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.

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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.

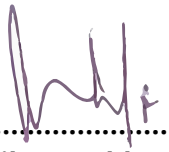
We acknowledge that every death from cholera is preventable with the tools we have today, placing the goal of eliminating cholera within our reach. The multi-sectoral approach to cholera control outlined in the GFTCC roadmap and in the Regional Framework for Cholera Prevention and Control can prevent 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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Mr. Daniel Muchemwa
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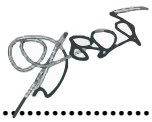

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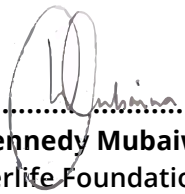

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ABBREVIATIONS

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

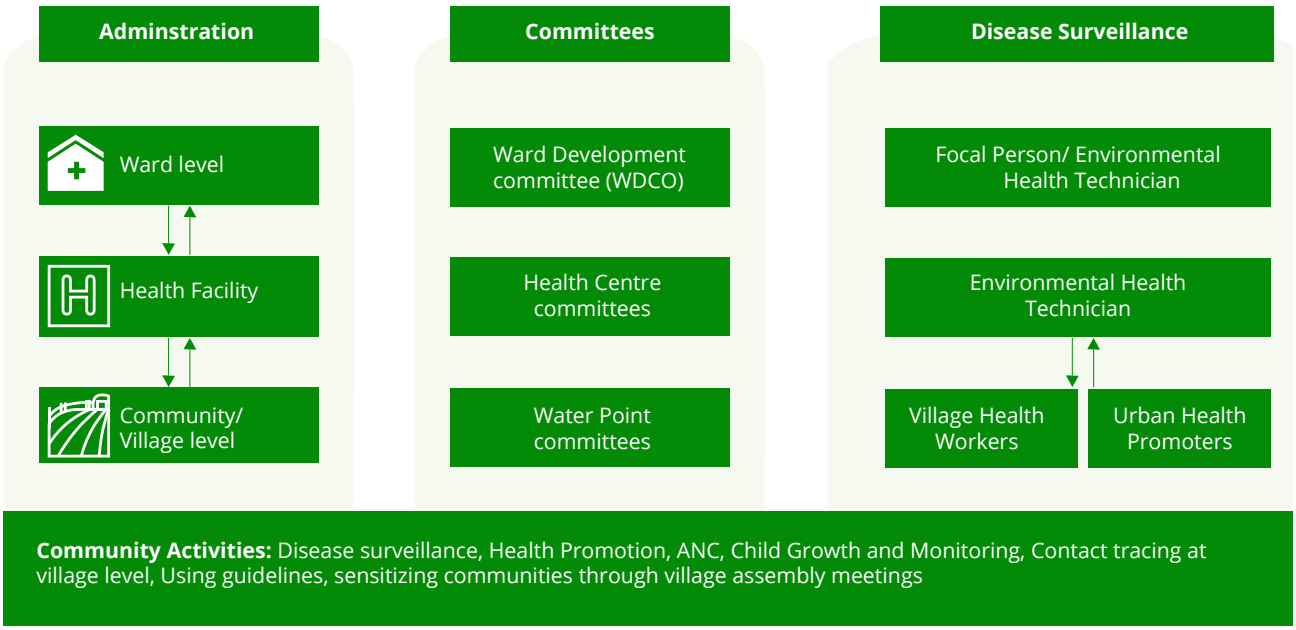


Table 3: *Indicators of Health Status Zimbabwe*

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

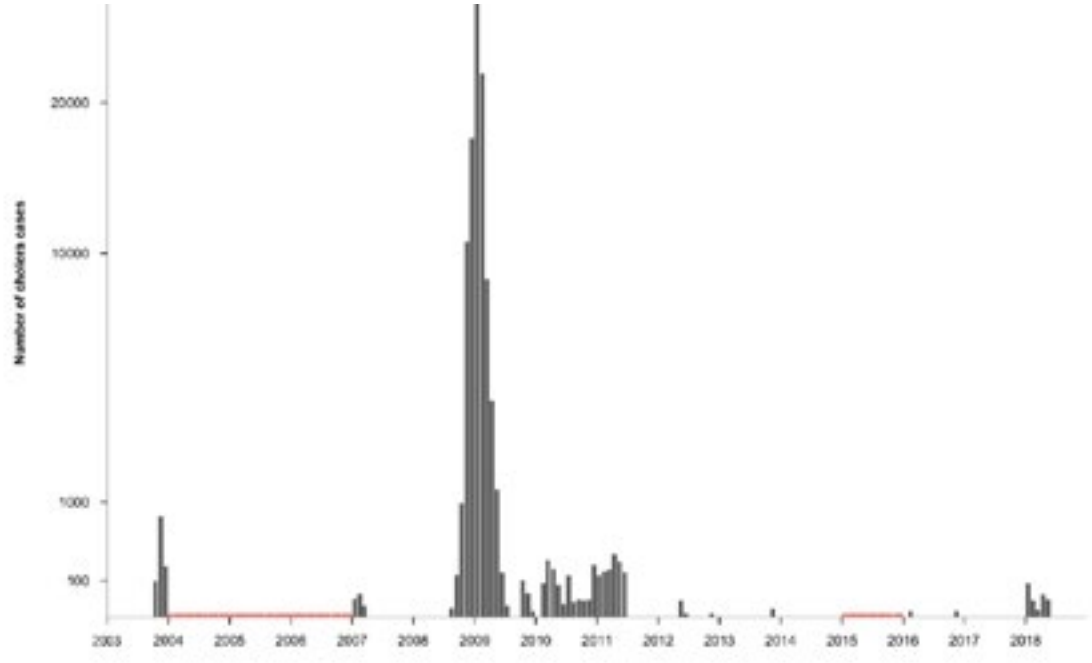
Some of the health system strengthening steps that have been taken in order to enhance response to outbreaks include: provision of incentives for staff; pooling resources for maintaining core health services at the primary level through supply of primary care packages (e.g. Zimbabwe Informed Push System), 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).

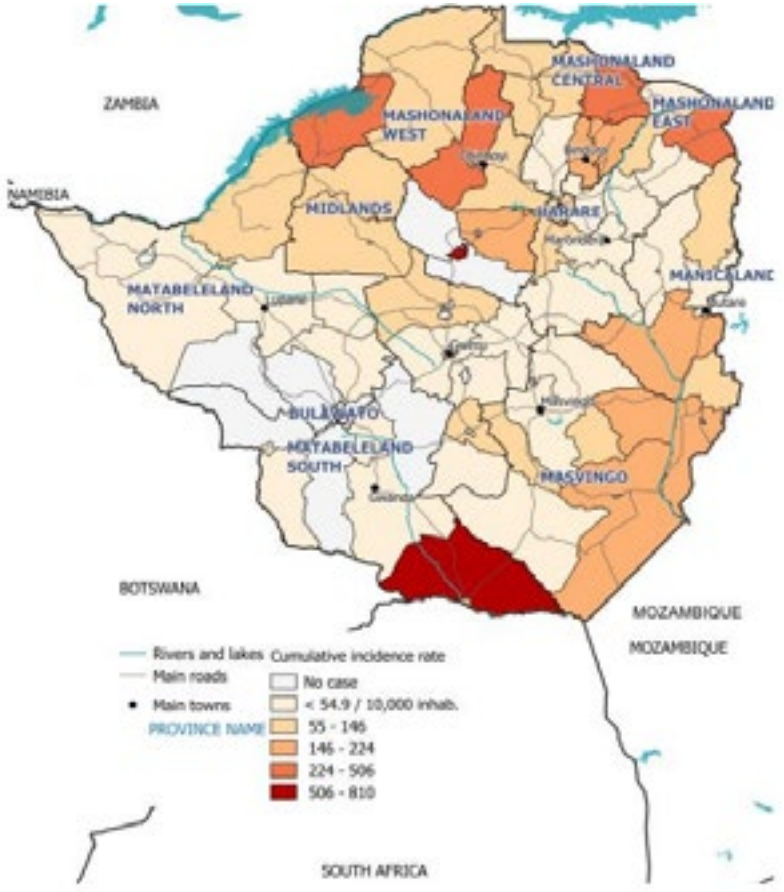
Other risk factors may include: being a child under five, being a woman of childbearing age.

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.

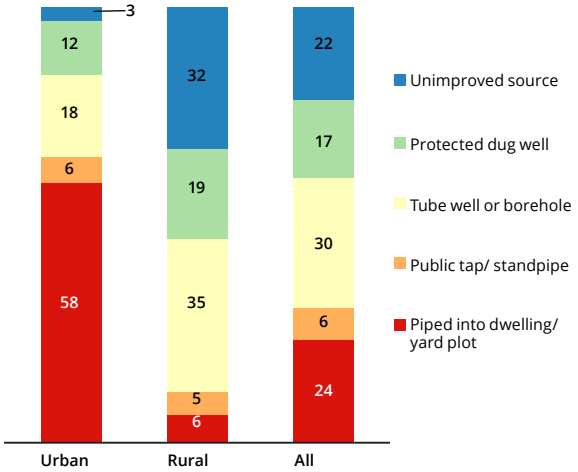
The annual occurrence of outbreaks since 1998 suggests that Zimbabwe is prone to cholera. The largest outbreak of 2008/09 comprising of 84% of all cases, was linked to imported cases from neighbouring countries and occurred at a time of weak health system, characterized by; critical shortage of skilled 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.

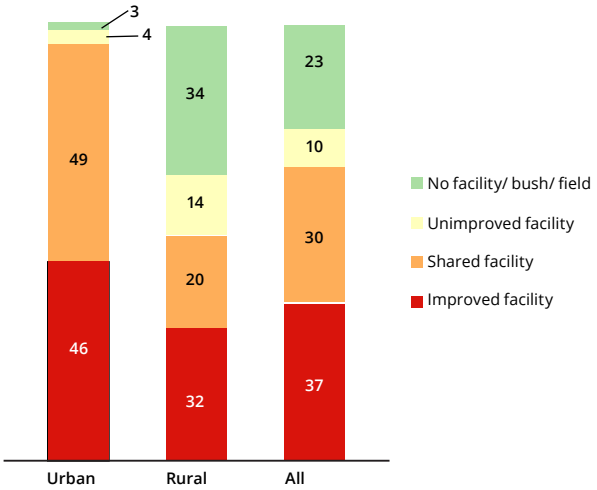
Whereas more than half of urban households (58%) drink water that is piped into the dwelling, yard, or plot compared with 6 percent rural households, the availability is affected by erratic supplies. In the end people resort to use of a tube well or borehole. In rural areas, tube wells or boreholes are 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.**

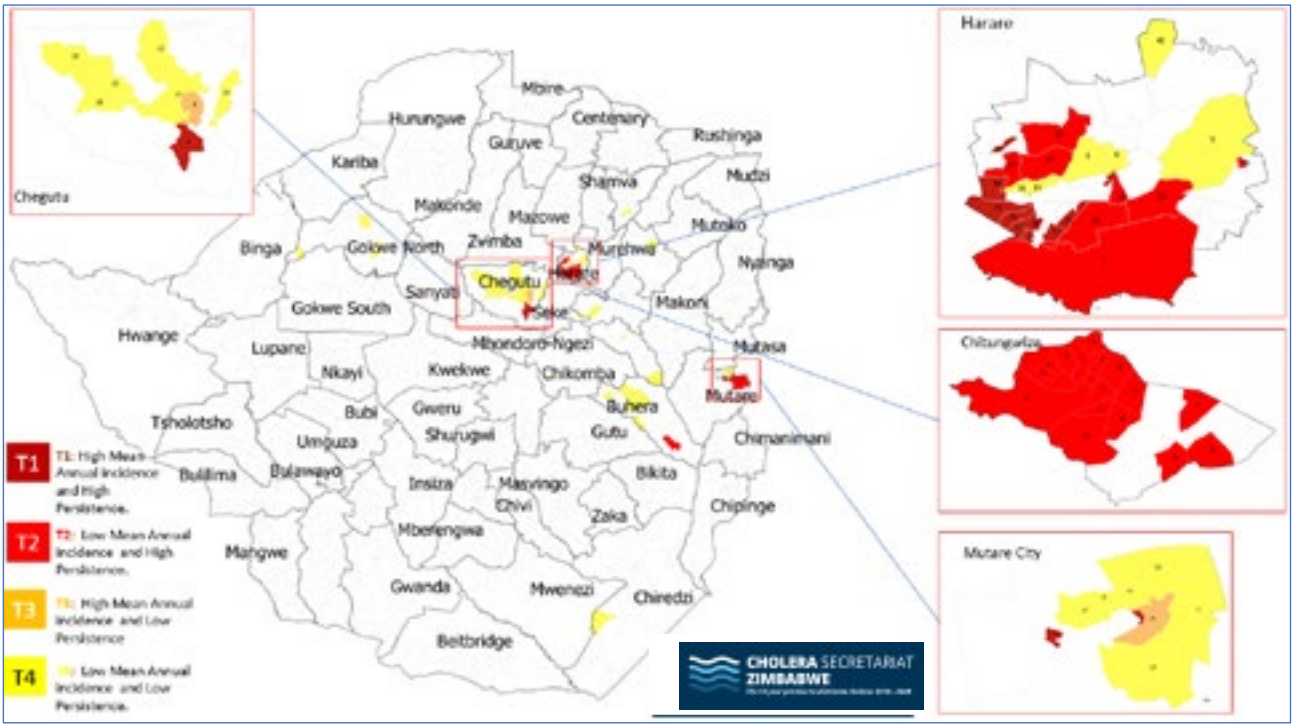
Mapping of existing plans, programmes, initiatives relevant for cholera at national level

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

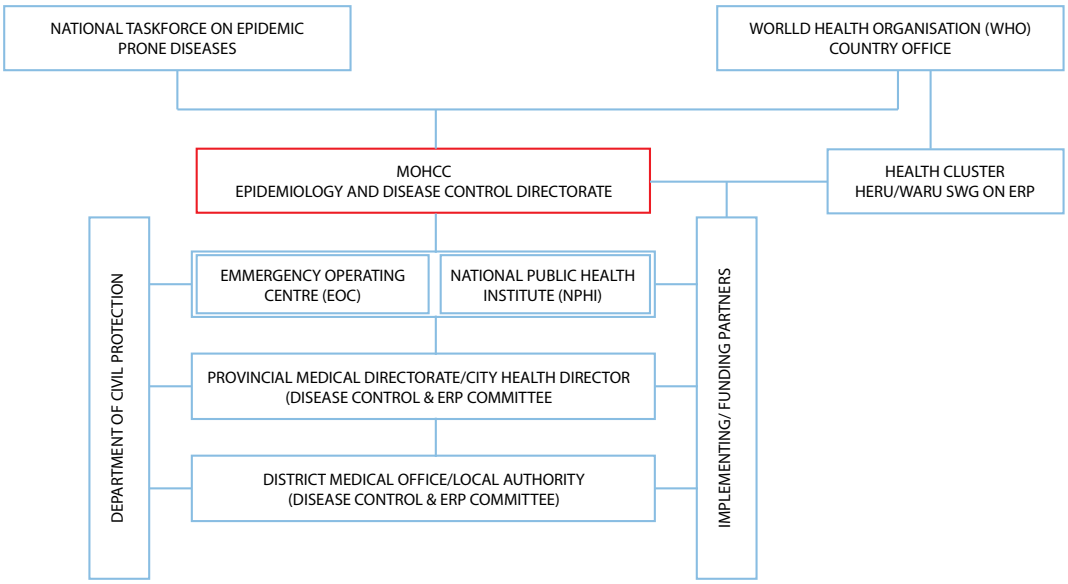
10. IDSR Technical Guidelines, February 2012
11. Handbook for the Public Health Emergency Operations Centre (PHEOC), Epidemiology and Disease Control Directorate, MOHCC., November, 2019
12. PHEOC Legal framework, November, 2019

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		