PHIM | PUBLIC HEALTH INSTITUTE of MALAWI

MALAWI EMERGENCY PREPAREDNESS AND RESPONSE ROADMAP 2023–2025

World Health Organization

AFRICA CDC
Centres for Disease Control and Prevention
Safeguarding Africa's Health

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ACRONYMS

AAR	After Action Review
AMR	Antimicrobial Resistance
Africa CDC	Africa Centers for Disease Control and Prevention
AOP	Annual Operational Plan
AVoHC	African Volunteers Health Corps
CHW	Community Health Worker
CMST	Central Medical Stores Trust
COVID-19	Coronavirus Disease 2019
CPD	Continuous Professional Development
CSO	Civil Society Organization
DHIS	District Health Information System
DSCA	Disease Surveillance and Control Assistant
DoDMA	Department of Disaster Management Affairs
EBS	Event Based Surveillance
EMT	Emergency Medical Teams
EMS	Emergency Medical Services
EOC	Emergency Operations Center
EPR	Emergency Preparedness and Response
ERF	Emergency Response Framework
FCDO	Foreign, Commonwealth & Development Office
FETP	Field Epidemiology Training Program
GOM	Government of Malawi
HRH	Human Resource for Health
HSSP	Health Sector Strategic Plan
IBS	Indicator Based Surveillance
IDSR	Integrated Disease Surveillance and Response
IHR	International Health Regulations
IMS	Incident Management System
IPC	Infection Prevention and Control
JEE	Joint External Evaluation
JRA	Joint Risk Assessment

ACRONYMS

M&E	Monitoring & Evaluation
MDF	Malawi Defense Forces
MOU	Memorandum of Understanding
MOH	Ministry of Health
NAPHS	National Action Plan for Health Security
NGO	Non-governmental Organization
NHEROP	National Health Emergency Response Operations Plan
OHSP	One Health Surveillance Platform
PHE	Public Health Event
PHEOC	Public Health Emergency Operations Centre
PHIM	Public Health Institute of Malawi
POE	Point of Entry
PROSE	Promoting Resilience of Systems for Emergencies
QA	Quality Assurance
QMS	Quality Management system
QI	Quality Improvement
RCCE	Risk Communications and Community Engagement
RRT	Rapid Response Team
SimEX	Simulation Exercise
SOP	Standard Operating Procedure
SPAR	State Party Self-Assessment Annual Report
STAR	Strategic Tool for Assessing Risks
SURGE	Strengthening and Utilizing Response Groups for Emergencies
TASS	Transforming African Surveillance Systems
TEVETA	Technical, Entrepreneurial and Vocational Education and Training Authority
TOT	Training of Trainers
TWG	Technical Working Group
UNAIDS	United Nations Programme on HIV/AIDS
UNICEF	United Nations Children's Fund
USG	United States Government
WASH	Water Sanitation and Hygiene
WHO	World Health Organization
WHO AFRO	The World Health Organization Regional Office for Africa

MESSAGE FROM THE HONOURABLE MINISTER OF HEALTH

Honourable Khumbize Kandodo Chiponda, MP,Minister of Health

“I affirm the government’s commitment towards supporting this 2-year roadmap for our great country. The next step will entail mobilizing resources to support implementation thus operationalizing the 2-year roadmap to strengthen health security in Malawi.
I would like to re-instate the unending commitment of our President, His Excellency Dr Lazarus McCarthy Chakwera and his administration towards protecting the lives and livelihoods of our dear citizens of Malawi.”

Malawi has grappled with numerous emergencies in the recent past, ranging from disease outbreaks like COVID-19, Polio, the deadliest cholera outbreak in our country’s history, and the climate related events including Tropical Storm Ana, Tropical cyclones Gombe and Freddy, with the sad loss of lives, injuries and devastating damages to communities and the economy.

These emergencies have tested and stretched not only the systems in health and disaster management, but indeed all of the country’s and government’s system resilience.

This year the outbreak of cholera and Cyclone Freddy have indeed required a whole-of-government approach from Malawi’s government systems, as well as support from multiple partners and stakeholders, to whom we convey our sincere gratitude.

As the country now moves into recovery and preparedness phases, there is urgent need to strengthen our country’s systems to be better prepared and equipped for any future events that continue to be a threat due to factors like climate change, globalization, rapid urbanization and increased interactions at the human-animal-environment interface.

Cognizant of the need to better prepare for, detect and respond to emergencies, the WHO African Regional Office (AFRO) and Africa CDC have initiated the flagship strategies: Promoting Resilience Of Systems For Emergencies (PROSE), Transforming African Surveillance Systems (TASS), and Strengthening and Utilizing Response Groups for Emergencies (SURGE), which have been rolled out in 16 countries in the region. These flagships aim at strengthening preparedness and resilience (PROSE), surveillance (TASS), and response readiness (SURGE). Malawi is indeed fortunate to have been selected as the 17th country in the region for these initiatives and is also one of the few countries selected to benefit from all three initiatives concurrently.

A team of the Malawi government’s multisectoral technical teams together with partners, with support from WHO, got together to assess Malawi’s emergency preparedness and response systems, identify existing resources, gaps and priorities, and develop a 2-year roadmap. The road map prioritizes actions for immediate implementation to close the gaps, as well as support advocacy to multiple stakeholders in Malawi and beyond towards supporting the priority interventions.

Some critical recommendations from the very fruitful discussions include but are not limited to the following:

PREPAREDNESS

- Strengthen multisectoral coordination mechanism: We wish to strengthen the engagement between human, animal and environment ministries (the One-Health approach)
- Endeavor to finalize all public health and disaster related Acts, policies, plans and guidelines.
- Establishment of a contingency fund to support timely emergency response
- Resource mapping and mobilization
- Develop a strategy to control cholera by 2030
- Finalize the national action plan for health security (NAPHS).

SURVEILLANCE

- Scale-up implementation of integrated disease surveillance and response (IDSR) using the One Health approach
- Enhance data management and emergency information systems through integration, interoperability, and local capacity building
- Expand testing and sequencing capacities for priority pathogens, including sample referral pathways, as well as strengthening biosafety and biosecurity capacities

RESPONSE

- Increase the number of skilled human resource for emergency response right from the community level using the one-health multi-sectorial approach.
- Advocacy for inclusion of emergency and response modules in the pre-service curricula of all health workers
- Establish a standby multi-sectoral, multi-disciplinary team of 200 responders that can be activated within 24-48 hours to respond to emergencies.
- Expand warehouse capacities in the country and recruit and train health logisticians with the aim of having emergency stocks in place to respond to emergencies within 24-48 hours.
- Develop a multi-hazard RCCE strategy and establish multi-sectoral RCCE .

MESSAGE FROM THE WHO COUNTRY REPRESENTATIVE

Dr Neema Rusibamayila Kimambo ,WHO Country Representative, Malawi

> WHO commits to support the Ministry of Health and partners to mobilize the initial seed funding that is required to start implementation of the priority interventions.
>
> Together we can enhance the capacity and resilience of our systems to prepare for, detect early and promptly respond to emergencies.

Public health emergencies have catastrophic effects as they overwhelm fragile health systems, interrupt essential health services and fuel socio-economic disruption. The COVID-19 was a litmus test for emergency preparedness and response systems in the African region as it further compounded the damage caused by other major public health events. The scale of the pandemic laid bare key challenges plaguing the health emergency preparedness and response systems.

In the recent past, Malawi has been in a perpetual response mode, brought about by COVID-19, polio, cholera, and recurrent tropical storms & cyclones. These events compound the persistent burden of endemic diseases such as malaria, typhoid, and HIV, as well as the rapid rise in non-communicable diseases and injuries. Together, they impose great strains on an already fragile health system.

To address such challenges and improve health security in the African region, the WHO Africa Regional Office launched three flagship initiatives in 2022. More concretely, the objectives of the flagship initiatives are to support Member States to prepare for, promptly detect, respond to, and recover from the negative effects of outbreaks and other emergencies.
Further, the International Health Regulations (IHR (2005)) require States Parties to develop, strengthen and maintain their capacities to respond promptly and effectively to public health risks and emergencies.

Taking into account existing frameworks, plans, protocols, strategies and agreements, a team drawn from several ministries, government agencies and district councils, together with representatives from the civil society and different partner organizations sat together for four days to identify existing resources, gaps and priorities in emergency preparedness, detection and response. The team took into cognizance the need for resilient systems that are prepared to absorb future shocks.

Act which is currently being reviewed, the disaster risk management bill, and the national multi-hazard plan. The country also has established national and sub-national structures for the support of emergency response (National Public Health Emergency Operations Center); a wide array of skilled human resources and Field Epidemiology Training Program(FETP) , as well as willing partners and donors for the support of emergency preparedness and response; a draft National Action Plan for Health Security (NAPHS), and Data and information Systems, for example DHIS2 and the One Health Surveillance Platform (OHSP), among others. We commend the country for having these systems in place.

Despite the great achievements thus far, gaps still exist in responding to emergencies in the country, including underestimated resource needs for preparedness, absence of information flow and sharing/dissemination and the lack of completion of the NAPHS, and inadequate support to districts in capacity development and developing contingency plans. I am happy to report that the team has put forth a 2-year roadmap that when implemented, will alleviate many of the systemic challenges highlighted in preparing for, detecting and responding to emergencies.
We are encouraged by the enthusiasm and efforts that have been displayed by the government, partners, donor groups and the civil society through high level engagements and/or participation in technical teams. Together, we can solve existing systemic challenges and develop African solutions that reflect regional, national, and local needs. In my interactions in Malawi, I have learnt a few proverbs that summarize the partnership and coordination required for building resilient health systems for emergency preparedness and response:

(1) Mutu umodzi susenza denga (One head cannot carry a roof)

(2) Chala chimodzi sichiswa nsabwe (One finger cannot kill a louse)

I urge us all therefore to continue fostering collaborations and harnessing synergies for the benefit of the people of Malawi.

We pay special recognition to the government of Malawi and partners for making substantial investments leading to noteworthy progress in improving the emergency preparedness and response capability. This has been especially key after the cyclones that caused loss of lives and destruction of properties in the last two years, the COVID-19 pandemic and the current cholera outbreak.

We commend all the Honorable Ministers, and their representatives, and directors, as well as partners for prioritizing and attending the scoping mission and in the development of the roadmap. With continued enthusiasm for its implementation, the flagship initiatives are surely set for success in Malawi.

BACKGROUND

Malawi is a landlocked country and occupies a land area of approximately 46,066 square miles of which 9,425 square miles are Lakes Malawi, Malombe, and Chirwa. From North to South, the country is 560 miles long and varies in width from 50 to 100 miles. The country is bordered to the East and South-West by Mozambique, to the North-West by Zambia, and to the North by Tanzania.

Malawi is vulnerable to the impacts of extreme weather events given its location along the Great Rift Valley, rapid population growth, unsustainable urbanization, climate variability and change, and environmental degradation among others. The most common weather-related shocks affecting Malawi include floods, drought, stormy rains, and hailstorms, most of which happen on an annual basis. Over the past five decades, Malawi has experienced more than 19 major floods and 7 droughts, with varying frequencies, magnitude, and scope over the years. For example, the Tropical Cyclone Idai of 2019 heavily affected Chikwawa, Nsanje, Phalombe and Zomba districts with 11,194 households being affected, 15,000 livestock of different species destroyed.

In January 2022 Moderate tropical Storm Ana affected 20 districts and 193,558 households were affected of which 22,364 households were displaced. In March 2022, Topical Cyclone Gombe affected 1 million people and seven deaths were reported. Cyclone Freddy hit the Southern region of Malawi between 11-13 March 2023, bringing strong winds and torrential rains and causing substantial flooding and mudslides. The extent of damage was substantial and widespread across many districts in the south. Some 2,267,458 people were affected across the many flooded areas, representing 523,564 households. There were 2,178 recorded injuries, and more than 1,000 people lost their lives. Flooding is most common in low altitude areas along the lakeshore areas and the Shire Valley.

In addition to the natural disasters, epidemics are another area of concern. Malawi has been affected by infectious diseases such as Cholera, Typhoid, Measles, Polio andCOVID-19. This is also applicable to zoonotic diseases such as Rabies and neglected tropical diseases such as Schistosomiasis and Trypanosomiasis. The current protracted cholera outbreak in Malawi has resulted to more than 59,000 cases and more than 1,760 deaths. The average case fatality rate for the current outbreak is 3%, much higher than the target threshold of less than 1%. Interventions are in place to address the morbidity and mortality resulting from these diseases through WASH measures, immunization and other preventive measures including a strong surveillance system for the detection and monitoring of diseases. However, the country's vulnerability to such epidemics is still high and contributes to significant loss of life and health.

INTRODUCTION

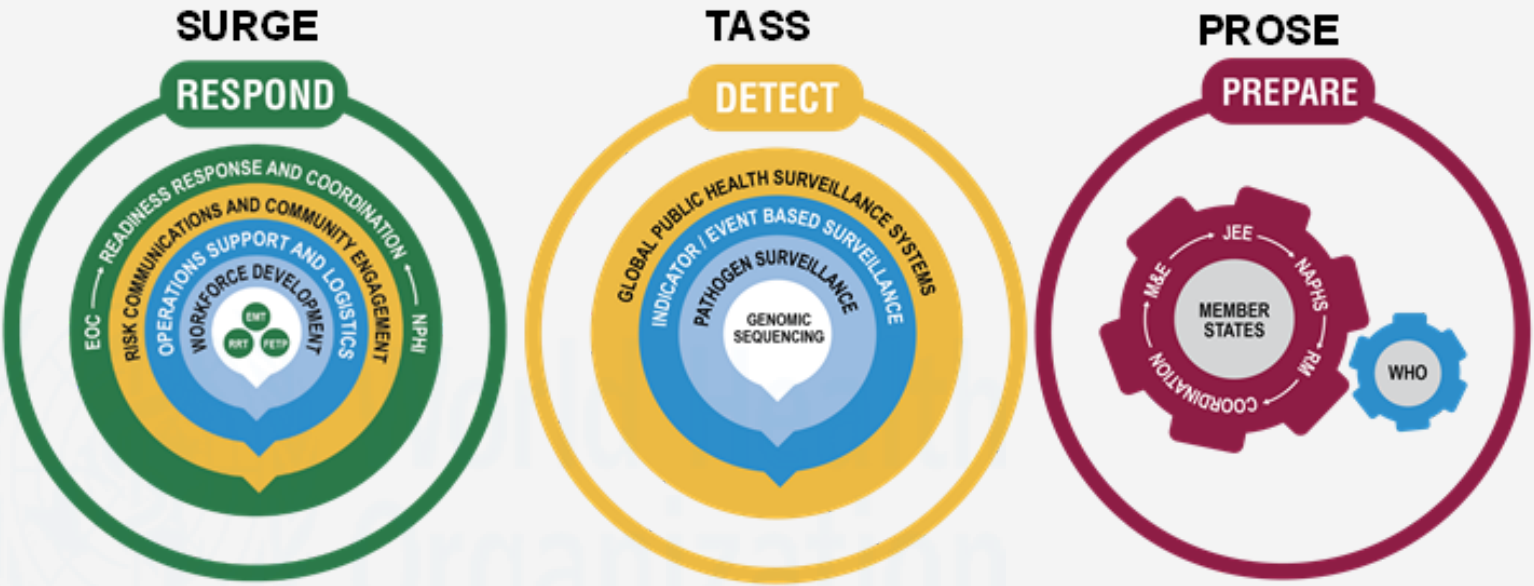
the African region continues to face immense public health emergencies including disease outbreaks and humanitarian disasters. The region responds to an average of one hundred occurrences annually. The past three years have shown us just how fragile our emergency preparedness and response systems are. The COVID-19 pandemic has underscored the importance of strengthening emergency preparedness and response and made it at the forefront of global health policy dialogue. The global human and economic toll brought about by the protracted pandemic exceeds all modern disease outbreaks in terms of the scope, extent, and persistence of its effects, and has been reported to undermine decades of gains made in public health and poverty reduction.

In the recent past, Africa has become more inter-connected than ever before, with free trade across countries and open borders allowing the large-scale movement of people, animals and goods. While this is good on the economic front, it also amplifies the risk of spread of communicable diseases.

COVID-19 reinforced the need for strong emergency capabilities around the world, resulting in more than 2,000 recommendations. Critical recommendations were also made at the global level, including those by the Independent Panel on Pandemic Preparedness and Responses (IPPPR), the International Health Regulations 2005 (IHR) Review Committee, the Independent Oversight and Advisory Committee for the WHO Health Emergencies Programme (IOAC), the 74th World Health Assembly (WHA74), and G7 and G20 Health Declarations, need to be translated into African-driven solutions that reflect regional, national, and local needs.

The world is also increasingly witnessing the consequences of climate-related health emergencies including severe drought, floods, and storms, all of which test the elasticity of health systems especially in Africa, whose systems are already brittle. The weakness of the health system in the region cuts across all functional areas including financing, governance, human resources, operations logistics and supplies, as well as service delivery.

The Emergency Preparedness and Response (EPR) flagship initiative was launched in 2022 to enhance the capacity of all member states to prepare for, detect, and respond to public health emergencies. The EPR flagship initiatives include PROSE- Promoting Resilience of Systems for Emergencies; TASS - Transforming African Surveillance Systems and SURGE - Strengthening and Utilizing Response Groups for Emergencies.



SCOPING MISSION

OBJECTIVES OF THE SCOPING MISSION

1. Sensitize Government leadership & key stakeholders on flagship initiative
2. Identify existing resources, gaps, and priorities
3. Draft national costed roadmap for the roll out of the EPR flagship
4. Field visits to the Emergency Operations Center (EOC), Warehouse for medical supplies, and hold bilateral engagements with various ministers and their technical officers etc.

Scoping Mission Approach

- Priority Setting for Emergency Preparedness and Response
- Identification of Critical Activities
- Development and Validation of Budgeted 2-Year Roadmap
- Situation Analysis
- Operational Gaps in Emergency Preparedness and Response

SUMMARY OF ENGAGEMENTS

THE SCOPING MISSION BROUGHT TOGETHER 150 PARTICIPANTS FROM VARIOUS GOVERNMENT MINISTRIES AND AGENCIES, INSTITUTIONS, AND PARTNERS, BOTH AT STRATEGIC AND TECHNICAL LEVELS.

PARTICIPATING MINISTRIES, AGENCIES/ SECTORS:

Ministry of Health
Ministry of Local Government, Unity, and Culture
Ministry of Natural Resources
Ministry of Water & Sanitation
Ministry of Education
Ministry of Defence
Ministry of Justice
Ministry of Information and Digitalization
Ministry of Gender
Ministry of Mining
Department of Disaster Management Affairs

INSTITUTIONS VISITED:

MOH & PHIM
CMST
Malawi National PHEOC
Min. of Local Government, Unity, & Culture
Min. of Finance & Economic Affairs
TEVETA
Min. Of Defence
Min of Water and Sanitation
DoDMA

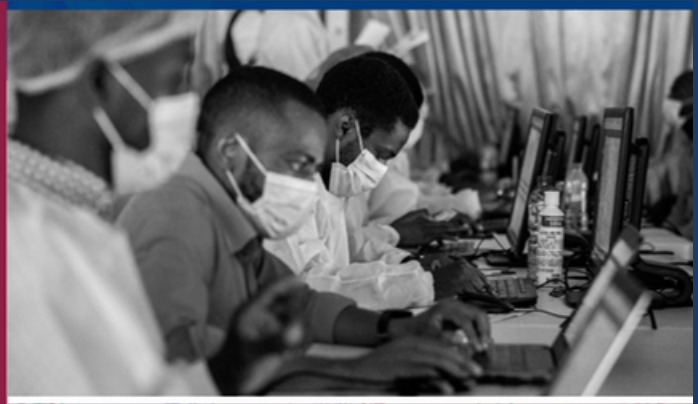
UN AGENCIES/INGO/DONORS:

RC
WHO
UNICEF
WFP
UNAIDS
IOM
Africa CDC
Red Cross
USG
FCDO

PROSE

Promoting Resilience of Health Systems for Emergencies (PROSE)

Africa leading the way for protecting the world against pandemics



AIMS TO INCREASE NATIONAL CAPACITY TO:

- Anticipate and tackle shock events
- Plan for contingencies
- Mobilize resources to respond to public health threats
- Maintain essential health care services

STRENGTHS IDENTIFIED

There is strong government leadership in the management of emergencies at all levels. At the national level, coordination of emergencies uses an inter-agency approach (cluster system approach), in which the government leads and partners co-lead. The inter-agency approach creates an opportunity for the government and its partners to anticipate and plan for emergencies through a participatory process. This is done with the aim of minimizing damage to property and loss of life, and providing timely, gender-responsive, and coordinated humanitarian assistance that responds to the different needs and priorities of women, men, boys, and girls who have been affected by various emergencies.

Malawi's local governance and community structures are strong and effective, with district councils as the highest-level administrative bodies and village and area development committees as crucial for participatory development and empowerment. These structures contribute to improved service delivery, citizen participation, and sustainable development, empowering communities to actively participate in the development process and have a voice in matters that directly affect their lives. Malawi's vibrant local government institutions and community structures are the backbone of effective local governance, ensuring the needs and aspirations of the people are met at the grassroots level.

Malawi's government prioritizes emergency preparedness and response to manage crises. The country is implementing the Health Sector Strategic Plan III and the National Action Plan for Health Security (although still in draft form), providing comprehensive guidelines for managing health emergencies. The country also has a new Disaster Risk Management Act, 2023 to protect citizens' lives and well-being during crises. The Public Health Act, which is awaiting approval, serves as a legal framework for emergency preparedness and response, ensuring appropriate measures are in place to protect the public's health during times of need.

The multi-hazard risk assessment informs the contingency plan. The development of a comprehensive contingency plan to address identified risks and minimize emergencies' impacts on communities and infrastructure is multi-hazard. Stakeholder engagement is crucial in national response actions, with partners and donors being recognized for their valuable support. Efficient coordination with partners and donors contributed to improved preparedness and response capacity. Active stakeholder engagement fostered collaborative, informed decision-making, information sharing, and open communication, ensuring the alignment and effectiveness of national response actions. This approach enhanced the nation's resilience and provided adequate support and resources to mitigate the risks posed by various hazards.

Gaps Identified

• The country is prone to a multitude of natural disasters and health emergencies, raising the urgent need for strong emergency response coordination structures. Despite having begun work on a five-year National Action Plan for Health Security (NAPHS), the GoM will require assistance to complete the annual operational plan.

• Several partners are working together to respond to these emergencies, though there is a need for strengthening coordination structures across different sectors at the national and sub-national levels in order to implement one health framework to meet any future health emergencies.

• The engagement and involvement of private sector and academia in public health emergency (PHE) research in emergency preparedness initiatives needs to be regularized and strengthened.

• Human resources and capacity building in emergency management are other challenges faced by the emergency response teams and staff.

• Although NAPHS is developed, no annual operational plan (AOP) is in place for NAPHS implementation

Priorities for PROSE

PRIORITY 1

RISK ASSESSMENT AND CAPACITY REVIEWS

Risk assessment is a systematic process for gathering, assessing and documenting information to assign a level of risk, and a risk matrix developed. It provides the basis for taking action to manage and reduce the negative consequences of acute public health risks, and helps the government and partners prioritize and develop strategies to mitigate or manage them proactively. The International Health Regulations (2005) Monitoring and Evaluation (M&E) Framework assesses capacities in countries. It includes semi-quantitative tools such as State Parties Annual Report (SPAR) and Joint External Evaluation (JEE). After Action Reviews (AAR) and Simulation Exercises (SimEx), aimed at identifying weaknesses in the functionality of capacities in countries' EPR systems. Prioritized activities here include:

1. Conducting dissemination workshop on multi-hazard National Health Emergency Response Operations Plan (NHEROP) to national and district levels
2. Reviewing the Department of Disaster Management Affairs' (DoDMA's) National multi-hazard contingency plan
3. Conducting Strategic Tool for Assessing Risks (STAR) at the sub-national level
4. Developing a transitional costed AOP of priority activities extracted from draft NAPHS
5. Disseminating the AOP
6. Developing and digitizing the country disaster risk calendar
7. Planning activities in preparation for conducting a new JEE in 2024
8. Developing and validating a costed NAPHS following the next JEE (2024)
9. Conducting SiMeX to test resilience of the health system
10. Conducting technical working session to compile State Party Annual Report (SPAR)
11. Conducting Joint Risk Assessment (JRA)
12. Finalizing IHR policy
13. Disseminating the Public Health Institute of Malawi's (PHIM's) strategic plan

PRIORITY 2

STRENGTHENING MULTI-SECTORAL COORDINATION MECHANISMS

Strengthening multisectoral coordination mechanisms is crucial for promoting effective collaboration and cooperation across different sectors. These mechanisms bring together stakeholders from government agencies, non-governmental organizations (NGOs), private sector entities, and community groups to work towards common goals and address complex challenges. By leveraging the expertise of different sectors, organizations can streamline efforts, pool resources, and achieve better outcomes. Collaboration across sectors allows for a comprehensive and integrated approach to problem-solving, leading to more sustainable and impactful solutions. Proposed activities are:

1. DEVELOPING A ONE-HEALTH STRATEGY
2. DISSEMINATING ONE HEALTH STRATEGY AND CONDUCTING STAKEHOLDER SENSITIZATION
3. CONDUCTING SUPERVISION ON IMPLEMENTATION OF THE ONE-HEALTH STRATEGY
4. DEVELOPING A WORKPLAN FOR ONE HEALTH AND MULTI-SECTORAL ENGAGEMENT AND DO CAPACITY BUILDING BASED ON THE NEEDS IN THE ONE HEALTH STRATEGY
5. DEVELOPING A NATIONAL BIOSAFETY AND BIOSECURITY PLAN
6. CONDUCTING WORKSHOP ON ZOONOTIC DISEASE PRIORITIZATION

PRIORITY 3

RESOURCE MAPPING AND MOBILIZATION

Resources mapping and mobilization involves identifying and organizing available resources to efficiently allocate them towards specific goals or objectives. It involves assessing and understanding tangible and intangible resources, such as physical assets and financial capital, and analyzing their capabilities. Activities prioritized here are:

1. ESTABLISHING THE NATIONAL CONTINGENCY FUND FOR EMERGENCIES WITH LOCAL CONTRIBUTIONS

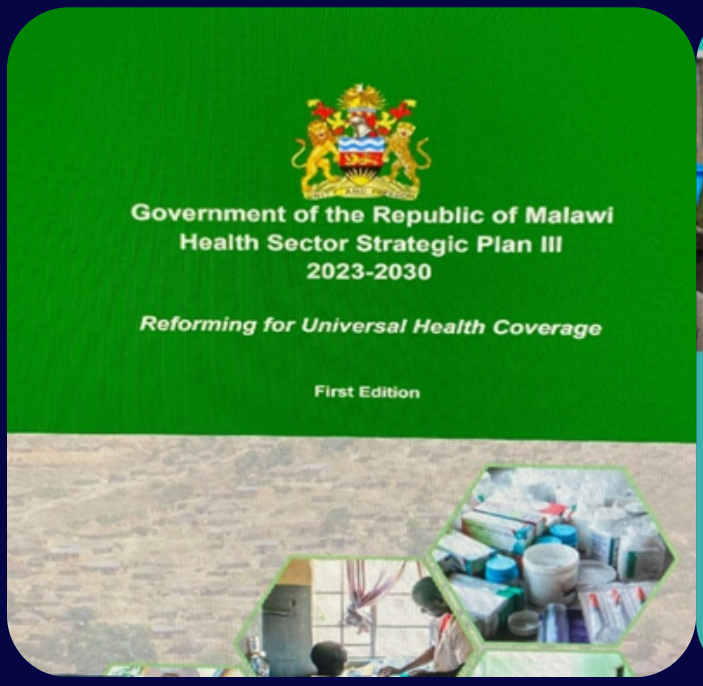
2. MAPPING SUSTAINABLE FUNDING MECHANISMS FOR EMERGENCIES

PRIORITY 4

LEGISLATION TOOLS AND GUIDANCE

In EPR, it is paramount to have in place evidence-based plans, policies, and legislations to institutionalize the implementation of recommendations by regional and global bodies, ensure prioritization of financial resources and bolster multi-sectoral mechanisms for coordinated decision-making. Under this priority, activities include:

1. Presenting the Public Health Bill for adoption
2. Developing Strategic National Cholera Control Plan
3. Conducting dissemination workshop on cholera control plan
4. Reviewing guidelines to ensure alternative provision models of essential health services during emergencies
5. Developing guidelines for adherence to ethics during emergency responses
6. Conducting consultative meetings on comprehensive reflection of EPR agenda in the Health Sector Strategic Plan (HSSP) III



PRIORITY 5

STRENGTHENING RESEARCH FOR EMERGENCY PREPAREDNESS AND RESPONSE

With the increasing complexity of both public health emergencies and humanitarian disasters, there is a crucial need for access to guidance based on robust evidence to support decisions on practices, policies, and programs for saving lives during public health emergencies. Key aspects of strengthening research include risk assessment and vulnerability analysis, which help identify hazards and threats, population vulnerability levels, and potential impacts. Additionally, research contributes to the development of innovative technologies, tools, and strategies for emergency response and recovery. Understanding the behavioral, social, and psychological aspects of emergencies can guide the creation of effective communication campaigns, training programs, and psychological support services. Activities here are:

1. 1.Developing indicators for country emergency preparedness and health system resilience

2. 1.Conducting operational and implementational research

PRIORITY 6

STRENGTHEN CAPACITY FOR EMERGENCY PREPAREDNESS FOR POE

Strengthening emergency preparedness for Points of Entry (PoE) is essential for effective response and mitigation of potential risks and emergencies. Training programs can provide hands-on training in risk assessment, threat identification, and response measures. Robust communication networks and information-sharing mechanisms are crucial for efficient coordination among stakeholders and local and national emergency response agencies. Adequate infrastructure and resources, including medical supplies, equipment, and facilities, are essential for emergency situations. Regular assessments and audits can identify gaps and address them promptly. Collaborations and partnerships also foster an integrated approach to EPR. Prioritized activities include:

1. Conducting quarterly review on implementation of agreed actions from the high-level ministerial meetings
2. Conducting district trainings on IHR core capacities
3. Conducting risk assessments at PoEs and developing and disseminating PoE specific Public Health Emergency contingency plans
4. Conducting joint cross border simulation exercises with neighboring countries to test PoE contingency plans and conducting IHR core capacity assessments in designated PoEs
5. Training PoE staff in designated PoE on IHR implementation
6. Developing M& E plan for implementation of IHR in designated PoEs

PRIORITY 7

STRENGTHEN CAPACITY BUILDING FOR PREPAREDNESS

WStrengthening emergency preparedness involves comprehensive training programs for district-level personnel, focusing on risk assessment and effective response measures. Ensuring staff undergo International Health Regulations (IHR) Core Capacity training standardizes proficiency. The establishment of Public Health Emergency Operations Centers (PHEOC) at the district level enhances coordination and communication among stakeholders. Adequate infrastructure and resources, including medical supplies, are integral for readiness. Regular assessments identify gaps promptly, facilitating timely interventions. Collaborations and partnerships reinforce an integrated approach to Emergency Preparedness and Response (EPR), ensuring a resilient system for addressing potential risks and emergencies effectively. Prioritized activities include:

1. **Train districts teams on PHEOC**
2. **Conduct district trainings on IHR core capacities**
3. **Conduct Baseline Risk Assessment for biosafety and biosecurity to facilities (one health)**

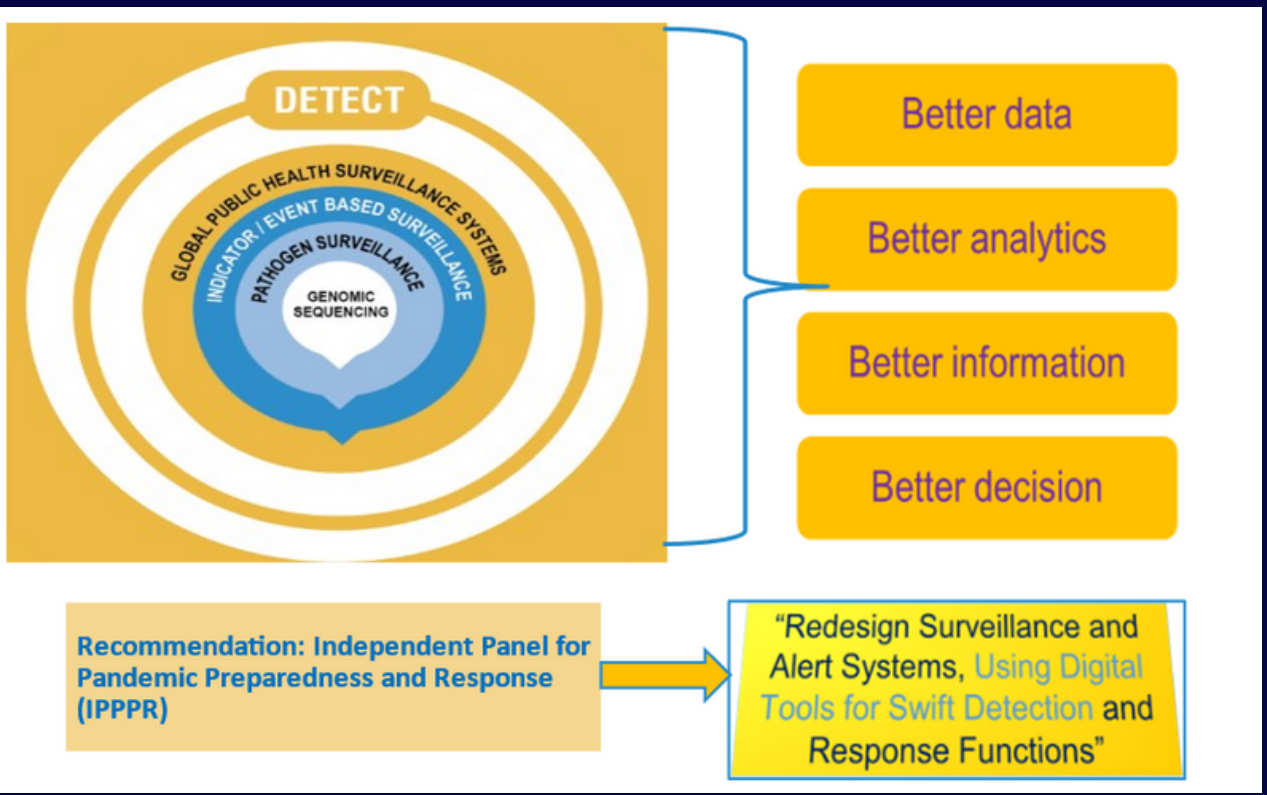
PROSE BUDGET SUMMARY

PRIORITIES	BUDGET
PRIORITY 1. ASSESS AND REVIEW THE COUNTRY RISKS, THE MITIGATION MEASURES, AND CAPACITIES TO WITHSTAND ANY FUTURE EMERGENCIES	$566,745.00
PRIORITY 2. STRENGTHEN MULTISECTORAL AND CROSS-BORDER COORDINATION ACROSS HUMAN, ANIMAL AND ENVIRONMENT MINISTRIES (THE ONE-HEALTH APPROACH)	$208,441.00
PRIORITY 3. RESOURCE MAPPING AND MOBILIZATION OF MORE RESOURCES FOR ONE HEALTH WITH FOCUS ON DOMESTIC FUNDING.	$ 23,267.00
PRIORITY 4. ENSURE LEGISLATION, TOOLS AND GUIDELINES ARE PUT IN PLACE APPLYING EVIDENCE FROM THE RISK ASSESSMENTS IN LINE WITH REGIONAL AND GLOBAL STRATEGIES TO LIMIT DISEASE OUTBREAKS.	$178,856.00
PRIORITY 5. STRENGTHEN RESEARCH FOR EMERGENCY PREPAREDNESS AND ENGAGE ACADEMIC, RESEARCH, PUBLIC INSTITUTIONS, PRIVATE SECTOR TO PREDICT AND PROPOSE PRACTICAL MITIGATIONS TO EMERGENCIES	$79,297.00
PRIORITY 6. STRENGTHEN CAPACITY FOR EMERGENCY PREPAREDNESS FOR POE INCLUDING ACCELERATE OUR IMPLEMENTATION OF THE AGREED-ON ACTIONS FROM THE HIGH LEVEL REGIONAL MINISTERIAL MEETING ON	$529,069.00
PRIORITY 7. STRENGTHEN CAPACITY BUILDING FOR PREPAREDNESS	$346,826.02
TOTAL BUDGET FOR 2 YEARS	**$1,932,501.02**

TASS

Transforming African Surveillance Systems (TASS)

Reimagining Integrated Disease Surveillance and Response (IDSR) to enable quicker detection of disease outbreaks



Malawi adopted the IDSR strategy in 2002, however, several editions have been made to comply with the International Health Regulation (IHR 2005) requirements. Since then, there has been an investment in human and material resources to strengthen capacities for public health surveillance systems in order to prevent, timely detect, and respond appropriately to public health threats. Currently, the country has adopted the third IDSR Technical Guidelines 3rd Edition, that needs rolling out to all implementing levels.

Strengths and Best Practices Identified

Availability of Integrated Disease Surveillance and Response (IDSR) Technical Guidelines 3rd Edition and Event based surveillance (EBS) guidelines.
.

Availability of IDSR coordinators at National and district level, IDSR focal points in all public facilities, data clerks, Health Surveillance Assistants (HSAs) and Community Health Volunteers (CHV) in all communities.

Availability of community structures for IDSR implementation

Availability of other surveillance systems (Occupational health, animal health)

Existence of Digital Health Division in MoH

Existence of a digital health strategy with several digital systems and tools already developed e.g., One Health Surveillance Platform (OHSP), Health Management Information System (HMIS), etc.

Existence of reverse billing services

Availability of a wide array of skilled human resource at all levels, FETP, In Service Applied Epidemiology Training (ISAVET) programs, Rapid Response Teams (RRTs), etc.

There are capacities in place for routine sample transportation, including the use of drones as part of a pilot project

Gaps Identified

• IDSR implementation is limited in geographic coverage and scope. Currently, the IDSR 3rd edition training has only been rolled out in 8 out of 29 districts. The IDSR strategy implements both Indicator Based Surveillance (IBS) and EBS. Malawi adopted 41 medical conditions for reporting in IBS, to be reported on a weekly, monthly, and quarterly basis, at present, only weekly and monthly reports are being used. The EBS component of IDSR is not fully rolled out, only five districts have been trained and are yet to start reporting.

• Limited human capacity on sample collection, packaging, transportation from primary facilities for confirmation of priority pathogens or diseases at secondary facilities as well as human incapacities to conduct screening tests for priority pathogens using Rapid tests.

• Limited number of essential equipment and reagents for testing of priority pathogens and diseases as well as equipment and reagents for genomic sequencing

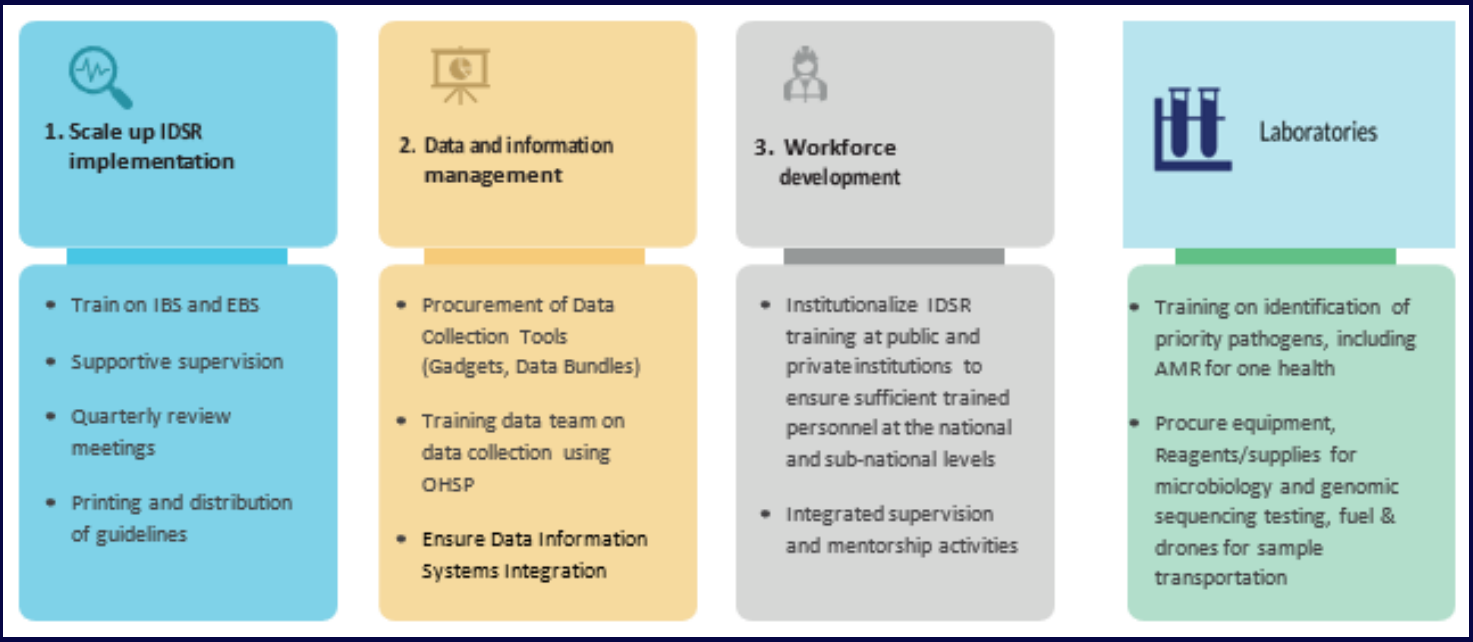
• Limited scope and utilization of digital systems, including sub-optimal interoperability of different systems. There is inadequate availability of equipment (smartphones, computers, internet, and data management and storage devices) to support efficient utilization of e-IDSR. Some reporting units are in network shadow areas. Intermittent provision of internet data for reporting. The lack of interoperable systems leads to the redundant capturing of similar indicators under parallel reporting.

• Limited human capacities in confirmation and or testing of priority pathogens or diseases at secondary facilities using culture and susceptibility testing.

• Limited human capacity on Quality Management System due to change in International Standard (ISO 15189;2022) and lack of mentorship.

• Sub-optimal emergency sample referral pathways or systems in place

Identified Priorities



SCALE UP IDSR IMPLEMENTATION TO SUB-NATIONAL LEVELS

The following are the activities to scale up the implementation of IDSR to sub-national levels:

- **Training of surveillance officers (at all levels) in IDSR using One Health approach**
- **Training of Trainers on EBS**
- **Orientation of health workers on EBS**
- **Training of community volunteers and community leaders in EBS**
- **Printing and distribution of Guidelines, reporting tools, training manual, and job aides to all facilities**
- **Conduct Integrated supervision and mentorship activities for priority diseases across all pillars at the district level (IDSR and EBS)**
- **Conduct quarterly One Health Surveillance (IDSR) review meetings**
- **Conduct national epidemic intelligence from open sources training**

Ensure Data Information Systems Integration and Interoperability

- **Develop protocols for information sharing for cross-border surveillance**
- **Regular (quarterly) cross-border meetings, and joint planning for cross-border surveillance zone committees**

Strengthening Analytics and Emergency Information Systems

- **Training on Data Analytics.**
- **Conduct supportive supervision on Epidemic Analytics.**

Ensure Data Information Systems Integration and Interoperability

- **Stakeholder consultation across all pillars**
- **Technical Session for System Integration**

SCALE UP IDSR IMPLEMENTATION TO SUB-NATIONAL LEVELS

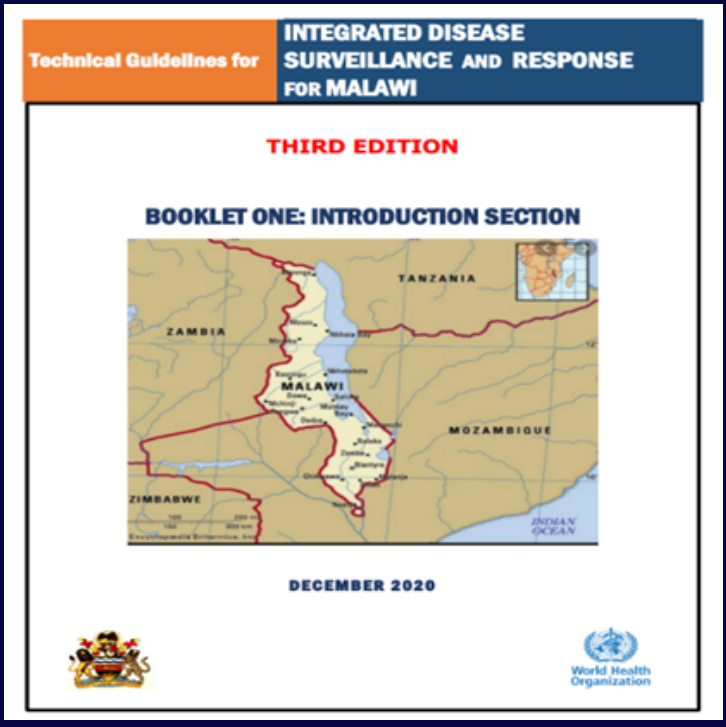
- Training on identification of priority pathogens, including AMR for one health
- Procure equipment, Reagents/supplies for microbiology and genomic sequencing testing, fuel & drones for sample transportation

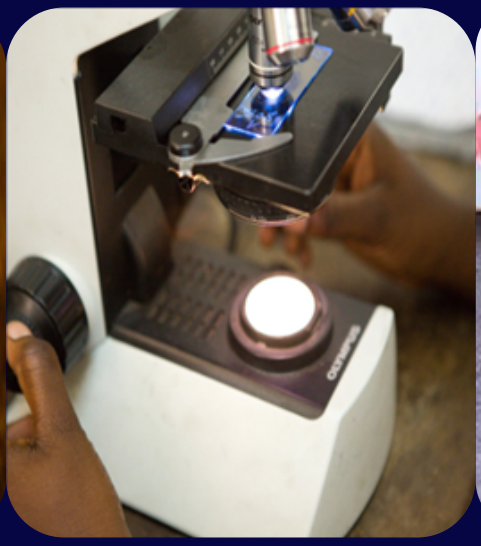
• Conduct training on sample collection, testing and referral for health providers at primary health facilities for one health

- Conduct Training on New ISO 15189;2022 for Laboratory staff to conform to international standards
- Conduct supportive supervision and mentorship to facilities on Quality Management System (QMS) including antimicrobial resistance (AMR) for one health
- Conduct Risk Assessment for biosafety and biosecurity to facilities for one health

Strengthening integrated outbreak analytics and emergency information management systems

- Procurement of data collection tools (Gadgets, Data Bundles)
- Training data team on data collection using OHSP

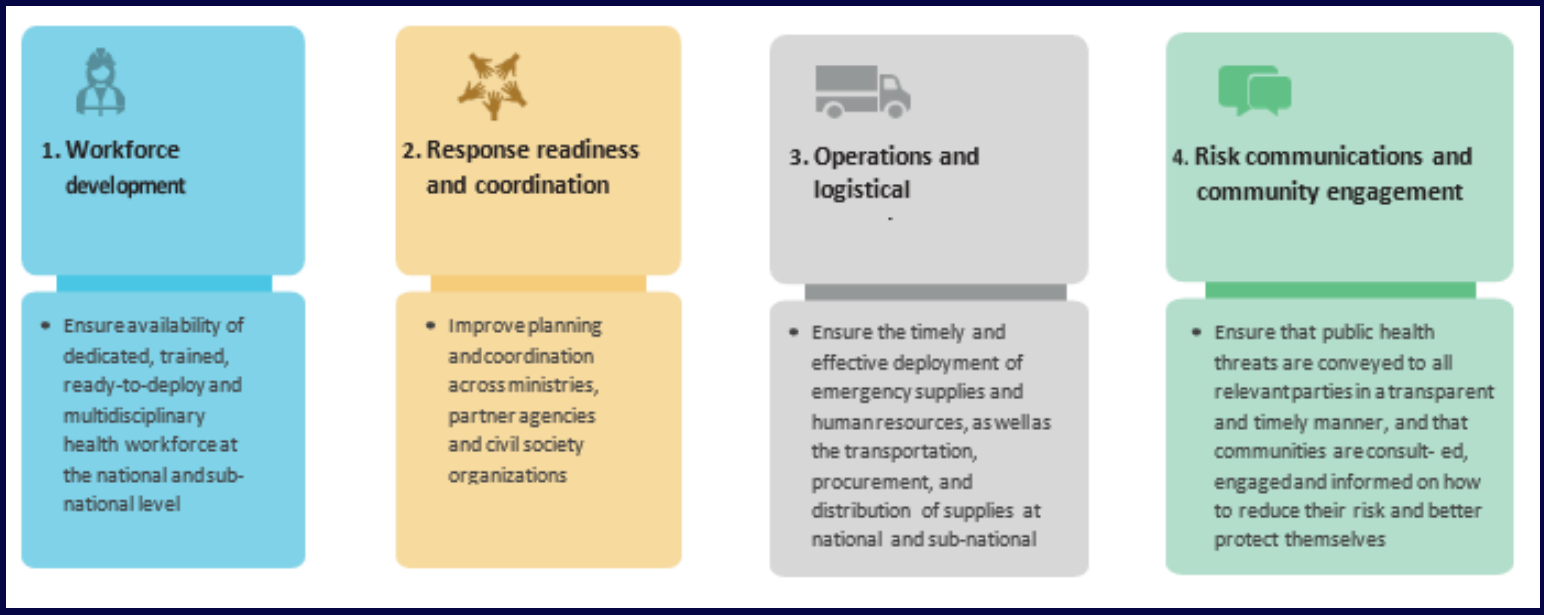




TASS BUDGET SUMMARY

PRIORITIES	COST (USD)
SCALING UP IMPLEMENTATION OF INTEGRATED DISEASE SURVEILLANCE AND RESPONSE USING THE ONE HEALTH APPROACH	$2,781,449
STRENGTHENING CROSS-BORDER SURVEILLANCE USING MULTI-SECTORAL APPROACH	$645,028
STRENGTHENING WATER QUALITY AND ENVIRONMENTAL SURVEILLANCE	$242,284.00
DIGITIZING DATA MANAGEMENT SYSTEMS AND USE	$1,527,052.00
STRENGTHENING OUTBREAK ANALYTICS AND EMERGENCY INFORMATION MANAGEMENT SYSTEMS	$94,800.00
STRENGTHENING THE LABORATORY CAPACITY TO SUPPORT DIAGNOSIS OF PRIORITY PATHOGENS OR DISEASES FOR ONE HEALTH	**$2,461,314.00**
TOTAL	**$7,751,927.00**

SURGE



1. WORKFORCE DEVELOPMENT

IDENTIFIED STRENGTHS

Health workforce is critical for effective health emergency preparedness, readiness, and response. Progress has been made to strengthen the health workforce in Malawi and its preparedness and response to public health emergencies, but challenges still exist [MOH, 2023]. The progress made includes efforts to improve the availability, retention, performance, training and motivation of health workers.

For instance, there has been an increase in the production of health workers from 2,068 to about 3,000 per year across all health training institutions and a reduced vacancy rate from 60% to 51% from 2017 to 2021 [MOH, 2023], although the population to health worker ratio is still low at 2.85 health workers per 1,000 population below the WHO target of 4.45 per 1,000. In response to the COVID-19 pandemic, the Ministry of Health (MOH) recruited additional 5,622 health workers of different cadres to bridge the gap [MOH, 2023]. In addition to that, the MOH and key health stakeholders have continuously supported improvement in quality of both pre-service and in-service training of healthcare professionals to develop their skills and capacities for quality healthcare and effective preparedness and response to public health emergencies. The existence of multisectoral frontline workers at the community level who are usually first responders, and whose capacities can be enhanced for strengthening response is a strength in EPR for Malawi.

IDENTIFIED CHALLENGES

The key challenges affecting the health workforce and hindering response to public health emergencies include inadequate skills among Human Resources for Health (HRH) for outbreak investigation and control, trained personnel in FETP usually not placed in positions that would allow practice of the imparted skills, inadequate HR and lack of some critical cadres (Entomologists, Critical care physicians/nurses, Advanced FETPs, WASH engineers, Water quality analysts, mental health specialists, logisticians, EMTs, data scientists).

There is also inadequate engagement and involvement of private sector and academia in PHE preparedness and response. In addition, there is a lack of a mechanism to mobilize emergency response experts but also poorly customized guidelines for implementation of one health response mechanism with delayed scale up to users.
The overall goal of SURGE is to ensure availability of dedicated, trained and ready for deployment multidisciplinary health workforce at the national and sub-national level to effectively respond to Public Health emergencies across Malawi. The priorities identified are as below:

Identified Priorities

BUILD CAPACITY TO DETECT, INVESTIGATE AND CONTAIN OUTBREAKS

To improve the surge capacity, we seek to train 200 multisectoral and trans-disciplinary experts skilled in emergency and humanitarian response and readily available to be deployed for public health emergencies. These 200 experts will be purposely and equitably selected across all five health zones of the country. To achieve this, a 15-member selection committee will be constituted for the identification of these surge experts. Once identified and selected, they would be trained in emergency preparedness and response and routinely participate in simulation exercises to ensure skill and knowledge retention.

DEVELOP AND DISSEMINATE SOPS AND POCKET GUIDELINES TO ALL HEALTH SERVICE DELIVERY POINTS INCLUDING PRIVATE FACILITIES (ENSURE INCLUSION OF THE PRIVATE SECTOR DURING IN-SERVICE TRAININGS ON PUBLIC HEALTH EMERGENCIES)

To standardize training and procedures for the surge workforce, standard operating procedures (SOPs) will be developed. These will be used to standardize emergency preparedness training for surge workforce. The guidelines will also cover modules for preceptor training and also summarized pocket guides for use by frontline workers. To achieve this, a task force will be established to review existing SOPs and guidelines and customize them to Malawi context. As part of the deliverables of the task force, they will facilitate the adaptation of SOPs into an EPR model for the Malawi's continuous professional development (CPD) online training dashboard. Once the SOPs have been developed, they will be disseminated to all stakeholders across the health system including the private sector.

REVIEW AND UPDATE EMERGENCY AND RESPONSE MODULES IN THE PRE-SERVICE TRAINING CURRICULUM

To strengthen the pre-service training curricula and ensure the students are provided with adequate knowledge and skills to effectively manage public health emergencies, training institutions will be supported to review and update their training curricula. An engagement meeting with leadership of training institutions will be conducted to update them on the current global and country strategies and plans for health security and EPR strengthening. Following the engagement, a committee will be constituted to develop the modules and learning materials and coordinate the training of academic staff for implementation in their academic institutions. Academic institutions will also be encouraged to establish a flagship EPR fellowship short course to be conducted on an annual basis for selected EPR staff as part of continuous professional development.

INSTITUTIONALIZE MECHANISMS FOR IDENTIFICATION AND MOBILIZATION OF ONE HEALTH EXPERTISE TO RESPOND TO EMERGENCIES

To further expand the availability of trained workforce, a committee will be established to map out existing specialized experts in relation to PHEs in various institutions across Malawi and beyond. The details of the mapped workforce will be captured in a registry, and they would be engaged to support during large scale emergencies or special situations when their specialty will be required.

LOBBY FOR RESOURCES FOR PUBLIC HEALTH EMERGENCY WORKFORCE

For effective resource mobilization and sustenance of multi-sectoral involvement, there will be a need to establish an inter-ministerial taskforce for mobilizing resources for the SURGE workforce. The Inter-ministerial task force will convene meetings to elect the leadership and map-out potential sources of funding for SURGE workforce. The Committee will come up with a resource mobilization plan. The team is also expected to Engage donors to support PHE and SURGE work force.

WORKFORCE DEVELOPMENT BUDGET SUMMARY

PRIORITIES	COST (USD)
BUILD CAPACITY TO DETECT, INVESTIGATE AND CONTAIN OUTBREAKS	874,725.00
DEVELOP AND DISSEMINATE SOPS AND POCKET GUIDELINES TO ALL HEALTH SERVICE DELIVERY POINTS INCLUDING PRIVATE FACILITIES (ENSURE INCLUSION OF THE PRIVATE SECTOR DURING IN-SERVICE TRAININGS ON PUBLIC HEALTH EMERGENCIES)	115,830.00
REVIEW AND UPDATE EMERGENCY AND RESPONSE MODULES IN THE PRE-SERVICE TRAINING CURRICULUM	496,560.00
LOBBY FOR RESOURCES FOR PHE WORKFORCE	28,080.00
INSTITUTIONALIZE MECHANISMS FOR IDENTIFICATION AND MOBILIZATION OF ONE HEALTH EXPERTISE TO RESPOND TO EMERGENCIES	78,975.00
TOTAL	**$1,594,170.00**

2.RESPONSE READINESS AND COORDINATION:

Aims to improve planning and cohesiveness across ministries, partner agencies and civil society organizations (CSOs)

Identified Strengths

•Existence of a Multi Hazard Response Plan and Contingency Plans.

•Availability of National Action Plan for Health Security (NAPHS)

•Existing structures for PHEM such PHIM, DoDMA, PHEOC, Presidential Taskforce on Cholera and COVID-19, Incident Management System (IMS)

•Presence of Health Donor Group

•Availability of IHR focal person from departments and other sectors

•Presence of Emergency Response and Disaster Management Division in the Curative and Medical Rehabilitation in the Ministry of Health.

•Availability of Clusters (Health, Rescue and Shelter, WASH, Nutrition, Protection, Education, Agriculture)

•Presence of RRT teams, Emergency Medical Teams (EMT) and Emergency Medical Services (EMS) providers.

•Presence of National Training of Trainers (TOTs) for PHEs

•Mapping of isolation centers in some health facilities

•Prepositioning supplies in emergency

•Presence of DSCAs at grassroots level

Identified Challenges

- Inadequate coordination at all levels (National and Districts).
- Inadequate knowledge on IMS and PHEOC at both National and Subnational.
- NAPHS not yet costed

- Simulation exercise not conducted regularly
- Incomplete risk mapping implementation
- Multi Hazard Plan has not been finalized

- Poor referral system (road, air and water transportation, communication, protocols)
- Inadequate trained emergency response teams and surge capacity.
- Inadequate mobilization of resources for readiness and response for different PHEs

- Public Health Act review not yet finalized
- Delay in protocols procedures and guideline on involvement of the Malawi Defense Force (MDF) to respond to emergencies

IDENTIFIED PRIORITIES

- •Develop/finalize plans, protocols, guidelines, and SOPs for emergency readiness response.
- Strengthen the PHEOCs at National and Districts level.
- Strengthen case management structures and systems.
- Strengthen IPC/WASH activities in the communities and health facilities
- Strengthening coordination at National and Subnational level

RESPONSE READINESS AND COORDINATION BUDGET SUMMARY

PRIORITIES	COST (USD)
DEVELOP/FINALIZE PLANS, PROTOCOLS, GUIDELINES, AND SOPS FOR EMERGENCY READINESS RESPONSE	$345,000.00
STRENGTHEN THE PHEOCS AT NATIONAL AND DISTRICTS LEVEL	$2,067,180.00
STRENGTHEN CASE MANAGEMENT STRUCTURES AND SYSTEMS	$5,216,000.00
STRENGTHEN IPC/WASH ACTIVITIES IN THE COMMUNITIES AND HEALTH FACILITIES	$2,130,000.00
STRENGTHENING COORDINATION AT NATIONAL AND SUBNATIONAL LEVEL	$470,000.00
TOTAL	**$ 10,228,180.00**

3.OPERATIONS SUPPORT AND LOGISTICS (OSL)

The aim is to ensure Malawi's OSL system is essential for enabling efficient and effective response to an emergency.

Identified Strengths

- Availability of mobile clinics for TB and HIV, as well as military mobile clinics
- Use of Malawi Defense Forces (MDF) personnel as health logisticians
- Central Medical Stores (CMST) can hold a 9-month buffer stock
- Emergency Act allows procurement of supplies withing 24hours.

- Enough vehicles to relocate human resource
- Availability of the real time stock management system
- Establishment of Logistics Management Unit at the MoH
- Availability of -20 Degrees Celsius cold chain storage facility at a private facility

IDENTIFIED CHALLENGES

- Inadequate trained OSL HR
- Lack of emergency preparedness (ePrep) stock, both at national sub-national levels
- Single mode of transport, hence, takes time to mobilize maritime and air transport for hard-to-reach areas

- Lack of proper, all-terrain vehicles
- Extended lead times for supplies
- Lack of supplies visibility resulting to partners procuring supplies that are already in country

- Poor coordination between units for timely deployment of mobile clinics
- Lack of Act/policy to facilitate emergency procurement
- Inadequate warehousing space for supplies

IDENTIFIED PRIORITIES

- Identify 12 Health Logisticians to be trained on Emergency Response
- Pre-Position of ePrep Stock
- Acquire Multi-modal Vehicle for transportation with fully equipped VHF and HF Radios (Ambulances)
- Expansion of warehousing capacity in additional 3 regions (Blantyre, Lilongwe and Mzuzu)

OSL BUDGET SUMMARY

ACTIVITIES	COST (USD)
IDENTIFY SELECT12 HEALTH LOGISTICIANS TO BE TRAINED ON EMERGENCY RESPONSE	$ 50,000
PRE-POSITION OF EMERGENCY STOCK AVAILABILITY AND REDUCTION OF EXTENDED LEAD TIMES. REVERSE LOGISTICS, AND STOCK PILING	$880,756
MULTI-MODAL VEHICLE FOR TRANSPORTATION WITH FULLY EQUIPPED VHF AND HF RADIOS (AMBULANCES)	$ 336,000
DEVELOPMENT OF GUIDELINES, SOP TO FACILITATE UTILIZE OF THE PRIVATE PARTNERS, CROSS BOARDER SUPPORT THROUGH DODMA	$ 30,000
EXPANSION OF WAREHOUSING CAPACITY IN ADDITIONAL 3 REGIONS (BT, LL, MZ)	$ 390,000
TOTAL	**$1,686,755.52**

4.RISK COMMUNICATION AND COMMUNITY ENGAGEMENT (RCCE)

Identified Priorities Capacities in RCCE

- Strong national-level coordination
- Available structures at different levels e.g., in the community where VHCs, drama groups, and youth networks are used, as well as district level where there are RCCE subcommittees
- An existing resource mobilization (human and financial) plan
- Already-developed community feedback mechanism tools
- Existing Communication Strategies and materials and Community Score Cards
- A vibrant quality assurance (QA) and quality improvement (QI) sub-committee
- Integration of messages (e.g., COVID-19, cholera)
- Robust network of media houses at both national and district levels
- Availability of community-level personnel e.g., DSCAs, CHVs, faith structures, etc.
- Deployment of RCCE surge staff
-

Identified Challenges in RCCE

- Interference of social factors (political, religious, cultural)
- Poor coordination among partners
- Delayed emergency response from partners
- Underutilization of social media
- Message overload (disorganized messages)
- Limited community feedback mechanisms and rumor tracking
- Limited funding – prioritization of other pillars over RCCE pillar at institutional level, multiple outbreaks, Community Engagement

Identified Priorities

- Develop a resource mobilization plan
- Development of Multi-hazard RCCE strategy
- Strengthen RCCE Technical Working Groups (TWGs)
- Strengthen RCCE for public health emergencies

RCCE Budget Summary

Priorities	Cost (USD)
Develop a resource mobilization plan	$ 18,815.00
Development of the Multi-hazard RCCE strategy	$ 79,962.00
Strengthen RCCE TWGs (RCCE coordination mechanism)	$ 280,339.00
Strengthen RCCE for public health emergencies	$ 884,708.00
Capacity building at both national and district levels	$ 163,882.00
Procurement of RCCE equipment (mobile vans, health education band equipment etc.)	$ 895,893.00
RCCE in Academia and other institutions (implementation science, curriculum review)	$ 158,815.00
Strengthening mechanism for systematic community engagement through various community structures	$ 917,764.00
TOTAL	**$ 3,400,178.00**

TOTAL BUDGET FOR INITIATIVE

PILLAR	BUDGET (USD)
SURGE	**16,909,283**
• Response Readiness and Coordination	10,228,180
• Health Workforce	1,594,170
• Operations Support and Logistics	1,686,755
• Rsk Communication and Community Engagement	3,400,178
TASS	**7,751,927**
PROSE	**1,932,501**
TOTAL BUDGET FOR THE 2-YEAR ROADMAP	**26,593,711**

STRATEGIC KEY PERFORMANCE INDICATORS

Monitoring and Evaluation Progress Tracking for all activities will involve regular monitoring and tracking of each outlined activity according to the priority areas on a quarterly basis, ensuring they are implemented according to the defined timelines in the roadmap. Six strategic key indicators will be used to assess the performance of the 2-year EPR road map as described below.

PROSE

Legislation and Guidance Documents Implementation Index

Definition: The Legislation and Guidance documents Implementation Index will be a composite measure derived from key indicators related to the successful adoption and implementation of legislative tools and guidance outlined in Priority 4 activities under PROSE.

Objective: To measure the successful implementation of evidence-based plans, policies, and legislations in Emergency Preparedness and Response (EPR) and their integration into broader health sector strategies.

Components for Calculation:

1.

Number of Implemented Legislative Tools and Guidance Document Activities:

TCount of successfully implemented activities such as presenting the Public Health Bill, developing the National Cholera Elimination Plan, conducting dissemination workshops, reviewing guidelines for essential health services, developing ethics adherence guidelines, and integrating EPR into the Health Sector Strategic Plan (HSSP) III.

2. **Total Legislative Tools and Guidance Activities:**

The total number of legislative tools and guidance activities outlined in Priority 4.

Monitoring and Evaluation:

Adherence to Guidelines:

Evaluate the extent to which guidelines are adhered to during emergency responses, ensuring that the ethical standards are maintained.

2. **Integration with HSSP III:**

Assess the successful integration of Emergency Preparedness and Response (EPR) agenda into the Health Sector Strategic Plan (HSSP) III through consultative meetings.

Target: 80% target is set for the Legislation and Guidance Implementation Index, aiming for a high percentage that reflects successful adoption and implementation of evidence-based plans, policies, and legislations thus reinforcing institutionalization of EPR practices

Points of Entry (PoE) Emergency Preparedness Index

1.

Definition: The PoE Emergency Preparedness Index will be a composite measure derived from key indicators related to the successful implementation of activities outlined in Priority 6.

Objective: To measure the effectiveness of strengthening emergency preparedness at Points of Entry (PoE), focusing on capacity building, risk assessments, contingency planning, and cross-border collaboration.

Components for calculation:

1. **Number of Implemented PoE Preparedness Activities:**

   Count of successfully implemented activities such as quarterly reviews, district trainings on IHR core capacities, risk assessments, development and dissemination of PoE-specific contingency plans, joint cross-border simulation exercises, training PoE staff, and the development of a Monitoring and Evaluation (M&E) plan.

2. **Total PoE Preparedness Activities:**

   The total number of PoE preparedness activities outlined in Priority 6 under PROSE.

Monitoring and Evaluation:

Effectiveness Assessment:

Evaluate the effectiveness of training programs, risk assessments, contingency plans, and cross-border simulation exercises in enhancing the emergency preparedness capabilities of PoEs.

2. **Adherence to M&E Plan:**

   Ensure the implementation of the M&E plan for IHR in designated PoEs, tracking and evaluating the impact of preparedness activities.

Target: Target of 90% set for the PoE Emergency Preparedness Index to indicate effectivenss of in building the capacity of Points of Entry, enhancing their ability to identify, assess, and respond to potential risks and emergencies.

TASS

Scaling Up IDSR Implementation at all levels

Definition: The IDSR Scaling Up Index will be a composite measure derived from key indicators related to the successful implementation of scaling-up activities.

Objective: To evaluate the successful scale-up of Integrated Disease Surveillance and Response (IDSR) implementation to district, facility and community levels through targeted training, orientation, and supervision activities.

Components for calculation:

1. **Number of Successfully Implemented Scaling-Up Activities:**
   Count of successfully implemented activities, including training surveillance officers at all levels in IDSR using One Health Surveillance, training of trainers on Event-Based Surveillance (EBS), orientation of health workers on EBS, training of community volunteers and leaders in EBS, printing and distribution of guidelines, reporting tools, training manuals, and job aides to all facilities, integrated supervision and mentorship activities for priority diseases at the district level (IDSR and EBS), quarterly One Health Surveillance (IDSR) review meetings, and national epidemic intelligence training from open sources.

2. **Total Scaling-Up Activities:**
   The total number of activities identified for scaling up IDSR implementation to sub-national levels.

Monitoring and Evaluation:

1. **Quality of Training and Orientation:**
   Evaluate the quality and effectiveness of training activities, including the training of surveillance officers, trainers on EBS, health workers, and community volunteers and leaders.

2. **Supervision and Review Meetings:**
   Assess the impact and effectiveness of integrated supervision and mentorship activities, as well as quarterly One Health Surveillance review meetings.

Target: 80 % target set for the Scaling Up Index to reflect the successful implementation and measurable impact of the scaling-up ensuring robust integrated disease surveillance and response system.

Strengthening Laboratory Capacity in One Health

Definition: The Laboratory Capacity Strengthening Index will be a composite measure derived from key indicators related to the successful implementation of activities outlined under priority area 4 in TASS.

Objective: To assess the effectiveness of strengthening laboratory capacity for the diagnosis of priority pathogens or diseases in the context of One Health.

Components for calculation:

1. **Number of Successfully Implemented Capacity Strengthening Activities:**
   Count of successfully implemented activities, including training on the identification of priority pathogens (including AMR) for One Health, procurement of equipment, reagents/supplies, and fuel & drones for sample transportation, training on sample collection, testing, and referral for health providers, training on the New ISO 15189:2022 for laboratory staff, supportive supervision and mentorship on Quality Management System (QMS) including AMR, and risk assessment for biosafety and biosecurity.

2. **Total Laboratory Capacity Strengthening Activities:**
   The total number of activities identified for strengthening laboratory capacity in the context of One Health.

Monitoring and Evaluation:

1. **Quality Management System Adherence:**
   Evaluate the adherence of laboratories to the New ISO 15189:2022 and the effectiveness of supportive supervision and mentorship on QMS, including AMR.

2. **Risk Assessment Implementation:**
   Assess the implementation and impact of risk assessments for biosafety and biosecurity in laboratory facilities.

SURGE

Building Outbreak Response Capacity

Objective: To assess the successful development of surge capacity for outbreak detection, investigation, and containment through the training and readiness of 200 multisectoral and trans-disciplinary experts.

Definition: The Outbreak Response Capacity Index will be a measure of multidisciplinary workforceexperts trained in emergency preparedness and response

Components for calculation:

1. Number of Trained and Ready SURGE Experts:

Count of experts successfully trained in emergency preparedness and response, actively participating in routine simulation exercises, demonstrating skill and knowledge retention for outbreak detection, investigation, and containment.

2. Total Targeted Surge Experts:

The total number of experts targeted for training and readiness, set at 200 multisectoral and trans-disciplinary experts across all five health zones.

Monitoring and Evaluation:

1. Selection Committee Efficacy:

Assess the effectiveness of the 15-member selection committee in identifying and selecting surge experts based on their multisectoral and trans-disciplinary expertise.

2. Training and Participation Tracking:

Regularly monitor the training progress and routine participation of the 200 selected experts in simulation exercises to ensure continuous skill development and knowledge retention.

3. Surge Expert Deployment Readiness:

Evaluate the preparedness and readiness of surge experts for deployment in public health emergencies through periodic assessments and drills.

Target: A target of 90% of the planned 200 SURGE experts set to reflect successful training and readiness and availability of a pool of experts that is prepared to detect, investigate, and contain outbreaks effectively.

Building Outbreak Response Capacity

Definition: The PHEOC Strengthening Index will be a composite measure derived from key indicators related to the successful implementation of activities outlined in the priority area.

Objective: To measure the effectiveness of efforts in enhancing the capabilities of Public Health Emergency Operations Centers (PHEOCs) at the district level through infrastructure improvement, workforce strengthening, data system enhancements, and simulation exercises.

Components for calculation:

1. **Number of Successfully Implemented Priority Activities:**

   Count of successfully implemented activities, including the assessment and renovation of PHEOC infrastructure and equipment in five districts, human workforce strengthening through training and recruitment, improvement of data standards and information systems, development and execution of a Simulation Exercise plan, at both national and district levels.

2. **Total Priority Activities:**

   The total number of priority activities identified for strengthening district-level PHEOCs.

Monitoring and Evaluation:

1. **Impact Assessment:**

   Evaluate the impact of each activity on the overall capabilities and readiness of district-level PHEOCs.

2. **Operational Readiness Feedback:**

   Gather feedback from national and district preparedness and response officers to assess the operational readiness achieved through conducted workshops, meetings, and supervisions.

Target: 5 district level PHEOCs achieving 80% of PHEOC full functionality requirements with enhanced capabilities and contributing to improved emergency preparedness and response.

Emergency Response Logistics Readiness

Definition: The Emergency Response Logistics Readiness Index will be a composite measure derived from key indicators related to the successful implementation of logistics activities

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Objective: To assess the readiness and efficiency of logistics in emergency response through the identification and training of health logisticians, pre-positioning of emergency preparedness stock, acquisition of multi-modal vehicles equipped with communication systems, and expansion of warehousing capacity in three additional regions.

Components for calculation:

1. **Number of Successfully Implemented Logistics Activities:**

   Count of successfully implemented logistics activities, including the identification and training of 12 Health Logisticians for Emergency Response, pre-positioning of ePrep stock, acquisition of multi-modal vehicles with equipped communication systems (ambulances), and the expansion of warehousing capacity in Blantyre, Lilongwe, and Mzuzu.

2. **Total Logistics Activities:**

   The total number of logistics activities identified for emergency response readiness.

Monitoring and Evaluation:

1. **Operational Impact Assessment:**

   Evaluate the operational impact of logistics activities on emergency response preparedness, considering factors such as reduced response time and increased stock availability.

2. **Stakeholder Feedback:**

   Gather feedback from health logisticians, emergency responders, and relevant stakeholders to assess the effectiveness and efficiency of logistics improvements.

Target: 70% target for the Emergency Logistics Readiness Index to indicate successful efforts in strengthening logistics for emergency response for improved preparedness and efficient deployment of resources.

Risk Communication and Community Engagement Effectiveness Index

Definition: The RCCE Effectiveness Index will be a composite measure derived from key indicators related to the successful implementation of the identified priorities.

Objective: To measure the effectiveness of implemented activities in the development of a Multi-hazard Risk Communication and Community Engagement (RCCE) strategy, the strengthening of RCCE Technical Working Groups (TWGs), and the overall enhancement of RCCE for public health emergencies.

Components for calculation:

1. **Number of Successfully Implemented Priority Activities:**

   Count of successfully implemented activities, including the development of a Multi-hazard RCCE strategy, the strengthening of RCCE Technical Working Groups (TWGs), resource mobilization plan and the enhancement of RCCE for public health emergencies.

2. **Total Priority Activities:**

   The total number of priority activities identified, encompassing the development of a Multi-hazard RCCE strategy, the strengthening of RCCE TWGs, and the overall enhancement of RCCE.

Monitoring and Evaluation:

1. **Effectiveness Assessment**

   Evaluate the impact and effectiveness of the Multi-hazard RCCE strategy, the strengthened RCCE TWGs, resource mobilization plan and the overall enhancement of RCCE for public health emergencies.

2. **Stakeholder Feedback:**

   Gather feedback from stakeholders involved in RCCE activities to assess the perceived effectiveness and contribution of each implemented priority.

Target: 90% target set for the RCCE Effectiveness Index to enhance rcce for public health emergencies