3(2024-2028)	Required technology & innovation	Required skills & capacities
Clean Water Transmission, Storage and Distribution	• meter replacement; • pipeline replacement; • active leak detection; • pressure management	• new pump installation; • pipe upgrades and expansions into new areas; • establishment and upgrades of the GIS system; • reservoir repairs	• new pump stations; • duplication of bulk mains; • construction of reservoirs and water towers; • expansion of network into new areas; • level Control devices, SCADA and telemetry	• GIS, Telemetry and SCADA, ISO Certification; • new pipe materials e.g. GRP, smart metering, active Leak detection, programmable PRV systems, hydraulic modeling in design and monitoring, • use of Drones in surveys, development surveys, data collection and terrain modeling; CCTV	• Young professional Engineers; • planned maintenance and Asset management systems; • peer review programs (Local and Regional) / Twinning arrangements; • Staff development and continuous training
Wastewater Collection Reticulation and Transmission	• Replace broken manholes, Pressure jetting of sewer pipes, • replace broken sewer lines, • education and awareness campaigns, • use of sand and gully traps	• Connecting properties to sewer system, • upgrade of outflow sewer	• replacing aged sewer reticulation, • installation of IT software systems for monitoring sewer systems		• Engineers training and exposure to new technologies, • technicians' skills development peer to peer training and specialized institute training e.g. Institute of water, artisans training and skills development, • attachment to manufacturers and Institutions
Waste water Treatment and Disposal	• Water quality sampling and testing, • Planned rural settlements, • Water quantity testing, • Community awareness campaigns, • Increasing water points, • Providing alternative water sources, • Enforcement of water extraction regulations, • Capacity building (Training and equipping of the community)	• Provision of water testing kits at community level, • Water harvesting (Rainwater and surface water), • Upgrading existing infrastructure, • Increase portable water points, • Planned settlements	• Decentralization of wholesome water quality testing, • Planned settlements, • Reticulated Water Supply	• Mapping water points on GIS, • Online monitoring, • Online chlorination	• revision of local design and construction standards for water treatment plants, distribution and storage

OCV administration in Glen View - 2018

ORAL CHOLERA VACCINE

Oral Cholera Vaccine (OCV) has been adopted as one of the domains within the Public Health Pillar in the strategy to end cholera. Following the successful campaign during the last cholera outbreak of 2018 in Harare, Chitungwiza, and Seke district as well as among displaced people in Chimanimani following devastating floods and inclusion there is a strong commitment to ensure high coverage of Zimbabwe population living in all hotspots are vaccinated with OCV.

Strategic objective 1: To promote optimal use of OCV to the population in cholera hotspots.

Strategic objective 2: To establish contingency agreements with agencies and suppliers to ensure efficient planning and coordination for effective supply management

Strategic objective 3: To ensure OCV is integrated with other Global Roadmap Pillars including conducting WASH activities and re-inforce access to WASH in long term after vaccination campaign

All the identified 81 hotspots will be covered, with the aim of achieving high coverages >80%; opportunity will be used to consolidate WASH interventions such as water treatment at household level and hand washing promotion to immediately reduce risk of disease transmission. In order to contain cholera outbreaks, reactive mass vaccination campaign with OCV will be initiated as soon as cases are confirmed. Information on identified cholera hotspots for OCV campaigns and estimated doses is summarized in Annex 3.

OCV interventions

1) Integrate OCV as part of the National cholera elimination plan integrated with WASH in the hotspot
2) Develop micro-plans for OCV campaigns in 81 hotspots wards
3) Procure OCV stocks to cover 2 rounds in 81 hotspots wards
4) Development of Training and refresher training plans to guide the implementation of required capacity to conduct the campaigns in the hotspot areas
5) Update/develop vaccination technical guidelines, communication and monitoring assessment tools including adverse events following immunization.
6) Consider cold chain assessment for vaccine storage, transportation and other logistics.
7) Development of IEC materials in different languages
8) Training of the rest of healthcare workers (including community healthcare workers) outside hotspot areas in Tiers 3 and 4
9) Application for OCV for Tiers 3 and 4.
10) Vaccination of population moving into high risk areas (Tiers 1, 2, 3, 4)
11) Inclusion of Private sector receiving and reporting on OCV
12) Integrate OCV training in the national curriculum (all medical/nursing/environmental)
13) Plan for post campaign evaluation (coverage surveys).

Table 8: Operational Plans By Sub-Pillar

1]. Leadership and Coordination					
Target: To have a functional and effective leadership and coordination mechanism for cholera elimination under the office of the President established.					
Strategic Objective	**Activities**	**Responsible Stakeholder/ Institution**	**Timeline**	**Indicator**	**Remarks**
1.1 Establish and operationalize coordination mechanism (Inter-Ministerial, Multisectoral and inter-agency)	1.1.1 Establish Inter-Ministerial committee with clear terms of reference	MoHCC/ MLGPW	2019-20	Functional coordination mechanism created	Strengthen collaboration with Civil Protection Unit Emergency Operations Centre.
	1.1.2 Develop a National Cholera Elimination Strategic Plan, 2019-2028	MoHCC/ MLGPW	2019-20	Strategic plan created and disseminated	The process is based on the GTFCC guidelines on cholera elimination Roadmap and lessons learnt from the previous response have been factored to determine priority key interventions to be implemented
	1.1.3 Development of a leadership and coordination strategy including TORs (national, provincial, district and community levels)	MoHCC/ MLGPW	2019-20	Leadership and coordination strategy created and disseminated	Establish multisectoral technical working groups to adapt and harmonise cholera elimination operational plans at national, provincial, district and community levels
					Conduct stakeholder mapping with clear roles and responsibilities at all levels
	1.1.4 Develop advocacy materials on cholera elimination and disseminate to relevant stakeholders at all levels.	MoHCC	2019-20		Strengthen national, provincial and district coordination structures with NGO focal agencies to prioritise cholera elimination activities, ensure monitoring and reporting on progress
	1.1.5 Develop legislation, policy, protocols for establishment and operationalization of PHEOC	Epidemiology Directorate - MoHCC	2019-20	Protocols for operationalization of EOC created	
	1.1.6 Establish framework for Research development in collaboration with National Institute for Health Research (NIHR) and Universities.	MoHCC	2019-20	Framework for research created	
1.2. Establish coordination of cholera elimination activities at all levels	1.2.1 Conduct assessment of cholera preparedness and response in districts with hotspots	WHO/ MoHCC	2019-20	Cholera preparedness assessment conducted	Ensure systematic coordination of multisectoral cholera elimination activities at all levels

Strategic Objective	Activities	Responsible Stakeholder/ Institution	Time-line	Indicator	Remarks
	1.2.2 Development of resource mobilization plan and mobilise resources for implementation of the national cholera elimination plan	MoF	2019-20	Resource mobilization plan created and disseminated	
	1.4.1 Conduct regular meetings with all stakeholders to update and evaluate progress on implementation activities and develop corrective actions as needed.	NTF	2019-20	Quarterly National Task Force meetings conducted	To monitor and report on implementation progress of cholera interventions and impact
2]. Public Health Emergency Preparedness and Response					
Target: To have a functional and effective coordination mechanism for epidemic and other public health emergencies at all levels.					
Strategic Objectives	**Activities**	**Responsible Stakeholder/ Institution**	**Timeline**	**Indicator**	**Remarks**
2.1 Establish mechanisms for coordination of EPR at all levels of governance	2.1.1 Support establishment and operationalization of the Public Health Emergency Operations Centre (PHEOC)	Higherlife Foundation, WHO	2019-20	Emergency Operations Centres launched and fully operational	Develop guidelines, equip, recruit core staff and conduct training on PHEOC management
	2.1.2 Install technologies for managing PHEOC information (computers, Television monitors, Internet, Printers, work station)	Higherlife Foundation, WHO	2019-20		
	1.2.3 Develop guide to establish early warning protocols and multisectoral teams in hotspots	MoHCC/ WHO	2019-20		
	2.1.3 Develop operational plan and establish sub-national PHEOCs to be integrated at national level	Higherlife Foundation, MOHCC, WHO	2019-20		Develop plan for further integration at sub-regional level (SADC centred in Zambia) and Regional level (AFRO)
	2.1.7 Review and print National cholera control guidelines and SOPs	MoHCC/ WHO	2019-20	Percent of health facilities per hotspot district with access to and usage of adequate standard operating procedures (SOP) on screening, diagnosing, and treating cholera patients	The guidelines to be distributed to all provinces, districts and health facilities

Strategic objective	Activities	Responsible Stakeholder/ Institution	Timelines	Indicator	Remarks
	2.1.8 Establish SOPs for cholera coordinating programme at national, provincial and district levels	MoHCC/ WHO	2019-20		
	4.1.2 Establish mechanism for strengthening capacity of District Rapid Response Teams (RRTs)	MoHCC/ WHO	2019-20	Percent of hotspot districts with operational WASH rapid response teams	Cascading /capacity building of RRTs and CATIs in districts with hotspots
	2.1.10 Conduct simulation exercises for outbreak preparedness and response at national level	MoHCC/ WHO/ UNICEF	2019-20	Number of simulation exercises conducted per year	Type of SIMEX to be defined based on the need within broader context of EPR
	2.1.11 Conduct stakeholder analysis, logistics needs assessment and develop logistics plan	Local Authorities/ MLGPW	2019-20		
2.2 Development of capacity for leadership and administration of EPR at national, provincial, district and health facility levels.	2.2.1 Develop/review legislation regulating human settlements and provision of essential services.	MoHCC/ MLGPW	2019-20	Percent of healthcare and community health workers per hotspot district trained on cholera emergency preparedness and response within last two years	
	2.2.2 Build/strengthen capacity for leadership, administration of high and middle level managers including DHEs and at Health facility level.	Health Information Directorate - MoHCC	2019-20		
					Explore possibility of operation through PPP, waiver of taxes on water and treatment products, and local production of HWT supplies
	2.2.4 Develop national health policy taking into consideration national Health Strategic plan and required human resources for Health	MoHCC	2019-20	Percent of health facilities reporting weekly cholera data through Integrated Disease Surveillance and Response (IDSR) system	Compute required health staff for cholera elimination activities in hotspots for inclusion in the National Health Strategic Plan
2.3 To establish mechanism to monitor and report on implementation of cholera elimination activities at all levels.	2.3.1 Conduct supportive supervision in the districts with hotspots	MoHCC	2019-20		Develop system for monitoring implementation of cholera elimination activities based on GTFCC data collection tools
	2.3.2 Establish system (E-monitoring) of logistics such as vehicle use, medicines and sundries, disinfectants.	Health Information Directorate - MoHCC	2019-20		Consider joint monitoring

3]. Surveillance					
Target: Improve surveillance for timely detection and confirmation of cholera to quickly respond to outbreaks.					
Strategic objective	**Activities**	**Responsible Stakeholder/ Institution**	**Timelines**	**Indicator**	**Remarks**
3.1 To strengthen epidemiological and laboratory capacities to rapidly detect and confirm cholera outbreak , and monitor response.	3.1.1 Develop capacity of multidisciplinary multi-sectoral rapid response teams (RRTs) for alert verification and outbreak investigation in cholera hotspot areas	Epidemiology Directorate - MoHCC	2019-20	Percentage of clinical laboratories with ability to test suspected cholera cases with PCR or culture*	
	3.1.2 Conduct training of laboratory personnel on culture and isolation of V. cholerae, and use of cholera RDTs in cholera hotspots	Case Management - MoHCC/ Lab	2019-20		
	3.1.3 Develop system for strengthening capacity for specimen (stool, food and water) management at district level	Case Management - MoHCC/ Lab	2019-20		Develop and disseminate laboratory standard operations procedures (SOPs) for sampling, transportation, storage, cultures and antibiotic susceptibility
					Develop capacity for molecular epidemiology to link outbreaks at national level.
	3.1.4 Enroll Central reference in quality assurance program for stool cultures or Polymerase Chain reaction (PCR)	Case Management - MoHCC/ Lab	2019-20		
	3.1.5 Assess current laboratory capacity and develop master plan for laboratory development including laboratory information and quality assurance systems	Case Management - MoHCC/ Lab	2019-20	Percent of health facilities in hotspot districts with functional (non-expired) rapid diagnostic testing (RDT) kits available	
	3.1.6 Develop system for procurement of cholera laboratory services (equipment, reagents) at district laboratories.	Case Management - MoHCC/ Lab	2019-20		

Strategic objective	Activities	Responsible Stakeholder/ Institution	Timelines	Indicator	Remarks
3.2 Enhance capacity for integrated disease Surveillance system and response (IDSR), for timely detection, confirmation, reporting, and timely response to cholera outbreaks and monitor impact of the cholera control interventions, tracking national progress to elimination or control.	3.2.1 Provide training / refresher for health workers in IDSR, field epidemiology, Event Based Surveillance (EBS) and reporting	Health Information Directorate - MoHCC/ Epidemiology Directorate,	2019-20	Percent of healthcare and community health workers per hotspot district trained on cholera emergency preparedness and response within last two years	Ensure timeliness and completeness of reporting on cholera, and surveillance is sustained in post-outbreak phase
	3.2.2 Equip health facilities with modern electronic tools for eIDSR and sustaining mechanism for transmission of data	Health Information Directorate - MoHCC/ Epidemiology Directorate	2019-20		Explore possibility of installation of IDSR module into DHIS2, and build capacity for adaptation of modules in collaboration with local Universities
	3.2.3 Establish mechanism for cross-border collaboration and building of strong sub-regional preparedness and response strategy.	Epidemiology Directorate - MoHCC	2019-20	Percent of health facilities reporting weekly cholera data through Integrated Disease Surveillance and Response (IDSR) system	Support operationalisation of MOUs on cross-border collaboration in epidemic control between Zimbabwe and neighbouring countries
	3.2.4 Establish system for strengthening implementation of community based disease surveillance in hotspot wards	Epidemiology Directorate - MoHCC	2019-20		Develop mechanism for integration of community based disease surveillance in on-going Community Based health programmes in districts with hotspots
	3.2.5 Develop a system for conducting Monitoring and Evaluation of the surveillance performance, community health status, identify gaps and recommendations for strengthening the system	Health Information Directorate - MoHCC/ Epidemiology Directorate	2019-20		Adopt Global Task Force on Cholera Control (GTFCC) standardized tools for data collection and analysis (e.g., report templates, situation analysis) and disseminate data at all levels to all partners including global level
	3.2.9 Equip health facilities with cholera RDTs and capacitate primary care nurses on their use in cholera hotspots	Epidemiology Directorate - MoHCC/ Pharmacy Department	2019-20	Percent of health facilities in hotspot districts with functional (non-expired) rapid diagnostic testing (RDT) kits available	Develop capacity for early detection of cases at periphery health facilities in hotspot areas
4]. Case Management					
Target: Reduction of transmission and overall death due to cholera by 90% by end 2028					
Strategic objective	**Activities**	**Responsible Stakeholder/ Institution**	**Timelines**	**Indicator**	**Remarks**
4.1 To strengthen capacity for cholera case management with CFR <1% and limit spread by end of 2028.	4.1.1 Disseminate national cholera control guidelines to all provinces, districts, and health facilities including CTCs/ CTUs	Nursing Directory - MoHCC/ Epidemiology	2019-23	Percent of health facilities per hotspot district with access to and usage of adequate standard operating procedures (SOP) on screening, diagnosing, and treating cholera patients	Develop guide on how to operate a CTU/CTC

Strategic objective	Activities	Responsible Stakeholder/ Institution	Timelines	Indicator	Remarks
	4.1.2 Conduct training of Healthcare workers on appropriate steps for clinical management, IPC and WASH, and referral	Nursing Directory - MoHCC/ Epidemiology/ Environmental Health	2019-28		Develop capacity of healthcare workers on appropriate management of acute diarrhoea cases including dysentery, typhoid fever including rational use of medicines (especially antibiotics)
	4.1.3 Establish mechanism for inclusion of cholera guidelines in pre-service as part of curricula in the medical and nursing schools	Nursing Directory - MoHCC/ Epidemiology	2024-28		Establish mechanism to increase on number of staff with relevant capacity for management of acute diarrhoea cases including dysentery, typhoid fever, and rational use of medicines (especially antibiotics)
	4.1.4 Develop system for supervision of health care providers including case management audit	Nursing Directory - MoHCC/ Epidemiology	2020-21		Ensure the quality of care at the CTU/CTCs
	4.1.5 Training in infection prevention and control (IPC) for healthcare workers, CHWs, mortuary attendants, undertakers, public or private transport operators	Nursing Directory - MoHCC/ Epidemiology/ Environmental Health	2020-28		Build capacity of CTC/CTUs health workers in prevention and control of fecal-orally transmitted diseases and minimise spread of infection in community
4.2 To develop a system of infrastructure for early access to quality treatment as soon as symptoms appear.	4.2.1 Designate Health facilities that can be used as CTC/CTUs and those that regularly receive suspected cholera cases	Epidemiology Directorate	2020	Number of cholera treatment centres and oral rehydration points per affected district during outbreaks	Ensure availability of well-equipped gender sensitive CTC/CTUs in hotspots to improve access and provide quality patient care.
	4.2.2 Establish mechanism to access safely managed water and sanitation services (including safe management of healthcare waste) in all health facilities including CTC/CTUs in cholera hotspots	Environmental Health Directorate	2020-23		Ensure availability of ambulances for patient referral, and communication, as well as safe transport for staff working in CTC/CTU
4.3 To develop healthcare system with provision for infection prevention and control, availability of adequate medical supplies, trained human resource including at community level.	4.3.1 Establish and refurbish Infectious Disease Hospitals, one in each of the provinces	Epidemiology Directorate	2024-28		The designated health facilities will be used for other infectious diseases. Cholera patients to be managed in CTU/CTCs
	4.3.2 Keep inventory of Healthcare workers trained in cholera case management including staff in CTC/CTUs in hotspots	PMD - HR	2020-28		Develop staff deployment plan (surge capacity) for anticipated outbreaks to minimize staff shortage.
	4.3.3 Develop a mechanism for estimating cholera logistics and supply chain management including stockpiling in districts with hotspots	Environmental Health Directorate	2020		

Strategic objective	Activities	Responsible Stakeholder/ Institution	Timelines	Indicator	Remarks
	4.3.4 Develop SOP for managing burials, funeral workers, disinfection procedures in mortuaries and parlours, transportation, community level IPC	Environmental Health Directorate	2020-23		
	4.3.5 Develop SOPs on water treatment chemical standards for communities and institutions.	Water Directorate - MLGPW	2020-23		
	4.3.6 Establish system for monitoring cholera preparedness and response activities in districts with hotspots	Epidemiology Directorate	2020-21		Establish system (E-monitoring) of logistics such as vehicle use, medicines and sundries, disinfectants.
5]. Advocacy and Community Empowerment					
Target: Acceptance of cholera preventive and treatment behavior among 90% of the population in identified hotspots by 2028.					
Strategic objective	**Activities**	**Responsible Stakeholder/ Institution**	**Timelines**	**Indicator**	**Remarks**
5.1 To promote cholera prevention in public settings (including schools, markets, religious/faith based groups, taxi and bus ranks/terminals, villages, recreational places, racial, ethnic or cultural groups, adolescent and women groups) among 90% of the population in the identified hotspots by 2028.	5.1.1 Develop and disseminate a national community engagement plan and communication strategy	SBCC - MoHCC/ Local Government	2020-23	• Percent of schools per hotspot Wards reached with cholera behaviour change messaging in last 6 months • Percent of churches per hotspot ward reached with cholera behaviour change messaging in last 6 months • Percent of households in hotspot Wards who can identify cholera symptoms and treatment • Percent of households in hotpot Wards who can identify cholera transmission routes and prevention measures	The communication strategy to be integrated in other pillars.
	5.1.2 Promote existing practices including the monthly clean up campaigns for health and hygiene promotion	SBCC - MoHCC/ Local Government	2020-28		Develop mechanism to disseminate cholera prevention messages integrated in the monthly clean up campaigns with focus on the hotspots
	5.1.3 Develop a system for mainstream media engagement to operate campaigns disseminating cholera related material	SBCC - MoHCC/ Local Government	2020-28		Engage the Ministry of Information and representation of media houses to develop mechanism for inclusion of cholera elimination in priority programmes/content for national coverage on regular basis

Strategic objective	Activities	Responsible Stakeholder/ Institution	Timelines	Indicator	Remarks
	5.1.4 Develop system to provide hand-washing facilities with soap and water in all health facilities, public places next to toilets, food preparation and serving areas, schools, churches and workplaces focusing on hotspot areas	Health Promotion and Environmental Health	2020-28		
	5.1.5 Develop relevant materials in collaboration with the community for distribution to the community (e.g., Information, education and communication on cholera symptoms, how to report cholera cases, where the treatment facilities are located, safe burial practices	SBCC - MoHCC/ Local Government	2020-28		
	5.1.6 Conduct training of Community health care workers on preparation and administration of ORS, SSS, and promotion of hygiene and food safety.		2020-28		Promote early initiation of rehydration using ORS, SSS at households and community levels and on the way to the health facility
	5.1.7 Build capacity for Health workers, community volunteers and media on cholera control.		2020-28		Promotion of hygiene and food safety.
	5.1.8 Develop guide for conducting health and hygiene promotion through approach of Community health clubs (markets, schools, villages – at least one per each category)		2020-23		Build on experience from existing structures e.g school health clubs • Promote community engagement through: - Participatory health and hygiene education - Child to child - Community health volunteers (1 volunteer for every 200 households) • Other approaches: - Door to door hygiene awareness - Radio talk shows (monthly in hot spots) - Community engagement meetings

Strategic objective	Activities	Responsible Stakeholder/ Institution	Timelines	Indicator	Remarks
	5.1.9 Engage communities to increase preventive behavior including improved personal hygiene, solid waste management, household water treatment and handling, and food hygiene and safety practices.	SBCC - MoHCC/ Local Government	2020-28		Build system to conduct awareness campaigns (road shows, clean up campaigns, radio talk shows, adverts etc), food hygiene awareness campaigns in hotspots
	5.1.10 Develop mechanism to diversify sources of information: Establish call centre for health information and assistance 24/7, and community level information desks and kiosks so people can get information quickly in addition to going to health clinic	SBCC - MoHCC/ Local Government	2020-23		Incorporate cholera prevention and control messages into existing community based programmes
5.2 To develop mechanism to mobilise relevant multi-sectoral stakeholders for all six pillars at district, provincial and national levels, to provide an enabling environment for cholera prevention among 90% of the population in the hotspots by 2028.	5.2.1 Engage communities on issues related to cholera and advocate for correct legislation and prioritization	SBCC - MoHCC/ Local Government	2020-28	• Percent of informal housing settlements in hotspot ward without access to basic levels of water and sanitation services • Percent of local government authorities in hotspot districts with a budget allocation dedicated to cholera elimination	Build capacity for risk communication, social mobilization for community leaders, opinion leaders and accountability.
	5.2.2 Develop multi-sectoral health promotion plans and budgets for cholera targeting hotspots, cross-border areas	SBCC - MoHCC/ Local Government	2020-23		
	5.2.3 Promote media advocacy to increase frequency and quality of media coverage about cholera.	SBCC - MoHCC/ Local Government	2020-28		Target decision makers and people with influence and media managers decide which topics to cover, how and when.
	5.2.4 Conduct research which will guide community engagement plan and risk communication strategy.	SBCC - MoHCC/ Local Government	2020-28		Develop system for collaboration with research Institutions on Health and University of Zimbabwe to guide strategic engagement with community on cholera elimination

Strategic objective	Activities	Responsible Stakeholder/ Institution	Timelines	Indicator	Remarks
	5.2.5 Develop mechanism for strengthening structures (i.e., local governance, community participation platforms and risk communication techniques) including private sector engagement in statutes and enforcement on housing settlements	SBCC - MoHCC/ Local Government	2020-28		Develop mechanism to empower local leaders and local authorities in developing/ enforcement of by-laws on housing settlements
	5.2.6 Develop mechanism for documentation of health promotion interventions especially success stories to share with the public	SBCC - MoHCC/ Local Government	2020-28		Develop system to recognize homes and communities that have achieved required standards (ensuring safe water, hygiene and sanitation) that could be used as models in hotspot areas
	5.2.7 Explore electronic health promotion messaging opportunities – partnering with private sector during and between outbreaks; Eg SMS blasting (twice a week)	SBCC - MoHCC/ Local Governmen	2020-28		Develop mechanism for alternative approaches to increase knowledge on safe water and hygiene practices in hotspot areas
6]. Water, Sanitation and Hygiene (WASH)					
Target: Access to safe drinking water, and adequate sanitation and solid waste management at all service levels.					
Strategic objective	**Activities**	**Responsible Stakeholder/ Institution**	**Timelines**	**Indicator**	**Remarks**
6.1 To develop system for strengthening the WASH and solid waste management, surveillance, preparedness and emergency response in cholera hotspots	6.1.1 Develop plans for strengthening capacity for WASH and IPC in CTUs/CTC including distribution of guidelines, job aids and supplies (HTH, containers)	Environmental Health Directorate - MoHCC/ Water Directorate - MLGPW	2020-23	• Percentage of drinking water sources tested in hotspot Wards in the last three months. Drinking water samples in hotspot Wards compliant with recommended microbial and/ or free residual chlorine levels	Review and update integrated solid waste management plans
	6.1.2 Design and prepare harmonized WASH and solid waste management related materials for advocacy and promotion in cholera hotspots	Environmental Health Directorate - MoHCC/ Water Directorate - MLGPW	2020-23		

Strategic objective	Activities	Responsible Stakeholder/ Institution	Timelines	Indicator	Remarks
	6.1.3 Develop/update system for sanitary inspections and mapping of water facilities, and stakeholders for WASH management in the cholera hotspots by province, district, Wards and Community.	Environmental Health, MOHCC,	2020-28		Conduct mapping of stakeholders in WASH including where and roles and responsibilities in the hotspots
	6.1.4 Develop system for certification of borehole sites	Environmental Health Directorate – MoHCC/ Water Directorate - MLGPW	2020-23		Develop/review SOPs for guidance on determining appropriateness of sites for borehole drilling in urban and rural areas
	6.1.5 Develop/update guidelines e.g., WASH for IPC in CTU/CTCs, water quality surveillance, WASH in emergency settings	Environmental Health Directorate - MoHCC/ Water Directorate - MLGPW	2020-28		Develop preparedness and logistical plans for distribution of commodities, SOPs and strategies related to WASH including distribution of chloride of lime to areas affected by sewer pipe bursts in hotspots
	6.1.6 Engage with communities in interventions promoting good sanitation, hygiene and solid waste management practices including hand-washing facilities	Environmental Health Directorate - MoHCC/ Water Directorate - MLGPW	2020-28		To be combined with advocacy and community empowerment activities
	6.1.7 Establish/strengthen an early warning WASH and solid waste surveillance system.	Environmental Health Directorate - MoHCC/ Water Directorate - MLGPW	2020-23		Develop system for reporting, repair and rehabilitate broken down and blocked systems (treatment plants and distribution systems).
	6.1.8 Establish/strengthen rapid emergency WASH, solid waste and Health response teams (RRTs) for field investigation, risk evaluation and immediate response in hotspots.	Environmental Health Directorate - MoHCC/ Water Directorate - MLGPW	2020-23		Develop mechanism to scale up waste collection including; enhanced community and private sector involvement in waste collection
	6.1.9 Develop guide for community awareness on IPC during cholera outbreaks (household water treatment, hand washing, facility waste disposal, patient transportation, fomites and environmental disinfection).	Environmental Health Directorate - MoHCC/ Water Directorate - MLGPW	2020-23		Establish and train IPC focal persons at community, village level (VHWs), school, special groups (religious, cultural, migrant (refugee) and institutions (prisons).

Strategic objective	Activities	Responsible Stakeholder/ Institution	Timelines	Indicator	Remarks
6.2 To enhance the rehabilitation and expansion of water supply, sanitation, hygiene and solid waste management in cholera hotspots.	6.2.1 To establish mechanism to strengthen water treatment and water quality monitoring at source, facility and household levels.	Environmental Health Directorate - MoHCC/ Water Directorate - MLGPW	2020-23	Percent of households in hotspot districts reporting access to safely managed drinking water a on premises*	Develop and implement Action plans for management of contaminated water sources
	6.2.2 Provide and promote access to basic solid waste services (subscribing to available systems, promote private sector participation)	Environmental Health Directorate - MoHCC/ Water Directorate - MLGPW	2020-28	Percent of households in hotspot Wards reporting access to safely managed sanitation facilities*	Develop mechanism for increasing financing to pollution remedies
6.3 To improve access to sustainable adequate safe water supply, sanitation, hygiene, and solid waste management services in cholera hotspots.	6.3.1 Provide and promote access to basic drinking water sources (either household-connection, public stand pipe, borehole, protected spring or rain water collection) within a 30-minute round trip.	Environmental Health Directorate - MoHCC	2020-28	Percent of households in hotspot Wards reporting access to safely managed drinking water	
	6.3.2 Review legislation to increase availability and sustainability of use of household water treatment (HWT) supplies	Environmental Health Directorate - MoHCC	2020-23	Percent of households in hotspot Wards reporting access to safely managed sanitation facilities	Develop proposal for promoting point of use water treatment using local products - such as water guard including tax waiver on imported products and or local production of household water treatment products
	6.3.3 Establish system for Stockpiling and prepositioning of Non-Food Items (NFIs) at Central level and at provincial, district levels in cholera hotspots	Environmental Health Directorate - MoHCC	2020-23		Ensure inclusion of point of use water treatment chemicals, soap and safe water storage utensils in NFIs
	6.3.4 Conduct training and equip environmental surveillance officers (field testing kits, reagents) for testing and treatment of drinking water sources using standardized tools (in collaboration with WASH), and utilization of data for action	Environmental Health Directorate - MoHCC	2019-20	Proportion of hotspot Wards with water quality monitoring reports in last 6 months	Conduct water quality sampling and testing. Required technology and innovation: mapping water points on GIS; online monitoring; online chlorination
			2021-23	Proportion of hotspot Wards with water quality monitoring kits	
			2024-2028	Percentage of Local Authorities with hotspot Wards have decentralized wholesome water quality testing	

Strategic objective	Activities	Responsible Stakeholder/ Institution	Timelines	Indicator	Remarks
6.4 Strengthen and empower Local Authorities through the creation of a Legislative Framework by an enactment of an Act of Parliament and/ or provision of a Statutory Instrument.	6.4.1 Celebrating national days related to WASH	Environmental Health Directorate - MoHCC/ Water Directorate - MLGPW	2020-28		
	6.4.2 Strengthen legal and policy framework for the regulation and enforcement of WASH and solid waste management (including alignment and updating of existing policy, development and enforcement of new policies and share best practices across districts/ areas)	Environmental Health Directorate - MoHCC/ Water Directorate - MLGPW	2020-28	Existence of a draft food safety act	Draft food safety Act
	6.4.3 Invoke Public Health Act to ensure that objectors comply	Environmental Health Directorate - MoHCC/ Water Directorate - MLGPW	2020-28	Enforcement of a public health act	
	6.4.4 Conduct research to inform basic hygiene interventions and community engagements to manage WASH resources/ to promote safe hygiene practices	Environmental Health Directorate - MoHCC/ Water Directorate - MLGPW, National Health Research Institute	2020-28		
	6.4.5 Stockpile and logistics of non-Food items (NFIs) hygiene items.	Environmental Health Directorate - MoHCC/ Water Directorate - MLGPW	2020-23		

Strategic objective	Activities	Responsible Stakeholder/ Institution	Timelines	Indicator	Remarks
7]. Urban and Rural WASH Infrastructure					
Target: Renovate, overhaul and install water & sewer infrastructure in hotspots.					
7.1 To renovate and upgrade water infra-structure in the country	7.1.1 Finalise WASH and Infrastructure Masterplan with focus on hotspots to identify gaps and develop appropriate solution	MLGPW	2019-20	Completed NWRMP	Prioritise interventions in the hotspot areas within the NWRMP
	7.1.2 Conduct survey of WASH indicators in the 81 hotspots (wards)	NCU, MLGPW, MOHCC, HLF, UNICEF	2020	Report on WASH indica-tors baseline survey in 81 cholera hotspots	The survey will be conducted biannually during First phase of the Roadmap. Regular reports provided to the NCTF, and contribute to the annual reports to GTFCC
		Cholera Secre-tariat, NTFC			Conduct monthly conference calls with the provinces Multimedia information updates
	7.1.3 Review national water policy in line with current legislation	MLGPW	2019-20	Revised National water policy	To be guided by SDG 6.
	7.1.4 Institute mechanism for ensuring sustainabil-ity of water treatment chemicals	MLGPW	2019-20	Framework agreement on procurement/production of water chemicals	
		MLGPW	2021-23	Legislation on duty free for water and waste water ma-terials and consumables	
		MLGPW	2021-23	Planned settlements	
7.2 To improve bulk water access and treat-ment	7.2.1 Map existing stra-tegic water sources in-cluding feasibility studies in hotspots for develop-ment of water supply.	MLGPW	2019-20	Percentage of strategic wa-ter sources with feasibility studies done	Research: to mitigate effects of climate change, for new technologies; and Migration from bush pumps to solar powered communal piped water schemes
	7.2.2 Identification and construction of new wa-ter sources: Increase bulk raw water access (pollu-tion control, construction of new dam, desilting existing dams)	MLGPW	2021-23	Percentage of new water sources identified and developed to increase bulk raw water access	
			2021-23	Expansion of treatment plants	
			2021-23	Percentage of planned new boreholes drilled in hotspot Wards	

Strategic objective	Activities	Responsible Stakeholder/ Institution	Timelines	Indicator	Remarks
7.3 To increase capacity of clean water transmission, storage and transmission in hotspots	7.3.1 Conduct WASH interventions in hotspots [e.g., Water supply – water infrastructure quick fixes (rehabilitation of hand pumps, replacement of filtration systems and/or chlorination system), provision of chlorinated water;	MLGPW	2019-20	Volume of water available for distribution through piped network per connection per day in water utility service areas in hotspot Wards	
	7.3.2 Meter replacement; pipeline replacement; active leak detection; pressure management; revenue collection	MLGPW	2019-28	Percent of physical non-revenue waterc reported by water utilities in hotspot Wards	
	7.3.3 Investigate alternative raw water sources	MLGPW	2019-28	Number of additional raw water sources identified	
	7.3.4 Completion of existing projects and drilling of new boreholes	MLGPW	2019-28	Number of boreholes drilled in hotspot Wards in the last year	
	7.3.5 Increase clean water transmission, storage and dissemination for cholera hotspots through construction of water supply systems (e.g., expanding piped network) and reducing non-revenue water through advocacy and empowerment	MLGPW	2019-20	Percent of protected community water points in hotspot Wards that are fully functional	
			2019-20	Percent of tested drinking water samples in hotspot Wards compliant with recommended microbial and/ or free residual chlorine levels	
			2021-23	Number of boreholes drilled in hotspot Wards in the last year	GIS, Telemetry and SCADA, ISO Certification; new pipe materials e.g GRP, smart metering, active leak detection, programmable PVR systems, hydraulic modelling in design and monitoring; use of drones in surveys, development surveys, data collection and terrain modeling; CCTV
	7.3.6 new pump stations; duplication of bulk mains; construction of reservoirs and water towers; expansion of network into new areas; level control devices, SCADA and telemetry	MLGPW	2024-28		
	7.3.7 Enforcement of water extraction regulations	MLGPW	2019-28	Number of by-laws enacted and enforced in hotspot Wards	

Strategic objective	Activities	Responsible Stakeholder/ Institution	Timelines	Indicator	Remarks
	7.3.8 capacity building (Training and equipping of the community – e.g. pump minders)	MLGPW	2019-28	• Capacity of wastewater treatment plants per connection per day in wastewater utility service areas in hotspot Wards • Percent of wastewater treatment plants in hotspot Wards testing effluent water quality in last 6 months	
	7.3.9 Large scale WASH Infrastructure interventions.	MLGPW	2019-28		
	7.3.10 Repairs, maintenance, upgrades & installation of water & sewer treatment plants (including stockpiling water treatment chemicals, expanding treatment plant capacity and water quality testing)	MLGPW	2019-28		
	7.3.11 Provision of water treatment chemicals and water testing kits,		2019-28	Percent of water treatment plants in hotspot districts testing effluent water quality in last 6 months	
	7.3.12 Immediate intervention: testing and treating communal water points including shallow wells at rural homesteads,		2019-28		
	7.3.13 Community based self-help projects and other participatory community engagements.		2021-23	Proportion of hotspot Wards with Water harvesting (rain water and surface water) initiatives	Conduct trainings and support strengthening coordination of Ward Development Committees (WDCO) and water Point Committees
7.3 To strengthen the capacity of waste water management (collection, transmission, treatment and disposal) in hotspots.	7.3.1 Construct and promote on-site and off-site sanitation networks (bulk and decentralized sewerage systems, repair and expand sewer pipe network, reduce sewer infiltration), fecal sludge management systems in the hotspots	MLGPW, Private sector	2021-23	Percent of tested water treatment plant effluent samples compliant with recommended microbial and free residual chlorine levels	
			2021-23	Percent of households in hotspot Wards reporting functional connection to sewerage network in wastewater utility service areas in hotspot Wards	

Strategic objective	Activities	Responsible Stakeholder/ Institution	Timelines	Indicator	Remarks
			2024-28	Percentage of dilapidated sewer reticulation in hotspot Wards replaced, and IT software system for monitoring sewer systems installed	Required skills and capacities: Engineers training and exposure to new technologies; technicians skills development peer to peer training and specialized Institute training e.g., Institute of Water, artisans training and skills development; attachment to manufacturers and Institutions
	7.3.2 Repair and provision of plant and equipment.	MLGPW	2021-28		Mapping water points on GIS; online monitoring; and inline chlorination
	7.3.3 Waste disposal management at rural community level	MLGPW	2019-20		
8]. Oral Cholera Vaccine (OCV)					
Target: Oral Cholera Vaccination campaigns (2 doses within at least two weeks) with coverage of >80% in hotspots and in outbreak situations conducted.					
8.1 To implement reactive mass vaccination campaigns with OCV in event of an outbreak		MoHCC/WHO	2019-20	• Percent of population in hotspot Wards that could be vaccinated using existing vaccination supply • OCV coverage in hotspot Wards who have received two doses of OCV within last three years • Number of OCV doses administered per each round of OCV campaigns*	Reactive mass vaccination campaigns with OCV to be initiated as soon as cases are confirmed for maximum impact
8.2 Develop mechanism for large scale use of OCV to the population in cholera hotspots	8.2.1 Integrate OCV as part of the National cholera elimination plan integrated with WASH in the hotspots	MoHCC/WHO	2019-20		
	8.2.2 Develop microplans for OCV campaigns in 81 cholera hotspots	MoHCC/WHO	2019-20		Conduct cold chain assessment for vaccine storage, transportation and other logistics in hotspots
	8.2.3 Develop plan for vaccination of population moving into high risk areas (low, medium to high risk area (s)	MoHCC/WHO	2019-20		Plan to conduct post campaign evaluation (coverage surveys).
	8.2.4 Integrate OCV training in the national curriculum (all medical/ nursing/environmental)	MoHCC/WHO	2019-20		

Strategic objective	Activities	Responsible Stakeholder/ Institution	Timelines	Indicator	Remarks
8.3 To establish contingency agreements with agencies and suppliers to ensure efficient planning and coordination for effective supply management	8.3.1 Develop mechanism to procure OCV stocks to cover 2 rounds in 92 cholera hotspot wards	MoHCC/WHO	2021-23		Application for OCV for those populations that would've moved to medium and high level risk areas
8.4 To ensure OCV is integrated with other Global Roadmap Pillars including conduct WASH activities and re-inforce access to WASH in long term after vaccination campaign	8.4.1 Develop training plan to guide implementation of OCV campaigns in the hotspot areas	MoHCC/WHO	2019-20		Target population above one year in hotspot areas. Two cohorts are planned, each two rounds, three years apart.
	8.4.2 Update/develop vaccination technical guidelines, communication and monitoring assessment tools including adverse events following immunization.	MoHCC/WHO	2019-20		Build on experience from campaigns conducted during the 2018/19 outbreak, achieved coverage over 90%
	8.4.3 Development of IEC materials in different languages	MoHCC - SBCC/WHO	2019-20		Review materials from previous campaign, 2018/19
	8.4.4 Training of the rest of healthcare workers (including community healthcare workers) outside hotspot areas in the rest of Wards in the district	MoHCC/WHO	2019-20		Include Private sector receiving and reporting on OCV

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MONITORING FRAMEWORK

Monitoring key indicators across all five pillars of the roadmap is fundamental to eliminating cholera in Zimbabwe by 2028. An effective monitoring system will help stakeholders track progress in each pillar and inform targeting of interventions and resources. More broadly, Zimbabwe's monitoring system can identify which programs and initiatives are working well or in need of improvement in order to highlight best-practices and support data-driven cholera policy on a national and global scale.

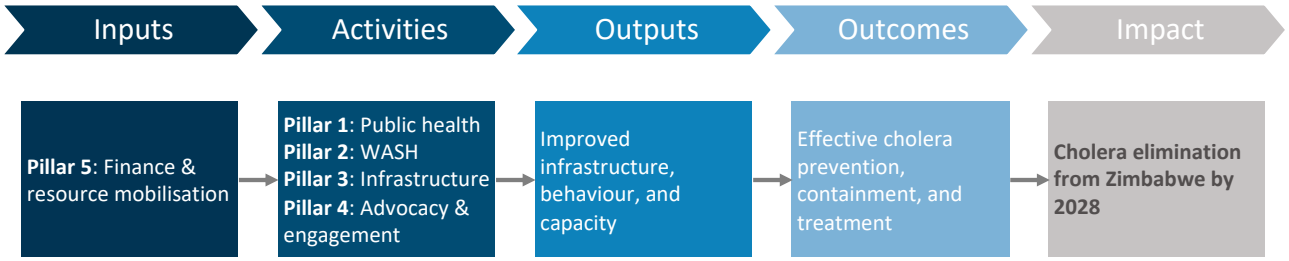
This national monitoring framework aims to provide a centralized overview of Zimbabwe's progress against the roadmap's primary targets. The framework presented in this section is not intended to be exhaustive of all ongoing efforts to track cholera elimination efforts; partners are encouraged to adopt program-specific monitoring and evaluation frameworks for measuring the outcomes and impact of their work. This framework is designed to be continually referenced and adjusted as needed throughout the next ten years to highlight learning opportunities, facilitate accountability among stakeholders, and provide actionable data to decision-makers at local and national levels.

Monitoring along the theory of change

Figure 10 shows a high-level theory of change (TOC) for how the five pillars of Zimbabwe's cholera elimination plan are expected work together to eliminate cholera by 2028.

By tracking indicators along all five phases in the TOC, Zimbabwe's monitoring framework will precisely identify ways in which various components of the roadmap are or are not being implemented as planned, as well as obstacles affecting the pathway to cholera elimination. This can facilitate quick course corrections and ensuring resources are being used as effectively as possible.

Figure 10: High-level theory of Change (TOC) for the Five Pillars of Zimbabwe's Cholera Elimination Plan



7.2 Identifying key indicators and targets

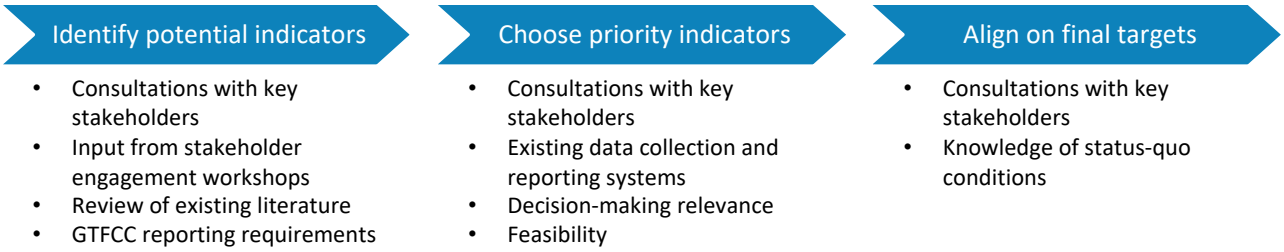
Tables 11 through 14 list the priority indicators and targets for monitoring Zimbabwe's cholera elimination plan, disaggregated by pillar. The national monitoring framework does not explicitly include indicators or targets for themes that cut across all pillars such as gender and disability inclusivity. These are subsumed within the pillar-specific indicators themselves. Independently monitoring cross-cutting themes would require more granular data collection than feasible for the national framework. Implementing partners are encouraged to track metrics related to these cross-cutting themes for their specific programs.

Figure 11 provides an overview of the process of identifying these key indicators and targets.

An initial list of potential indicators for each pillar was compiled using the pillar's TOC in conjunction with resources such as reporting requirements mandated by the Global Task Force on Cholera Control (GTFCC), other countries' cholera strategies, and published literature on pillar activities. This initial list was supplemented and tailored to the Zimbabwean context with input from key stakeholders at pillar engagement workshops and consultative meetings.

Indicators were prioritized with the input of key stakeholders and considerations around existing data collection and reporting systems, relevance for decision-making, and measurement feasibility. To minimize the burden of this monitoring framework, efforts were taken to ensure that most identified indicators were already being collected by different stakeholders. Final targets are based on available data on status-quo conditions and consultations with key stakeholders.

Figure 11: Process of Identifying Key Indicators and Targets



HOTSPOT CLASSIFICATION

Efforts to monitor roadmap implementation will largely focus on Zimbabwe's cholera hotspot wards. The GTFCC defines a cholera hotspot as "a geographically limited area…where environmental, cultural and/or socioeconomic conditions facilitate the transmission of the disease and where cholera persists or re-appears regularly." For classification purpose, the MAI exceeded a threshold of 60/100,000 population, and Persistence of 2%. The MAI minimum threshold was put at >5/100,000. In the event of a future cholera outbreak, the threshold for classifying hotspots should be re-evaluated and refined by the CES and the NTF as necessary. References to "hotspots" in the monitoring framework thus refer to "current hotspots," which are subject to change throughout roadmap implementation. Currently, 81 such hotspots have been identified in Zimbabwe as were outlined at the start of the document.

DATA COLLECTION, DISSEMINATION, AND UTILIZATION

To the extent possible, this monitoring framework leverages stakeholders' existing data collection and reporting infrastructure to ensure feasibility, efficiency, and cost-effectiveness. Many of the identified indicators are already being collected by different stakeholders. Therefore, using this existing data collection infrastructure will reduce the burden of implementing this framework significantly.

The National Task Force (NTF) and Cholera Elimination Secretariat (CES) will be responsible for aggregating and disseminating reported information. The CES will develop and maintain a data dashboard viewable by all relevant stakeholders, which will display up-to-date data on each indicator relative to its targets. This will allow local stakeholders to benchmark their own wards or projects' growth against national progress.

The NTF will meet once per quarter. Time will be allocated at each meeting to discuss ongoing monitoring to ensure data is regularly reported by responsible authorities, track progress along roadmap activities against elimination targets, and flag areas that require more intensive resources or attention going forward. As part of this process, findings will be routinely communicated to lower administrative levels, as well as reported upwards to the GTFCC annually. This national monitoring framework should be re-evaluated and refined by CES and NTF annually to assess continued feasibility of collecting and reported the listed indicators, as well as the indicators' decision-relevance in future years.

OVERVIEW OF OUTCOME INDICATORS

In line with the GTFCC, the Zimbabwean monitoring framework is designed under the 3 axes of cholera elimination. The table 9 below provides an overview of the targets along these three axes, with the following tables providing a more detailed breakdown of key indicators and targets.

Table 9: Overview of outcome indicators

Outcome	Indicator	Current Level (2019)	Targets		
			Phase 1 (2019-2021)	Phase 2 (2022-2024)	Phase 3 (2025-2028)
Axis 1: early detection and response to contain outbreaks	Severity of outbreaks as measured by Case Fatality Rate	Total of 68 deaths between 2018 and 2019 outbreaks, CFR of 0.63%	Reduce outbreak CFR by 50%	Reduce outbreak CFR by 100%	0 cholera deaths
Axis 2: Prevention of disease occurrence by targeting multi-sectoral interventions in cholera hotspots	Number of currently endemic wards that eliminate cholera as a threat to public health	81 wards (Hotspots)	40 wards eliminate cholera	81 wards eliminate cholera	Cholera eliminated nationwide
Axis 3: An effective mechanism of coordination for technical support, resource mobilization locally and internationally	Existence of fully funded multi-sectoral cholera control plan aligned to the global road map	Development of multisectoral cholera elimination plan	Funding secured for multisectoral cholera elimination plan	Efficient implementation of multisectoral cholera elimination plan	Fully implemented multisectoral cholera elimination plan
Impact: A Zimbabwean population free from cholera	Reduction in number of cholera cases	Total 295 confirmed cases in 2018 outbreaks	Reduce cholera cases by 50%	Reduce cholera cases by 100%	0 cholera cases recorded

KEY INDICATORS AND TARGETS

Tables 10: lists the authority responsible for reporting each key indicator to the National Taskforce (NTF) and Cholera Elimination Secretariat (CES), as well as the frequency and level at which it should be reported.

Table 10: Impact indicators and Authorities Responsible

Indicator	Level of collection	Responsible authority	Reporting frequency	Targets (by 2028)
1. Number of weeks per calendar year (Jan to Dec) with confirmed cholera cases*	Health facility	MoHCC[a]	Quarterly	0 weeks with cases
2. Number of confirmed and suspected cholera cases per health facility among children aged 0-5 in the last week*	Health facility	MoHCC	Weekly	0 confirmed cases
3. Number of confirmed and suspected cholera cases per health facility among individuals over age 5 in the last week*	Health facility	MoHCC	Weekly	0 confirmed cases
4. Number of deaths attributed to cholera per health facility among children aged 0-5 in the last week*	Health facility	MoHCC	Weekly	0 deaths
6. Number of deaths attributed to cholera per health facility among individuals over age 5 in the last week*	Health facility	MoHCC	Weekly	0 deaths
7. Number of deaths attributed to cholera per hotspot among children aged 0-5 in the last week*	Health facility	MoHCC	Weekly	0 deaths
8. Number of deaths attributed to cholera per hotspot among individuals over age 5 in the last week*	Health facility	MoHCC	Weekly	0 deaths
9. Cholera incidence rate per district among children aged 0-5 in the last week*	Health facility, district	MoHCC	Weekly	Incidence rate of 0
10. Cholera incidence rate per ward among individuals over age 5 in the last week*	Health facility, district	MoHCC	Weekly	Incidence rate of 0
11. Cholera case fatality rate per ward among children aged 0-5 in the last week*	Health facility, district	MoHCC	Weekly	Case Fatality Rate of 0
12. Cholera case fatality rate per ward among individuals over age 5 in the last week*	Health facility, district	MoHCC	Weekly	Case Fatality Rate of 0
13. Number of districts considered cholera hotspots	District	MoHCC	Annual	0 hotspot districts
14. Total population living in cholera hotspots	District	MoHCC	Annual	0 cholera hotspots

[a] MoHCC = Ministry of Health and Child Care.

** Mandated indicator for reporting to the Global Task Force for Cholera Control (GTFCC)*

Table 11: Indicators and Targets for Pillar 1-Public Health Emergency Preparedness and Response.

Indicator	Level of collection	Responsible authority	Reporting frequency	Targets (by 2028)
1. Percentage of healthcare and community health workers per hotspot ward trained on cholera emergency preparedness and response within last two years	ward	MoHCC	Every 6 months	TBD[a]
2. Percent of health facilities per hotspot ward with access to and usage of adequate standard operating procedures (SOP) on screening, diagnosing, and treating cholera patients	Health facility	MoHCC	Every 6 months	100% of health facilities
3. Percent of hotspot ward with operational WASH rapid response teams	ward	MoHCC	Every 6 months	100% of districts
4. Number of cholera treatment centres and oral rehydration points per square kilometre per affected ward during outbreaks	ward	MoHCC	Monthly during outbreaks	TBD
5. Percent of reported suspected cholera patients that were brought to a health facility and treated according to SOP	Health facility	MoHCC	Weekly during outbreaks	100% of suspected cases treated
6. Percent of health facilities in hotspot ward reporting access to safely managed drinking water and sanitation, and adequate hygiene and waste management	Health facility	MoHCC	Every 6 months	100% of health facilities
7. Percent of population in hotspot ward that could be vaccinated using existing vaccination supply	ward	MoHCC	Annually	TBD
8. Number of individuals in hotspot ward who have received two doses of OCV within last three years	ward	MoHCC	Annually	TBD
9. Number of OCV doses administered per each round of OCV campaigns*	ward	MoHCC	Every OCV campaign	Outbreak specific
10. Percent of health facilities reporting weekly cholera data through Integrated Disease Surveillance and Response (IDSR) system	ward	MoHCC	Weekly during outbreaks	100% of health facilities
11. Percentage of suspected cases referred by the community to the health facility	ward	MoHCC	weekly during outbreaks	TBD
12. Percent of health facilities in hotspot ward with functional (non-expired) rapid diagnostic testing (RDT) kits available	Health facility	MoHCC	Every 6 months	100% of health facilities
13. Percentage of suspected cholera cases tested via Rapid Diagnostic Testing per ward	ward	MoHCC	Weekly during outbreaks	TBD
14. Percentage of suspected cholera cases tested via polymerase chain reaction (PCR) per ward	ward	MoHCC	Weekly during outbreaks	TBD
15. Percentage of suspected cholera cases tested via culture per ward	ward	MoHCC	Weekly during outbreaks	TBD
16. Percentage of tested suspected cholera cases confirmed positive by PCR per ward	ward	MoHCC	Weekly during outbreaks	0% of cases confirmed positive
17. Percentage of tested suspected cholera cases confirmed positive by culture per ward *	ward	MoHCC	Weekly during outbreaks	0% of cases confirmed positive
18. Percentage of clinical laboratories with ability to test suspected cholera cases with PCR or culture*	ward	MoHCC	Annually	100% of laboratories

[a]*Target To Be Determined based upon further consultations and any future outbreaks*
** Mandated indicator for reporting to the Global Task Force for Cholera Control (GTFCC)*

Table 12: Indicators and targets for Pillar 2-Water, Sanitation, and Hygiene.

Indicator	Level of collection	Responsible authority	Reporting frequency	Targets (by 2028)
1. Percent of households in hotspot ward reporting access to safely managed drinking watera on premises*	Household	NCU[b]	Every 6 months	100% of households
2. Percent of households in hotspot ward reporting access to safe drinking water source (if does not have access to safely managed drinking water on premises)	Household	NCU	Every 6 months	100% of households
3. Percent of households in hotspot ward reporting access to safely managed sanitationc facilities*	Household	NCU	Every 6 months	100% of households
4. Percent of households in hotspot ward reporting access to safely managed handwashing facility	Household	NCU	Every 6 months	100% of households
5. Percent of protected community water points in hotspot ward that are fully functional	Community	NCU	Every 6 months	100% of waterpoints
6. Number of boreholes drilled or repaired in hotspot ward in the last year	Community	NCU	Annually	TBD[d]
7. Number of safely managed sanitation facilities built or repaired in public spaces (e.g. markets) in the last year	Community	NCU	Annually	TBD
8. Percentage of drinking water sources tested in hotspot ward in the last year	ward	NCU	Annually	TBD
9. Percent of tested drinking water samples in hotspot ward compliant with recommended microbial and/or free residual chlorine levels	ward	NCU	Annually	100% of samples compliant

[a] Safely managed drinking water is defined as an improved water source (piped water into dwelling, compound, or to a neighbour; public tap or standpipe; borehole or tubewell; protected well or spring; rainwater collection; tanker-truck, cart, or kiosk; bottled or sachet water) that is located on premises, available when needed, and free from faecal and priority chemical contamination.
[b] NCU = WASH National Coordination Unit.
[c] Safely managed sanitation is defined as improved facilities (flush toilet to sewer system, septic tank, or pit latrine; pit latrine with slab; composting toilet; or container-based sanitation) that are not shared with other households and where excreta are safely disposed of in situ or transported and treated offsite.
[d] Target To Be Determined based upon additional consultations and any future outbreaks
* Mandated indicator for reporting to the Global Task Force for Cholera Control (GTFCC)

[1] WHO/UNICEF Joint Monitoring Programme for Water Supply, Sanitation and Hygiene. "Progress on household drinking water, sanitation and hygiene 2000-2017: Special focus on inequalities." 2019.
[2] Ibid.

Table 13: Indicators and Targets for Pillar 3-WASH Infrastructure.

Indicator	Level of collection	Responsible authority	Reporting frequency	Targets (by 2028)
1. Volume of water available for distribution through piped network per connection per day in water utility service areas in hotspot ward	Water utility	MoLGPWNHa	Annually	850 (High Density) – 1200 (Low Density) Litres/day
2. Percent of households in hotspot ward reporting continuousb access to piped water supply	Household	MoLGPWNH	Annually	100% of households
3. Percent of physical non-revenue waterc reported by water utilities in hotspot ward	Water utility	MoLGPWNH	Annually	Maximum of 25%
4. Percent of water treatment plants in hotspot ward testing effluent water quality in last 6 months	Water utility	MoLGPWNH	Every 6 months	100% of plants
5. Percent of tested water treatment plant effluent samples compliant with recommended microbial and free residual chlorine levels	Water utility	MoLGPWNH	Every 6 months	100% of samples compliant
6. Capacity of wastewater treatment plants per connection per day in wastewater utility service areas in hotspot ward	Wastewater utility	MoLGPWNH	Annually	800 litres/day
7. Percent of households in hotspot districts reporting functional connection to sewerage network in wastewater utility service areas in hotspot ward	Household	MoLGPWNH	Annually	100% of households
8. Percent of wastewater treatment plants in hotspot ward testing effluent water quality in last 6 months	Wastewater utility	MoLGPWNH	Every 6 months	100% of plants
9. Percent of tested wastewater treatment plant effluent samples compliant with recommended discharge standards	Wastewater utility	MoLGPWNH	Every 6 months	100% of samples compliant

[a] MoLGPWNH = Ministry of Local Government, Public Works, and National Housing.
[b] Continuous water access is defined as water available 24 hours per day, 365 days per year.
[c] Physical non-revenue water is defined as physical losses from leaking and broken pipes.

Table 14: Indicators and targets for Pillar 4- Advocacy and Community Empowerment.

Indicator	Level of collection	Responsible authority	Reporting frequency	Targets (by 2028)
1. Percent of schools per hotspot ward reached with cholera behaviour change messaging in last 6 months	ward	MoHCC	Every 6 months	TBDa
2. Percent of churches per hotspot ward reached with cholera behaviour change messaging in last 6 months	ward	MoHCC	Every 6 months	TBD
3. Percent of households in hotspot ward who can identify cholera symptoms and treatment	Household	MoHCC	Annually	TBD
4. Percent of households in hotpot ward who can identify cholera transmission routes and prevention measures	Household	MoHCC	Annually	TBD
5. Percent of informal housing settlements in hotspot ward without access to basic levels of water and sanitation services	ward	MoLGPWNH	Annually	TBD
6. Percent of local government authorities in hotspot ward with a budget allocation dedicated to cholera elimination	ward	MoLGPWNH6.	Annually	TBD

[a] Target To Be Determined based upon additional consultations and any future outbreaks

Table 15: Indicators and Targets for Pillar 5- Innovative Financing and Resource Mobilisation.

Indicator	Level of collection	Responsible authority	Reporting frequency	Targets (by 2028)
1. Percent of water bills paid on time, in full in hotspot ward	Water utility	ZINWAa/Local Authority	Every 6 months	90% paid on time
2. Percent of sewerage bills paid on time, in full in hotspot ward	Wastewater utility	ZINWA/Local Authority	Every 6 months	90% paid on time
3. Percent of administrative non-revenue water reported by water utilities in hotspot ward	Water utility	ZINWA/Local Authority	Annually	25% Maximum
4. Total annual funding secured for cholera elimination efforts, disaggregated by pillar*	National	NTFc	Annually	$124,376,991.00d
5. Total annual funding allocated by government for cholera elimination efforts	National	MoFe	Annually	TBDf
6. Ratio of governmental to non-governmental funding for cholera elimination efforts	National	NTFCE	Annually	TBD

[a] ZINWA = Zimbabwe National Water Authority
[b] Administrative non-revenue water includes illegal or unauthorized consumption, unbilled consumption, unmetered consumption, and metering inaccuracies.
[c] National Task Force
[d] See budget section below for breakdown of total amount
[e] Ministry of Finance
[f] Target To Be Determined based upon additional consultations and any future outbreaks
* Mandated indicator for reporting to the Global Task Force for Cholera Control

FINANCING & RESOURCE MOBILIZATION

There is need to identify funding from different stakeholders including private sector to finance the plan. Activities include: High level resource mobilization meeting including key stakeholders to finance the plan, Public private partnerships, Efficient revenue collection, Fiscal/ budgetary support, Development financing, and Exploitation of all revenue streams.

8.1 Innovative financing and resource mobilization

In order adequate financing of the National Cholera Elimination Strategic Plan it is critical to consider what other key development partners and public private partnerships can offer, and identify other finance models that can be adopted to contribute towards financing of the Roadmap. Considering the multisectoral involvement and challenges of eliminating cholera in Zimbabwe from the perspective of their individual organizational mandates, experiences, planned interventions and outcomes several themes that cut across all stakeholders, materially affect the structuring of financing models and partnerships. Key themes include: Public private partnerships, Efficient revenue collection, Fiscal budgetary support, and Development financing

Factors that impact on finance include:

- Power shortage. This may require inclusion of alternative power providers as stakeholders and potential partners;
- The very high non-revenue water (as high as 75% of total water output in some areas). This should be considered in early phase of implementation when it comes to sequencing the financial requirements;
- Financial models that demonstrate adequate provisions for infrastructure management and maintenance;
- Disparate financial models among the various stakeholders making it difficult to consolidate financial requirements at a national and multi-stakeholder level.

Unfulfilled budgets; the need for internal financial sustainability models - uneconomic tariffs and poor revenue billing and collection mechanisms affect the financial sustainability of the project. These are internally controlled issues that funders believe stakeholders should be addressing aggressively as part of their contribution to oiling the funding model; organization's contribution to the project including value of human capital.

What is required: Funding proposals with a scoping and sequencing component that opens opportunities for funders to specifically fund aligned components of the overall requirement. An example would be how AfDB's ZimFund was able to fund water and sewage components of the overall Chitungwiza cholera elimination plan, while other components such as surveillance fell outside of their mandate.

Sequencing is also important in establishing a phased approach that allows funders to match disbursements to milestones as the project progresses

Matched application of funds: where possible, stakeholders are encouraged to demonstrate that positive outcomes of interventions funded will directly result in cholera elimination. For example, demonstrating that improved water revenue collection will improve a council's ability to provide potable water as opposed to merely diverting that improved revenue to the council's other mandates

Opportunities:

Community engagement: the communities can be viewed as a viable funding partner as it is possible to quantify the value of resource savings if they are empowered to adopt the desired level of hygiene practices. The communities' contribution to effectively monitoring and reporting potential incidences of cholera also has a direct relation to the cost of containing an outbreak.

Cross-cutting interventions such as GIS that appear in multiple stakeholders' budgets can be centralized in one-unit while being used by all stakeholders.

Development and package of fund raising documents that are simple to match requirements with impact, as well as are able to withstand any due diligence processes

Besides funding mechanisms such as grants, Private Public Partnerships (PPP) and BOT, funders encouraged stakeholders to consider other models such as creation of autonomous water utilities

Private Public Partnerships

Private Public Partnerships are typically used to finance large scale infrastructure development projects of a long-term nature. Legislation on establishment of ZIDA (Zimbabwe Investment and Development Agency) will facilitate PPP involvement in infrastructure development. Other areas in the Cholera Elimination Roadmap that could benefit from PPP's include: Water delivery, waste water management, solid waste management, and delivery of sustainable power.

What is being done/needs to be done

Efficient revenue collection: Proposals to address non-revenue water, consumer marketing, improved billing and pricing models etc will result in improved revenues and services including potable water to vulnerable groups.

Economic Framework: The Government's overall economic framework is informed by the following - National Development Goals "Vision 2030": Transitional Stabilization Programme (TSP) October 2018 – December 2020; 1st Five Year Development Plan 2021 – 2015; and 2nd Five Year Development Plan 2026 – 2030. The Cholera Elimination Roadmap 2018 – 2028 should link with the above Government planning programme for budgeting purpose, and all stakeholders should have a working knowledge of it.

Clean and Safe Environment – Waste Water Management;

Both the Ministry of Health and Child Care through the Public Health and Environment Departments and the Ministry of Local Government, Public Works and National Housing through the Civil Protection Unit (CPU) share the responsibility of ensuring clean and safe environment. When it comes to disaster management Treasury disburses funds through either the CPU and / or Ministry of Health. The previous Cholera outbreak in September 2018 saw the creation of a Cholera Crowd Fund where well-wishers both local and foreign organizations made significant contributions.

Infrastructure Development;

The budget for infrastructure facilities is contained in the budget statement for 2019. Detailed requirement can be provided otherwise the budget covers all health facilities from Central to the Health Post level and other sector provisions.

Establishment of an EOC;

Ministry of Health and Child Care with the assistance of Higherlife Foundation is establishing the Emergency Operating Centre (EOC) at Parirenyatwa Hospital. The ministry is however intending to establish the EOCs at Provincial and District centers.

Operational Framework;

The CPU together with the Ministry of Health and Child Care are provided with a budget for emergencies. During the cholera outbreak in Sept 2019 Treasury provided ZWL$ 4.7 million to CPU and ZWL$11 million to the Ministry of Health and Child Care to attend to emergencies. Part of the ZWL$ 4.7 million availed to CPU an amount of

ZWL$ 2.6 million was for the Harare City Council to upgrade the 2 km road to Pomona dumpsite to allow dumper trucks ease access to the site.

Emergency Preparedness and Response (EPR) budget line item;
A budget of ZWL$ 4.0 million was provided for in 2019 financial year. This does not include the Cyclone Idai disaster funding. The funds are meant to cater for the requirements of the Public Health management.

Challenges:
Local Governance on Disbursements;
• The apparent low levels of project implementation modalities by the local authorities and even poor execution of the same can probably be attributed to lack of capacity
• Acquittal process is a prerequisite for further disbursements. Currently there are challenges of acquittals as local authorities and other quasi-government institutions are failing to timeously account for their expenditures.
• Epicenters of Cholera and Typhoid Harare and Chegutu need a strategic approach.
• WASH PROGRAMME: Ministries in the WASH programme should coordinate to avoid duplication.

Devolution;
Budgetary allocation of ZWL$ 703 million for 2019 i.e 5% of revenue collected the previous year: allocation for RDC, allocation for Urban Councils, and allocations for Provincial Councils

ZINWA and DDF water supply Schemes;

Most settlements face water supply and sanitation challenges due to drought and inadequate storage facilities. Government is making a number of interventions through ZINWA and DDF by addressing identified deficiencies in existing water bodies and also increasing availability of new water points by drilling boreholes and constructing new dams.

2018 and 2019 Sector Budget Allocation towards Disasters;
Excerpts of the full budget are listed below to demonstrate that Treasury not only has budgets for stakeholders to tap into, but that it also actually disburses them (Table 16).

Recommendations;
• Establish immediate term, medium term and long term solutions
• Some of the settlements in low lying and river basins areas need to be relocated to other places to avoid future recurrence of these disasters through SPATIAL PLANNING.
• There is need for Government to strengthen disaster risk mitigation measures instead of disaster management measures to minimize the impact of the disasters.
• Government through relevant established institutions should create value chain market based on local economy taking advantage of the devolution strategy.

Table 16: 2018 and 2019 Sector Budget Allocation towards Disasters

Sector	Amount Requested and Released	2018	2019
Rural feeder roads- District Development Fund (DDF)	15 000 000		
Spatial Planning		3 750 000	109 324 000
Local Governance		50 106 000	92 518 000
Disaster Risk Management		1 220 000	77 430 000
Cholera Emergency fund		4 700 000	
Pomona dump site road rehab	2 600 000		
Cholera emergency to CPU for Harare City	2 100 000		
Cholera emergency funding		11 000 000	
Public Health		24 036 000	56 296 000
Borehole Drilling and Rehabilitation		27 130 000	60 000 000
Drilling Equipment			500 000
Child Welfare			156 688 000
DEVOLUTION			703 000 000
Water and Sanitation (EMERGENCY)	286 047 000		703 000 000
Urban Wash		10 434 000	
Rural Wash		2 886 000	1 500 000
Integrated water resource management		118 112 412	318 304 000
Water supply for 16 small towns		18 000 000	10 900 000
Rehab of distressed water supply schemes			6 000 000
Water quality and chemicals for all water schemes			650 000
Borehole drilling in new camping sites			2 000 000
Damaged canals in Middle sabi & Nyanyadzi			2 000 000
Development of 23 irrigation schemes		38 971 000	12 360 000
Cyclone Idai 13 irrigation projects			12 400 000
Smallholder Irrigation revitalisation Programme			1 160 000
Environment Restoration Fund			14 500 000
Forest Commission		3 200 000	3 500 000

*Excerpts of the full budget are listed below to demonstrate that Treasury not only has budgets for stakeholders to tap into, but that it also actually disburses them.

FINANCING THE ZIMBABWE MULTISECTORAL CHOLERA ELIMINATION PLAN

Globally, the annual estimated cost of controlling cholera is approximately USD 2 billion. The cost of treating cholera is commonly calculated per person. For example, WASH interventions are estimated at USD 5 – 10 per person per outbreak response (GTFCC report). WASH interventions comprise the provision of household water treatment commodities and services including hygiene promotion through the media and awareness campaigns. Additionally, long-term WASH programming for target population costs USD 40 – 80 per person over a 10-year period. These programmes include provision of safe and adequate water supply within a 30-minute round trip, basic sanitation and behavioural change campaigns. Other countries that have done economic evaluations for cholera operations have focused on cost of vaccine campaigns. For example, in Ethiopia, the average cost of OCV dose is USD 2.60, while in Guinea and South Sudan it costs USD 1.90 and 3.77 respectively in 2012. The difference in price is dependent on the structure of the health system through which the vaccine is delivered, the cost being higher when vaccination is implemented in outbreaks and refugee camps.

Investment case for Zimbabwe

The economic investment case for increasing access to water, sanitation and hygiene

The economic benefits arising from increased coverage of WASH are vast, elevating the importance of achieving SDG WASH targets 6.1 and 6.2, which call for universal access to safe water, sanitation and hygiene, respectively.

Inadequate sanitation and water supply makes countries poorer: The economic costs of not investing in water and sanitation are very significant. For 26 countries spread across South Asia, Southeast Asia and Africa, with a population in 2006 of 2.6 billion people, economic losses caused by poor sanitation alone amounted to about USD 80 billion annually, or USD 35 per person per year.

The economic benefits of both water supply and sanitation indicate excellent value for money: Attaining universal water supply and sanitation will have total annual benefits of USD 220 billion. An update provided by WHO in 2012 showed that combined water supply and sanitation interventions have a USD 4.30 return for every dollar spent.

The benefits from investments in water and sanitation are underestimated: Returns would be much higher than currently estimated if all benefits from investments in water supply and sanitation services were to be included, such as exports, tourism, waste re-use, water quality savings, and social benefits (such as gender equity, safety, and dignity). However, no studies include all the benefits due to lack of underlying data, challenges in attributing broader changes over time to improved water and sanitation (i.e., determination of causality), as well as difficulties in converting social impacts to monetary values.

The total estimated cost for the implementation of the cholera multi-sectoral plan over a 10-year period is USD 131,053,288.75 ***(Table 18)***.

A large proportion of the budget will be allocated to the combined WASH and Infrastructure to address wide risk factors associated with dilapidated sewerage system and the old water delivery system. Another area that will receive substantial funding is Public Health Pillar in particular to contribute to health system strengthening through surveillance and laboratory services, as well as infection prevention and control. Advocacy and Community Empowerment, a cross cutting function, will receive less funding as it's covered within existing public health system.

Importance of funding the Zimbabwe Multisectoral Plan for the elimination of cholera:

1. Zimbabwe continues to experience recurrent outbreaks of cholera, the largest being

98, 592 cases and most recent 4 288 deaths in 2008/09, and 10, 671, with 68 deaths in 2018/19.

2. The potential risk factors for cholera in Zimbabwe include use of poor water, sanitation and hygiene (WASH) practices; overall, 22% use unsafe water, majority (32%) in rural; overall, 23% lack toilet facilities, with majority (34%) in rural areas. Cholera in Zimbabwe displays a seasonal pattern which correlates with the rainy season (November to April/June).

3. The poor sanitation and deteriorated sewage system, overcrowding, compounded by poor hygienic practices, leakages from a dilapidated sewerage system which contaminates underground water.

4. While implementation of IDSR surveillance has improved, the available laboratory and environmental surveillance systems are weak especially in the districts

5. The Government of Zimbabwe has shown its commitment to elimination of cholera in line with the global cholera control strategy launched by the GTFCC – Ending cholera: A Roadmap to 2030 and committing to end cholera by 2028.

Table 17: Zimbabwe Cholera Elimination Budget for 10 Years

Pillar	Budget (US$)			
	2019-2020	**2021-2023**	**2014-2028**	**Grand Total**
Advocacy and Community Empowerment	1,754,720.00	591,840.00	22,200.00	2,368,760.00
Infrastructure	1,973,928.00	8,315,245.00	84,526,245.00	94,815,418.00
Oral Cholera Vaccine	4,957,492.88	4,957,492.88		9,914,985.75
Public Health	9,505,885.00	3,957,070.00	377,000.00	13,839,955.00
WASH	5,345,390.00	3,384,390.00	2,384,390.00	11,514,170.00
Grand Total	**23,937,415.88**	**21,206,037.88**	**87,309,835.00**	**132,453,287.75**

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4. Zimbabwe DHS, 2015.
5. WHO and UNICEF, 2017 Annual report Joint Monitoring Programme for Water Supply, Sanitation and Hygiene, S.I: WHO/UNICEF
6. Anderson Chimusoro et al. Responding to cholera outbreaks in Zimbabwe: Building Resilience over Time. http://dx,doi.org/10.5772/intechopen.79794
7. Regional Framework for the Implementation of the Global Strategy for Cholera Prevention and Control, 2018-2030. Report of the Secretariat AFR/RC68/T 12 June 2018.
8. Emergency Response Framework (ERF) - WHO

ANNEX 1:

Table 17: Cholera Hotspot classification

Province	District	Ward Number	Area	Population	Mean Annual incident/ 100000	Proportion of weeks with cholera(%)	Classification	Types
Mashonaland West	Chegutu	4	Chegutu T/Ship	8379	69.9	3.1	HIGH	**T1**
Manicaland	Mutare City	6	Dangamvura	5845	169.3	2.7	HIGH	**T1**
	Mutare City	1	Sakubva	8718	111.2	2.3	HIGH	**T1**
Harare	Harare	33	Budiriro 1	64452	681.4	5.8	HIGH	**T1**
	Harare	43	Budiriro 4,5	65529	199.8	3.5	HIGH	**T1**
	Harare	24	Highfield	31615	62.6	3.1	HIGH	**T1**
	Harare	4	Mbare	40124	69.0	5.4	HIGH	**T1**
	Harare	39	Dzivaresekwa	13930	69.6	3.1	HIGH	**T1**
	Harare	34	Mufakose	19869	62.0	3.5	HIGH	**T1**
	Harare	27	Glen Norah	34747	182.0	4.6	HIGH	**T1**
	Harare	30,31,32	Glenview	121894	694.4	6.5	HIGH	**T1**
TOTAL POPULATION				**415102**				
Manicaland	Buhera	27	Muurawa	8709	55.7	2.3	MEDIUM	**T2**
Harare	Harare	15	Warren Park	70596	33.3	3.5	MEDIUM	**T2**
	Harare	23	Waterfalls	70596	33.3	4.2	MEDIUM	**T2**
	Harare	22	Hatfield	47830	11.4	4.2	MEDIUM	**T2**
	Harare	16	Tynwald	49959	13.3	3.1	MEDIUM	**T2**
	Harare	10	Sunningdale	23632	27.4	3.1	MEDIUM	**T2**
	Harare	1	Stoneridge	121794	37.8	4.6	MEDIUM	**T2**
	Harare	37	Kuwadzana	75858	52.5	4.6	MEDIUM	**T2**
	Harare	19	Mabvuku	22663	33.0	2.7	MEDIUM	**T2**
Harare	Chitungwiza	1 - 5	St Marys	72549	23.9	3.8	MEDIUM	**T2**
	Chitungwiza	6 - 14	Zengeza	109312	7.6	2.3	MEDIUM	**T2**
	Chitungwiza	21, 23, 24	Unit A , N, M Seke	72301	19.3	2.7	MEDIUM	**T2**
Manicaland	Mutare District	33	Vumba	7946	132.1	0.8	MEDIUM	**T2**
TOTAL POPULATION				**751717**				

Province	District	Ward Number	Area	Population	Mean Annual incident/ 100000	Proportion of weeks with cholera(%)	Classification	Types
Mashonaland West	Chegutu	8	Pfupajena	9057	73.6	1.9	MEDIUM	**T3**
Mashonaland East	Seke	2	Makomo	3709	408.5	0.4	MEDIUM	**T3**
Manicaland	Mutare City	10	250 Vumba Wattle Company	3027	279.2	0.4	MEDIUM	**T3**
TOTAL POPULATION				**15793**				
Midlands	Gokwe North	31	Kaduku Village	6145	6.6	0.4	LOW	**T4**
	Gokwe North	16	Mutandwa Village	12600	6.4	0.4	LOW	**T4**
	Gokwe North	13	Muzenda Village	6615	12.2	0.4	LOW	**T4**
Masvingo	Mwenezi	18	Vllage 8,10,11	1268	48.7	0.4	LOW	**T4**
	Chiredzi	11	Chilonga	4222	14.6	0.4	LOW	**T4**
Mashonaland West	Chegutu	28	Borden Farm	3792	21.3	0.4	LOW	**T4**
	Chegutu	21	Claremont	1317	46.0	0.4	LOW	**T4**
	Chegutu	12	Forit	5716	49.5	0.4	LOW	**T4**
	Chegutu	22	Gadzema	10287	21.6	0.4	LOw	**T4**
	Chegutu	13	Hope Farm	4183	48.3	0.4	LOW	**T4**
	Chegutu	10	ZMDC	10549	17.2	2.1	LOW	**T4**
Mashonaland East	Wedza	15	Wedza	3895	25.9	0.4	LOW	**T4**
	Wedza	14	Wedza	1998	20.2	0.4	LOW	**T4**
	Murehwa	8	'Dapandove Sch,Shamu Sch	13189	6.1	0.4	LOW	**T4**
	Marondera	9	Thompson Farm	6551	24.7	O.4	LOW	**T4**
	Marondera	10	Cherutombo	77213	11.2	0.4	LOW	**T4**
	Chikomba	9	Village Ndawana	4470	18.1	0.4	LOW	**T4**
Mashonaland Central	Shamva	29	Wadzanai	6605	12.2	0.4	LOW	**T4**
	Mazowe	15	Luxafloor Roses	8686	27.9	0.8	LOW	**T4**
Manicaland	Mutare City	11	1 Ash, Morningside	11014	56.9	0.4	LOW	**T4**
	Mutare City	14	Chikanga	20138	26.0	1.9	LOW	**T4**
	Mutare City	17	Hobhouse	30864	12.4	1.5	LOW	**T4**
	Mutare City	19	Fernvalley	2211	18.3	0.4	LOW	**T4**
	Mutare City	16	Bernwin	23626	6.0	0.4	LOW	**T4**
	Mutare City	12	Yeovile	14767	6.8	0.4	LOW	**T4**
	Buhera	19	Makwenzi Village	5861	44.8	1.2	LOW	**T4**

Province	District	Ward Number	Area	Population	Mean Annual incident/ 100000	Proportion of weeks with cholera(%)	Classification	Types
	Buhera	14	Murwira Village/ Murambinda	15087	57.6	1.2	LOW	**T4**
	Buhera	13	Chipwanyira	7414	21.7	0.4	LOW	**T4**
	Buhera	15	Matyenyika Village	10736	45.1	0.8	LOW	**T4**
	Buhera	3	Gosho	4644	47.8	1.2	LOW	**T4**
	Buhera	7	Zinhanga	5628	14.4	0.4	LOW	**T4**
	Buhera	31	Ndawana village/ Ndawana school	5927	6.8	0.4	LOW	**T4**
Harare	Harare	36	Aspindale Park	13930	7.3	1.2	LOW	**T4**
	Harare	14	Kambuzuma	32718	6.8	1.5	LOW	**T4**
	Harare	5	Belvedere	23567	5.1	0.0	LOW	**T4**
	Harare	42	Hatclife	48615	12.9	1.9	LOW	**T4**
	Harare	6	Avenues	22790	13.3	1.5	LOW	**T4**
	Harare	9	Chikurubi	51490	6.3	1.5	LOW	**T4**
Total Population				**470328**				
Grand Total				**1652940**				

ANNEX 2:

Table 19: Mapping of Stakeholders

WHO				WHAT				WHERE			WHOM					
Donor	**Organization Name** (Primary Recipient of funding)	**Organization Type**	**Implementing Partner**	**Activity**	**Activity description**	**Response Type**	**Project Status**	**Province Name**	**District Name**	**Ward No**	**Planned Beneficiaries (People)**	**Beneficiaries Reached (People)**	**Men**	**Women**	**Boys**	**Girls**
Action Contre la Faim (ACF)	Action Contre la Faim (ACF) Zim	NGO	Africa Ahead/ ACF	Hygiene Promotion/ CHC (if funds)	- People in Bus terminus stations in Harare have access to key Health & hygiene Messages - Support to production of IEC fliers + distribution	Emergency	In progress	Harare	Harare	N/A	40,000					
UNICEF	OXFAM	INGO	OXFAM		Hygiene Promotion, Water quality monitoring, Sanitation	Emergency		Harare	Glenview		5000	30000				
UNICEF	OXFAM	INGO	OXFAM		Hygiene Promotion, Water quality monitoring, Sanitation	Emergency		Harare	Budiriro		5000	30000				
UNICEF	Welthungerhilfe	INGO	Welthungerhilfe	Hygiene Promotion	Door to door education and targeted NFI distribution	Emergency	In progress	Chitungwiza	Chitungwiza		50000					
UNICEF	Welthungerhilfe	INGO	Welthungerhilfe	Water supply	Water provision at CTC and Assessment of status water points	Emergency	In progress	Chitungwiza	Chitungwiza		5000					
UNICEF	Welthungerhilfe	INGO	Welthungerhilfe	Good sanitation Promotion	Disinfection of sewer contaminated environments	Emergency	In progress	Chitungwiza	Chitungwiza		50000					
UNICEF	Welthungerhilfe	INGO	Welthungerhilfe	Good sanitation Promotion	Refuse Removal and cleanup campaigns	Emergency	Not yet started	Chitungwiza	Chitungwiza		50000					
UNICEF	Welthungerhilfe	INGO	Welthungerhilfe	Hygiene Promotion	Door to door education	Emergency	In progress	Mashonaland East	Epworth		20000					

WHO				WHAT				WHERE			WHOM					
Donor	**Organization Name** (Primary Recipient of funding)	**Organization Type**	**Implementing Partner**	**Activity**	**Activity description**	**Response Type**	**Project Status**	**Province Name**	**District Name**	**Ward No**	**Planned Beneficiaries (People)**	**Beneficiaries Reached (People)**	**Men**	**Women**	**Boys**	**Girls**
UNICEF	Welthungerhilfe	INGO	Welthungerhilfe	Good sanitation Promotion	Refuse Removal and cleanup campaigns	Emergency	Not yet started	Mashonaland East	Epworth		20000					
UNICEF	Welthungerhilfe	INGO	Welthungerhilfe	Good sanitation Promotion	Disinfection of contaminated environments	Emergency	In progress	Mashonaland East	Epworth		1000					
UNICEF	Welthungerhilfe	INGO	Welthungerhilfe	Hygiene Promotion	Door to door education	Emergency	In progress	Midlands	Gokwe North		5000					
UNICEF	Welthungerhilfe	INGO	Welthungerhilfe	Hygiene Promotion	Targeted NFI distribution	Emergency	In progress	Midlands	Gokwe North		5000					
UNICEF	Welthungerhilfe	INGO	Welthungerhilfe	Surveillance	follow up of all cases and suspected cases	Emergency	In progress	Midlands	Gokwe North							
ECONET	HLF	TRUST	HLF	Hygiene Promotion/ CHC (if funds)	Hygiene Promotion, Water trucking, support to production of IEC materials and distribution	Emergency	in progress	Harare	Glen View, Budiriro	All	42 000	41000				
Start-Fund	WVZ	INGO	WVZ	Provision of clean water	Water carting Purchase and distribution of 5000L tanks	Emergence	On going	Harare	Glen View Budiriro		36000				17280	18720
				Purchase and distribution of NFIs	Purchase and distribution of aquatabs, 20l buckets for drinking water	Emergence	On going	Harare	Glen View Budiriro		36000				17280	18720
				Hygiene promotion	Training of teachers, distribution of IEC material, cleaning detergents, HTH, 85L containers for handwashing, protective clothing, solid waste management material	Emergence	On going	Harare	Glen View Budiriro		36000				17280	18720

WHO				WHAT				WHERE			WHOM					
Donor	**Organization Name** (Primary Recipient of funding)	**Organization Type**	**Implementing Partner**	**Activity**	**Activity description**	**Response Type**	**Project Status**	**Province Name**	**District Name**	**Ward No**	**Planned Beneficiaries (People)**	**Beneficiaries Reached (People)**	**Men**	**Women**	**Boys**	**Girls**
UNICEF	WVZ	INGO	WVZ	Improve access to water	Construction of PWS at schools Rehabilitation of water points	Normal long term	On going	Manicaland Masvingo	Chipinge Chiredzi Mwenezi		15600		1872	2028	5616	6084
				Hygiene promotion	Teacher training Formation of school health clubs MHM											
UNICEF/ DFID	WVZ	INGO	WVZ	Improve access to water	Rehabilitation of PWS Rehabilitation of hand pumps and wells	Long term	On going	Mashonaland Central	Mbire Muzarabani		238300		45754	49566	68631	74349
				Improve access to sanitation	Demand led sanitation											
				Hygiene promotion	CHCs, SHCs, construction of hygiene enabling facilities											

WHO				WHAT				WHERE			WHOM					
Donor	**Organization Name** (Primary Recipient of funding)	**Organization Type**	**Implementing Partner**	**Activity**	**Activity description**	**Response Type**	**Project Status**	**Province Name**	**District Name**	**Ward No**	**Planned Beneficiaries (People)**	**Beneficiaries Reached (People)**	**Men**	**Women**	**Boys**	**Girls**
UNICEF	Christian Care	Local NGO	Christian Care	Emergency Cholera Response	Facilitating: Coordination meetings • assessment of water points in Masvingo town and the surrounding areas. • Support water quality monitoring • Facilitate disinfection of contaminated areas in community with Chloride of lime • Volunteer training x 50 • Health and Hygiene education- door to door approach • Health and Hygiene education- public places- markets vendors, funeral parlours • Registration of HH for NFI distribution	Emergency	PCA signing stage but response has started	Masvingo	Masvingo	N/A	40000	11695			5377	5998

WHO				WHAT				WHERE			WHOM					
Donor	**Organization Name** (Primary Recipient of funding)	**Organization Type**	**Implementing Partner**	**Activity**	**Activity description**	**Response Type**	**Project Status**	**Province Name**	**District Name**	**Ward No**	**Planned Beneficiaries (People)**	**Beneficiaries Reached (People)**	**Men**	**Women**	**Boys**	**Girls**
					• NFI (Hygiene Enabling kits) distribution • Support refuse removal and clean-up campaigns • Programme monitoring, coordination and support• Support screening sites with disinfectants and infection control consumables• Report writing											
EQM	CVC	Local NGO	CVC	Demand Led Sanitation	Triggering of Communities, Training of Latrine Builders and Construction of Latrines	Regular	On-going	Manicaland	Pfura		1500 H/H	5000 people				
UNHCR	GOAL		GOAL	Demand Led Sanitation	Hygiene promotion, water supplies, sanitation	Regular	On-going	Manicaland	Chipinge	19.2	4000 H/H	3500H/H				
WVI US	WVI		WVI	Demand Led Sanitation	Training of Latrine Builders and Construction of Latrines, repair of boreholes	Regular	On-going	Manicaland	Buhera		6000 H/H	4500H/H				
UNICEF	Christian Care		Christian Care	Demand Led Sanitation	Triggering of Communities, Training of Latrine Builders and Construction of Latrines	Regular	On-going	Manicaland	Makoni	1-39	5000H/H	4500H/H				
DFID	CARE		CARE	Demand Led Sanitation	Triggering of Communities, Training of Latrine Builders and Construction of Latrines	Regular	On-going	Manicaland	Buhera	7,13,14	4500H/H	3200H/H				

WHO				WHAT				WHERE			WHOM					
Donor	**Organization Name** (Primary Recipient of funding)	**Organization Type**	**Implementing Partner**	**Activity**	**Activity description**	**Response Type**	**Project Status**	**Province Name**	**District Name**	**Ward No**	**Planned Beneficiaries (People)**	**Beneficiaries Reached (People)**	**Men**	**Women**	**Boys**	**Girls**
UNICEF	PLAN		PLAN	Demand Led Sanitation	Triggering of Communities, Training of Latrine Builders and Construction of Latrines	Regular	On-going	Manicaland	Chipinge		5500H/H	5500H/H				
British Red Cross	Zimbabwe Red Cross Society		Zimbabwe Red Cross Society	Demand Led Sanitation	Latrine construction	Regular	On-going	Manicaland	Chipinge	16,20,24	800 H/H	450 H/H				
Unilever	Unilever	FMCG	Saints Marketing	Hand-washing Education Drive	-Lifebuoy & Domestos Brand Ambassadors educating people in Glenview & Budiriro on Hand-washing & Toilet Use Habits	Emergency	In progress	Harare	Harare	N/A	50,000					
UKAID and CAFOD	CAFOD		Caritas Gokwe		Triggering of communities, Construction of Flush toilets and latrines at school, Piped water schemes, School and community health & hygiene education	Regular	On-going	Midlands	Gokwe North	10,12,	9,732H/H	9,672H/H				
UKAID and CAFOD	CAFOD		Caritas Hwange		Triggering of communities, Construction of Flush toilets and latrines at school, Piped water schemes, School and community health & hygiene education	Regular	On-going	Mat. North	Binga		4,660H/H	4,566H/H				

WHO				WHAT				WHERE			WHOM					
Donor	**Organization Name** (Primary Recipient of funding)	**Organization Type**	**Implementing Partner**	**Activity**	**Activity description**	**Response Type**	**Project Status**	**Province Name**	**District Name**	**Ward No**	**Planned Beneficiaries (People)**	**Beneficiaries Reached (People)**	**Men**	**Women**	**Boys**	**Girls**
Isle of Men and CAFOD	CAFOD				Triggering of communities, Construction of Flush toilets at schools, Piped water schemes, School and community health & hygiene education	Regular	On-going	Manicaland	Chimanimani	1,17	250H/H	250H/H				
UNICEF/ DFID	Mvuramanzi Trust	Local NGO	Mvuramanzi Trust	Demand Led Sanitation	Triggering of Communities, Training of Latrine Builders and Construction of Latrines	Regular	On going	Mashonaland East	UMP	4,5,7,16 & 17	3500 H/H	2000				
UNICEF	ADRA Zimbabwe	Local NGO	ADRA Zimbabwe	WASH & Nutrition	Repair of boreholes; WPC establishment; Training of VPMs; PHHE with cholera education; Water quality analysis	Emergency	Response has not yet started	Mt Darwin, Mutoko, Tsholotsho, Centenary, Mbire	Mashonaland East, Mashonaland Central, Matabeleland North,	N/A	67250	8505				
ADRA International	ADRA Zimbabwe	Local NGO	ADRA Zimbabwe	Cholera Emergency response	Distribution of NFIS and IEC material to churches and schools, clean up campaigns,	Emergency	On going	Harare and Gokwe North	Harare and Midlands	N/A	26000	0				
Zimfund	AfDB	Bank	AfDB	WASH Infrastructure Rehabilitation	Rehabilitation and repairs of urban WASH infrastructure	Emergency	On going	Harare, Manicaland, Masvingo, Mash West, Midlands	Harare, Chitungwiza, Ruwa, Mutare, Masvingo, Chegutu, Kwekwe, Redcliff	Urban	4300000	4300000	TBD	TBD	TBD	TBD

WHO				WHAT				WHERE			WHOM					
Donor	**Organization Name** (Primary Recipient of funding)	**Organization Type**	**Implementing Partner**	**Activity**	**Activity description**	**Response Type**	**Project Status**	**Province Name**	**District Name**	**Ward No**	**Planned Beneficiaries (People)**	**Beneficiaries Reached (People)**	**Men**	**Women**	**Boys**	**Girls**
Cocacola Foundation/ Global Water Challenge	Institute of Water & Sanitation Development (IWSD)	Local NGO	Epworth Local Board & Ministry of Health	Improving Drinking Water Quality through strengthening of local capacity	Training of community facilitators, Formation and strengthening of CHCs and SHCs, identification of communal perennial water points, development & implementation of communal water quality management plans, Provision of ward based water testing equipment	Regular development	On-going	Mashonaland East	Epworth	Ward 1 - 7	40000	± 20000	TBD	TBD	TBD	TBD
Action-Aid Zimbabwe	NGO	ActionAid Zimbabwe	Water supply & Sanitation Promotion	Borehole drilling, repairs and hygiene promotion as well as capacity building of Water Point Committees at Village and Ward level	Emergency & Regular	1st January 2015	Manicaland	Makoni	1, 2, 3, 4, 5, 15, 16, 19, 27, 28, 29, 30, 31, 35,& 36	28,000						
Action-Aid Zimbabwe	NGO	ActionAid Zimbabwe	Water supply & Sanitation Promotion	Borehole drilling, repairs and hygiene promotion as well as capacity building of Water Point Committees at Village and Ward level	Emergency & Regular	1st January 2015	Manicaland	Nyanga	4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 17, 18, 19, 21,22, 23, 27 & 29	22 000						

WHO				WHAT				WHERE			WHOM					
Donor	**Organization Name** (Primary Recipient of funding)	**Organization Type**	**Implementing Partner**	**Activity**	**Activity description**	**Response Type**	**Project Status**	**Province Name**	**District Name**	**Ward No**	**Planned Beneficiaries (People)**	**Beneficiaries Reached (People)**	**Men**	**Women**	**Boys**	**Girls**
Action-Aid Zimbabwe	NGO	ActionAid Zimbabwe	Water supply & Sanitation Promotion & Nutrition	Borehole drilling, repairs and hygiene promotion as well as capacity building of Water Point Committees at Village and Ward level	Emergency & Regular	1st January 2016	Manicaland	Buhera	22,23, 24,26,28 & 30	18 000						
Action-Aid Zimbabwe	NGO	ActionAid Zimbabwe	Water supply & Sanitation Promotion	Borehole drilling, repairs and hygiene promotion as well as capacity building of Water Point Committees at Village and Ward level	Emergency & Regular	1st January 2015	Mashonaland East	Hwedza	9, 10, 11, 12, 13 & 14	8 000						
Action-Aid Zimbabwe	NGO	ActionAid Zimbabwe	Water supply & Sanitation Promotion	Borehole drilling, repairs and hygiene promotion as well as capacity building of Water Point Committees at Village and Ward level	Emergency & Regular	1st January 2015	Matebeleland	Nkayi	16, 20, 21, 27 & 28	7 000						

ANNEX 3:

Table 20: Identified Cholera Hotspots for OCV Campaigns

Province	District/ Areas	Ward No.	Total population	Targeted popula-tion (95% of the total) for Round1 OCV	Targeted popula-tion (95% of the total) for Round2 OCV	Total doses re-quired for Rounds 1 & 2	Dates for First Round OCV	Dates for Second Round OCV	Dates for OCV campaign coverage surveys
Mashonaland West	Chegutu	4	8379	7960	7960	15920			
		8	9057	8604	8604	17208			
		28	3792	3602	3602	7205			
		21	1317	1251	1251	2502			
		12	5716	5430	5430	10860			
		22	10287	9773	9773	19545			
		13	4183	3974	3974	7948			
		10	10549	10022	10022	20043			
Sub-total									
Manicaland	Mutare City	6	5845	5553	5553	11106			
		1	8718	8282	8282	16564			
		10	3027	2876	2876	5751			
		11	11014	10463	10463	20927			
		14	20138	19131	19131	38262			
		17	30864	29321	29321	58642			
		19	2211	2100	2100	4201			
		16	23626	22445	22445	44889			
		12	14767	14029	14029	28057			
	Buhera	27	8709	8274	8274	16547			
		19	5861	5568	5568	11136			
		14	15087	14333	14333	28665			
		13	7414	7043	7043	14087			
		15	10736	10199	10199	20398			
		3	4644	4412	4412	8824			
		7	5628	5347	5347	10693			
		31	5927	5631	5631	11261			
	Mutare district	33	7946	7549	7549	15097			
Sub-total									
Harare	Harare	33	64452	61229	61229	122459			
		43	65529	62253	62253	124505			
		24	31615	30034	30034	60069			
		4	40124	38118	38118	76236			
		39	13930	13234	13234	26467			
		34	19869	18876	18876	37751			

Province	District/ Areas	Ward No.	Total population	Targeted popula-tion (95% of the total) for Round1 OCV	Targeted popula-tion (95% of the total) for Round 2 OCV	Total doses required for Rounds 1 & 2	Dates for First Round OCV	Dates for Second Round OCV	Dates for OCV campaign coverage surveys
		27	34747	33010	33010	66019			
		30							
		31							
		32	121894	115799	115799	231599			
		15	70596	67066	67066	134132			
		23	68568	65140	65140	130279			
		22	47830	45439	45439	90877			
		16	49959	47461	47461	94922			
		10	23632	22450	22450	44901			
		1	121794	115704	115704	231409			
		37	75858	72065	72065	144130			
		19	22663	21530	21530	43060			
		36	13930	13234	13234	26467			
		14	32718	31082	31082	62164			
		5	23567	22389	22389	44777			
		42	48615	46184	46184	92369			
		6	22790	21651	21651	43301			
		9	51490	48916	48916	97831			
	Chitung-wiza	1							
		2							
		3							
		4							
		5	72549	68922	68922	137843			
		6							
		7							
		8							
		9							
		10							
		11							
		12							
		13							
		14	109312	103846	103846	207693			
		21							
		23							
		24	72301	68686	68686	137372			
Sub-total									
Mashonaland East	Seke	2	3709	3524	3524	7047			
	Wedza	15	3895	3700	3700	7401			
		14	1998	1898	1898	3796			
	Murehwa	8	13189	12530	12530	25059			
	Marondera	9	6551	6223	6223	12447			

Province	District/ Areas	Ward No.	Total population	Targeted popula-tion (95% of the total) for Round1 OCV	Targeted popula-tion (95% of the total) for Round2 OCV	Total doses re-quired for Rounds 1 & 2	Dates for First Round OCV	Dates for Second Round OCV	Dates for OCV campaign coverage surveys
		10	7213	6852	6852	13705			
	Chikomba	9	4470	4247	4247	8493			
Sub-total				6284	6284				
Mashonaland Central	Shamva	29	6605	6275	6275	12550			
	Mazowe	15	8686	8252	8252	16503			
Sub-total									
Midlands	Gokwe North	31	6145	5838	5838	11676			
		16	12600	11970	11970	23940			
		13	6615	6284	6284	12569			
Sub-total									
Masvingo	Mwenezi	18	1268	1205	1205	2409			
	Chiredzi	11	4222	4011	4011	8022			
Sub-total									
TOTAL			**1652940**	**1570293**	**1570293**	**3140586**			

ANNEX 4: Urban and Rural WaSH Infrastructure status (2017) in hotspot wards

URBAN WASH

Implementation of WaSH activities including method of monitoring in urban settings differs from Rural settings. Whereas in rural settings water points are key components, in urban settings measurement of WaSH activities includes connections to the main water and sewerage systems. Annually, measurements are carried out in all the 32 municipalities and reported in the Service Level Benchmarking (SLB) Annual Report. The 2018 SLB Annual Report is the sixth in a series of reports produced by the Peer Review Coordinating Committee (PRCC) since the beginning of the SLB programme in 2012. The details on selected indicators in selected towns/ cities with hotspot wards are highlighted below:

The Service Level Benchmarking (SLB) programme report, 2018

The purpose of the report is to disseminate progress on the implementation of the Service Level Benchmarking (SLB) programme in Zimbabwe as well as to share lessons learnt from the peer review process with all stakeholders, including government, donors, development partners and urban citizens.

In addition to focus on Water Supply, Wastewater Management and Solid Waste Management only, the 2018 peer reviews took on board two more services, namely, Roads and Public Safety and Corporate Governance. Inclusion of Corporate Governance indicators was triggered by the need to make local authorities more efficient, effective and accountable.

Goal for Service Level Benchmarking (SLB)

The goal of Service Level Benchmarking (SLB) project is to improve service delivery through enhanced performance, transparency and accountability. Benchmarking provides councils with the most useful ways to achieve:

• greater success in understanding and meeting customer needs;
• collective establishment of challenging, but realistic goals which relate to strategic council needs;
• a deeper understanding of performance measures and the development of indicators of productivity;
• a greater awareness of sector "best practices" and the desire to equal or surpass them;

STAKEHOLDERS AND THEIR SLB INFORMATION NEEDS

Local authorities

Local authorities require SLB report to understand and appreciate the level at which they are providing service delivery in their respective areas. Such information helps them to establish and quantify appropriate interventions required to improve service delivery in the form of Performance Improvement Plans (PIPs). In addition, SLB is a self-regulatory process which calls for monitoring and review of local authorities' internal processes in order to enhance performance. The process heavily relies on local authorities' strategic plans from which strategic priority interventions are drawn. Council policies should therefore be informed by SLB report. SLB report can also be used for mobilisation of resources to improve service delivery.

Government

The SLB report enables Government to effectively play its supervisory, monitoring, quality control, oversight and policy formulation roles. Government will also use SLB report to develop appropriate Public-Sector Investment (PSIP) programmes in line with the four services and mobilise resources.

Development Partners/ Non-State Actors

The SLB report informs development partners/ Non-State Actors on priority areas for support. SLB data informs and directs partners' programming

thrust and priority development areas.

Urban Councils Association of Zimbabwe (UCAZ)
UCAZ should use developing informed advocacy issues, developing capacity building programmes, knowledge sharing and resource mobilisation.

Private Sector
Requires the SLB report for identification of areas for investment, financing opportunities and private public partnerships (PPPs)

Citizens
The SLB report will enable citizens to exercise their voice and contribution to service delivery in an informed manner. SLB enhances citizen participation and promotes ownership of service delivery.

Tertiary Institutions
These may derive areas for research and innovations. The SLB information may also be used for academic purposes

Water supply
Summary of results of water supply indicators for selected towns/cities is shown in Table 22.

Table 22: Summary of SLB indicators – water supply (2017)

	Property level coverage of direct water supply	Extent of non-revenue water	Continuity of water supply	Quality of water suppled	Efficiency in satis-factory response/ reaction to cus-tomer complaints	Efficiency in collection of water related charges
Benchmarks	100%	25%	24 hours	100%	80%	75%
Town/city						
Chitungwiza	74	66	3	87	64	57
Chegutu	94	44	4	100	93	18
Mutare city	71	68	15	100	491	61
Harare	73	61	16	87	42	69
Epworth	14	17	3	278	100	29
Average	**81**	**43**	**12.1**	**96.8**	**69.8**	**44.3**

The overall property coverage remained at 82% for the years 2016 to 2017. in terms of accuracy. The benchmark for water supply is 24 hours per day, only two local authorities reported 24 hours per day supply of water. The majority of local authorities' water supply fall between 6 hours and 12 hours per day. However, non-revenue water increased marginally from 40.1% in 2016

to 43% in 2017 and it remains a. major challenge.

Quality of water improved from 90% to 96.7%. This is attributed to rigorous testing, internally and externally. There was a decrease in cost recovery in water supply from 168% in 2016 to 163.2% in 2017. Most councils have in principle adopted separation of operation and maintenance costs to improve on the sustenance of assets. However, adherence to scheduled maintenance remains a challenge that local authorities need to address, in order to ensure long asset lifespan. These results show that local authorities are doing more repairs than maintenance or the accounts are not totally ring-fenced.

Table 23: *Summary of wastewater results for selected towns/cities*

	Coverage of functional toilets	Coverage of sewerage network	Efficiency in collection of sewerage	Quality of sewerage treatment	Extent of recycling or reuse of sewerage	Efficiency in satisfactory response/ reaction to customer complaints	Efficiency in collection of sewerage charges
Benchmarks	100%	66%	95%	100%	10%	80%	75%
Town/city							
Chitungwiza	100	215	142	0	99	70	46
Chegutu	100	90	84	75	0	89	17
Mutare city	91	88	35	0	1	80	61
Harare	70	61	127	2	36	70	49
Epworth	2	0	0	0	0	100	0
Average	**85.8**	**75.3**	**94.6**	**20.5**	**8.1**	**70.2**	**30.6**

Water Waste Management

There has been an increase in coverage of toilets in local authorities from an average of 84.7% to 86.1% between 2016 and 2017. Sewerage network coverage increased from 67.1% to 75.3% between 2016 and 2017.Collection of sewage increased from 87% to 94%. The state of sewer infrastructure requires attention. Very minimal recycling of sewer is taking place across local authorities, which presents an opportunity for investment in this area. The excess capacity in sewer treatment could be a result of very low water supply (as shown is the water supply indicator) or the collapse of the sewer reticulation infrastructure such that very little sewage is reaching the treatment plants. It is therefore imperative that as local authorities increase their water supply and rehabilitation of their sewer infrastructure, there should be a corresponding investment in sewer treatment capacity

Solid waste management (SWM)

Summary of SLB indicators – Solid waste management (2017) indicators for selected towns/cities is shown in Table 24.

Table 24: *Summary of SLB indicators – Solid waste management (2017) indicators for selected towns/cities*

	Coverage of SWM services through door to door collection of waste	Efficiency of collection of municipal solid waste	Extent of recovery of municipal solid waste collected	Efficiency in satisfactory response / reaction to customer complaints	Efficiency in collection of SWM charges	Coverage of receptacles
Benchmarks	100%	100%	20%	80%	75%	100%
Town/city						
Chitungwiza	91	71	0	84	52	11
Chegutu	100	93	1	100	26	10
Mutare city	94	49	2	17	55	93
Harare	71	67	12	85	50	68
Epworth	1	5	0	100	100	1
Average	**85.4**	**78.6**	**5.0**	**68.3**	**38.7**	**53.3**

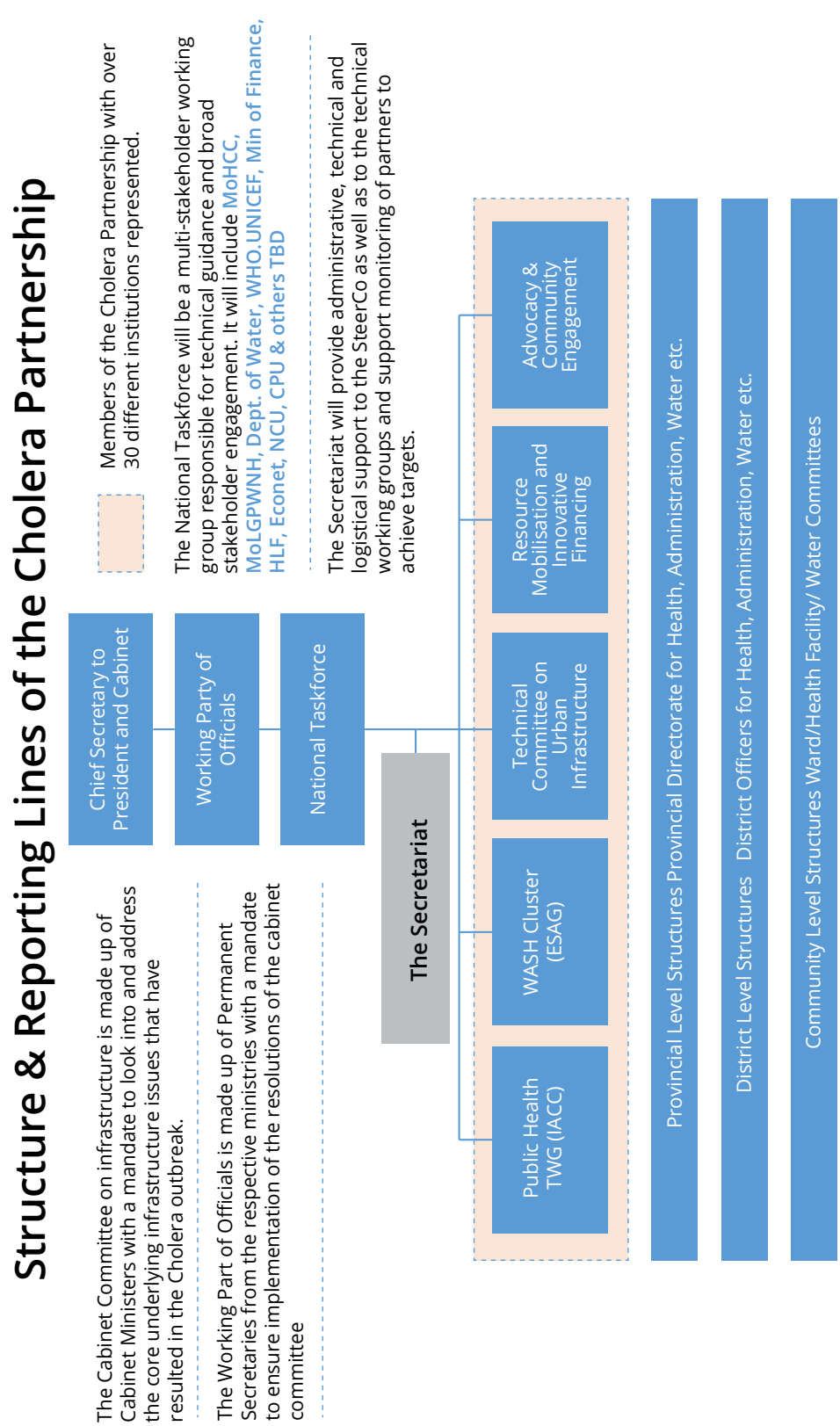
All 32 local authorities do not have adequate solid waste collection and disposal equipment. Coverage of receptacles remains very low and therefore contributes to dumping. Only 2 out of the 32 LAs have proper landfill sites. The recycling of solid waste remains very low at an average of 5%, presenting yet another opportunity for investment. The concept of 3Rs (reduce, recycle and reuse) need to be promoted. Coverage of receptacles increased from 50.2% in 2016 to 53% in 2017. The cost of landfills as per current design is beyond the reach of local authorities, as a result, local authorities and EMA have agreed to adapt the cost effective design.

RURAL WaSH

Water points indicators available at district level. Periodic surveys will be required to determine baseline of key WASH indicators in the 81 hotspots (at ward level) and subsequent monitoring of progress during programme implementation.

Budiriro community members retrieve water from communal water point - 2018

ANNEX 5: ORGANISATIONAL STRUCTURE



NATIONAL CHOLERA TASK FORCE

Institution (Position in Institution)	Name	Role & importance to NTF and Cholera Elimination
Ministry of Health (Chief Director)	Dr G. Mhlanga	Co-Chair. Activates all public health emergency responses & partners to contribute to health response activities
Ministry of Local Government (Director of Public Works	Eng. H. Hungwe	Co-Chair. Activates all Local Authorities in Zimbabwe to act on infrastructure projects
Ministry of Finance (Accountant General)		Allocates budgetary amounts for all Government of Zimbabwe fiscal expenditure
Ministry of Agriculture & Water (Director Water Department)	Mr. Mutazo	Leads national water planning initiatives & is responsible for new water sources, eg dams, water points
Zimbabwe National Water Authority (CEO)	Eng. T Maurukira	Manages all waters above and below ground and is responsible for bulk water supply
Environmental Management Agency, EMA (Director General)	Mr. A. Chigona	Provides routine surveillance on selected community boreholes as well as river water quality
Civil Protection Unit (CPU) (Director)	Mr. N. Nkomo	Coordinates national emergencies and outbreaks when done by Presidential declaration
National Coordination Unit, NCU (National Coordinator)	Mr. H. Mashingaidze	Leads coordination of all WASH partners in Zimbabwe and provides government leadership on WASH
World Health Organization, WHO Country Representative)	Dr. A. Gasasira	Lead technical partner to Ministry of Health and provides resource support to this ministry
UNICEF Co-chair of ESAG	Dr. A. Cronin	Supporting the WASH coordination mechanisms in Zimbabwe from the National Action Committee to the Dept. of WASH Coordination
Higherlife Foundation (CEO)	Dr. K. Mubaiwa	Agency hosting the Cholera Secretariat and channelling resources from Philanthropy towards Cholera
Econet Wireless (CEO)	Mr. D. Mboweni	Private sector lead providing financial and technical support in establishment of the EOC
Association of Rural District Councils of Zimbabwe (CEO)	Dr. I Matsilele	To advance and safeguard the rights, powers and duties enjoyed by the Rural District Councils and to promote local government and its role in development and service provision
Urban Councils Association of Zimbabwe (CEO)	Mr. L Mutekede	Provide expertise in key areas to members with the co-operation of partners in local government, in areas such as finance and health
District Development Fund of Zimbabwe (CEO)	Mr. Toriro	DDF is a quasi-government department under the office of the President tasked with the development and maintenance of infrastructure, water supplies, roads services hire of plant and equipment and tillage services.

The National Taskforce (NTF) on Cholera Elimination was established by a mandate of government. Higherlife Foundation was tasked to establish a Secretariat that serves this Taskforce.
The NTF brings together key representatives from government, development partners, civil society and private sector.
The main objective of the NTF is to provide national level strategic leadership and coordination

The Cholera Partnership consists of the NTF members as well as the institutions & organisations engaged at the subcommittee level. This includes development partners, local authorities & municipalities; public health and WASH NGOs; community groups & advocates; development finance institutions.
The partnership is composed of 40-50 agencies working together to achieve elimination

ANNEX 6: Terms of Reference of the National Taskforce on the Elimination of Cholera & Waterborne Diseases

Background

Following the outbreak of cholera in early September 2018, the government established an ad hoc cabinet committee on infrastructure to address the underlying issues causing the Cholera. This cabinet committee was replicated in the Working Party of Senior Officials attended by the respective Permanent Secretaries. In order to operationalize and better support the work of the Cabinet Committee and the Working Party of Officials, Higherlife Foundation was requested by the Government to establish a secretariat that would support the implementation of activities through processes of accountability, monitoring and advocacy to the various stakeholders.

In order to be more effective and ensure that a plan of action and sets of activities are well coordinated, a multi-stakeholder National Taskforce (NTF) has been established to ensure alignment by all relevant stakeholders.

Members

Members of the Steering Committee shall be comprised of 12-14 members who shall include:

1. Ministry of Local Government, Public Works (Co-Chair)
2. Ministry of Health and Child Care (Co-Chair)
3. Ministry of Finance & Economic Development
4. Ministry of Agriculture (Water Department)
5. Civil Protection Unit (CPU)
6. Zimbabwe National Water Authority (ZINWA)
7. National Coordination Unit (NCU)
8. Environmental Management Agency (EMA)
9. World Health Organization (WHO)
10. UNICEF
11. Higherlife Foundation (HLF)
12. Econet Wireless Zimbabwe
13. Cholera Secretariat (Support function)
14. Others as determined by the initial members

Terms of Reference for the NTF

The Steering Committee shall be responsible for

1. Technical Guidance and Leadership: The NTF shall provide guidance on the overall framework around which all the stakeholders shall implement their activities and be held accountable.

2. Development of a National Cholera Elimination Roadmap: Through its leadership role, the NTF shall lead the development of a national Cholera elimination roadmap and strategy that will bring all stakeholders together to ensure that there is one national strategy that focuses on elimination and that all players coherently contribute to the development and implementation of this national plan. The Roadmap shall serve as the guideline and accountability tool against which the NTF and the Cholera Partnership shall measure progress towards eliminating Cholera in Zimbabwe by 2028.

3. Coordination of Stakeholders: The NTF shall serve as the coordinating body to ensure there is no duplication of effort among players and ensuring that activities are streamlined and resources allocated and used effectively. This applies to all partners working in the hotspots and nationwide included in the Cholera Partnership.

4. Oversight & governance over budgets and work plans: the NTF shall work to ensure that stakeholders are implementing activities as per their agreed on responsibilities and will ensure that technical working groups are functional and timeously reporting.

5. Functionality and effectiveness of Technical Working Groups: The NTF members shall be representatives of the various technical working groups and ensure that TWGs are meeting frequently and holding each other accountable to the activities agreed upon in the roadmap

6. Advocacy: The NTF shall serve as an advocacy body to the working party of Senior officials and cabinet. They will advocate for policy change and resource allocations to ensure that activities highlighted in the roadmap are executed in a timely manner

7. Accountability and Reporting to the Working Party: The NTF shall give feedback and reports of progress and bottlenecks against the set milestones to the Working party of Senior officials who in turn shall give feedback on progress and bottlenecks to cabinet while guidance to the technical and implementation level.

8. Coordination for Resource Mobilisation: The NTF shall coordinate resource mobilisation among all the stakeholders and shall be the lead advocates for resources to be made available to the various activities required to ensure that the national strategy/ roadmap is well resourced and funded to complete its activities.

9. Technical & resource support to the Working Party: The NTF shall give technical recommendations to the working party, to ensure that the ideas, concerns and strategies of all stakeholders are included in the roadmap elements.

THE SECRETARIAT

The NTF shall be served by a Secretariat which will provide technical, administrative and logistical support to the NTF and its Technical working groups. The Secretariat shall also serve as the monitoring agency to ensure that all stakeholders and players are accountable to their actions as documented in the Elimination Roadmap. The Secretariat shall monitor, analyse, document and share findings with the NTF who will use such information for strategic decision- making.

Technical Working Groups
The NTF shall facilitate the establishment of new technical working groups or else shall leverage on existing technical working groups and committees to detail the implementation strategies, milestones and core activities required to ensure the goals of the Roadmap are successfully executed.

Frequency of Meetings
The NTF members shall meet bimonthly or as agreed and shall share information on progress, statistics and other relevant issues. The NTF may invite other stakeholders and members to participate on the meetings depending on the issues that need to be addressed at that point in time.

Attendance to Meetings
NTF Members shall be required to attend meeting to monitor progress, hold partners and agencies accountable as well as to determine any changes in strategy as needed. The core NTF members are expected to attend regularly scheduled meetings while other stakeholders may be invited to attend special meetings to present on issues arising or provide feedback to NTF members on projects, activities or initiatives being worked on contributing towards Cholera elimination. As and when necessary, the NTF may also invite members of the Working Party of Officials or members of the Cabinet Committee to participate.

ANNEX 7: SWOT analysis of capacities by pillars

3.2.1 Public Health Preparedness and Response

Thematic area	Strengths	Weaknesses	Opportunities	Threats
Policy, leadership, coordination and legal framework	Very high level political commitment in the cholera response was evidenced by the involvement of the President, Minister of Health and Child Care and other senior MOHCC staff, provincial and district health leadership. His excellency the President, launched the "keep your environment clean" campaign held on every first Friday of the month. Inter-Ministerial Cabinet committee on cholera assisted with resource mobilization. Immediate activation of the Emergency Operations Centre (EOC) and Rapid Response Teams (RRT) at national and sub-national levels which enabled quick emergency response in terms of development of response plans, procedures and information flow. Adopted WHO AFRO Regional strategy for Health Security and Emergencies, as part of the Regional collaboration to prevent, detect and respond to public health threats which include cholera. In February 2018, Zimbabwe conducted the JEE-IHR core capacities, and development of the National Action Plan for Health Security (NAPHS), at advanced stage. To address potential risk of disease outbreaks spread in the sub-region, there are a number of cross border agreements regarding public health emergencies to which Zimbabwe is signatory, including: the Southern African Development Community (SADC) Protocols on Health, Communicable Diseases, and the Sanitary and Phytosanitary Agreement; SADC Ministers of Health Communique on Ebola (Zimbabwe, Mozambique and Malawi);	Statutory instrument on Public Health Restriction of gatherings is available but applicable to Manicaland province only and is evoked by the District Administrator not Health Authorities; There is neither clear policy or guideline on transportation for burial of people who had died of cholera in other areas, nor Act to control Food Safety Issues – only Food standards is available. The current cholera guidelines are outdated, and no structured guideline on surveillance activities in private sector, only indicator Based notification for cholera is mandatory among others. Weak enforcement of existing laws e.g., Anti-littering laws are in place, but not being implemented; Water bodies are still polluted, illegal discharge continues to occur. There is no policy or legislative framework for Public Health Emergency Operations Centre; the need for policy framework to deal with cholera treatment outside public health sector in-particular to regulated private health providers, and a clear policy on remuneration of health workers during times of cholera outbreaks.	Capacities and skills that need to be developed: fast track rate of enactment of legislation; Training of Environmental Health Cadres in Public Health Enforcement; and Systems strengthening across entirety of ministry of Health. To ensure full inclusivity, gender analysis of all laws and policies should be done for all amendments and new laws. In terms of research, some critical questions that need to be answered: What is the impact of public health law as a primordial prevention method? Do we have the right laws in place? Do we need more laws to be developed? Are the laws and systems responsive to emerging issues in disease control? To ensure strong effective coordination of this domain will require MOHCC to take a lead at national, provincial and district levels. This is not applicable at Ward and Community levels.	Delay in promulgation of Public Health Statute. This could be mitigated through advocacy

	Joint Communique of Ministers of Health of Mozambique, Malawi and Zimbabwe on Communicable Diseases; Joint Cholera Initiative for Southern Africa; the Zambia-Zimbabwe (ZAMZIM) Malaria Cross-border Agreement; the Basel, Rotterdam, and Stockholm Conventions; and the Trans-Limpopo Malaria Initiative (TLMI).			
	New Constitution that recognizes health as a right is available; National Health Strategy is available; the Country is implementing International Health Regulations (2005). The Public Health Act (Chap 15:09) – recently revised has provisions on dealing with communicable diseases including cholera. The process to update the Cholera Control guidelines is at advanced stage. The Food and Standards Act is available, as well as, availability and use of WHO guidelines for drinking water standards.	unwillingness to implement or enforce laws and policies; and a slow pace in aligning laws with constitution. The Health sector is not recovering costs for operations and scarcity of doctors - cannot find doctors at the primary care level; right now primary care level is managed by nurses not GPs		
	Acts and policies are being aligned to new constitution while some Acts are being enforced successfully; attempts are being made to operationalize the One Health concept; realize Universal Health Coverage and meet the SDGs. Revision of essential staff establishments to ensure adequate capacity for service delivery is being implemented at national level.			
Public Health Emergency Operations Centre (PHEOC)	Covered under section; lessons learnt from cholera response			
Rapid Response Teams (RRTs)	The National RRT is functional and well constituted; Provincial RRTs are functional; some district RRTs are functional; majority of Cities and bigger municipalities have RRTs; and all suspected/ confirmed cholera outbreaks are investigated within 24hrs. Conducting preliminary epidemiological investigations aiming at identifying the cause, origin/ source extension and potential for spreading of the event or outbreak under investigation; conducting a clinical examination of	Real time electronic disease surveillance system by RRTs and reduction of paper based data collection tools Lack of IDSR training for new members; vacant posts in the Rapid Response Teams (RRTs) at all levels, inadequate resources such as transport to allow mobility of RRTs, delays in investigation of suspected outbreaks and lab confirmation in some districts.	Technology and innovations that may be included and integrated into this domain; Real time Open Data Kits (ODK) to replace paper based data collection system and use of smart phones or tablets with open source android applications (ODK), and Syncing Real time data with web based DHIS. All health workers - Clinical Medical Officers, Environmental Health Practitioners, Nurses, Laboratory Technicians, Health Promotion Officers and Community based health workers	Difficulty in embracing new technology and changes in the systems, failure to effectively and continuously monitor community health status, and high staff attrition. These risks could be mitigated through; encouraging practice (in gadget use) when it comes to the real time ODK, refresher IDSR courses for health workers to keep up with the changing health information, and RRT out of station related incentives. Inadequate funding.

Thematic area	Strengths	Weaknesses	Opportunities	Threats
	the patients affected by the event under instigation; carrying out preliminary containment and control measures as appropriate according to the findings in the field; analysing or dispatching all collected samples and sampling forms to the relevant laboratories for laboratory confirmation as quickly as possible; to immediately notify the relevant authorities about the findings/results of the investigation and to recommend possible interventions; and preparation of a detailed report of the RRT investigation findings.	should have their capacities strengthened. Capacity building through Field Epidemiology Training program, with focus on case finding and reporting, as well as RRT training and distribution of manuals should be supported..		
			Some of the research questions that could be answered through collaboration with Health Sciences Research Institutes; What is the cost benefit analysis of effective rapid response to an outbreak? What is the impact of RRT in cholera prevention and control? How effective is the weekly disease surveillance system in place? What are the factors associated with contracting and spreading cholera in Zimbabwe? Survival or modelling of cholera cases (life span, time of death, etc) in Zimbabwe, how effective is the reactive oral cholera vaccination in Zimbabwe, and is there an association between Vulnerable population and cholera incidence in Zimbabwe? Strong effective coordination could be achieved through; periodic evaluation of IDSR system at all levels to identify weaknesses / gaps, fill the identified gaps, close and continuous monitoring of all IDSR activities, ensuring appropriate coordination at all levels of the public health sector (community, health facility, district, national, and international levels).	

3.2.2 Surveillance (IDSR, Event based Surveillance, Community Based Surveillance, Rumour log)

Thematic area	Strengths	Weaknesses	Opportunities	Threats
Timely detection and confirmation.	A strong surveillance system for cholera. Local capacity for real time reporting has enabled fast detection, confirmation and response to outbreaks; identifying high burden areas that require long term interventions; monitoring implementation progress of the National Cholera Plan (NCP) at national level, and measuring and evaluating impact of the interventions. Capacitation of health workers in IDSR has improved their interpretation and use of data at local level. The district laboratories were supported with consumables to conduct rapid diagnostic tests (RDTs), culture and sensitivity tests. Zimbabwe Field Epidemiology Training Program. Tools to facilitate work (Standard Case Definition, data collection (Line listing), clear reporting procedures, Weekly Disease Surveillance Reporting on diseases targeted for elimination and eradication including cholera and typhoid (routine collection of data) with automated Epidemic thresholds in place (alert and action thresholds), analysis and interpretation of reported data at District, Provincial and National levels. Mechanism for feedback and all suspected cholera cases are investigated to confirm an outbreak. DHIS2 is working as electronic national reporting systems. Passive disease surveillance is largely in use and active surveillance during outbreaks. Paper based data collection tools is used at health facility level and piloting of geolocation of contacts was done in Harare in 2018.	Lack of IDSR training for new cadres in local authorities, districts, uniformed forces, Central Hospitals and private sector; refresher training for cadres trained long time ago; Indicator based-surveillance (IBS) is weak due to - lack of reliable and timely data to detect outbreaks (complete data and zero reporting, paper based data collection tools at health facility level that may have errors at times, non-reporting from private health providers, weak active disease surveillance activities) and delayed characterisation and identification of population at risk; Event based surveillance (EBS) is weak due to: no system for officially reporting rumours; lack of rapid verification and immediate assessment of suspected cases (within 24 hours of notification). Community Based Surveillance (CBS) is weak due to: lack of sensitization of communities on their involvement in disease surveillance activities; failure by community health workers to capture and immediately report any cholera alert to the nearest health facility/ district health department; need for timely initiation of field investigation by health facilities to verify the information reported by community based health workers; barriers to accessing health (traditional and religious sects; distance from health facility). Environment Based Surveillance (EBS) is weak due to: lack of routine systems to specifically monitor the presence of Vibrio Cholerae in specific environmental water sources for early detection of cholera transmission (water quality surveillance); routine food safety surveillance to monitor and isolate Vibrio cholera from food and other	Piloting of geolocation of contacts done in Harare in 2018 need to be rolled out to rest of the country; development of Community Based Strategy; surveillance of hotspot areas with sewer overflow and water bursts; measurement of extent and management of Anti-Microbial Resistance (AMR) monitoring. Technology and innovations that may be included and integrated into this domain; Real time Open Data kits (ODK) to replace paper based data collection system and use of smart phones or tablets with open source android applications (ODK), and Syncing Real time data with web based DHIS. All health workers: Clinical Medical Officers, Environmental Health Practitioners, Nurses, Laboratory Technicians, Health Promotion Officers and Community based health workers need to have their capacities strengthened. Skills and capacities that need to be developed: IDSR (Indicator Based Surveillance, Event Based Surveillance, Community Based Surveillance, Environment Surveillance), Field Epidemiology Training program, case finding and reporting, case management, contact tracing, Infection control, Water and food quality monitoring). Research questions that could be answered through collaboration with Health Sciences Research Institutes; What is the cost benefit analysis of effective rapid response to an outbreak? What is the impact of RRT in cholera prevention and control? How effective is the weekly disease surveillance system in place?	The lack of appropriate coordination at all levels of the public health sector (community, health facility, district, national, and international levels); Difficulty in embracing new technology and changes in the systems, failure to effectively and continuously monitor community health status, and high staff attrition. These risks could be mitigated through; encouraging practice (in gadget use) when it comes to the real time ODK, refresher IDSR courses for health workers to keep up with the changing health information, and RRT out of station related incentives.

Thematic area	Strengths	Weaknesses	Opportunities	Threats
	Community based disease surveillance recording and periodically reporting the number of cases and deaths in the community not seen or registered at the health facilities. Integration of both IBS and EBS in the system for early detection of outbreaks and to monitor the disease. Indicator based surveillance (e.g. weekly disease surveillance case based surveillance for cholera among others); evidence based surveillance (e.g. some rumours being reported); community based surveillance (e.g. active case finding and reporting by community health workers); environmental Surveillance (water and food surveillance activities occurring to a certain extent). Coordination is being implemented through; Inter agencies meetings and Task force meetings. Analysis and interpretation of reported data at District, Provincial and National Level; Integration between indicator based and event based being done to a certain extent, and cases surpassing the Epidemic Thresholds are reported within 24 hours. Attack rates and case fatality rates are being calculated during outbreaks. Continuous review of key performance indicators and survival modelling, real time electronic disease surveillance system and reduction of paper based data collection tools are not being done.	environmental samples. Low staffing levels of cadres required in disease surveillance that include Health Information Officers and EHPs (DEHOs, EHOs, and EHTs); inadequate resources such as transport to allow mobility; use of paper based data collection tools at health facility level that may have errors at times. CBS currently does not include a process to report rumours and misinformation of unusual public health events occurring in the community, as part of the event-based surveillance system. Continuous review of key performance indicators and survival modelling, real time electronic disease surveillance system and reduction of paper based data collection tools are not being done.	What are the factors associated with contracting and spreading cholera in Zimbabwe? Survival modelling of cholera cases (dynamics of cholera transmission, quantitative predictions particularly of effectiveness of IDSR interventions, life span, time of death, etc) in Zimbabwe, how effective is the reactive OCV in Zimbabwe and, is there an association between vulnerable population and cholera incidence in Zimbabwe?	
Laboratory Service				

Standard operation procedures	Standards for laboratory procedures	Non adherence to standards in sample collection (sometimes no samples are collected e.g. stool specimen). Long turn-around time of results; lack of equipment, laboratory supplies e.g. reagents; Inadequate laboratory human resources particularly at hotspots; majority of labs are not accredited and no dedicated laboratory surveillance officer.	Research question that could be answered through this domain; What are the Antimicrobial resistance (AMR) patterns? Strong coordination could be achieved through; National microbiology reference laboratory coordinator (national level), Provincial laboratory scientist (province), District Medical Officer (District), Nurse in charge (ward level/ primary health centre), -Village Health Worker (community level	High staff turnover in the sector, Lab confirmation of cholera in private sector, delay/non accreditation of laboratories. These risks could be mitigated through; Induction and orientation of new staff, and addressing knowledge gap between private and public sector.
Networking and information management	Rudimentary networking resulting in transfer of samples to higher laboratories. Specimens are being taken and forwarded to National Microbiology Reference Laboratory (NMRL) and results given to districts.	No established laboratory information systems. Weak laboratory networking and lack of skills for testing or confirmation by some lab personnel; PCR is not being done.	Use technology and innovation in establishing real time laboratory information management system and employment of molecular epidemiology to link outbreaks.	
		Capacity in molecular epidemiology for Lab personnel. Nursing personnel at Primary Health Care Facilities skills in rapid testing for cholera screening.		

3.2.3 Case Management

Thematic area	Strengths	Weaknesses	Opportunities	Threats
Clinical diagnosis and management	Health system readiness for cholera is maintained including coordination of EPR teams and standard case definitions in place, and minimum stock of supplies and materials including ORS available at health centres and District health offices. During outbreaks: - CTCs/CTUs are setup in affected areas where all suspected and confirmed cases are managed. - Human resources mobilised from elsewhere enhances capacity to respond in affected areas and preparedness in non-affected areas. During the 2018 cholera outbreak, City of Harare was able to mobilize human resources from within the local authority and beyond that contributed to effective response with resultant low CFR (<1%). Rapid response Teams (RRTs) are in place and functional, as well as multisectoral EPR plans. training of staff, needs assessment and planning for the outbreak logistics.	High CFR at onset of outbreaks due to inadequate access to treatment for geographic, social or financial reasons, and under-prepared health-care staff with inadequate materials; knowledge gaps for HCWs, CHWs and volunteers in terms of identifying and managing cases (public and private sector); unavailability of technical guidelines, job descriptions and job aids not available at the onset of an outbreak or once cholera is suspected; limited capacity for managing complicated cases and patients with co-morbidities (e.g., managing diabetic patients with cholera). The restocking of medicines and sundries, and budgeting for logistics not being done.	Technology and innovation can be included and integrated into this domain in terms of; development and dissemination of updated guidelines, job aids; and establish E health platforms for Cholera trainings. Training in Cholera case management, specimen collection and transportation need to be developed targeting the newly employed health workers (e.g. nurses, doctors and VHWs), and refresher trainings for those in the system. This capacity building/strengthening should be structured to ensure inclusivity (gender- tents for female and male, disability, youth, and other vulnerable or marginalized groups-capacitate workforce in prisons and other special populations). To ensure strong effective coordination, the lead coordinator vary at each level; national (Therapeutic committee, EDC MOHCC, provincial (PEDCO), district (District Medical Officer (DMO), health facility (Nurse in charge), and community level (Village Health Worker). Strengthen System for monitoring Antimicrobial resistance (AMR). Establishment and refurbishment of infectious disease Hospitals in each province will strengthen this domain to handle cholera and other infectious diseases. Technology & innovation can be included and integrated into E-monitoring of logistics such as vehicle use, medicines and sundries, disinfectants.	High staff turnover in the sector, management of patients in the private sector. The risk and challenges will be reduced through induction and orientation of new staff, as well as, addressing knowledge gap between private and public sector
Medicines and sundries		No efficient structure to facilitate network of health facilities, CTCs and ORPs for rapid patient access; insufficient supplies available at peripheral levels to appropriately treat patients (e.g. IV, etc.).		

Logistics		Unavailability of tents; unavailability of main cholera camp equipment e.g., kitchen, kitchenware in static treatment centres, food for patients and staff; referral system for patients with cholera from home to treatment centre and from CTU/CTC to tertiary hospital for patients with complications, and communication equipment. Shortages of resources (fuel, cholera camp equipment, consumables, medicines and sundries, stationery, laboratory equipment and consumables, disinfectants).		
Human resources		General shortage of staff (Doctors, nurses, nurse aides, general hands, sprayers, environmental health personnel, VHWs) in the districts		
Infection Prevention and Control (IPC) WASH during outbreaks	Quick detection and isolation of cases and bringing CTCs/CTUs close to hot spot areas. Environmental Health response teams sensitizing affected households and surrounding communities. Presence of IPC focal persons at referral and district level facilities only; Cholera control disinfection charts have been simplified within the current Cholera control guidelines of Zimbabwe (2019)	Lack of cholera IPC system which spans to community level; lack of designated potential sites for setting up CTUs/CTCs in major cholera hot spots – the set-up of adhoc camps often lack adequate safe water supply, drainage, sound security provisions, space; lack of kitchen facilities/services in some CTCs, with food being brought in from outside. No emergency burial protocol for the deceased (often cumbersome to get burial order, burial space and authority from relatives), limited training for mortician's/ mortuary attendants in cholera IPC, limited IPC logistics (disinfectants, body bags, PPC/E); No guidelines for community level IPC measures, and no cholera IPC guidelines in mortuaries and parlours. Due to lack of kits and training gaps, shortage of logistics and supplies, insufficient support supervision, there is limited water quality monitoring activities during cholera outbreaks, limited hand washing practices in CTCs, and often multipurpose transport use (patients, food, supplies etc.), acts that compromise principles of IPC and contribute to increased risk for diseases transmission	Non -contact thermometers at CTC entry and exit points; installation of automated sensored water dispensers at hand washing or ORP points, elbow or pedal operated hand washing stations and waste receptacles; as well as automated sluice and sterilization facilities for soiled linen. Additional skills and capacities that need to be developed to enhance IPC WASH during outbreaks: training of morticians, undertakers, Chaplain, parlours management team (funeral services) on IPC; water quality monitoring; Health care and community level workers on IPC; IPC focal persons for every level of service delivery up to the community; and training communities and raising awareness in communities on IPC for cholera in hot spots areas. Strong effective coordination could be achieved through; MOHCC taking lead through multidisciplinary involvement at all levels including VHW, CHW at community level.	Resistance to change (behaviour change); resourcing (budgeting and financing) constraints; technical expertise to harness technology and practices; documentation of experiences. Mitigation of these risks will require: development and implementation of package of advocacy, communication and social mobilization materials on IPC; have attractive/bankable budgeting and financing proposals for cholera IPC using the RBF model; planning in time with near real time/accurate forecasting; IPC focal persons and committees (KRA); information Knowledge Management Teams and decision making board establishment for IPC

Thematic area	Strengths	Weaknesses	Opportunities	Threats
		Lack of dedicated burial sites, trainings on EPR, water quality monitoring, and emergency burial protocols		

3.2.4 Advocacy and Community Empowerment

Thematic area	Strengths	Weaknesses	Opportunities	Threats
Priority Legislation and Policy consideration	There are a number of policies and legislation including Constitution of Zimbabwe, Water Act CAP 20:24, RDC Act CAP 29:13, Public Health Act CAP 15:09, Environmental Management Act CAP 20:27, Regional Town and Country Planning Act CAP 29:12, National Water Policy, National Sanitation and Hygiene Draft Policy, Civil Protection Act CAP), critical for the elimination of cholera in the country	Enforcement and implementation of these statutes. In terms of health, Policy must ensure that communities are accorded the right to education and awareness regarding: infectious diseases prevention, food safety (including inspection and enforcement), contact tracing, crisis management systems.	Rights of cultural and religious groups; Statutes, Policy frameworks and legal provisions for community empowerment (as provided for in the Constitution of Zimbabwe); and diversity of languages and customary practices. Ensuring equity in the provision of water and sanitation since cholera is an indicator of social inequity.	Absence of water supply in many residential areas including new unplanned settlements and capacity to enforce policy and legislation related to food borne diseases; harmonisation of legislation dealing with issues of water and sanitation; interpretation and application of the constitutional provision on the human right to water; and inconsistent water supplies due to power cuts; destruction of water and sanitation infrastructure
	Enhancement of community knowledge on responses to outbreaks e.g. case identification, management including use of sugar salt solution (SSS), mass vaccinations uptake as well as distribution of IEC and NFIs. Stockpiling of resources in cholera hotspots during an outbreak. Treatment Centre preparedness is being done including health education on cholera and management, the distribution of flyers with; messages on cholera prevention at household, community levels; enhancing community participation in clean up campaigns, and increased advocacy for early health seeking behaviour.	Inadequate coordination of health promotion and community empowerment activities at different levels at times resulting in multi or non-funding of activities; Low practice of household water treatment; Low involvement of community members including local leaders in planning process, implementation and review, as well as demand of community based activities; Education/advocacy for review of laws and statutes; Community ownership, reporting of dysfunctional infrastructure as well as vandalism; Active surveillance and detection of cases by communities; Advocacy for adoption and implementation of the Sanitation and Hygiene policy; Timeous dissemination and disclosure of information by government in the event of an outbreak; Advocacy for payment for services as part of accountability; Custodianship of community boreholes (taking into account the role of local authorities in water service provision);	Use of the internet for sharing research results (and documenting best practices). Use of eHealth platforms. Skills and capacities that need to developed and who should have their capacities strengthened; the active surveillance and detection of cases and reporting by communities. Critical research questions: What coordination can we see within communities and what level? What are those things that can be done at household level, and what coordination can we see at what level? Are there any clearly defined roles and responsibilities at individual, household, and community levels? Strengthening the use of existing structures e.g., Community Health Clubs (CHCs) and School Health Clubs (SHCs); and custodianship of community water sources such as boreholes (taking into account the role of local authorities in water service provision) and active involvement in sanitation activities.	Low sanitation coverage in the country; Artisanal gold miners who are concentrated in areas where there are no proper sanitation facilities and safe drinking water; Lack of water and sanitation facilities where the Apostolic sect hold their prayers; lack of hand washing facilities in the Hotel and Catering Industry. Key mitigation measures include: Joint planning and review with communities; Multi-sectoral response and inclusive governance across sectors; Use of the basket funding concept to avoid duplication of activities and to enhance resource use efficiency; Empowerment of the homeless and other vulnerable groups; Cross-sectoral participation based on the principles of integrated water resources management (IWRM).

		Strengthening point of use water treatment chemicals value chains; Documentation of activities done by CSOs and information sharing , as well as Coordination of resources Delay in strengthening community knowledge for water quality management, advocacy for community based solid waste management, as well as timeous dissemination and disclosure of information by government in the event of an outbreak contribute to the lengthy time taken to address the social determinants for cholera.	Opportunities for public private partnerships; Consider collaboration with communication companies e.g., ECONET through public private partnership (PPP) mechanism for continued dissemination of messages through bulk SMS.	
		Optimal use of community leaders as champions of change; implementation and enforcement of policies and standards; Food borne disease surveillance for early detection and warning; administration and enforcement of all national laws related to food and water inspection.		
Thematic area	Strengths	Weaknesses	Opportunities	Threats
Social Behaviour Change Communication	Deputy Director of Health Promotion is available at strategic level, coordination with stakeholders- internal and external; support of partners in resource mobilization; working closely with Public Relations (PR) Unit			
The Knowledge, Attitudes, Perceptions and Behaviour (KAPB) survey conducted in hotspots provided critical information that guided social mobilization interventions during 2018/19 outbreak in Harare.				
Sustained information dissemination through the district structures made the people's perception of risk remain high and to quickly adopt responsible behaviours as advised.				
Very high political commitment (e.g. president) endorsing health promotion messages works – e.g. effective when president publicly took vaccine.				

3.2.5 Health Promotion & Community Empowerment/Social Mobilization during outbreaks

Thematic area	Strengths	Weaknesses	Opportunities	Threats
Social Behaviour Change Communication	Deputy Director of Health Promotion is available at strategic level, coordination with stakeholders- internal and external; support of partners in resource mobilization; working closely with Public Relations (PR) Unit Deputy Director of Health Promotion is available at strategic level, coordination with stakeholders- internal and external; support of partners in resource mobilization; working closely with Public Relations (PR) Unit The Knowledge, Attitudes, Perceptions and Behaviour (KAPB) survey conducted in hotspots provided critical information that guided social mobilization interventions during 2018/19 outbreak in Harare. Sustained information dissemination through the district structures made the people's perception of risk remain high and to quickly adopt responsible behaviours as advised. Very high political commitment (e.g. president) endorsing health promotion messages works – e.g. effective when president publicly took vaccine. Partner involvement e.g., WHO/ UNICEF; UNICEF reached tens of thousands via SMS in 2018 outbreak and it was effective; OXFAM, GOAL and Africa Ahead reached hundreds of thousands with effective messaging and hand washing demonstrations in bus terminals, markets etc. Other partners willing to come on board if they see something innovative.	PR is not health-trained Staff shortages – professional health promotion officers (grass root extension health workers are in short supply i.e. CHWs). Health promotion is often reactive to outbreaks, prevention is not prioritized enough, access to platforms for mass education – social media, print media not available, and corporate social responsibility to mass educate people is lacking – e.g. private press. Low prioritization of health promotion and community engagement, and often financial and material resources lacking, especially in out of outbreak times. Systematic, on-the-job mentoring for health promotion not adequate at national scale (happening in Harare), and documentation of health promotion activities being done by partners is lacking. Operational research aspect needs to be strengthened – are interventions based on what is working, and what people need to change?	Provision during crisis to outsource human resources – can engage people from provinces, senior staffers when needed without delay; using IEC materials in the vernacular is especially helpful for engaging communities. Use of electronic platforms, public advertising; use of technology in implementing health promotion e.g., map a family, with consent record information and concerns – use this information to populate a dashboard; and Training and mentorship via technology e.g. E-health and mHealth learning platforms. Capacity for mass education campaigns at national scale – e.g. animations/characters that can be produced and broadcast across the country via television and other mediums; document success stories, best practices; and produce movies to share public health promotion stories. There is also need to develop knowledge management systems for addressing not only cholera but could be applied to any other development context. To ensure inclusivity into this domain, need: focal people to mainstream important stakeholders in health promotion programs and planning; tailor interventions and messaging for specific sub-populations; address deaf, blind communities – often missed with health promotion messages – work through existing groups; and address discriminatory attitudes.	Resistance in coordination between Health Promotion and other actors, especially the professionals – e.g. community nurse with heavy workload, no enforcement/accountability to compel her engage in this health promotion; some bureaucratic processes that frustrate efforts – e.g. supervisor at healthcare facility might have to go up to health promotion at provincial level. Health promotion messages may be interpreted out of context, taken as propaganda, esp. government programs; competing needs, priorities; lack of support from decision-makers; decision-makers may not understand or have confidence in health promotion programs

	Partner involvement e.g., WHO/ UNICEF; UNICEF reached tens of thousands via SMS in 2018 outbreak and it was effective; OXFAM, GOAL and Africa Ahead reached hundreds of thousands with effective messaging and hand washing demonstrations in bus terminals, markets etc. Other partners willing to come on board if they see something innovative.			
	The following activities are being done: National pre-seasonal awareness campaigns; trainings for CHWs, in some areas; Community dialogues - communities are actively involved in designing and developing health promotion materials; CHWs report updates weekly (VHW program) – but reports are typically quantitative; School health program – school health masters are continuously trained – but only ends at high schools, doesn't go up to university level.	There is no resource allocation in budget – need some option for diverting financial resources in emergency or unusual situation to avoid delays waiting for permission from higher level authority. Most crises are infrastructure-driven, but then health workers are expected to take the lead activity outside the health sector - e.g. health workers can't fix the broken sewers. In terms of communication, there is no official domain for public to report e.g., rumor about an outbreak, emerging health concern, or misinformation they can notify health workers/Ministry of Health; poor M&E systems for community engagement social mobilization; limited use of evidence-based interventions or opportunities for experienced staff to pass on expertise to newer employees; quantitative reporting by community health workers is not working – not enough qualitative information being collected about what they are experiencing on the ground.	Research questions that could be answered through collaboration with Health Sciences Research Institutions: How can we best inform our communities on cholera issues? Are ongoing cholera control interventions giving us the desired outcomes? Which are the best approaches to health promotion and messaging in cholera outbreaks? What are critical success factors and threats to health promotion? What are the optimum resources required to fully operationalize health promotion?	
		No official domain for public to report e.g., rumor about an outbreak, emerging health concern, or misinformation they can notify health workers/Ministry of Health; poor M&E systems for community engagement social mobilization; limited use of evidence-based interventions or opportunities for experienced staff to mentor newer employees; quantitative reporting by community health workers is not working – not enough qualitative information being collected about what they are experiencing on the ground.		

Thematic area	Strengths	Weaknesses	Opportunities	Threats
		There are no health and hygiene promotion activities being done on a national scale – the scope of this work is too large for existing capacity, and there are context-specific problems in different provinces; and high-level advocacy is not aggressive enough – need to be at all levels during and between outbreaks to enhance preparedness. No forum for sharing best-practices, lessons learned in health promotion, community engagement, and social mobilization during outbreaks; qualitative reporting from community health workers not happening; and use of advanced technology – would like health workers to have tablets with GPS etc - still paper-based, manual, documents are lost. Inadequate targeting youths through technology. Inadequate feedback to communities Exchange programmes not happening e.g have a team in Harare go to Mutare to support and learn from each other.		
		Limited knowledge on WASH rights and policies among the communities Lack of community ownership on WASH infrastructure (donor syndrome) Limited resource for advocacy and community engagement Poor inclusiveness of the marginalised groups (e.g the disabled, religion sectors) Gaps in accountability measures	Mass awareness on communities through roadshows, radio talk show and IEC material on rights train WPC on CBM Advocacy and community engagement have been prioritised including policy review The plan is comprehensive To be addressed in strengthening of coordination and leadership	

3.2.6 WASH

Thematic area	Strengths	Weaknesses	Opportunities	Threats
Coordination	Government prioritised coordination of Water and Sanitation sector; established an inter-ministerial committee on Water and Sanitation, which include; Ministries of Agriculture, Mechanization and Irrigation Development; Health and Child Welfare; Local Government Rural and Urban Development; Transport, Communication and Infrastructural Development; and that of Water Resources Development and Management. This committee advises on the best modalities of developing a coordinated water and sanitation sector. Development partners including; UNICEF and the World Bank provide technical support on sector coordination and other institutional issues. The overall coordination is responsibility of the NAC made up of permanent secretaries and chaired by the Permanent Secretary for the Ministry of Lands, Water, Agriculture, Climate and Rural Resettlement.	Service level bench marking and under reporting Incomplete sanitation Hygiene policy affecting implementation of the new strategy No water safety plan and inadequate infrastructure for water Quality monitoring Non potable water in some areas Weak coordination structures (PWSSSC, DWSSC), brain drain	Finalisation of the water safety plan (including procurement and capacitation of staff) Finalisation of the draft Sanitation policy and roll out the ODF/demand led sanitation plan Availability of Standards in urban water supplies Identify high yielding boreholes and use solar energy for piped water Research and development on affordable water purification methods	Numerous breakdown due to low water tables and overuse Costed plans in place but no resources for implementation Deviation from the standard in urban water supplies Unplanned settlements resulting in un-service areas
	NAC has 3 subcommittees responsible for: water resources management; rural water supply and sanitation, and; urban water and waste water coordinated through a secretariat (NCU) which oversees daily administration of the water and sanitation sector on behalf of NAC.			
	The NAC provides overall coordination and management of WASH sector in terms of WASH policy and guidance, specifically: sector policy guidelines, regulations and oversight; approve sector plans and strategy; mobilise resources; coordinator and trans-boundary issues; monitor, evaluate and report on sector performance; Act on Sub-sector committees.			

Thematic area	Strengths	Weaknesses	Opportunities	Threats
	Key institutions for water and sanitation sector include: NAC, NAC Sub-committees, water resource management; Rural water Supply and sanitation; Urban water and sanitation; District water and sanitation; and National Coordination Unit with clear roles and responsibilities after the sub-committee at all levels of governance. The sub-committees meet once every 2 months and report to the main NAC. Provincial level: provincial water supply and sanitation sub-committee – co-ordinate and assist in management of rural water supply and sanitation activities. The ultimate responsibility for provision of water and sanitation facilities rests with the Rural District Councils (RDC). NAC works with other capacity building initiatives to build technical, financial and management capacity of RDCs. The District Water Supply and sanitation Sub-committee - coordinate planning and assist in management of rural water supply and sanitation activities in the District.	Service level benchmarking and under reporting Incomplete sanitation Hygiene policy affecting implementation of the new strategy No water safety plan and inadequate infrastructure for water Quality monitoring Non potable water in some areas Weak coordination structures (PWSSSC, DWSSC), brain drain	Finalisation of the water safety plan (including procurement and capacitation of staff) Finalisation of the draft Sanitation policy and roll out the ODF/demand led sanitation plan Availability of Standards in urban water supplies Identify high yielding boreholes and use solar energy for piped water Research and development on affordable water purification methods	Numerous breakdown due to low water tables and overuse Costed plans in place but no resources for implementation Deviation from the standard in urban water supplies Unplanned settlements resulting in un-service areas
Information management	Information on water and sanitation sector is managed through RWIMS (Rural) and connection to reticulation/ sewer lines (Urban level) for managing the sector.	Weak surveillance system (ie RWIMS available but not real time and national system in urban)	Build capacity on use of RWIMS at various levels and develop system for urban	Low funding Low capacity to use the system
Policy and legislation	To regulate the Water sector, there are policies which include: National water policies, lots of internal and external policies from various organisations. Key Acts include; Water act, Constitution, Public Health Act, Urban Councils Act, Rural Districts Councils Act, Civil Protection Act (used to declare a disasters), and Environmental Management Act. Government institutions are primarily responsible to enforce / implement these acts through development of guidelines and policies.	Gaps exist: legislations are in conflict with the constitution itself; Acts of parliament were made before the constitution was verified and need to realign with the current constitution. The legislation is outdated - National water policy was formed during MDGs but now it is SDGs, and need to realign policies with current goals, establish formal plans / policies at national level. For WASH, there is no clear sanitation policy, just some disconnected Acts from parliament and hygiene is not covered.	The guidance document for hygiene and sanitation needs to be reviewed. Skills and capacities needed; Local government and provincial leaders have more training on how to translate policy into implementation and use data for action; monitoring and evaluation training across the board; awareness campaigns for public so they know their role and how to contribute and their rights to demand, how to use feedback channels to report problems, and who to hold accountable; and capacity building in terms of coordination of all of the activities across all of the levels of government / implementing organizations.	Enforcement is not working, not being done and politicians promote policies not tied to evidence – want to set prices not tied to market dynamics / actual cost underlying a product. Political will – Changeover of leadership, creates gaps in policymaking; funding given to the WASH sector oriented towards the response rather than the prevention; economic climate – Changes in the economic climate affect the funding available for policy advocacy and political will power to change.

Environmental sanitation	In urban - Scheduled Refuse collection, clearing of sewer blockages, Hygiene promotion, and Water demand management; and in rural setting - Monitoring of the ODF Zones, Health education, Formation of community health clubs, Creating ODF zones, Demand led sanitation, DWSSCC meeting done monthly, Celebrations of ODF villages, Involvement of local leadership	Current situation: Urban - Poor hygiene (food, personal, and household); inadequate safe water supplies (including alternative sources); Inadequate Knowledge, negative attitude, bad practices and irresponsible behavior; Contaminated water sources (underground and surface water); poor waste management. In the rural setting: high level of open defecation; community is donor dependency; and use of unsafe latrines and low sanitation coverage. Major gaps in environmental sanitation: urban setting - Behavior change and communication, Ineffective communication channels; limited access to sanitary facilities both in urban and rural settings; while in rural setting, there is low sanitation coverage, Promoting housing and schools' hygiene competition, and No sanitation facilities on gatherings	Skills and capacities need to be developed for this domain: Leadership and governance to all extension workers skills to improve coordination; Participatory Health and Hygiene to the Village Health Workers; Community Based Management trainings; Refresher trainings of Committees and monitoring them; Develop local sector capacity for latrine construction and management; Initiate sanitation behavior change program to eliminate open defecation; Increase enforcement on environmental and public health issues	Neglected sanitation issues in urban set ups, Premature developmental issues e.g. people moving onto unserviced stands, Reduce, reuse and recycle eg people are reusing water containers of questionable cleanliness, Alternative water sources are a risk. Mitigation measures; Behavior change, strengthen an enabling environment, Increase demand led sanitation in rural wards, Research into appropriate technological innovations to address water and sanitation issues Critical research questions: research into appropriate technological innovations to address water and sanitation issues
		Clearing of sewer blockages on time, supplying adequate water on a daily basis, abiding to scheduled refuse collection; and Rural - Demand led sanitation due to economic challenges high cost of cement, Construction of Hygiene enabling facilities, Quarterly review meetings		
		in rural areas - Engagement of local retailers, Demand led sanitation in wards which are not targeted in Rural WASH, enabling facilities not prioritized		
Health and hygiene	Overall, the local structures (PWSC, WSC, DWC) and workers on the ground in communities are working: people are there educating communities and are able to contain cholera to some extent when there's an outbreak, however, there is a lack of clear feedback mechanisms – government systems might have clear reporting channels, but partners may not. door-to-door campaigns, roadshows, theatre performances, focus group discussions/community meetings, water guard/Aqua tab distributions, community health clubs, school health clubs, health club competitions, clean-up campaigns, training of school health masters, village health workers, hygiene volunteers.	Lack of ownership, the community is not empowered making it difficult to sustain the service of spreading information; Engagement in periods between emergencies - engage communities when there is an emergency or response to disasters, often because there is more funding; Technology - handwashing facilities constructed are temporary (wooden stands, plastic containers that break), need something more permanent; Uptake - some hygiene practices are being done while others are lagging behind; often uptake of behaviour will stop with the intervention stops, or when there is a challenge of access (e.g. no safe water available, or handwashing station breaks);	Nationwide sustainable WASH education in schools, health club festivals – this should be incorporated into schools' syllabus e.g. every school has a sports curriculum; this should also happen for health and hygiene promotion e.g. the dance festival started from cluster level to national level; this could also happen with the WASH festival - Media campaigns – radio, social media, jingles, advertising, TV – this only happens during outbreak but should happen all year round e.g. malaria – radio, TV advertising increases before peak season, and Nationwide celebrations of world water day, world toilet day, world handwashing day.	Made roadmap usable to all people; some religious sectors; economic performance; lack of political will; poor policies and enforcement

Thematic area	Strengths	Weaknesses	Opportunities	Threats
	maybe not training in the most effective way? In terms of prioritisation: funding/budget allocation - Ministry of Finance, local authorities hesitant to release funds for health and hygiene promotion; and Gov't buy-in/prioritization - Hygiene/sanitation is secondary to water; Mobility/transport challenges at all levels (community workers up to Ministry of Health) - prevents workers from reaching homes and supervisors from doing their job. Whereas programs are brought to the communities, but people are not demanding the service, health education		Technology and innovation: Capacity of rural women (other people) to use biogas or alternative energy sources to boil their water instead of just using firewood; new technologies to reach more people – mobile health communication to reach more people; SMS, apps for the youth; Private sector (e.g. Lever brothers) that work in detergents and soaps, etc, can fix the public toilets, advertise their products on banners; Create space for public-private partnerships to play a larger role, contribute towards health/hygiene education - private players should adopt health clubs in communities, schools to provide them with resources, and can also promote their own product to use Capacity building - Training of village health workers and school; Involving media, publishing, journalists - to disseminate information to the lay public Inclusion – need to include man as well; need innovative hygiene promotion activities that attract the youth e.g., can ECONET sponsor a competition on social media to involve the youth? e.g. photo competition, retweet competition; pay attention to young children playing out in the environment that might be contaminated with fecal matter	
		The challenge with their reporting structure (reporting to clinic vs district, reporting during an outbreak).	Critical research questions: hygiene promotion activities – need to evaluate what activities are working; linking WASH with nutrition; what else do we need to add to the conversation, beyond just handwashing; and how do we change the culture around litter in Zimbabwe?	

		EHTs – it is not clear whether they are working or not. The lack in consistency could be due to: challenge of resources, funds come from different places; mobility – expected to cover large distances on bicycles; when they have motorbikes they are difficult to service or obtain fuel; Health promoters in Harare: facing challenges these days, as many are older women who are having difficulties walking, might delegate someone to visit households and report back		
		A private company is making documentary on cholera (but it is facing funding challenges); Sanitation Action Groups are doing some hygiene promotion, they spearhead ODF agenda; but SAGs are project-specific, often fizzle out when project ends; Activities are being done at micro-level, not at a macro-level; only happening in small pockets where there is funding		
WASH Rapid Response Teams (RTTs)	WASH RRRTs are established, trained, and on standby Rural CPU health teams well established and ready to mobilize when there is an outbreak (at district and ward level): they have a responsibility when it comes to preparing for and mobilizing during an outbreak; and alerts being sent out Activities being carried out: case investigations, surveillance, hygiene promotion, water quality monitoring and assessment, distributions of NFIs.	Inadequate resources for operations. Missing key partners in the system, currently focusing on City of Harare (COH) and NGO stakeholders only - MOHCC not fully involved and there are gaps in service nation-wide Lack of effective engagement with different religious groups on positive WASH behaviours; no clear budget line to support WASH RRTs; limited capacity with RRTs; data collection is not shared in real time; and absence of properly constituted WASH RRTs across all districts In the absence of a health pillar, and given lack of resources, active monitoring of case management and evaluating trends are not being done to expected levels.	To improve performance, skills and capacities that need to be developed: training in Field epidemiology for the RRTs and resources to facilitate work; communities, with a focus on women – increased knowledge on key hygiene behaviors for healthy households; responsibilities and goals of the RRTs; Local authorities – MEAL; District and provincial level sub-committee composition: EHO (team leader), DDF (water technician), RDC (WASH technician/ engineer), EMA (technician). Critical research question; do we have enough epidemiologists/epidemiology research and information to properly educate teams and local authorities to provide justification for any changes in the RRTs plan?	Failure to provide enough resources for training RRTs due to budget cuts, etc; and ensure proper monitoring, evaluation and learning. Mitigation of risk will be through establishing distinct budget line on annual budgets to ensure adequate funding to carry out activities; and having solid MEAL plan

3.2.7 WASH Infrastructure

Thematic area	Strengths	Weaknesses	Opportunities	Threats
Policy and legislation	New National Water Policy, 2012 was developed to respond to the challenges in the water sector. The main objectives; arrest the collapse of water revenues and the deterioration of the water infrastructure as result of the decades of economic decline. The new policy provides a long-term strategy for recovery of the water system. Development of the National Water Resources Master Plan (NWRMP), 2020-2040.	Policies not being implemented due to a number of factors including lack of financial, human resources, and political will; Lack of alignment of the current legislation with the new national water policy – private players' inclusion; Lack of coordination between ZINWA and Local authorities in the management of water supply and wastewater handling; no consistency in getting revenues from water and sanitation use due to sub-economic tariffs; and Lack of funding for strategic large dams.	Definitive plans will be developed to: address water infrastructure, sanitation and hygiene issues and emergency preparedness and disaster response; raising public awareness on their roles and responsibilities with regards to water management, use, and pollution control among other issues. Grants under WASH emergency activities in the country (details; page 125)	Inadequate and timely funding of implementation of the plan Inadequate coordination
Community water supply	Existence of water point committees at district and provincial levels (DWISC, PWISC); and Development partners' involvement. Drilling of boreholes and rehabilitation of existing sources.	Activities not being done: testing of water quality, enforcement of water extraction laws, and water quality/ house hold level water treatment.		Sources are seasonal; sources not protected, water exposed to contamination
Bulk Raw water access	Available sources: dams, rivers, weirs, boreholes and wells, but these are not able to meet the demand for the existing population. Development of alternative sources (e.g., Marovanyati Dam replacing weir); decommissioning silted dams; dam scooping; PPPs towards new dams; pollution control.	Inadequate catchment monitoring leading to excessive pollution and siltation e.g. Lake Chivero; lack of maintenance of dam infrastructure (Intake structures, outlets, dam wall, mechanical structures Lack of funding of planned projects, erosion of capital outlay towards developing new sources, development of new sources taking too long.	Mitigation of impact of some threats will be achieved through: community awareness campaigns, provide climate resilient structures, further research, attract investment into this domain (PPPs etc), rehabilitation to include new technologies, amendment of certain sections of some the Legislation, engagement of Ministries of Mines as well as Min of Lands as major stakeholders on issues affecting this domain. Critical research questions: Is the WASH Sector prepared to mitigate challenges due to the climate change phenomenon? Is the government ready to adopt new technologies in this domain? Are institutions of higher learning prepared to carry out research related to this domain? Is the private sector willing to invest in this domain?	Climate change Most sources are seasonal Capacity of existing sources no longer adequate against ever increasing demand e g Gwenhoro dam in Gweru; infrastructure gap to meet receding dam levels; pollution Economic challenges, social challenges, lack of political will, obsolete infrastructure, low technological uptake, pollution, climate Change, conflicted legislation that affects this domain (e.g. Mines & Minerals).

			To ensure effective coordination: national level (Ministry of Water , Agriculture, Environment and Natural Resources, NCU, Ministry of Local Government; provincial level (ZINWA, DDF, Provincial Councils, Dept of Lands, Dept of Mines, and Sub Catchment Councils); district level (DDF, RDCs, UCs, Dept of Lands, Sub catchment Councils, NGOs , Private Partners); Ward level (Councillors, Traditional Leaders, WADCOs, Extension Officers, Environmental Management Non Councillors); Community level (Village Heads, Extension Officers, VIDCOs).	
Bulk water treatment including water quality monitoring and surveillance	Availability of capacity in terms of man-power and technical staff to carry out bulk water treatment and water quality monitoring. To ensure strong effective coordination, the lead entity at: national level (Local Government and Health); provincial level (Provincial Development Coordinator and PMD); district level (District Development Coordinator and DEHO); Ward level (WADCO and councillor); community level (Water Point Committee).	What is not working include; dosing units, filtration system, backwash systems, backup pumps, and polluted sources. However, the following are not being done; system upgrades, expansion of plants, and design of new plants.	Critical research questions: Is the capacity enough for the town (demand audits)? Is the treatment process adequate (establish quality assurance monitoring plan)? Is the infrastructure reliable (real time management reports)? Is the raw water source sustainable (policing, mitigation and regulations enforcement; and water quality at intake).	Failure to treat water (quality compromised, waterborne diseases); Inadequate treatment of water (shortages causing water wars, curative services overburdened)
Clean water transmission, storage and distribution	Working but with frequent breakdowns, leakages in the conveyance network, reservoirs Sourcing financing (Short – medium financing) through development partners; maintenance of equipment; replacement and upgrades to a small extent due to limited funds	Corroded pipes; old Pumps, motors and valves; control systems e.g. hydrants not functional; intermittent Power Supply. Key gaps identified in the provision of community water supply: obsolete equipment in terms of pumps and motors; bulk mains capacity limitations vis'-a-vis growing demand; budget limitations; missing measuring devices and inlet and outlet points of reservoirs (flow meters and level control devices); capacity of storage; continuous improvements; coordination with ZPC. Activities not being done: asset management; planned maintenance; recording keeping; large scale system upgrades; active Leak detection; water loss reduction plans; knowledge exchanges to share information.	Critical research questions for this domain: energy optimization especially at major water pump stations, pipe material fit for high pressure lines vs cost effectiveness, non-Revenue reduction to economical levels, Urban agriculture policy vs Water policies, are smart meters more effective than conventional water meters To ensure strong effective coordination, lead coordination entities: National level – National Action Committee, Urban Councils Association of Zimbabwe, Resident Minister, Local Authority (Bulawayo Metropolitan), PWSSC, Catchment Councils; Town Council, Municipality, LA, Catchment Councils; LA, Development Partner; WADCO.	Artisanal gold miners, sand poachers, Urban agriculture – deliberate vandalism to irrigate crops, Water theft through meter by-passes, Old pipes – high contamination chances, Power outages, and Forex shortage. Mitigation measures include; engagement of users e.g. Urban farmers, policy formulation, and leak detection and install smart meters to detection water theft

Thematic area	Strengths	Weaknesses	Opportunities	Threats
Wastewater collection, reticulation and transmission	Presence of skilled personnel, construction of septic tanks. The infrastructure performance is low - activities being done include minimum maintenance of existing systems and limited replacement of obsolete equipment.	Absence of a sewer systems in new developments, use of septic tanks where it is not appropriate, dilapidated infrastructure resulting in blockages and spillages, overwhelmed infrastructure (population growth), temporary repairs, reaction to breakdowns, lack of planned maintenance, inadequate water supply causes blockages, and infrastructure. Activities not being done: connection in some households, replacing infrastructure, upgrades of infrastructure and expansion, education and awareness campaigns to the community.	To ensure full inclusivity in this domain: formation of committees at Ward level representing each group which is engaged from time to time by Council for problem identification, awareness in communities to curb abuse of sewer systems and reporting, employment to be balanced in the sector. To ensure effective strong coordination: national level (Ministry of Local Government Public Works and National Housing), provincial level (DDF/PA), district (DDF/DA), ward level (EHT/Housing department/Councillors), community level (Village health committees/WASH clubs/ Housing Department).	Vandalism and theft of infrastructure e.g. manhole covers, misuse of infrastructure- dumping of solid waste into the sewer system, old and dilapidated infrastructure, resistance to adoption of new technology due to aged personnel, understaffing in the sector. Mitigation of these factors: use of materials which are not attractive e.g. concrete manhole covers, awareness and community participation, revamping of infrastructure, Government to inject grants, shifting of personnel who are aged to less demanding positions, employment of adequate staff Critical research questions: Is the property connected to a sewer system? How are you disposing your sewer? Are there frequent sewer blockages in your area? How fast does the Local Authority attend to the sewer problems arising in your area? In your opinion what is the cause for sewer blockages? What do you think you can do better to reduce sewer problems in your area?
Waste water treatment and disposal	Existence of water point committees (DWISC, PWISC), Development partners' involvement. Drilling of boreholes, rehabilitation of existing sources	Inadequate water points, Inferior types of pumping systems, waiting time and travelling to and from the water point, water testing to ascertain water quality, Enforcement gaps(water citing, testing and extraction), Controlled water points citing, Citing of waste disposal facilities, Unplanned settlements, Communication gap between the water authority and the community, Community involvement in the management of water points, Capacity building (as much as we have it, it's not enough for example, training of pump minders), and Water harvesting (Surface water, groundwater and rainwater). Activities not being done: Testing of water quality, enforcement of water extraction laws, and Water quality/ house hold level water treatment.		Sources are seasonal, not protected, and water exposed to contamination

3.2.8 Oral Cholera Vaccine (OCV)

Thematic area	Strengths	Weaknesses	Opportunities	Threats
OCV utilisation	OCVs shown to be effective in areas with endemic cholera, humanitarian crises with high risk of cholera, and during cholera outbreaks. Takes effect immediately and prevent cholera locally for up to three years, effectively bridging the emergency response and long- term cholera control with a WASH focus Two OCV campaigns as an intervention successfully conducted in Zimbabwe: Harare, Epworth and Chitungwiza; and Cyclone Idai response in Chimanimani and Chipinge (15 targeted areas in Harare, Chitungwiza and Seke district – 1.3 million doses were administered with overall administrative coverage of 86%. An additional 300,000 doses, inmates and prison staff were vaccinated as well as Health and Sanitation workers. A strong National Advisory Committee on immunisation (NITAG), meets regularly.	Knowledge gap- OCV is new to Zimbabwe therefore many healthcare workers have limited knowledge about the vaccine; limited access to vaccine; not all hot-spot districts were covered by the campaigns; resources to deploy the campaigns if needed, the vaccine is given to everyone above one year of age therefore it is labour intensive; mobile renting population; failure to get inroads into apostolic sects – religious objectors and elite objectors, as well as health worker attitudes hinged to incentives. Attitude of some healthcare workers; the availability of resources for vaccination campaign is not adequate; and limited number of vaccine. Linkage to care for someone with adverse effects; not being proactive on giving information; sensitization of all key stakeholders not being done; continuous community engagements is limited (time and resources); development of IEC material in all indigenous languages; feeding of data from private players to the public health systems/ involvement of private sector; OCV availability in the private sector; and linkage between primary to referral health centres in case of adverse effect	technology and innovation that may be included in this domain: GIS mapping to show spatial coverage (community mapping); linkage between national identification systems to patient/ vaccination records; linkage between community mobilisers and health database; implementation of electronic records; digital IEC and monitoring usage and coverage; digital education; and learning of best practices e.g., from Malaria Elimination Programme matured technologies e.g. foci mapping. In terms of capacity strengthening, the following needs to be considered: OCV adverse reaction and referral (Healthcare workers, community healthcare works); Benefits of OCV (Community leaders); GIS capabilities and Modelling (Healthcare workers); Basic IT Knowledge and Data collection (Healthcare workers); Inserting OCV training in the curriculum (All health professional e.g. nurses, EHTs); Special training e.g. disability (Health workers). Research questions that could be answered through collaboration with Health institutions include: what is the cost effectiveness of OCV in Zimbabwe? What is the impact of routine OCV campaigns on cholera epidemiology? To what extent is vaccine acceptance in normal settings? What are the factors associated with cholera vaccine objection? The MOHCC will take a lead to ensure strong coordination of this domain at all levels.	complacency - once people are vaccinated they forget about practicing hygiene issues; failure to get approval for OCV; Information decay; unforeseen outbreak (outside hotspot areas); high staff turnover (for trained cadres). To mitigate these risks and challenges, will require; ongoing health promotion, planning closely with GTFCC to get approval for OCV; ensure strong outbreak response; retraining/refresher trainings for staff; maintain strong surveillance system. Funding mechanisms can be deterred by high investment cost; willingness to enhance security mechanisms can be low; and non-availability of protocols on emergency commodities for donations. The mitigation of these risks and challenges can realized through: sound financing mechanisms with strong domestic fund commitment; top management team commitment on security; development of supporting guidelines and protocols on donated commodities
Skills and capacities	Existing capacity for conducting vaccination in Expanded Programme on Immunisation (EPI) Develop microplans for OCV campaigns in 81 cholera hotspots	Low experience in use of OCV Lack of vaccination technical guidelines, communication and monitoring adverse events following immunisation	Skills and capacities that need to be developed: logistics, stocks, supply chain and asset management; dedicated warehousing for emergency stocks; forecasting of stocks; capacity building in pre and post-delivery inspections;	

Thematic area	Strengths	Weaknesses	Opportunities	Threats
	Capacity for forecasting of stocks, capacity building in pre and post-delivery inspections, and quality control. Dedicated warehousing for emergency stocks The following cadres should have their skills strengthened; logisticians, stock managers, finance and administration staff, user departments will be targeted for capacity strengthening.	Available staff and facilities (ie cold chain) adequate for relatively small targeted population Inadequate IEC materials on OCV in appropriate languages for targeted areas	and quality control. The following cadres should have their skills strengthened; logisticians, stock managers, finance and administration staff, user departments will be targeted for capacity strengthening. Integrate OCV training in the national curriculum (medical, nursing and environmental)	Achievement of very high vaccination coverage with 2 doses Effective monitoring adverse events following vaccination Ensuring adequate cold storage space and maintenance of cold chain
			Critical Research Questions will be: evaluation of logistics investments during cholera emergency response, and evaluation of medicines stock management during the outbreaks.	

ANNEX 8: RESOLUTION WORLD HEALTH ASSEMBLY 71.4

SEVENTY-FIRST WORLD HEALTH ASSEMBLY WHA71.4
Agenda item 11.2 26 May 2018
Cholera prevention and control
The Seventy-first World Health Assembly,
Recalling resolution WHA64.15 (2011) on cholera: mechanism for control and prevention, which led to the revitalization of the Global Task Force on Cholera Control to support Member States to reduce the public health, social and economic consequences of cholera by strengthening WHO's work in this area, and improving collaboration and coordination among stakeholders;
Recognizing the report by the Director-General on WHO's work in health emergencies1 and the Global Task Force on Cholera Control's recently launched strategy, Ending Cholera: A Global Roadmap to 2030,2 large-scale outbreaks of cholera continue to cause significant morbidity and mortality among vulnerable populations in both emergency and endemic settings. With an estimated disease burden of 2.9 million cases and 95 000 deaths every year worldwide, the disease still affects at least 47 countries around the globe, with a potential to spread where water, sanitation and hygiene conditions are inadequate;
Acknowledging that the prevention and control of cholera require a coordinated and multisectoral approach that includes access to appropriate health care, early case management, access to safe water, sanitation, education, health literacy and improved hygiene behaviours, with adjunct use of oral cholera vaccines, strengthened surveillance and information sharing, strengthened laboratory capacity and community involvement, including action on the social determinants of health;
Acknowledging also that cholera control is both a matter of emergency response in the case of outbreaks, and a matter of development when the disease is endemic in high-risk contexts, such as in camps for refugees and internally displaced people;
Affirming that progress towards the 2030 Agenda for Sustainable Development including commitment to Goal 3 (Ensure healthy lives and promote well-being for all at all ages); Goal 6 (Ensure availability and sustainable management of water and sanitation for all); and Goal 11 (Make cities and human settlements inclusive, safe, resilient and sustainable), would reduce the prevalence and spread of cholera, along with other diarrhoeal diseases and enteric infections;
Recalling that all States Parties must comply with the International Health Regulations (2005);
Acknowledging that cholera, as a disease of epidemic potential, has to be recognized in itself and reported separately from other diarrhoeal diseases, within national surveillance systems, as not doing so hampers effective control measures,
1 Document A71/6.
2 Ending cholera: a global roadmap to 2030 (http://www.who.int/cholera/publications/global-roadmap.pdf?ua=1, accessed 21 May 2018).
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1. URGES Member States:1
(1) to foster the identification by governments of cholera epidemics and to elevate cholera as a State priority in affected countries through its inclusion in national policies and plans, either as a stand-alone plan or embedded within broader diarrhoeal disease control initiatives, or within national health, health security, water, sanitation and hygiene, development and Sustainable Development Goal implementation plans, where relevant, and national disaster and/or emergency management agencies;
(2) to develop and implement, in affected countries, a multisectoral package of selected effective prevention and control measures, including long-term water, sanitation and hygiene services, access to appropriate

health care, access to safe water, sanitation and improved hygiene behaviours, as well as infrastructure development along with associated capacity-building activities for operations, maintenance and repairs and sustainable financing models adapted to the local transmission pattern for long-term control or elimination;
(3) to ensure that national policies and plans regarding the prevention and management of cholera comprise all areas with high-risk of cholera transmission;
(4) to establish national multisectoral cholera and acute diarrhoea prevention and surveillance mechanisms in affected countries to coordinate the implementation of the control or elimination plan, ensuring representation of the different ministries, agencies, partners and communities involved in cholera control efforts;
(5) to strengthen capacity for: preparedness in compliance with the International Health Regulations (2005), early detection and treatment, laboratory confirmation, case management and immediate and effective response to outbreaks in order to reduce the public health, social and economic impact;
(6) to strengthen surveillance and early reporting of cholera in line with the International Health Regulations (2005), and build capacity for data collection and analysis, including information on critical determinants including water and sanitation coverage;
(7) to strengthen community involvement, social mobilization in cholera prevention, early detection, household water treatment and storage, and other related water, sanitation and hygiene response activities;
(8) to support, including through international cooperation, research for better prevention and control, including research for improved vaccines and better rapid diagnostics and treatment; and to support monitoring of antimicrobial resistance;
(9) to refrain from implementing health measures that are more restrictive of international traffic and more invasive or intrusive to persons than reasonably available alternatives that would achieve the appropriate level of health protection, in line with the International Health Regulations (2005);
1 And, where applicable, regional economic integration organizations.
WHA71.4
(10) to establish national targets, when applicable, and make financial and political commitments to cholera control with national Sustainable Development Goal implementation plans;
2. REQUESTS the Director-General:
(1) to strengthen surveillance and reporting of cholera in line with the International Health Regulations (2005) and to further reinforce advocacy, strategic leadership and coordination with partners at all levels via the Global Task Force on Cholera Control secretariat and working groups, including by providing technical support and operational guidance to countries for cholera prevention and control;
(2) to increase capacity to support countries to scale up their ability to implement and monitor multisectoral, integrated interventions for long-term cholera prevention, control and elimination; interventions for preparedness and response to cholera epidemics in accordance with the global initiatives of Ending Cholera: A Global Roadmap to 2030 and aligned with national plans to encourage reporting, monitor progress and disease burden in order to inform country and global strategies; and interventions for control or elimination;
(3) to support countries, upon request, in the assessment of cholera risk factors and capacity for multisectoral engagement within existing technical resources;
(4) to continue leading the management of the oral cholera vaccine stockpile to enable a sufficient global supply, including the support to and monitoring and evaluation of oral cholera vaccine use, and where

appropriate vaccine campaigns, in cooperation with relevant organizations and partners, including UNICEF and the GAVI Alliance;
(5) to monitor and support long-term cholera prevention and control and elimination programmes at country and regional levels;
(6) to develop and promote an outcome-oriented research and evaluation agenda for cholera, targeted to address important knowledge gaps, to the improvement of implementation of existing interventions, including for water sanitation and hygiene, and to the development of improved vaccines for better and more durable prevention and outbreak control covering all aspects of cholera control;
(7) to raise the profile of cholera at the highest levels on the global public health agenda, and to strengthen coordination and engagement of multiple sectors, particularly water, sanitation and hygiene, and other non-health sectors such as finance and infrastructure development;
(8) to report to the Seventy-third World Health Assembly, through the Executive Board at its 146th session, on the global cholera situation and evaluate efforts made in cholera prevention and control.
Seventh plenary meeting, 26 May 2018 A71/VR/7
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Presidential Clean Up Campaign

PRESIDENTIAL CLEAN-UP DAY DECLARATION

I, **Emmerson Dambudzo Mnangagwa**, President of the Republic of Zimbabwe, recognising the Constitutional mandate to uphold environmental fundamental rights and freedoms provided for in Section 73 of the Constitution of Zimbabwe which guarantees every citizen of Zimbabwe the "right to an environment that is not harmful to their health and well-being", hereby declare that every first Friday of each calendar month is a National Clean-Up Day.

In the spirit of creating a clean, safe and healthy environment it shall be the duty of every individual, corporate body, community and institution to clean up their surrounding areas; places of work, religion, education, recreational and residential premises, vending sites, car parks and road servitudes.

This exercise shall be undertaken from **0800hrs -1000hrs** on the first Friday of each calendar month.

By this declaration, I am obligating and calling upon all Private and Public Entities to be exemplary and strictly comply with this commitment.

Similarly, I call upon every individual to equally honour this declaration to keep Zimbabwe clean.

Signature..... Date...5th December 2018.....

The President of the Republic of Zimbabwe,

His Excellency Cde, Emmerson Dambudzo Mnangagwa

Organizations making up the National Cholera Task Force

Ministry of Local Government, Public Works and National Housing

Ministry of Health and Child Care

Ministry of Finance and Economic Development

Ministry of Lands, Agriculture, Water, Climate and Rural Resettlement

National Coordination Unit

District Development Fund

Zimbabwe National Water Authority

Environmental Management Agency

Civil Protection Unit

Association of Rural District Councils

Urban Councils Association

World Health Organization

United Nations Children's Fund

Higherlife Foundation

Econet Wireless

Cholera Secretariat Zimbabwe