DOCUMENTING PROGRESS FOLLOWING
THE JOINT EXTERNAL EVALUATION (JEE)
AND IMPLEMENTATION OF
THE NATIONAL ACTION PLAN FOR HEALTH
SECURITY (NAPHS)
IN UNITED REPUBLIC OF TANZANIA
Mission Report: 18-22 February 2019

World Health Organization

Contents

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Acronyms

AAR	After Action Review
AHW	Animal Health Workers
AEFI	Adverse Event Following Immunization
AMR	Antimicrobial resistance
CAPMPHECA	Collaborative Arrangement for the Prevention& Management of Public Health Events in Civil Aviation
CDC	US Centers for Disease Control and Prevention
CDDEP	Center for Disease Dynamics, Economics & Policy
EAC	East African Community
ECSA	East, Central and Southern Africa Community
EID	Emerging Infectious Disease
EMT	Emergency Medical Team
EOC	Emergency Operations Center
EPT	Emerging Pandemic Threat
EU	European Union
EPI	Expanded Program on Immunization
EWARN	Early Warning Alert and Response Network
FAO	Food and Agriculture Organization
FELTP	Field Epidemiology and Laboratory Training Program
GLASS	Global Antimicrobial Resistance Surveillance System
GCLA	Government Chemist Laboratory Agency
GHSA	Global Health Security Agenda
HSS	Health System Strengthening
IAEA	International Atomic Energy Agency
IHR	International Health regulations
IPC	Infection Prevention and Control
JEE	Joint External Evaluation
KCRI	Kilimanjaro Clinical Research Institute
MALF	Ministry of Agriculture, Livestock and Fisheries
MoHCDGEC	Ministry of Health, Community Development, Gender, Elderly& Children
NAPHS	National Action Plan for Health Security
OHCEA	One Health Central & Eastern Africa
OIE	World Organization for Animal Health
OSBP	One Stop Border Post
PHE	Public Health Emergencies
PMO	Prime Minister's Office
PoE	Point of Entry
POLARG	Office of President Local Administration and Rural Government
PPE	Personnel Protective Equipments
SimEx	Simulation Exercises
SOP	Standard Operating Procedure
SPAR	IHR State Party Annual Reporting

TEPHINET   Training Programs in Epidemiology and Public Health Intervention
TFDA   Tanzania Food and Drugs Authority
TVLA   Tanzania Veterinary Laboratory Agency URT United Republic of Tanzania
VARM   Vulnerability and Risk Analysis and Mapping WASH Water, Sanitation and Hygiene
WHO   World Health Organization

Executive Summary

Background

In February 2016 Tanzania became the first country in the world to volunteer to conduct a JEE. The findings demonstrated that gaps existed in core capacities for the country's ability to prevent, detect and respond to threats and events. A National Action Plan for Health Security (NAPHS) was developed following the JEE recommendations. The plan aimed to reduce morbidity, mortality, disability and socio-economic disruptions due to public health threats. The plan aligned all activities with the "One Health approach" and broader health system strengthening with full government and society involvement. It also mapped and mobilized existing and potential domestic and external financing to support implementation. The NAPHS was finalized and implemented from 2017.

A WHO mission team was sent to: a) capture the progress made following the JEE recommendations and implementation of the NAPHS, b) identify best practices, challenges and lessons learned for the IHR capacity building, and c) to identify priority areas for countries, WHO and partners.

The team met with the WHO Representative, relevant MoH departments and other ministries. They discussed progress, best practices, lessons learned and challenges in all 19 JEE technical areas. The results are summarized below:

Progress

a) Much progress was made regarding the objectives and activities stipulated in the NAPHS.

b) The IHR technical group was functional and provided strategic guidance for implementation.

c) All relevant legislations and references were assessed, and proposed amendments and policy commitments were in process for implementation of IHR capacities. New bills to support surveillance were drafted pending enactment.

d) Technical guidelines for various technical activities were in place, and most were being implemented

e) Implementation of an Antimicrobial Resistance (AMR) action plan was in place with a regular monitoring and evaluation component

f) Tanzania FELTP program was accredited by the Global Accreditation Body of TEPHINET. This has brought Tanzania FELTP at par with global standards.

g) Development and implementation of an 'all hazard emergency preparedness and response plan'

h) Immunization coverage continued to be high (>90%)

i) Emergency Operations Center was functional and responsive

j) There was transparent self-evaluation of capacities (e.g. chemical safety).

Best practices

a) There was commitment starting from the highest political levels to both agency and sectoral leaders that is resulting in efficient and effective mobilization of local resources and appropriate motivation of staff.

b) There was government ownership and good political and technical leadership

c) The agencies involved provided an enabling environment for NAPHS implementation

d) There was synergy of partnerships

e) Tanzania used all the components of the IHR monitoring and evaluation framework and other M&E instruments to evaluate the capacities for IHR and health security.

f) There was a robust and responsive Emergency Operations Center (EOC)

g) The expertise at the POEs was to be commended

h) There was information sharing among sectors

Challenges

a) Clear lines of authority, a coordination mechanism and linkages between the different emergency operation centers (EOCs) and surveillance systems for human and animal health are needed.

b) There is inadequate skilled workforce to address all health hazards especially at subnational level. FELTP program is in place which has forecasted a number of skilled epidemiologist health workers, but not in other hazards. There is a need to do more comprehensive forecasting of skilled workers required for all hazards and link with workforce strategies and development of training needs plans.

c) Sustainability of various programs and focus areas need to be well planned as external funding decreases.

d) With the decentralization of health services, there is a need to build subnational capacities to prevent, detect and respond to public health threats and events. Currently, there are limited and variable capacities across the different regions and districts.

e) Coordination at subnational level is suboptimal

Priority Actions
a) Continue using monitoring and evaluation instruments to make informed decisions. Establish a mechanism to update and revise the NAPHS using these findings.

b) Disseminate best practices and lessons learned through reports, publication and through various networks and alumni.

c) Demonstrate the outcomes and impact associated with investment in the NAPHS to the Ministry of Finance and other key relevant sectors to secure sustainable domestic financing.

d) Fast-track pending bills and regulations related to IHR and health security that are pending enactment.

e) Focus areas should address specific recommendations for their respective technical areas.

f) Develop a mechanism to map and forecast required skillsets across all hazards, assess training needs for health security and establish a link with overall workforce development strategies.

g) Leverage best practices and lessons learned from biological hazards to strengthen chemical safety capacities.

h) Develop a surge capacity plan, SOPs, training needs and policies for emergency response.

i) Prioritize implementation of recommendations of after-action reviews and simulation exercises

j) Scaling up of community-based surveillance prioritizing high-risk regions

k) Identification of gaps and priorities for IHR capacities at subnational levels

Of the technical areas, antimicrobial resistance, real time surveillance, emergency response operations and points of entry seemed to make most headway after the JEE. This is also seen in legislation, but more effort has to be made to fast-track or expedite bills and regulations needed to allow smooth IHR implementation. The report on chemical emergencies is impressive in its transparency. It is rare that programs will downgrade themselves. They did so, in an effort to better identify gaps and address them.

It was acknowledged that the One Health approach remains a challenge especially at the subnational level. Although the National One Health coordinator is trying his best to perform coordination roles, more is needed to be done in term of strengthening both human and finance resources. Subnational levels can then follow suit.

Clearly, investing in the National Action Plan for Health Security and following its objectives have paid off and continue to do so, strengthening the country's preparedness.

Background

Since adopting the International Health Regulations (IHR) (2005), Tanzania has been monitoring implementation of its core capacities using the IHR State Party Self-Assessment Annual Reporting tool and has submitted reports to the WHO on an annual basis. In August, 2015, Tanzania joined the Global Health Security Agenda (GHSA) initiative, which aimed to address health security issues at the global level as well as accelerate IHR implementation in the country.

In February 2016, Tanzania was the first country to volunteer and undergo the Joint External Evaluation (JEE) led by WHO and assessed its capacity across 19 Technical Areas. The findings demonstrated that although there was significant progress, gaps still existed in core capacities for the country's ability to prevent, detect and respond to Public Health Emergencies (PHE). No core capacity has attained sustainable capacity (score 5); the majority lies between limited to developed capacity (score 2 to 3).

A national planning meeting was held in November 2016 as a follow up to the JEE to develop a National Action Plan for Health Security (NAPHS) which was finalized in February 2017. This plan aimed to reduce morbidity, mortality, disability and socio-economic disruptions due to public health threats and contribute to the Sustainable Development Goal number 3 (to ensure healthy lives and promote well-being for all at all ages). Specifically the plan aimed to: a) strengthen and sustain the capacity of Tanzania to prevent outbreaks and other health emergencies; b) strengthen and sustain the capacity of Tanzania to promptly detect and confirm outbreaks; c) strengthen and sustain the capacity of Tanzania to promptly respond to and recover from the negative effects of outbreaks and health emergencies. The plan aligned all activities using the "**One Health approach.**"

Implementation of the plan considered a set of guiding principles and core values such as country ownership and leadership; community participation; gender and human rights principles; equity in access to services; strengthening partnerships; fostering inter-sectoral collaboration; being evidence-led; shared responsibility; transparency; resilience and dynamism. It was immediately implemented after finalization in 2017. WHO initiated a visit to capture the progress made following the JEE recommendations and implementation of the NAPHS.

Specific objectives:
- To document the progress of the country towards IHR implementation

- To identify best practices, challenges and lessons learned for IHR capacity building

- To recommend priority areas for further strengthening in the United Republic of Tanzania.

Methodology

A four (4) member WHO mission team composed of two members from WHO, one from RESOLVE, and one from SAFETYNET, reviewed evaluation and assessment reports, progress reports and the National Action Plan for Health Security. The team met with the WR, relevant MoH departments and other ministries. It discussed progress, best practices, lessons learned and challenges in all 19 JEE technical areas. It was emphasized during the various contact meetings that this mission was not a mini-JEE and

should not be treated as one. A debriefing session was held on 22 February 2019 during which preliminary findings and recommendations were shared and feedback was obtained.

Results

The key informants interviewed included the Chief Medical Officer, the officers in charge of the National Laboratories, EOC, JNIA and the WR. The IHR focal persons in each technical area presented the progresses, challenges, and recommendations made in their area from the implementation of the NAPHS. These are summarized in tables 1-20 which are grouped according to the thematic areas agreed upon in the NAPHS. The targets in technical areas set by the NAPHS were based on multisectoral discussions and agreed upon to increase the possibility of improving capacity to implement IHR.

Prevent

National legislation, Policies, and Financing

Target:
- By the end of year 1 (2018), 100 % of regulations, laws and acts mapped and reviewed.

- By the end of year 2 (2019) at least 50% of regulations, laws and acts are amended and passed.

- Starting 2017/2018, a budget line for implementation of IHR will be available in all relevant sectors every fiscal year.

PROGRESS	CHALLENGES	WAY FORWARD
- Regulations, Acts and laws have been mapped. Five laws have been reviewed/assessed and amendment in process - Secured commitment for health security - IHR NFP roles were proposed in the legislation amendment - Attorney General's representation in IHR TWG - Funds mobilized for emergency response - Resources, national and local, were mapped and mobilized for health security activities	- Guidelines and SOPs of the reviewed laws are yet to be developed - Many bills are pending enactment. It takes about a year for them to pass and the various programs cannot start implementation without the law. - Cost of NAPHS at National level is suboptimal and implementation at sub-national level not yet determined - It is not clear how much funding (national, local and external) goes to actual implementation of IHR.	- Guidelines and SOPs need to be developed to implement these legislation and policies - Consider updating the plan and also using bottom-up approach for subnational level - Develop the investment case based on the impact of implementation of the NAPHS - Devise a mechanism of tracking resources. One method is using the WHO resource mobilization excel tool

IHR Coordination and Advocacy

TARGET:

- Inter-ministerial steering committee formed, terms of reference developed and functional by end of 2018

- At least one simulation exercise conducted per year by 2019

- 50% of subnational levels have functional steering committees by end 2019

PROGRESS	CHALLENGES	WAY FORWARD
• PMO office overlooking implementation • Political and leadership commitment to IHR implementation • Multisectoral IHR technical working group •	• Operationalization of the One Health strategy is still weak at the subnational levels. • No formal evaluation of NFP has been done within the country	• Consider developing establishment sub-committee of IHR TWG at the regional levels • Conduct formal evaluation of NFP function • Develop a regular refresher training for NFPs and orientation/training for new staff

Antimicrobial resistance and IPC Activities

TARGET:

- National comprehensive plan to combat antimicrobial resistance implemented in 80% of regions by 2021

- Seven surveillance sentinel sites functional and reporting AMR data by 2021

- National integrated reporting system using a one-health approach for AMR functional by 2020

- Consumption by and use of antimicrobial agents in human, animals and food production reduced by 20% by 2020

- Reports on antimicrobial agent use in human, animal and food production generated in 10 high-risk regions by 2020.

PROGRESS	CHALLENGES	WAY FORWARD
• The National Action Plan on AMR launched and implemented since 2017. • National Multi-Sectoral Coordinating Committee (MCC) on AMR established, meetings done. • Launched campaign to create AMR awareness in communities, hospitals, secondary schools and among media through symposia and IEC materials • Data on antimicrobial use collected in eight hospitals using World Health Organization Point Prevalence Survey (PPS) methodology. Note from 16-21 of December 2019 PPS data will be collected in 6 hospitals. • Data on antimicrobial	• Bills to regulate animal feed, certification, and IPC related guidelines not yet enacted and implemented. • No common laboratory for human and animal health sectors	• Continue strengthening surveillance capacity in the targeted 10 laboratories • Fast track legislation for PATC and other bills related to implementation. • Implement and strengthen HATUA and SNAP AMR • Continue to strengthen integration of activities with animal health • Strengthen AMR stewardship activities

consumption was collected at national level in 2017 and 10 most-used antibiotics were listed • The National Surveillance Framework for AMR approved in June 2018 and implemented and 5 sentinel surveillance sites have been initiated • Four AMR TWG on awareness and education, surveillance, IPC and stewardship established • The country has registered to GLASS • Assessed laboratory capacity using ATLASS tool • Established surveillance of health care-associated infections (HAI) • Developed IPC related policy guidelines and education materials • Developed IPC training package for all levels of health care delivery • Developed regulations on "Registration of Animal Feed Resources Product" and "Import and Export of Animal Feed Resources".		

Zoonosis

TARGET:

- Functional surveillance system for at least 5 priority zoonoses using One Health approach developed and implemented by 2020

- Functional One Health teams for human, animal and environment health established at all regional levels by 2019 and district levels by 2021

PROGRESS	CHALLENGES	WAY FORWARD
• Prioritization of national priority zoonotic diseases (6 disease guidelines) • Integrated diseases control protocol developed • Training needs assessment conducted, 70 frontline persons trained • Event-based surveillance in 70 districts and improvement in reporting • Resources used adequately across sectors • Multisectoral laboratory network in place, with some testing and operationalization • Mobile PCR machine to test human and animal sample testing - Kilimanjaro hospital lab testing animal specimens • Development of training package of One Health	• One Health approach is not fully appreciated at both national and subnational levels • Inadequate staff, especially at subnational levels, and inadequate training on OH-related disciplines • Rolling out of subnational guidelines and SOPs remain unresolved • Funding for OH and for animal health remain low and is not prioritized	• Mapping of required skillsets and develop workforce development strategies and plan • Additional effort is required to strengthen multisectoral involvement at the subnational levels. • Development of guidelines and SOP related to One Health. • Train staff of human, animal health (domestic animals and wildlife), and environmental health sectors • Extend the One Health platform at the subnational level

Food Safety

TARGET:

- Functioning surveillance system for detecting and responding to foodborne diseases, conditions and events as well as food contamination in place by 2020

PROGRESS	CHALLENGES	WAY FORWARD
- Mapping of mycotoxins - Ongoing food inspector trainings - Committed leadership, accredited labs and legislation in place - Nearly complete coverage of foodborne surveillance system - Development of contingency plan for food safety emergencies	- Limited coordination among food safety partners and stakeholders - Some food-borne diseases are not included in the current MOH CDEH reporting tool	- Follow up on review of national health policy which will include issues of food safety - Finish mapping of mycotoxin and expand to mapping of other contaminants and toxins - Develop domestic short courses - Finish and implement guidelines for addressing food safety emergencies.

Biosafety and Biosecurity (BSS)

TARGET:

- The national biosafety and biosecurity management strategic plan and number of guidelines and procedures available and implemented sector wide by year 2020.

- A national coordination system for biosafety and biosecurity risk management is in place by 2020

PROGRESS	CHALLENGES	WAY FORWARD
- Drafted list of pathogenic agents and toxins - Drafted technical requirements for BSS - Costed action plan available and BSS component costed in the Country AP and key priorities have been identified and costed - Trained 48 personnel in BRM and Specimen Referral system (Human, Vet, parks, wildlife) - Trained 28 shippers of ISS in 2016 (APHL and WHO) - Established a multisectoral Laboratory BSS Network (LABSNET) - Laboratories enrolled in SLIPTA (Stepwise Lab Improvement towards Accreditation). Accreditation process includes internal audits on BSS at least once annually. - Laboratory biosafety officers have been appointed in all levels of laboratories to enforce the implementation of the safety practices - Biosafety cabinets are certified by in-country trained biomedical engineers who are certified once annually and when needed	- Legislation takes about a year for any bill to be enacted - Funding for BSS is not currently prioritized	- Expedite the promulgation of the BSS legislation and policy - Improve funding for BSS

Immunization

TARGET:

- 90% coverage of the country's twelve-month-old population with at least one dose of measles-rubella vaccine as demonstrated by administrative data.

- Progressive increase in the number of districts with coverage >90%

- A functional animal/human vaccination programme for high priority zoonotic diseases is in place by 2021

PROGRESS	CHALLENGES	WAY FORWARD
• National Immunization Technical Advisory Group (NITAG) created in 2017 • Improved immunization coverage to more than 98% coverage • Implementation of Reach Every Child (REC) Strategy for reducing number of un/under-vaccinated children, also reaching marginalized communities. This decreases the number of districts with less than 80% coverage to 13 in 2017 • Introduced new vaccines in the country such as Rotavirus, PCV13 and Measles second dose • In collaboration with partners ensure all health facilities are equipped with vaccine refrigerators to ensure vaccines are stored at recommended temperatures • Monitoring of vaccine quality done remotely at national, regional, districts and some facilities • Tanzania Vaccine Institute started vaccine production (200,000 anthrax	• Some areas have not achieved adequate immunization coverage • GAVI funding and support will end in 2025 • Inadequate staffing in national and subnational levels • Availability and production of animal vaccine is not enough	• Ensure the 13 districts with lowest (<80%) immunization rate increase their coverage • Prepare for self-sustainability given withdrawal of GAVI support by 2025 • Increase animal vaccine production, procure if production is not enough to meet needs • In collaboration with partners ensure all health facilities are equipped with vaccine refrigerators to ensure the vaccines are stores at recommended temperatures • Continue monitoring of vaccine quality done remotely at national, regional, districts and some facilities • Use of immunization

animal vaccines produced with support of FAO)		performance review meetings to target performance issues and resolve them timely • Presence of standardized mechanism for defaulter tracing

Detect

Laboratory Capacity

TARGET:

- A nationwide laboratory system capable of providing quality testing for 10 priority diseases in human and animal health by 2021

- Appropriate specimen management applied in at least 80% of districts in GSHA priority regions by 2019

- Integrated public and animal health surveillance reports generated monthly from at least 80% of high-risk regions by 2021

PROGRESS	CHALLENGES	WAY FORWARD
- Laboratory SOPs have been developed and disseminated to all levels - Upgraded zonal and high-risk regions in PH, Vet national labs and zonal vet labs in AH, PH/AH proficiency testing labs - Specimen referral framework in Kilimanjaro and Arusha - Trained 24 couriers in sample transportation and referral in 10 regions 10 Regional Referral Hospital labs can test 9 of 10 priority pathogens 10 labs have been accredited by SADCAS under ISO 15189:2012 - Training of biomedical engineers to do maintenance of lab equipment has created efficiencies - Three laboratories can test for EVD	- Lack of adequate reagents, equipment and other supplies - Lack of adequate funds for supervision and monitoring - Lack of adequate funds to support regular meetings - Physicians do not request laboratory testing because they think the labs cannot do them	- Expedite the establishment of legislations for lab BSS - Provide adequate supplies and reagents for EQA - Provide adequate funding for lab services - Fill human resource gaps in lab system - Establish accreditation body - Build trust among physicians for laboratory services

Surveillance

TARGET:

- Functional electronic system for surveillance of priority diseases, public health events and conditions available countrywide in least 80% of districts by 2020.

PROGRESS	CHALLENGES	WAY FORWARD
• Tanzania has a robust indicator-based surveillance system at health facilities and community level • Community Based Surveillance (CBS) guidelines have been developed and are being implemented in two regions • The country has conducted training of CHW on CBS in 12 high-risk districts in the country • There are weekly and monthly IDSR reports • The country has rolled out electronic IDSR to 25 of 26 (96%) regions and has hired one ICT personnel to support e-IDSR • The country has developed a data quality assessment (DQA) tool and conducted 8 DQAs • 500 basic & advanced FELTP (animal & human) have	• Instability of electronic IDSR system due to network problems and outdated technology • Lab data is not yet linked to IDSR • Inadequate ICT personnel to support e-IDSR • Roll out of CBS not completed in all risk regions • Laboratory data and animal health data not yet linked to IDSR	• Address network challenges including upgrading • Strengthen event-based surveillance at national, intermediate, health facility and community levels using current guidance from WHO and the AFRICA CDC • Complete the rollout of eIDSR in remaining region based on guidance from the third edition WHO IDSR technical guidelines • Strengthen data sharing between laboratory and IDSR and operationalize the IDSR module in dhis2 • Recruit additional ICT personnel to support e-IDSR • Roll out of CBS in all regions • Establish an online framework for sharing information between human, animal, environmental, chemical, radio-nuclear, food and other sectors

been trained in data analysis		• Strengthen IDSR supervision through quarterly zonal performance review and electronic IDSR supervision

Reporting

TARGET:

- Proportion of potential PHEICs that are reported timely (within 24 hours) by the IHR NFP to WHO and OIE delegate to OIE and FAO

- 80% of regions reporting significant public health events by 2019

PROGRESS	CHALLENGES	WAY FORWARD
• The country has a clear mechanism and SOPs for reporting from the peripheral level to intermediate level to national level through IDSR • Reporting systems have been integrated into the EOC operations and Virtual EOC • Some NFP staff have been trained on NFP functions	• Lack of a framework of sharing information between OIE, chemical, radio-nuclear, food and all other events.	• Operationalize the formal mechanism for systematic sharing and review of information between the NFP, the OIE delegate and focal persons in other sectors • Ensure the planned quarterly multisectoral review and information sharing meeting are held • Ensure all staff in the IHR-NFP and sector FPs are trained in their functions and have access to the WHO event information site • Ensure adherence to IHR (annex II) to notify WHO of all potential PHEIC

Workforce Development

TARGET:

- Certificate, Diploma and Degree Curriculum to have One Health component by 2019

- By the next two years 100% of districts have at least one person trained on FELTP basic course, and 50% of regions on intermediate and long FELTP course

- Develop a strategy to guide workforce needs for all levels and sectors by 2017/2018

- An implemented strategy by end of third year (2020)

PROGRESS	CHALLENGES	WAY FORWARD
• One Health module developed and taught in MUHAS under OHCEA • Developed and piloted the 1st in-service training module which includes IHR 2005, IDSR and Disaster Management (40 frontline workers trained). Nov 2017 • Developed training module for ISAVET • Trained total of 514 FELTP composed of 114 MSc or advanced courses, and 400 frontline short-course graduates. • Tanzania FELTP accredited globally by TEPHINET • 3-tiers FELTP approach incorporating human, animal, environment health • Training of CBS in high risk areas	• Inadequate or weak coordination in training among human and animal health sectors • Partnership between universities, government agencies and other stakeholders regarding One Health is not clear	• Develop HR national strategy following a training needs assessment and skill set mapping • Develop strategy to guide workforce needs for all levels and sectors • Incorporate training module in the MSc applied epidemiology and community medicine training • For sustainability, the cost to train FELTP fellows needs to be incorporated in district plans

Respond

Emergency Preparedness

TARGET:

- Availability of hazard-specific plans for priority public health risk for at least 70% of high-risk regions by year 4

- Multisectoral and multi-disciplinary RRT established and operationalized at both national as well as subnational levels by year 4

PROGRESS	CHALLENGES	WAY FORWARD
- Approved all-hazards emergency response plan - Develop simulation guidelines - SimEx management team established with SimEx plan for 2019 - Trained EOC on IMS - Developed list of commodities and countermeasures for priority risks currently on progress	- Inadequately-trained human resources for public health emergency management. - Personnel deployment plan is still developing - Development of an overarching "health emergency program" (HEP) for Tanzania is not feasible: however, the government has systems and structures in place in the Ministry of Health for coordination and comprehensive implementation of all components of prevention and mitigation, preparedness, response and recovery.	- Develop and implement training plan for strengthening emergency preparedness measures or the implementation of all-hazard response plan - Establish a performance-monitoring framework including indicators, criteria and timelines for response - Develop a mechanism to mobilize and train surge capacity - Conduct SimEx regularly

Emergency Response Operations

TARGET:

- Fully functional National Public Health Emergency Operation Center (PHEOC) is in place for coordination of public health event using One Health approach by year 3

- At least 2 simulation exercises involving multiple sectors will have been conducted by year 2 to validate and test the response plan

PROGRESS	CHALLENGES	WAY FORWARD
- Well-capacitated EOC that is used frequently - Multisectoral national task force in place 4 PHEM trained/training - High-level support for emergency response - Emergency exercises completed for Ebola, anthrax and RVF conducted. Guidelines for simulation exercises, multiple AARs - Trainings on IMS/Emergency response completed, including 25 staff trained on IMS - Virtual EOC (Veoci) system in place. - Roster of rapid response team members maintained in VEOC system - Case management guideline for EVD (drafted)	- Transition to Dodoma and inclusion of partners in EOC coordination, since most are based in Dar es Salaam. - Space and establishment of subnational EOCs in priority regions - Human resource development (capacity building) and sustainability of financial support for EOC staff, systems, and space - Further development of hazard management (Isolation Facilities) - Need better understanding of SimEx and AAR among partners - Contingency funding for RRT Deployment & Human resources - Need to establish 24/7 hotline for reporting alerts	- Further develop simulation exercises and AARs that inform national action plan revisions - Develop emergency response capacity at subnational level, prioritizing high-risk regions. - Formalize EOC steering committee - Identify domestic financing to support recurring costs related to emergency response, including staff and systems support - Ensure availability of funds for RRT deployment - Support development of emergency response operations core capacity in Zanzibar - Share experiences and technical expertise with neighboring countries

Linking Public Health and Security

TARGET:

- 50% of law enforcement agencies to have developed, incorporated and operationalized SOP.

- Proportion responses to PHEs which have jointly been investigated by public health and law enforcement authorities

- At least one simulation exercise conducted every year

PROGRESS	CHALLENGES	WAY FORWARD
• Protocol for collaboration with members of defense forces established at high levels • IHR TWG has members from law enforcement agencies • PoE plan development has involved security authorities • Informal protocols for collaboration with law enforcement exists • Ongoing review of relevant laws including public health act, to develop amendments to include law enforcement and clearly articulate rights and duties	• No formal guidelines for joint risk assessment/investigation • Weak mechanism for coordination and sharing information • No formal procedures to detect potential biological events or PHE that are deliberate or malicious in nature • Lack of adequate training and equipment (PPE) for both public health experts and law enforcers in emergency response exercises	• Develop SOP and formalize linkages and communication (e.g. Information sharing) • Develop joint investigation guidelines and train for them • Ensure protection of law enforcement via training (on risk of infectious hazards) and equipment (e.g. PPE)

Medical Countermeasures and Personnel Deployment

TARGET:
- Framework developed and assigned MOU to relevant stake holders by the end 2018

- Budget line for MCM is in place for each fiscal year

PROGRESS	CHALLENGES	WAY FORWARD
• Ad hoc mechanism is in place for receiving countermeasures • Fast tracking of the registration of drugs in emergency • Therapeutic committee exists • Developing for five countries guideline to deployment of personnel	• Personnel not adequately trained for comprehensive hazard management • Lack of adequate mapping of stockpile at subnational level • No deployment plan as of the moment	• Develop and finalize personnel deployment plan • Develop a national plan to send, receive, stockpile and deploy medical supplies. • Develop and implement SOPs and guidelines on emergency medical team and receiving teams from outside

Risk Communication

TARGET:

- Risk Communication Strategy in place and Operationalized by 2020

- Communication mechanism for public health risk established and implemented by year 3

PROGRESS	CHALLENGES	WAY FORWARD
• Establishment of social mobilization subcommittees at national and subnational level and improvement of coordination with subnational levels through Health Promotion Coordinators from high risk regions. • Trained religious leaders, opinion leaders, influential people for Ebola risk communication and community engagement activities in 4 high risk regions (Kigoma, Kagera, Mwanza and Katavi). This includes heightened EVD awareness through 2 Ebola charity awareness walks. • More engagement of partners through radio and TV for campaign awareness of preventive measures. There is a timetable/schedule/ roster prepared for various topics round the year. • Risk communication included in EVD contingency plans, all-hazard ERP • National communication guidelines for public health risks and emergencies developed • Tanzanian Disaster Communication Strategy in place	• Inadequate IEC materials for high-risk areas • Subcommittee at subnational levels meets irregularly • Inactive or non-existent RCCE subcommittees at subnational levels • Risk communication strategy not finalized • Extended risk communication and community engagement trainings not done in four high risk regions (Mbeya, Songwe, DSM and Rukwa) • Outdated or non-functioning equipment • Minimal partner engagement at subnational level • Lack of training among community health workers/volunteers in risk areas	• Operationalize risk communication strategy (equipment, vehicles, refurbish offices) • Map risk communication stakeholders • Conduct training in communications for teachers, press • Establish a 24/7 hotline

Other IHR-related Hazards and Point of Entry

Points of Entry

TARGET:

- Public health emergency plan developed and operationalized at 12 designated points of entry (POE) by year 3.

- Linkage between POE surveillance and national surveillance system established by year 5.

- At least 2 POEs meet IHR core capacity requirements by 2018; 2 additional designated POEs meet IHR core capacities each year.

PROGRESS	CHALLENGES	WAY FORWARD
• Routine capacities in place in designated PoEs (12) • Improvement of ground crossing port health offices • Trained HR in place • Operationalization of National CAPSCA Committee • Contingency plan developed (3 out of 4 designated airports and ground crossings) • Entry screening in 12 designated PoEs • Integration of airport clinics with Port Health	• Limited capacity building opportunities • Shortage of staff • Contingency plan and SOPs not in place • Lack of holding facility and interview rooms in most ports • Guidelines and protocols to support IHR implementation is not available • Lack of inspection and screening equipment • Lack of transportation to convey officers and patients (ambulance, boat)	• Functional assessment required (testing of facilities) • Consider establishing a formal mechanism to link PoEs with the national surveillance system • Regional training by WHO on issuance of ship sanitation certificates • Operationalize of WHO guidelines on vector control and PoEs. • Share best practices and skillsets with neighboring countries and other member states.

Chemical Emergencies

TARGET:

- Multi-sectoral emergency response plan for chemical threats in place and tested through at least 1 simulation exercise by end of year 2.

- Establish routine surveillance system of chemical events at four out of 10 designated facilities and communities that use chemicals are in place by year 3

PROGRESS	CHALLENGES	WAY FORWARD
• Inspection: 73 Inspectors employed and trained* • Continuous Inspection of chemicals at border (imports/exports, handling, storage, transport) • Improved lab capacity with equipment including GCMS-MS, reagents and supplies procured and installed • Conducted routine surveillance / inspection of chemical events at facilities that use/handle HH chemicals • trained 510 supervisors at chemical handling facilities (2017/18) • Legislation and guidelines in place but not yet implemented • National Poison Control Centre (NPCC): established by legislation GCLA (Authority) Act of 2016 • 3 staff employed and deployed, undergoing training* • Networking with medical	• Roadmap, implementation plan, SimEx not done • No specialized waste disposal for HH chemicals • No training for registration of WDF • No manuals and SOPs for rapid assessment, control of chemical event, case management etc. • No medical professionals or medical/clinical toxicologist working with the chemical specialists at NPCC • No clinical toxicology courses in training Institutions	• review roadmap and conduct SimEx • Implement legislation and guidelines • train staff (attachment abroad) on registration of WDF • develop sops and manuals • strengthen linkage with medical personnel and train for chemical emergencies • hire/secure medical personnel and medical/clinical toxicologist services for NPCC • train staff and medical personnel in clinical toxicology (long and short courses/attachments abroad) • initial proposal for establishment of medical/clinical toxicology courses in the country • conduct training on chemical

personnel • Regulations and guidelines for chemical emergencies and chemical waste management established under the ICCA • RA/RM: 2 staff trained and tools available (WHO, UNEP)		risk assessment and risk management

Radiation emergencies

TARGET:

- Availability of comprehensive plan addressing radiological and nuclear emergencies are established by year 4

- Coordinating mechanism between radio-nuclear-competent authorities and IHR established by year 4

PROGRESS	CHALLENGES	WAY FORWARD
• National radiological emergency policy with many key stakeholders included • Atomic Energy Act under revision • Established 21 offices at borders to control import and export of radioactive materials and installed radiological monitoring stations to detect background levels • Physical protection at high-risk facilities • Conduct compliance inspections for radioactive waste management • Conduct trainings for hospitals, public, mines, research institutions • Host experts from neighboring countries	• Inadequate and untrained human resources • Lack of equipment • Lack of coordination with concerned agencies • Lack of communication	• Create a formal structure for inter-agency information sharing and collaboration for radiation emergencies • Share information and monitoring of high-risk areas with public health sector • Include radiation emergencies in simulation exercises

Monitoring and Evaluation

PROGRESS	CHALLENGES	WAY FORWARD
• Application of all the components of IHR MEF • Use of various monitoring and evaluation instruments • Completed IHR M&E training	• Findings not being utilized for revising of the plans	• Use M&E findings for continuous improvement by updating or revising the NAPHS • Publish best practices and reports

Conclusion

Following the JEE in 2016 and using other findings of IHR monitoring and evaluation instruments, Tanzania routinely reviewed its progress and strove to reach the targeted objectives in the NAPHS.

Tanzania continued to make progress in building its capacity to prevent, detect, and respond to emerging disease, public health emergencies and health security. The team was able to document the remarkable progress that the country has made and it is very likely that, in its next JEE round, the country will show it has improved its capacity to implement IHR.

Continued progress requires sustainable domestic funding, investments in human resources and critical health infrastructure, multi-sector collaboration and networking with development partners and other countries.

Appendix A: List of Informants and Presenters

Annex 2: Attendance List

S/N	NAME	ORGANIZATION/ INSTITUTION
1,	GRACE SAGUTI	WHO
2.	JOSEPHINE KALIMA	GCLA
3	DR SHELIYA SAID	PATH
4	IMMACULATA JUSTINE	TFDA
5	EMMANUEL MWAKAPASA	MOHCDGEC
6	ATHANASIA MARO	KCRI
7	RADENTA BAHEGWA	MOHCDGEC
8	DR HAJI S MASASI	J.N.I.A
9	GEORGE J.NDAKI	J.N.I.A
10	DR PETER MMBUJI	CDC
11	DR A.O TALISUNA	WHO/AFR
12	PROF ROBINSON MDEGELE	SUA- OHCEA
13	CAPT DAUDI KADIGI	TPDF
14	DR MOSES OLE NESELLE	FAO-CCTAD
15	DR FIRMI P BAWZI	TAEC
16	KUNDA JOHN STEPHEN	PMO/HRH 2030
17	SIANA MAPUNJO	MOHCDGEC
18	JOEL MANYAHI	MUHAS
19	MARCELINA MPONELA	CDC
20	MAWAZO GEOFREY GAUNDIN	MOHA
21	TUPOKILWE SANGA	MOH
22	THOMAS ATRIS	MUHAS
23	ROSE HUGHO	MOHCDGEC
24	CHARLES LEONCE	M/H
25	NDEKYA ORIYO	NIMR
26	HARRISON CHINYUKA	PMO- DMD
27	SADICK H. YUSUPH	NIMR
28.	SIXBETH CHAWALA	MOHCDGEC
29	ZEPHANIA SANGA	SUA
30	DR MWENDWA MWENESE	MOHCDGEC
31	GERALD MANASEH	PO-RALG
32	SELEMANI YONDA	PO-RALG
33	DR GIBONSE KAYUNI	MLF
34	MARIA CONSORCIA QUIZON	SAFETYNET
35	DR WANGECI GATEI	CDC TANZANIA

36	AMY HELENE SCHNALL	CDC
37	PROF. JAPHET KILEWO	MUHAS
38	CYRUS SHAHPAR	RESOLVE
39	NIRMAL KANDEL	WHO
40	VICTOR KAHANGWA	ATTONERY GENERAL OFFICE
41	DR JANETH MGHAMBA	MOHCDGEC
42	DELPHIN MUJUNI	MOHCDGEC
43	REMEDIUS KAKULU	MOHCDGEC
44	DR AHMED ALLY	FELTP
45	DR SALMA MASAUNI	MOH- ZANZIBAR
46	DR ALLY NYANGA	MOHCDGEC-EOC
47	PETER MABWE	MOHCDGEC-RISK COMMUNICATION

Appendix B: References

a)   Industrial and Consumer Chemicals (Management and Control) Act, 2003

b)   Human DNA Regulation Act 2009

c)   Government Chemist Laboratory Authority Act, 2016

d)   Chemical Emergencies and Chemical Waste Management established under the ICCA

e)   National Anti-Microbial Resistance Surveillance Framework (Aug. 2018). United Republic of Tanzania

f)   Grazing Land and Animal Feed Resource Act (CAP 180)

g)   Antimicrobial Use Policy Guidelines (2018)

h)   International Health Regulations (2005) State Party Self-assessment Annual Reporting Tool. Geneva: World Health Organization; 2018 as filled-out by Lao PDR on January 23, 2019.

i)   Joint External Evaluation of IHR Core Capacities of Tanzania. Geneva: World Health Organization; 2016.

j)   Joint external evaluation tool: International Health Regulations (2005). Geneva: World Health Organization; 2016.