













Health Systems Resilience Tabletop Exercise

Mass Casualty - National

Health Services Resilience, Integrated Health Services Department 2020













© World Health Organization 2021. Some rights reserved. This work is available under the CC BY-NC-SA 3.0 IGO license.















Acknowledgements

This simulation exercise package was developed by Gillian Dacey, Zandile Zibwowa, Frederik Copper, Redda Seifeldin, Andrew Black, Yu Zhang and Geraldine McDarby, under the overall supervision of Sohel Saikat. Appreciation goes to colleagues at WHO headquarters, the WHO Regional Office for Africa and the WHO Country Office in Zimbabwe: Louis Ako-Egbe, Gertrude Avortri, Mekdim Ayana, Moses Bolongei, Stella Chungong, Faiqa Ebrahim, Nonso Ejiofor, Tarcisse Elongo, Alex Gasasira, Abiy Girmay, Dirk Horemans, Pierre Kariyo, Ed Kelley, Haroon Khan, Juliet Nabyonga, Jennifer Nyoni, Raj Sreedharan, Mary Stephens, Shams Syed, Ambrose Talisuna, Prosper Tumusiime, and Ali Yahaya.

Special thanks to WHO partners: Department of Health, United Kingdom of Great Britain and Northern Ireland (Helen Tomkys), Public Health England (Dr Elena Skryabina, Dr Neil Squires, Paul Sutton, and Charles Turner), and the United Kingdom Foreign, Commonwealth and Development Office (Sam Beckwith, Meredith Bradbury, Lisha Lala, and Martin McKenna) for their support in the development of the package.

Appreciation also goes to local and national authorities from the nine countries as well as the respective WHO country office colleagues (from Cote d' Ivoire, Ethiopia, Ghana, Kenya, Liberia, Nigeria, South Sudan, United Republic of Tanzania and Zimbabwe) who participated in the review and pilot workshop held in Harare, Zimbabwe on 19–21 November 2019. Special thanks go to Sam Beckwith and Martin McKenna for representing the United Kingdom Foreign, Commonwealth and Development Office at the workshop, along with Charles Turner of Public Health England. We also appreciate the participation of Rhea Bright from the United States Agency for International Development office in Washington, D.C.

This work was undertaken in the context of the Tackling Deadly Diseases in Africa Programme, funded by the United Kingdom Foreign, Commonwealth and Development Office, which seeks to strengthen collaboration between the health system and health security clusters to promote health security and build resilient health systems.





















Introductions

















Exercise Timetable











Time	Activity
09:00	Welcome (10 mins)
09:10	Introductions and scene setting (10 mins)
09:20	Exercise briefing (10 mins)
09:30	Session 1 (45 mins)
10:15	Feedback (15 mins)
10:30	Coffee break (15 mins)
10:45	Session 2 (45 mins)
11:30	Feedback (15 mins)
11:45	Session 3 (45 mins)
12:30	Lunch (30 mins)
13:00	Exercise debrief (90 mins)
14:30	Exercise feedback and next steps (15 mins)
14:45	Close















Exercise purpose and objectives

The purpose of this exercise is:

 To develop knowledge to support health system strengthening within the context of preparedness for public health emergencies.

The objectives of this exercise are:

- To review, test and practice the functionality of relevant health systems at the policy and operational levels, before, during and after public health emergencies
- To explore the linkage and coordination between health care facilities and public health authorities when disruptive emergencies occur that impact on health systems.
- To examine how considerations for health service preparedness is maintained and embedded within the building blocks of health systems and national preparedness and response frameworks





How to participate











Rules

- Use your practices, procedures, guidelines and regulations to inform your responses
- Participate as yourself
- Work as a team
- Focus on solutions
- Record discussions and responses to questions
- Be prepared to feedback
- There are no 'role plays'





How to participate











- The exercise is not to test or evaluate individual participants.
- Don't fight the scenario not clinical focussed
- Keep discussions for the exercise to participants in the room – if you contact anyone outside the exercise – please prefix all communications with "Exercise Exercise...."
- This is a safe learning environment





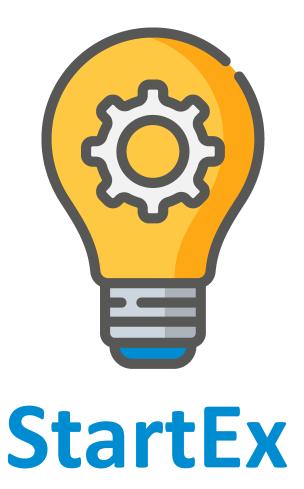
















Session 1



Show video here





https://youtu.be/mCVTYCMki88









Session 1



Scenario Summary (09:30hrs):



A serious road traffic crash has occurred between a chemical tanker, and a bus full of workers



Chlorine gas has been released



Some bystanders have been affected by the chlorine



 The accident is being widely reported on the local radio, TV and social media



- Police at the scene estimate more than 50 injured with many more contaminated by the chlorine
- Ambulances are waiting to transport casualties to hospital.





Session 1 (contd.)











- The first casualties expected to arrive at hospital by 09:30.
- The road to the national airport has been temporarily closed.
- The accident is being widely reported on the local radio, and the main hospital in the city has been informed.
- Given the location and chemicals release, local authorities request for involvement of national authorities?

NB: Refer to the scenario handout for further details















- The MoH has been informed of serious road traffic crash resulting in mass casualties and a chemical incident:
 - What organisations would you expect to be notified?
 - Which organization would you expect to lead the response?
 - If this is not the MoH, then describe how the MoH would link to this response and the role it would play





Task







– Does this include the provision of surge capacity?



How are national emergency preparedness and response plans integrated with regional and local health authorities to support their response?



- Is there a specialised department or facility that responds to requests for public health advice on exposure to toxic industrial chemicals?
 - How can this advice be shared with responding organizations?













 What formal methods of information sharing and notification exist between local and regional health facilities and the MoH?





















- Knowing that this is a significant incident with a large number of casualties:
 - What are the priorities of national authorities in identifying and managing possible health service impact from this incident?
 - Is there a national register on skilled health workers including first line responders in managing mass casualty events involving chemical and radionuclides?
 - Have some of the first line responders received training on handling exposure to toxic chemicals and clinical toxicology?
 - Do you envisage the need for activating your Emergency Operations Centre to support public health response?
 - If so, which organisation will be part of EOC















- What national capacity and resources do you have available to manage a major incident involving large numbers of casualties?
 - How are these resources accessed during an emergency and what mechanisms are in place to ensure they can be accessed locally?
 - What arrangement is in place for surge capacity within the health care system?
 - How is this capacity activated?











How would the MoH ensure that information on the chemical and decontamination processes are made available to health workers (including the ambulance service, fire service and the health facilities)?











Feedback (15 min)

















Coffee Break (15 min)

















Session 2



Show video 2 here – insert link













Session 2











Scenario Summary (11:00hrs):

- 6 fatalities, 55 injured (inc. severe limb and chest trauma)
- The injured are also complaining of running eyes, coughing and difficulty breathing.
- The hospital is treating 13 casualties with minor injuries and 22 with major injuries from the scene of the incident.
- The emergency department has been overwhelmed
- Some healthcare workers, including nurses and ambulance staff, report symptoms of breathing difficulty, coughing, wheezing and skin irritation.





Session 2 (contd.)











- A private healthcare clinic is treating some casualties
- The airport reports staff and members of the public are feeling unwell. Airport management are considering closing the airport.
- Local The EOC has been activated to support the response with the needed expertise and resources for managing chemical events

NB: Refer to the scenario handout for further details















- ❖ You receive information from the main receiving hospital that they are struggling to cope with the number of casualties and are requesting more resources. How can MoH assist to:
 - Ensure there are sufficient resources to support the response?
 - Assess the overall extent of impact on health services and public health implications?
 - Mobilise other organisations to support health response to incident?
- How is information communicated between emergency operations centres in hospital, public health institutes and the MoH?















- ❖ The hospital has recognised that this incident is having an impact on their resources and have asked for assistance
 - What financial contingency resources exist within the MoH to assist with the emergency response?
 - Who has the authority to release this funding?
 - How is the procedure for the procurement of extra supplies at short notice to support emergency response?





Task











While this incident is ongoing, how will the MoH ensure that the healthcare system in the affected area continues to provide quality routine healthcare?















- ❖ The airport CEO has contacted you about the incident, saying many of the airport staff are worried about continuing to work outside and they are asking if it is safe?
 - Who has responsibility for providing advice to the airport?
 - What is the role of port health authority / facility in managing the situation?





Task







What national-level communications, if any, should be made to the healthcare sector and general public?



• Who is responsible for this messaging?



• What support is the MoH able to provide to this task?







Feedback (15 min)

















Session 3











Scenario Summary (13:00hrs):

- All casualties have been transported to healthcare facilities.
- Final casualty numbers: 7 fatalities, 56 injured,
- The hospital has security concerns about angry friends and relatives of those injured, and the emergency department is now seriously overcrowded,
- Some hospital staff who reported symptoms of chlorine exposure have gone home at the end of their shift.
- Local media are wanting interviews with officials.
- Media reports suggest the incident was caused deliberately.

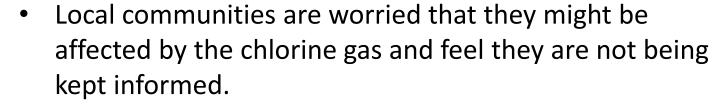




Session 3 (contd.)



Airport staff have decided to close the airport





NB: Refer to the scenario handouts for further details





















- ❖ As the incident is being reported on national media, the Minister of Health would like a briefing
 - Please provide a short brief for the Minister describing the situation and steps taken to deal with the incident
 - Would you typically include information on the possible impacts of the emergency on routine services, when preparing situation reports/updates to national authorities
 - What aspects of impacts on routine services continuity would be included in such formal communications/ reports to responsible authorities?
 - What other reports and documentation are you required to make for an incident like this?

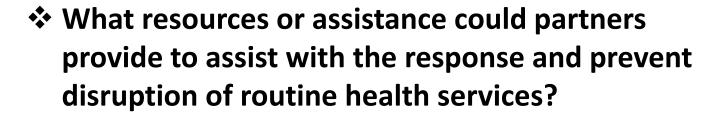














What measures would you put in place to ensure the security of front line responders and health facilities?

















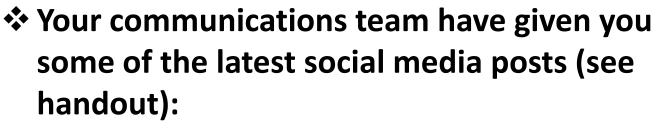


- **❖** As airport staff can now smell chlorine inside the terminal buildings, the airport CEO asked MoH about the risk of chlorine exposure to staff and travellers?
 - How will MoH and public health work with port health to provide joint risk assessment and health advice to inform CEO?
 - How will you ensure coordination of advice and consistent messaging to the various groups involved, e.g. airport staff, travellers?
 - Does port health have the facilities to address health needs of exposed workers and travellers at the airport?
 - How can port health access additional support, including referral logistics?











 How will you respond to this, and what further public health advice will you issue?



 How do you communicate and liaise with affected communities; identify the key stakeholder groups and priorities for messaging.



 How can you establish contacts with the media and other influencers to get your message to the public?

















- Casualties from this incident who have been exposed to chlorine may suffer with ongoing health problems.
 - How will the MoH fund and provide access to longterm healthcare for casualties such as these?
 - Who should be responsible to provide long term health care?















- ❖ What processes are in place to ensure that lessons from this incident inform health system strengthening actions after the incident?
 - What measures are available to provide long term for health to inform health sector planning? capacity development for health system response to this type of incident?
 - Has there been past SimEx to test health system resilience to such public health threats (chemicals, radionuclides)?
 - What are the mechanisms to ensure implementation of recommendations and utilization of lessons learnt from such emergency experiences

















EndEx





Lunch (30 min)

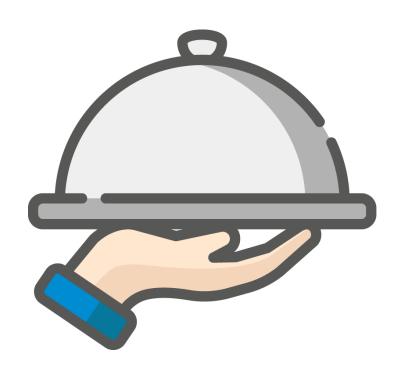
















Exercise Debrief

















Debrief



Consider, based on the exercise objectives:



What went well?



- What didn't go so well?
- What areas exist for improvement?



Be prepared to feedback







Feedback





























This product was funded with UK aid from the UK government through the Tackling Deadly
Disease in Africa Programme (TDDAP)



Thank you











