Quick Reference Guide

Responding to and preparing for natural disasters

Lessons learned from the successful coordinated response to restoring the public health supply chain after Cyclone Idai in Mozambique

In relatively normal circumstances, any number of factors can pose a challenge to the smooth, timely operation of a global health supply chain. But an adverse event, such as a natural disaster, often poses critical challenges to the local public health supply chain that must be overcome quickly to ensure no interruption of treatment for patients.

In Mozambique, the response to Cyclone Idai — which occurred in March 2019 — largely avoided many of the most significant challenges that can hinder a public health supply chain's response to natural disasters. The Mozambican Ministry of Health and Central Medical Store, as well as the USAID Global Health Supply Chain - Procurement and Supply Management (GHSC-PSM) project, worked together to restore the supply chain quickly and learned a number of lessons that can be drawn on to respond to and prepare for future natural disasters.

Commodities

- Protect commodities as much as possible ahead of the natural disaster according to official warnings — for example, by using plastic sheeting or transferring commodities to safer locations.
- Create one central staging warehouse at the airport.
- Create a separate emergency warehouse.
- Develop and share with all partners standard operating procedures (SOPs) for categorizing items upon arrival by those that are useful now, will be useful later, and will never useful.
- Establish guidelines and SOPs on how to manage emergency kits (kits designed for disaster response/humanitarian assistance, commonly distributed by WHO).
- Use existing SOPs for inventory management if possible.
- Have boxes and other packing materials in stock for repacking commodities that have damaged external packaging but the products themselves and their internal packaging are intact.
- Have pallets and plastic sheeting in stock to protect products when stored outside or to cover products inside a damaged warehouse.
- Keep expired drugs to a minimum to avoid build-up.
- Quantify essential medicines and medical supplies needed for future disasters and keep adequate stock.
- Hold non-essential shipments or re-direct them to other locations or regional warehouses.
- Prepare guidelines for donors requiring that:
    - Drugs should be solicited and be part of the national formulary

Commodity challenges faced after Cyclone Idai, and commonly faced after natural disasters

- Lack of storage space
- Need for disposal of expired and damaged medicines
- Lack of sufficient repacking materials
- Donations of medicines with dosage instructions in languages other than Portuguese or English
- Donations of medical goods with limited shelf life
- Donations of pharmaceuticals not typically prescribed in country
- Insufficient shipments of needed commodities, and an excess of unneeded commodities
- Lack of cold chain-sustaining facilities due to lack of electricity

USAID FROM THE AMERICAN PEOPLE

PEPFAR U.S. President's Emergency Plan for AIDS Relief

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U.S. President's Malaria Initiative

- Consignments should be correctly labeled, preferably in the local language
- The generic name should be referenced
- Different products should not be mixed in the same box
- Products should be unopened and correctly classified
- Remaining shelf life should be one year at minimum

Infrastructure

- Protect infrastructure and equipment ahead of the disaster as much as possible according to official warnings — for example, disconnect electricity and water supply and protect material handling equipment and IT equipment.
- Have Rubb Halls (large tents) available at each regional warehouse.
- Use a drone with camera to assess damage to infrastructure quickly, enabling major repairs to begin as soon as possible.
- Have a toolbox at each warehouse for minor repairs.
- Have security SOPs for working in a dangerous environment.

Human resources

- Establish staffing requirements and develop job profiles and organograms specifically for the emergency response activity.
- Train staff on security SOPs.
- Assign staff from other areas/warehouses who are experienced in medicines and medical supplies to the emergency warehouse to help with identifying the products.
- Maintain continual availability of warehouse associates and IT staff to handle the significant workload of finding quick solutions and establishing/re-establishing procedures.
- Have identification and safety jackets/shoes available for all workers.
- Immediately send an emergency food and safety package for the emergency response team.
- Block book hotel rooms or rent a house where non-local staff can stay, to minimize management time.
- Ensure daily labor is available.

Material handling equipment, adjustable pallet racking, generators, and transport

- Keep equipment well maintained in normal circumstances.
- Disconnect and protect material handling equipment batteries and chargers ahead of the natural disaster.
- Identify maintenance service providers that can help repair equipment.
- Contract a specialist company that can do an evaluation of the adjustable pallet racking to assess whether any damage occurred that could affect weight-bearing capacity and risk injury to staff.
- Have a safety stock of fuel for generators, equipment, and vehicles.
- Maintain a list of pre-qualified transport providers in the country.
- Have flexible indefinite quantity contracts (IQCs) in place with transport providers with national coverage.

Management

- Establish single command, with the Central Medical Store leading the emergency response and having the authority to make decisions on the ground.
- Leverage existing relationships and ongoing technical assistance activities as much as possible.
- Create logistics clusters to help manage the emergency response effectively among NGOs and international relief organizations arriving in country, with a Central Medical Store representative meeting with each cluster daily for updates and requests.
- Establish a daily situation report (SITREP) featuring logistics information from the emergency warehouse, and share it with all donors, partners, stakeholders, and auditing entities, which increases credibility and accountability.
- Allocate emergency funds to pay for daily operational needs, such as daily labor, fuel, small repairs, maintenance of equipment, and transport/transfer of commodities.
- Standardize and document procedures (SOPs).
- Create a warehouse management system (WMS) database ahead of a natural disaster that contains a complete list of products and emergency kits that can be expected as donations.
- Begin to develop a comprehensive national logistics emergency response plan to prepare for future supply chain disruptions; the plan should include information such as SOPs, contacts, resources, coordination mechanisms, and required human resources.

Information technology and communication

- Use a WhatsApp group to communicate and share information; pictures are especially helpful.
- Prepare a database in the WMS with a complete list of products and emergency kits expected to be donated, and code each product according to SOPs.
- Have a satellite phone available, including license, in the first weeks after a natural disaster.
- Provide cell phone pre-paid sim cards and credit to staff from different mobile telephone providers to create redundancies and capitalize on the strength of each one.
- Procure mobile WIFI/hotspots for use in the temporary office locations
- Have a set of very high-frequency (VHF) radios, including license, in all vehicles.
- Pre-position IT equipment at the central medical store.

National logistics emergency response plan

- Develop a national logistics emergency response plan to ensure preparation in advance and a quicker and more effective response in the aftermath of a natural disaster. Several months of significant effort by a dedicated core team, with participation from a broader range of stakeholders, should be expected, as well as routine updating of the preparation measures.
- Emergency supply chain preparedness encompasses:
    - People and processes
    - Commodity planning
    - Logistics and transport