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An assessment of the progress made in the implementation of the regional framework for cholera prevention and control in the WHO African region

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ABSTRACT

High-burden cholera outbreaks, spreading beyond the traditional cholera-endemic countries, have been reported since 2021 in the WHO African region. Member states in the region have committed to the global goal of cholera elimination by 2030. To track progress towards this goal, WHO-African countries adopted a regional cholera prevention and control framework in 2018. This study reports on 27 countries' 5-year achievements in implementing the cholera regional framework for cholera prevention, and control. Data collected through a web-based self-assessment tool were analysed and visualised through Power BI. Data were provided by national teams of experts on cholera based on the milestones of the framework. Countries' specific progress and regional progress were calculated. The overall regional progress was 53%, ranging from 19% in Mauritania to 76% in Ethiopia. Out of the 27 countries, 3 had made good progress while 14 had fair and 10 had insufficient progress. At the regional level, 4 milestones were on track, 7 were fair and 10 had insufficient progress. Cholera hot spot mapping had the highest score at 85%, while development of investment cases for cholera control scored the lowest at 14%. Although appreciable progress was noted in some milestones, the progress against critical milestones, including for water, sanitation and hygiene, that form the bedrock of cholera control, was insufficient. Effective implementation of the cholera prevention and control framework anchored on strong government commitment and ownership is essential to curb the current trend of cholera outbreaks and improve the likelihood of cholera elimination by 2030 in Africa.

SUMMARY BOX

⇒ Cholera is one of the oldest known infectious diseases that continues to pose a major public health threat in many regions including the WHO Regional Office for Africa (WHO-AFRO).

⇒ In 2018, the WHO African countries adopted a regional cholera prevention and control framework containing 21 milestones to accelerate the implementation of the global strategy of ending cholera by 2030; the framework was to be implemented by all WHO African countries starting in 2018.

⇒ However, since mid-2021, the region has been facing an acute upsurge of the seventh cholera pandemic, which is characterised by increased magnitude, the concurrence of multiple outbreaks, high mortality rates, and spread to the non-traditional cholera-endemic countries.

⇒ Effective implementation of the WHO-AFRO cholera prevention and control framework is essential if the region is to control and eliminate cholera in line with the 2030 global elimination target.

INTRODUCTION

Cholera remains a significant public health threat in many countries globally and causes between 1.3 million and 4.0 million cases and 21 000–143 000 deaths annually.[1] Sub-Saharan Africa (SSA) and Asia account for the bulk of these cases worldwide. The disease disproportionately affects the poorest of communities.[2–4] Areas with low socioeconomic status have the highest burden, clearly demonstrating the association between the occurrence of cholera with poverty, poor sanitation, and lack of clean and safe drinking water.[4–8] A multifaceted approach is essential for mitigating and controlling cholera transmission and reducing death.[9 10]

The disease has been eliminated in Europe, North America, South America, and parts of Central America where safe drinking water, proper disposal of human waste, and

Table 1 Targets and milestones, WHO-African Region, August 2023

Regional framework target	Number of milestones
Contribute to the global goal of eliminating predictable cholera epidemics	9
Reduce by 50% the magnitude of cholera outbreaks particularly among vulnerable populations and during humanitarian crises	7
Ensure regular monitoring, evaluation and adaptation of the regional cholera framework	4
Ensure that countries develop their National Cholera Plans (NCPs)	1
Total	21

hygiene have been made available.[11] However, Africa and Asia continue to experience recurrent cholera outbreaks. The Global Task Force on Cholera Control (GTFCC) was established in 1992 to synchronise efforts and investments to support cholera control and prevention. In 2017, the GTFCC launched the 'Ending Cholera: A Global Roadmap to 2030'[12] with a renewed commitment to control cholera globally.[12] The following year, in August 2018, at the WHO Regional Committee for Africa, 47 African countries adopted a regional framework to guide member states in the implementation of the global roadmap.[13] The framework provides step-by-step guidance for implementing the global strategy. It has four targets and 21 milestones (table 1).

All the 47 member countries were urged to implement the framework immediately after the adoption in 2018. The 2021 cholera outbreak in West Africa that led to more than 3700 deaths[14] followed by the deadly and protracted cholera outbreaks reported in Malawi and several eastern and southern African countries, has been of great concern since 2022. These outbreaks characterised by long duration and spread beyond the traditional cholera endemic and epidemic profile areas are driven mainly by persistent weaknesses in water, sanitation and hygiene (WASH) services and social practices, fragile healthcare systems, and deficiencies in surveillance.[15] They are exacerbated by climate change, conflict, natural disasters and poverty.[16–20] Urgent and specific interventions is required. This prompted the WHO regional office for Africa (WHO-AFRO) cholera programme to conduct a study[21] confirming the correlation between basic WASH structures and the occurrence of cholera outbreaks; this study also provides insights into other drivers of recent outbreaks.

To better understand and complement the findings of this study, an assessment of the implementation status of the framework at the country and regional levels was undertaken. The assessment aims to understand countries' progress in implementing the framework, identify the challenges affecting the implementation, explain the recent cholera trends and make recommendations to meet the 2030 global cholera elimination target.

ASSESSING THE IMPLEMENTATION OF THE REGIONAL FRAMEWORK

This study reports on an assessment conducted by WHO-AFRO on the implementation of the regional framework for cholera prevention and control, 2018–2030 for the first 5 years of implementation from 2018 to 2022 in all 47 member states. There are 29 out of 47 countries in the region that are classified as cholera-endemic and are thus the primary target for cholera elimination. However, the current upsurge of the seventh cholera pandemic has spread beyond the traditional cholera-endemic countries and has exposed glaring vulnerabilities in some non-endemic countries, emphasising the need for all countries to strengthen cholera prevention and control through the implementation of the framework. Although all were encouraged to take the assessment, individual countries made the decision to participate or not.

A web-based data collection tool developed by the WHO-AFRO was used to collect data from countries. The tool provides a framework to assess the components of the framework arranged according to the four targets and their respective milestones. It is available in English and French[22] and was filled out by each country's multisectoral team of cholera experts or stakeholders actively involved in cholera control activities. A total of 21 milestones were assessed. All the milestones were assigned equal weights/scores because of their equal importance in implementing the regional framework. The data were analysed by an analysis Excel platform and visualised through a Power BI-based tool. The results were generated per country and region for each milestone and target.

Each milestone was scored with 0%–49% indicating unsatisfactory/insufficient progress, 50%–74% indicating fair progress, and 75%–100% indicating good progress or on-track, and colour-coded red, yellow, and green, respectively. For each target, the progress was calculated as the sum of the results obtained by the milestones related to each target divided by the expected results. The expected result was defined as the scenario where all milestones of the target were fully achieved. The overall progress in implementing the framework at the country level was calculated as the sum of the results obtained by all the milestones divided by the expected results. At the regional level, the overall progress was calculated as the sum of the results obtained for all 21 milestones for each responding country divided by the expected results.

IMPLEMENTATION PROGRESS

A total of 27 countries out of 47 in the region participated in the study. Among the 27 countries, 11 were from West Africa (Benin, Burkina Faso, Ghana, Guinea, Guinea Bissau, Liberia, Mali, Mauritania, Nigeria, Sierra Leone and Togo), 5 from central Africa (Burundi, Cameroon,

Central African Republic, the Democratic Republic of Congo and Chad), 5 from East Africa (Ethiopia, Kenya, South Sudan, Uganda and the United Republic of Tanzania) and 6 from southern Africa (Angola, Malawi, Mozambique, South Africa, Zambia and Zimbabwe). Further, 24 of the 27 (89%) are cholera-endemic, while only 3 non-endemic countries (11%) participated.

I. Implementation progress of the regional framework by country

Figure 1 shows the progress made by each country for the 21 milestones. The overall progress by countries ranged from 19% in Mauritania and South Africa to 76% in Ethiopia. Only 3 (11%) countries, Ethiopia, Kenya and Zambia, were on track while 14 (52%) countries (Benin, Burundi, Cameroon, Democratic Republic of Congo (DRC), Ghana, Guinea, Mali, Sierra Leone, Nigeria, Mozambique, South Sudan, Tanzania, Togo and Zimbabwe) had made fair progress and 10 (37%) countries (Angola, Burkina Faso, Central African Republic, Chad, Guinea-Bissau, Liberia, Malawi, Mauritania, South Africa and Uganda) had unsatisfactory/insufficient progress.

II. Implementation progress of the different milestones at the regional level

The region had good progress in 4 milestones, fair in 7 and unsatisfactory/insufficient progress in 10 milestones (figures 1 and 2).

A. Four milestones on track

The four milestones on track included hot spot mapping at 85%, establishing a robust multisectoral and partner coordination mechanism at 79%, having strengthened national capacities for cholera preparedness and response at 84%, and setting up functional epidemiological and laboratory surveillance systems at 79% (figures 1 and 2).

B. Seven milestones with fair progress

The region had fair progress in 7 of the 21 milestones (figures 1 and 2). The seven milestones included having appointed cholera focal points at the national level at 63%, developed cholera outbreak preparedness and response plans at 61%, enhanced cross-border surveillance at all levels at 52%, established rapid response teams for field investigations and risk evaluation at 63%, conducted a risk assessment and mapping at 67%, having strengthened specific capacities for cholera case management at 69%, and having documented challenges and lessons learnt and using them for decision-making at 63%.

C. Ten milestones with unsatisfactory/insufficient progress

The results show that the region had unsatisfactory/insufficient progress in 10 milestones (figures 1 and 2). The 10 milestones were (1) The development of the National Cholera Plans (NCPs) at 43%; only six countries were on track, (2) Funding of NCPs at 16% with no country in the region on track, (3) Mobilised the required technical and financial resources for cholera at all levels 40%; five countries on track, (4) Implementing multisectoral cholera prevention and control plans in all hot spots at 44%, (5) Development of a comprehensive social mobilisation strategy and community-based interventions at 43%, (6) Maintained WASH investment and operational costs at all affected hot spots and communities at 23%, (7) Ensuring water quality interventions in all hot spots and at-risk communities at 31% with no country on track, (8) Developed investment case(s) for cholera at 14%; no country on track, (9) Identified monitoring and performance indicators and defined quality control mechanisms for planned interventions at 40%, and (10) Defined integrated quality control mechanisms for assessing the implementation of the framework at 41%.

III. Implementation progress of each target

Figure 3 shows the progress made in implementing each target. The region is not on track in all four targets with fair progress in targets 1 and 2 at 59% and 54%, respectively, and unsatisfactory/insufficient progress at 39% and 43% in targets 3 and 4, respectively. Overall, the region had fair progress at 53%. Figure 4 gives a synopsis of progress of selected milestones.

WORKING TOWARDS CHOLERA CONTROL/ELIMINATION IN THE WHO AFRICAN REGION

The assessment, the first since the adoption of the framework in 2018, measured WHO-AFRO countries' progress towards the global strategy for eliminating cholera by 2030. Although all 47 member states endorsed the framework, cholera-endemic countries prioritised its implementation more than the non-endemic ones because cholera is considered a major public health threat in these countries. Therefore, the results for non-endemic countries like Central African Republic, Mauritania and South Africa, should be interpreted with caution. Given the many public health needs against limited resources, countries' priorities are based on their context for efficient use of the limited resources.[23] Thus, non-endemic countries might not have prioritised cholera.

ABOUT PROGRESS IN TARGETS

The assessment of the first 5 years of the framework implementation revealed that the region was not on track to eliminate cholera by 2030. All four targets were not on track. One possible contributing factor is inadequate dissemination of the framework among key stakeholders at the country level. Several studies have documented that a lack of/inadequate awareness about a particular intervention among key stakeholders leads to delays in implementing it.[24 25] The slow progress of implementing the framework could explain the recurrence of cholera outbreaks in both endemic and non-endemic countries. This is more prominent in targets 2 and 3, related to inadequate investment in long-term

Target	(1)Contribute to the global goal of eliminating predictable cholera epidemics										(2)Reduce by 50% the magnitude of cholera outbreaks particularly among vulnerable populations & during humanitarian crises								(3)Ensure regular M & E and adaptation of the regional cholera framework					NCP		
	Milestones										Milestones								Milestones							
Country	Identified and mapped cholera Hotspot/PAMI	Appointed National Cholera Focal Point	Cholera Emergency Preparedness and Response plans developed	Established a robust multisectoral coordination mecahnism	Enhanced Cross-border surveillance at all levels	Fully Funded long-term multisectoral NCP	Mobilisedd required technical and financial resources at all levels	Implemented multisectoral cholera prevention and control plans at all levels	Strengthened national capacities for cholera preparedness and response	Overall target 1 % Score	Developed a comprehensive social mobilisation strategy	Strengthened setup epidemiological and lab surveillance systems at all levels	Established RRTs for field investigations and risk evaluation	Conducted risk assessment and mapping	Established sufficient and specific cholera case management capacity	Maintained WASH investment and operational costs at all hotspots	Ensured water quality interventions in affected hotspots and risk communities	Overall target 2 % score	In collaboration with WHO, developed investment case(s) for cholera control	Documented challenges and lessons learned and use them for decision-making	Identified monitoring and performance indicators and quality control mechanisms	Defined integrated quality control mechanisms for assessing framework	Overall Target 3 % score	Country has developed an NCP	OVERALL COUNTRY % SCORE	OVERALL PROGRESS
Angola	100%	33%	100%	33%	67%	0%	0%	67%	67%	52%	67%	67%	67%	0%	100%	0%	33%	48%	0%	100%	0%	100%	50%	0%	48%	Unsatisfactory
Benin	100%	67%	100%	67%	33%	0%	67%	33%	100%	63%	100%	100%	33%	100%	100%	33%	33%	71%	0%	100%	0%	33%	33%	67%	60%	Fair
Burkina Faso	100%	67%	67%	100%	33%	0%	33%	0%	67%	52%	33%	100%	67%	67%	100%	0%	0%	52%	0%	0%	0%	33%	8%	33%	43%	Unsatisfactory
Burundi	100%	67%	100%	100%	67%	0%	67%	67%	100%	74%	0%	100%	100%	100%	67%	67%	67%	71%	0%	100%	0%	33%	33%	33%	63%	Fair
Cameroon	100%	100%	100%	0%	33%	33%	33%	0%	100%	56%	33%	100%	0%	100%	100%	33%	33%	57%	0%	100%	33%	0%	33%	67%	52%	Fair
Central Africa Republic	0%	0%	67%	0%	33%	0%	33%	0%	33%	19%	33%	100%	33%	100%	0%	33%	0%	43%	0%	67%	0%	33%	25%	0%	27%	Unsatisfactory
Chad	100%	0%	0%	0%	33%	0%	33%	67%	67%	33%	0%	100%	0%	0%	100%	0%	67%	38%	67%	100%	0%	67%	58%	33%	40%	Unsatisfactory
Democratic Republic of Congo	100%	100%	100%	100%	0%	0%	100%	100%	100%	78%	0%	0%	33%	33%	100%	0%	0%	24%	33%	100%	33%	100%	67%	67%	57%	Fair
Ethiopia	100%	100%	100%	67%	33%	33%	67%	100%	100%	78%	100%	100%	100%	100%	67%	33%	67%	81%	0%	33%	100%	100%	58%	100%	76%	On Track
Ghana	100%	100%	67%	100%	67%	0%	0%	0%	100%	59%	100%	100%	67%	100%	100%	0%	0%	67%	0%	0%	100%	0%	25%	33%	54%	Fair
Guinea	100%	0%	0%	100%	100%	0%	0%	100%	100%	56%	100%	0%	100%	100%	100%	33%	0%	62%	0%	0%	100%	33%	33%	0%	51%	Fair
Guinea-Bissau	100%	67%	0%	100%	33%	0%	0%	0%	100%	44%	0%	33%	0%	0%	0%	33%	33%	14%	0%	0%	0%	100%	25%	0%	29%	Unsatisfactory
Kenya	100%	100%	100%	100%	67%	67%	67%	67%	100%	85%	67%	67%	100%	100%	67%	33%	67%	71%	0%	67%	67%	67%	50%	100%	75%	On Track
Liberia	100%	100%	100%	100%	0%	0%	0%	0%	0%	44%	0%	100%	100%	0%	0%	0%	0%	29%	0%	0%	0%	0%	0%	33%	30%	Unsatisfactory
Malawi	0%	0%	0%	100%	67%	0%	67%	67%	100%	44%	0%	67%	67%	67%	100%	0%	67%	52%	0%	100%	67%	0%	42%	0%	44%	Unsatisfactory
Mali	100%	0%	0%	100%	100%	0%	67%	67%	100%	59%	100%	100%	67%	100%	100%	33%	0%	71%	0%	33%	0%	33%	17%	33%	54%	Fair
Mauritainia	0%	0%	0%	100%	0%	0%	0%	0%	100%	22%	0%	0%	0%	100%	100%	0%	0%	29%	0%	0%	0%	0%	0%	0%	19%	Unsatisfactory
Mozambique	100%	100%	100%	67%	67%	67%	67%	33%	67%	74%	100%	67%	100%	100%	67%	33%	33%	71%	0%	100%	67%	0%	42%	67%	67%	Fair
Nigeria	100%	100%	100%	100%	100%	0%	33%	33%	100%	74%	0%	67%	100%	0%	67%	33%	0%	38%	33%	100%	33%	33%	50%	33%	56%	Fair
Sierra Leone	100%	100%	100%	67%	67%	0%	0%	33%	100%	63%	100%	100%	100%	100%	0%	33%	33%	67%	33%	100%	100%	100%	83%	100%	70%	Fair
South Africa	0%	0%	100%	100%	0%	0%	33%	0%	33%	30%	0%	100%	0%	0%	0%	0%	33%	19%	0%	0%	0%	0%	0%	0%	19%	Unsatisfactory
South Sudan	100%	67%	33%	100%	100%	33%	33%	100%	67%	70%	33%	100%	67%	33%	67%	33%	33%	52%	0%	100%	0%	33%	33%	33%	56%	Fair
Tanzania	100%	100%	0%	100%	33%	67%	100%	67%	100%	74%	0%	100%	100%	100%	33%	0%	33%	52%	67%	100%	67%	33%	67%	100%	67%	Fair
Togo	100%	67%	100%	67%	67%	33%	33%	33%	100%	67%	100%	100%	100%	100%	100%	33%	67%	86%	33%	33%	100%	33%	50%	33%	68%	Fair
Uganda	100%	100%	0%	100%	33%	0%	33%	33%	100%	56%	33%	100%	0%	0%	100%	33%	33%	43%	0%	100%	33%	0%	33%	0%	44%	Unsatisfactory
Zambia	100%	100%	100%	67%	67%	33%	67%	67%	100%	78%	67%	67%	100%	100%	67%	33%	67%	71%	67%	67%	67%	67%	67%	100%	75%	On Track
Zimbabwe	100%	100%	0%	100%	100%	67%	67%	67%	67%	74%	0%	100%	100%	100%	67%	67%	33%	67%	33%	100%	100%	67%	73%	100%	73%	Fair
% score/milestone-AFR	85	64	60	79	53	16	40	44	84	59%	43	79	63	67	69	23	31	54%	14	63	40	41	39%	43	53%	Fair
Number of countries fully implemented milestone	23	13	14	17	5	0	2	4	18		8	17	12	16	13	0	0		0	14	6	5		6		
Number of countries commenced implementing milestone	0	6	3	6	9	4	9	9	6		3	6	6	2	8	2	7		3	3	5	4		4		
Number of countries planning to start milestone implementaion	0	1	1	1	9	5	9	6	2		5	1	3	2	1	15	11		5	3	4	10		9		
Number of countries not done anything about milestone	4	7	9	3	4	18	7	8	1		11	3	6	7	5	10	9		19	7	12	8		8		

TARGET 1 | TARGER 2 | TARGET 3

Figure 1: Cholera Regional Framework implementation progress assessment results by country, WHO-African Region, August 2023.

Legend

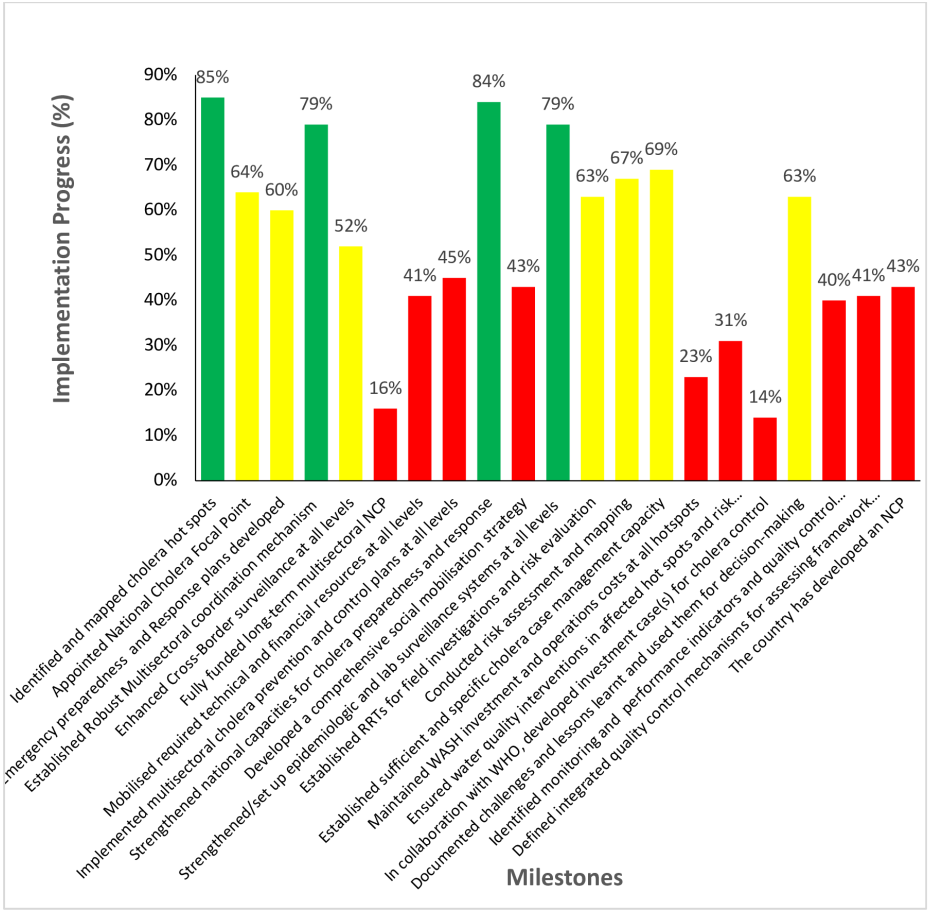
Unsatisfactory progress	0%-49%
Fair progress	50%-74%
On Track	75%-100%

NCP: National Cholera Plan

Data Source

Figure 1 contains data obtained from the 27 countries in the WHO-African Region that assessed themselves between 2018 and 2022

Figure 1 Cholera regional framework implementation progress assessment results by country, WHO-African region, August 2023. CAR, Central Africa Republic; M & E, monitoring and evaluation; NCP, National Cholera Plan; PAMI, priority areas for multisectoral interventions; WASH, water, sanitation and hygiene.



Legend

Unsatisfactory progress	0-49%
Fair progress	50-74%
On track	75-100%

NCP, National Cholera Plans

Lab, Laboratory

RRTs, Rapid Response Teams

WASH, Water, Sanitation, and Hygiene

Data source:

Figure 2, contains data obtained from the 27 countries in the WHO-African region that assessed themselves between 2018 and 2022.

Figure 2 Implementation progress by milestone, WHO African region, August 2023. NCP, National Cholera Plan; WASH, water, sanitation and hygiene.

interventions including WASH. Cholera outbreaks are correlated with WaSH infrastructure,[48] especially in the context of humanitarian crises, such as the ongoing cholera outbreak in Goma, Democratic Republic of Congo. All these challenges emphasise the importance of all countries investing in long-term WaSH infrastructures, including emergency WASH interventions for effective cholera prevention and control. The increasing geographical spread could be attributed to the effects of climate change, humanitarian crises and conflicts.[20 26] *Vibrio cholerae* naturally lives in aquatic environments and thus its spread is easily influenced by climate change.[27] Several studies have demonstrated a significant correlation between low precipitation and cholera infection.[27–29] While it is well known that eliminating cholera requires improved access to safe water and adequate sanitation, our assessment revealed that there is generally very little investment in Water, Sanitation and Hygiene (WaSH) infrastructure in almost all countries. This is consistent with several studies that have shown that there is generally low investment in WASH infrastructure particularly in SSA.[30–32] Although our study could not evaluate the actual investment in WASH by country, another study has revealed that the current trend of improvement in access to WASH is too slow to attain the Sustainable Development Goal for water and sanitation in 2030, putting the region at risk for failing in its goal to eliminate cholera by 2030.[21]

All four targets of the framework performed below par, and the key milestones on which cholera elimination is hinged progressed much slower than the rest. These milestones are spread across the first three targets. They all revolve around low investment in WASH and sustainable financing in cholera control programmes. There is a need to mobilise and bolster the required resources to implement the strategy. Despite the slow progress in implementing the framework, many WHO-AFRO countries now regard cholera elimination as a top priority, with several high-level meetings held aimed at addressing the cholera problem in the region.[33]

Tools to reduce the cholera outbreak burden are not fully available. These include a lack of access to oral cholera vaccines for preventive vaccination, inadequate cholera supplies for detection, confirmation and prompt response, and the adverse socioeconomic effects of COVID-19.[34] In fact, GTFCC stopped the two-dose vaccination strategy due to limited production of Oral Cholera Vaccine (OCV) adversely affecting preventive vaccinations, a key complementary strategy for comprehensive cholera prevention and control. Inadequate cholera supplies causes delayed response to outbreaks while the adverse socioeconomic impact of COVID-19 meant little

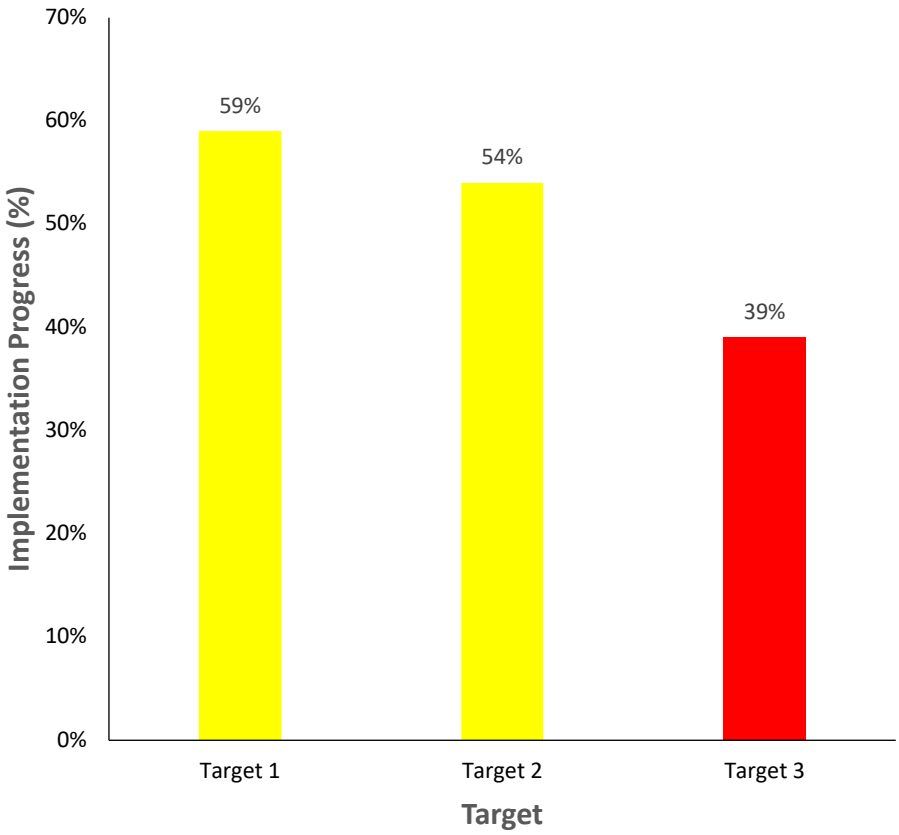


Figure 3: Implementation Progress by Target, WHO African Region, August 2023

Legend

Unsatisfactory progress	0%-49%
Fair progress	50%-74%
On Track	75%-100%

Target 1: Contribute to the global goal of eliminating predictable cholera epidemics

Target 2: Reduce by 50% the magnitude of cholera outbreaks, particularly among vulnerable populations and during humanitarian crises

Target 3: Ensure regular Monitoring and Evaluation and adaptation of the regional cholera framework

Figure 3 Implementation progress by target, WHO African region, August 2023.

resources were allocated to the prevention and control of other diseases including cholera. These situations show that the global environment for the implementation of the framework experienced major changes and can also explain the slow progress the region has made in implementing the framework.

ABOUT MILESTONES

The overall progress at the regional level was fair, although the progress against several milestones was insufficient. The assessment showed positive strides that countries have made in some milestones giving a glimmer of hope that with more effort, cholera elimination by 2030 is still possible. Cholera-endemic countries seemed to have made better progress than the non-endemic ones. This could be because endemic countries prioritised cholera control activities more than the non-endemic.

The milestones that support the long-term cholera control measures made the slowest progress. This agrees with other studies that have revealed limited resource

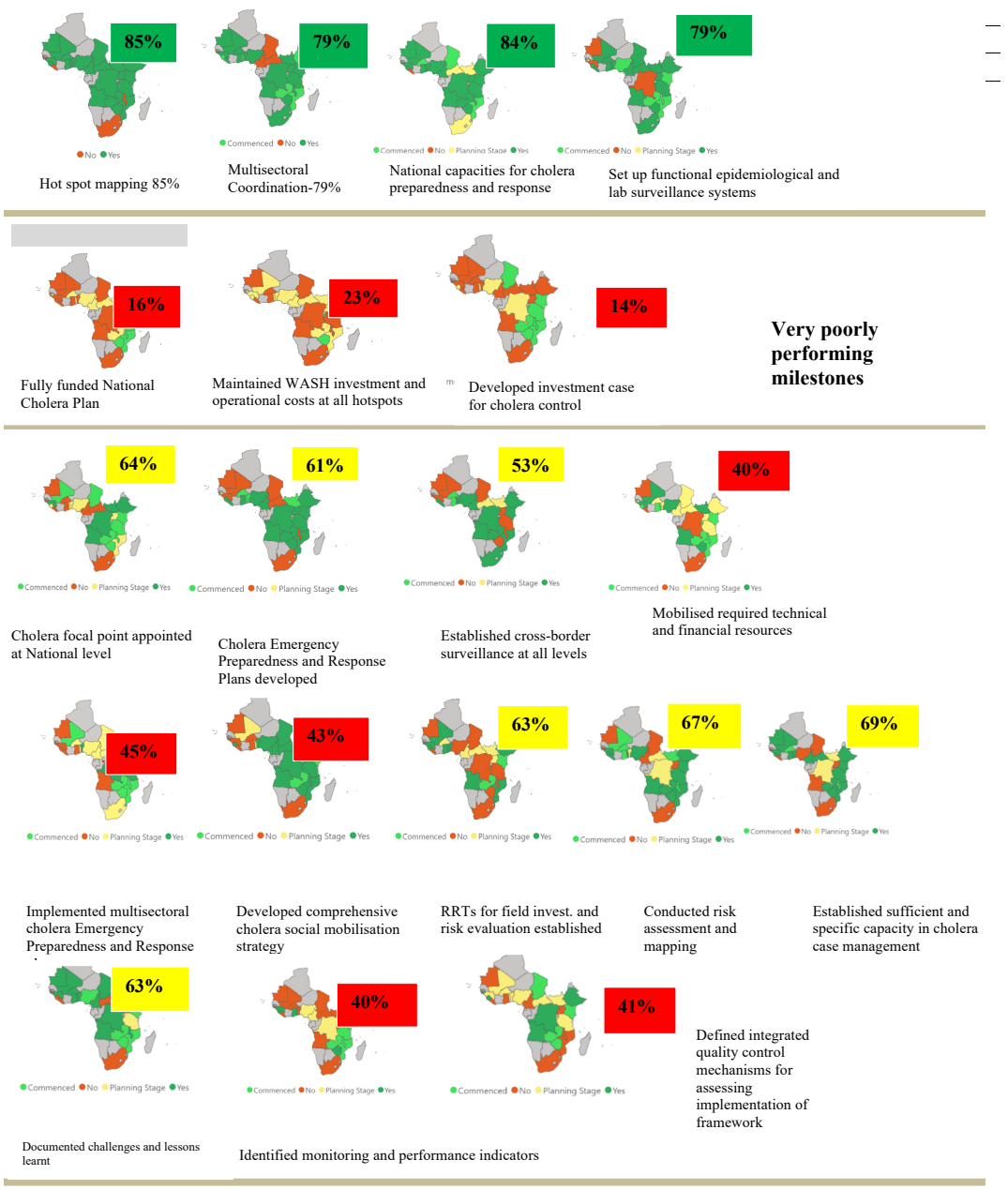


Figure 4: Stage of implementation of each milestone by country, WHO African Region, 2018-2022 (N=27)

Figure 4 Stage of implementation of each milestone by country, WHO African region (N=27). RRT, rapid response team; WASH, water, sanitation and hygiene.

allocation to the prevention and control of diseases in many African countries despite the high burden.[3 35–37] Despite advocacy and plausible political commitments, insufficient funding is still a challenge. We have noticed more support for emergency WASH interventions, although still insufficient, during outbreaks than to long-term WASH activities from both national and international partners/donors. Additionally, countries have challenges funding the implementation of their NCPs.[8 32 38–40] These have adversely impacted the implementation of cholera prevention and control programmes.

Developed and some developing countries that have effectively eliminated cholera had to invest heavily in proper water supply and sanitation infrastructure. A study in the USA found that the provision of clean water helped to reduce total mortality and infant mortality associated with diarrhoeal diseases by 50% and 75%, respectively.[41] SSA has recorded notable gains with 328 million people

having access to basic drinking water and 163 million to basic sanitation since 2000. However, about 159 million people still depend on unsafe water sources such as rivers and unprotected wells for domestic use. The regional coverage for both improved water and sanitation facilities in SSA is 19.7%.[30 42–44] These findings highlight the need for increased investment in WASH and funding for cholera prevention and control programmes.

Better preparedness and readiness, the hallmark of the framework, could minimise the magnitude and impact of most cholera outbreaks. However, many cholera measures in Africa focus more on emergency response rather than on investing in long-term prevention and control efforts.[36] The COVID-19 pandemic revealed major weaknesses in preparedness, particularly in the WHO-AFRO countries.[45] Experts have opined that an effective response to an outbreak depends on long-term investments in prevention and control.[46] Further, it is predicted that unless swift, deliberate and coordinated action is taken to strengthen preparedness, the control of future outbreaks will be more costly.[47] This study has revealed weaknesses in implementing the long-term cholera prevention and control measures which are key to meeting the 2030 cholera elimination targets.

ABOUT COUNTRY PROGRESS

Implementation progress of the different milestones at the country level varied. Although only three countries were on track, the majority had fair progress. However, a good number of countries had unsatisfactory progress. Countries that were on track or had fair progress seemed to have started implementing the framework earlier than those with unsatisfactory progress. One key determinant for progress was the status of NCP development. Countries that had fully developed an NCP had good or fair progress while those that had not, recorded insufficient progress. An NCP outlines key strategies for cholera control/elimination at the country level. The 10 countries with unsatisfactory progress highlight a need for a strong and deliberate shift of attention to the implementation of the framework at the country level. Efforts should be made to improve the situation through proactive and deliberate measures to invest more in long-term cholera prevention and control measures.[46]

CONCLUSION

The adoption of the framework for cholera elimination by 2030 in the WHO-AFRO region was a major step in eliminating cholera in Africa. However, the progress in the implementation of milestones and the achievement of targets is insufficient. The main areas of insufficient progress included those needing sustainable and predictable funding for improved preparedness and long-term approaches in key areas such as WASH. The urgency to empower the overall environment for the effective implementation of the framework has been revealed through this study. Tools and innovative technologies should be made available at country and regional levels. Effective implementation of the framework requires strong political commitment, strengthened health systems and increased investment in the long-term cholera control measures, among others. Although, traditionally, cholera control has been implemented in integration with other health programmes, it has been unsuccessful because cholera control is rarely prioritised unless during emergencies. To eliminate cholera in line with global and regional strategies, there is a need to have a dedicated programme and funding like other programmes such as polio, HIV/AIDS and others, targeted for eradication and control/elimination. The international community should prioritise cholera and make major decisions such as UN cholera funds or ‘STOP cholera initiatives’ to provide adequate domestic and external funding for cholera elimination by 2030.

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