













Health Systems Resilience Tabletop Exercise

Mass Casualty - Local

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 (~60 mins)
10:15	Feedback (~15 mins)
10:30	Coffee break (~15 mins)
10:45	Session 2 (~60 mins)
11:30	Feedback (~15 mins)
11:45	Session 3 (~60 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 need to contact anyone outside the exercise – please prefix all communications with "Exercise Exercise...."
- This is a safe learning environment





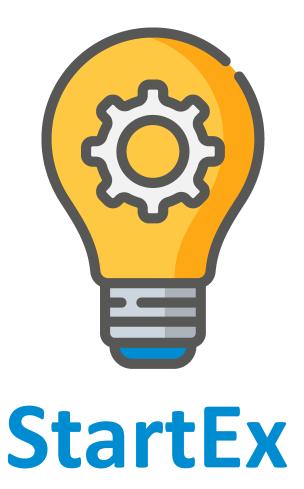
















Session 1



Show video 1 here





https://youtu.be/9BCbhNpyuk8









Session 1



Scenario Summary:



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



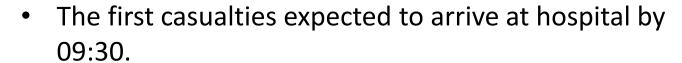
Ambulances are waiting to transport casualties to hospital.



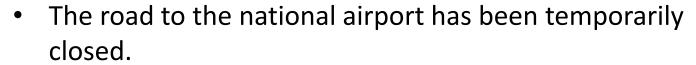


Session 1 (contd.)











 The accident is being widely reported on the local media, and the main hospital in the city has been informed.



NB: Refer to the scenario handout for further details

















- Your organization has been informed of a serious road traffic crash with large numbers of casualties
 - Which organization do you envisage to be involved in this type of incident?
 - Who has the responsibility to lead the response?
 - How would you expect to receive information about the incident, considering regular channels of communication?















- What response plans and protocols do you have for general mass casualty incidents?
 - What plans and resources do you have to deal with a major incident involving casualties exposed to hazardous chemicals?
 - What is the process for activating existing plans for mass casualty events?
 - If there is a district plan, how were health facilities involved in the preparation of this plan?
 - What is the level of awareness of the health workers and frontline responders with regards to existing plans and Standard Operating Procedure (SOPs)?















- Do the existing plans include consideration for routine service continuity during response to mass casualty events?
- How are your response plans integrated with other facilities, health authorities and organisations, external partners and related sectors?
- What is the protocol for pre-hospital responders (such as the emergency services - fire, ambulance, road safety corps, or police) to coordinate with health facilities during emergency incidents?















- Knowing that casualties from the incident will shortly arrive at the hospital and that chlorine gas has been released as a result of the accident:
 - Would you activate your incident management plan?
 - What trigger do you apply to activate this plan?
 - Who would be on this team?
 - Who would be responsible for leading the team or managing the response?
 - What coordination arrangements are in place for working with other key stakeholders?
 - Identify the key stakeholders you would work with to support your response



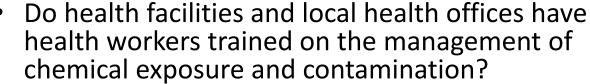


Task

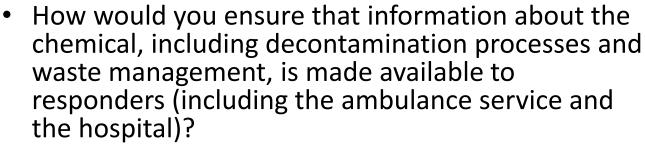




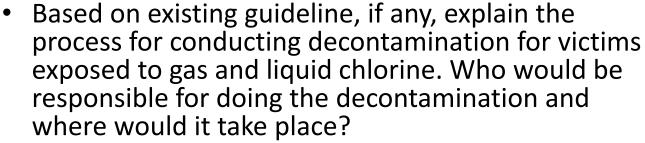




























Task

- What resources do you have available to manage a major incident involving large numbers of casualties?
 - What capacity exists locally to manage chemical events with public health impact?
 - Is there a centre/office with specialty in toxicology of chemicals and radio-nuclides?
 - Based on available information, how would you assess and monitor the hospital and frontline responders capacity to respond to such an event?
 - How do you ensure that routine health services are not compromised during the response?















- What is the process for bringing in additional staff and resources (surge capacity), if required?
- What resources or assistance could partners provide to assist with the response while maintaining routine services?





Feedback (15 min)

















Coffee Break (15 min)

















Session 2



Show video here 2 – insert link













Session 2











Scenario Summary:

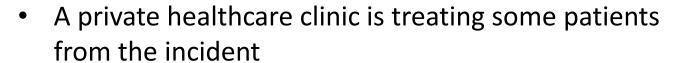
- 6 fatalities, 55 injured (inc. severe limb and chest trauma)
- The injured are also complaining of running eyes, coughing and difficulty breathing.
- The hospital is treating 13 casualties with minor injuries and 22 with major injuries from the scene of the incident.
- The emergency department has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





Session 2 (contd.)







Due to the nature of the event the national EOC has been activated to mobilize experts and resources needed for the response as requested by local health authorities



NB: Refer to the scenario handouts for further details



















- Casualties are arriving at the hospital emergency department, some with significant traumatic injuries, and some with the effects of exposure to chlorine gas and some with clothing soaked in chlorine:
 - How would you response to manage this influx of casualties?
 - What risks can you identify for health workers, other patients and visitors and how will you manage the risks identified?
 - How would you divert or transfer casualties to other hospitals if required?
 - How would you support private health care facility in clinical management patients?
 - How is quality of care monitored and documented during emergency response?















- What information will you need to receive from stakeholders such as the emergency services, hospital, public health institutes, environmental health and the MoH?
 - What information will you need to share with frontline responders (health and non-health) and those contributing to overall incident management?















- Who are the different stakeholder groups within the public that need to be kept informed?
 - What information will be shared with them, how and when?
 - Who would be responsible for managing public communication?















- What steps need to be taken to maintain routine health services while you respond to this incident?
 - Many of your staff have been called to deal with the emergency, how will you ensure that you have enough staff to ensure the continuity of health care in the rest of the hospital?
 - Describe the arrangements that exist for rapidly mobilising staff from health facilities that are unaffected by the incident to assist facilities experiencing excess demand?
 - How will you know that the routine health services being maintained are adequate in terms of quality and quantity?















- Some of the casualties arriving at hospital are contaminated with Chlorine.
 - What levels of PPE are available for staff if needed, and what standards do these meet?
 - What training is available for staff in the appropriate use of PPE?
 - What safety measures (other than PPE) are available to protect hospital staff involved in the decontamination of casualties and necessary waste management?















- What financial contingency resources exist to fund an emergency response?
 - Who has the authority to release this funding?
 - How will you ensure that regular supplies are not out of stock as a result of utilisation in the response.
 - If needed, how will you procure extra supplies at short notice to support the response and clinical treatment of casualties?





Task











- Some health workers are reporting symptoms of exposure to chlorine.
 - How will you deal with potential exposure of health workers to the chlorine in the hospital or on site responders?
 - What structures / procedures exist to ensure occupational health and safety of health facility staff?
 - How do you ensure staff receive relevant emergency response training in managing masscasualty events involving chemicals?





Feedback (15 min)

















Session 3



Scenario Summary:



All casualties have now been transported to healthcare facilities.



Final casualty numbers:



7 fatalities, 56 injured



Local media are wanting interviews with officials.



Media reports suggest the incident was caused deliberately.



- The hospital has security concerns about angry friends and relatives of those injured, and the emergency department is now seriously overcrowded
- Officials from MoH want to visit the hospital/talk to survivors.





Session 3 (contd.)











- Some hospital staff who reported symptoms of chlorine exposure have gone home at the end of their shift.
- Local communities are worried that they might be affected by the chlorine gas, and have been posting on social media.

NB: Refer to the scenario handout for further details















- The incident site is now cleared but there are still a significant number of casualties waiting at the hospital for treatment.
 - Establish the incident management priorities at this stage in coordination with responding authorities
 - What measures would you put in place to ensure the security of front line health workers and health facilities?













- ❖ As the incident is being reported on national media, MoH have been in contact. They would like a briefing note of the situation in health care facilities.
 - Please provide a short brief for the Ministry describing the steps you have taken to deal with the incident, and the next steps that you plan to take.
 - 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?















- **❖** Your communications team have given you some of the latest social media posts (see handout):
 - How will you respond to this, and what further public health advice will you issue?
 - Outline your plan for communicating and liaising with communities, patients and the wider health sector; identify the key stakeholder groups and priorities for messaging.
 - Who leads in communication with public and media during this type of incident? How do you contribute to and coordinate public communication?

















- What information would you give to people who may have left the scene and have not reported to hospital?
 - How might you contact these people?
- Local business owners near to the incident site who sell fresh foodstuffs are asking for advice about whether it is safe for them to sell the food.
 - Who would you liaise with to provide food safety information and advice?















❖ The incident response is coming to an end

- What mechanisms are in place or available to access contingency resources and finance for the longer term recovery?
- What psychosocial support and welfare processes are in place to support staff after the incident?





Task











- What processes are in place to ensure that lessons from this incident inform health systems capacity to better prepare and response after the incident?
 - How are lessons learnt from health systems performance in emergencies and recommendations for improvement documented and included in health sector planning?
 - How do you ensure follow-up actions and implementation of recommendations from past emergency experiences for health systems strengthening?
 - Are there plans to regularly test the health service resilience through SimEx and how often is this done?
 - Considering SimEx and AAR conducted in the past 1 year in the district or region (if any) to what extent did health facilities and non-emergency focused teams and organizations participate?

















EndEx





Lunch (30 min)

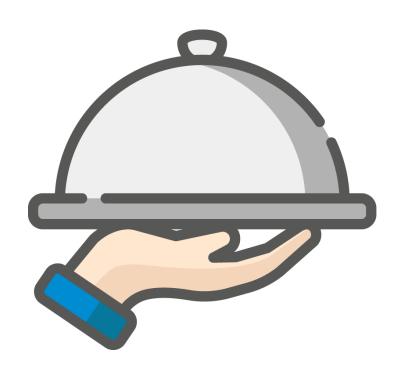
















Exercise Debrief

















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











