Emergency Supply Chain Preparedness Technical User Guide

June 2018
Contents

- Overview
  - User guide
  - Appendix
Reminder: playbook has different materials to cover different use cases

**PREPAREDNESS**
- **Management Checklist** for ESC lead, summarizing key outputs from each part of the emergency supply chain to track completion and to maintain preparedness
- **ESC Preparedness Overview** for senior leaders, providing introduction to emergency supply chain concepts and what the work of preparing emergency supply chains entails
- **Technical User Guide** providing detailed technical instructions and templates to assist the ESC core team members, summarizing all the content necessary to strengthen the emergency supply chain over ~4-6 months. The manual provides step-by-step implementation guides and tools to support capability-building across each of the emergency supply chain functions. *Tools are in Excel on Memory Key.*

**RESPONSE/ACTION**
- **Response Job Aids** for any actors involved in a response, providing a “crash course” on disease overview, supply chain considerations, and response protocol for priority diseases
- **Response Quick Guide** for all ESC core team members, summarizing response protocols under each supply chain function to put in action when an outbreak occurs
### Three Modules Embedded in all Playbook Materials

<table>
<thead>
<tr>
<th>TOPICS</th>
<th>People and Processes</th>
<th>Commodity Planning</th>
<th>Logistics and Transport</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>People and Processes</strong></td>
<td>What are the structures that enable the ESC to function?</td>
<td>What commodities will the ESC be responsible for, and how will it handle them?</td>
<td>How will the commodities get to where they need to go?</td>
</tr>
<tr>
<td></td>
<td>▪ Governance and organizational structure</td>
<td>▪ Commodity forecasting</td>
<td>▪ Warehousing and storage</td>
</tr>
<tr>
<td></td>
<td>▪ Financing</td>
<td>▪ Procurement and sourcing</td>
<td>▪ Transport and waste management</td>
</tr>
<tr>
<td></td>
<td>▪ Triggers</td>
<td>▪ Stockpiling</td>
<td></td>
</tr>
<tr>
<td></td>
<td>▪ Data visibility</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>OUTPUT</strong></td>
<td>Clear governance, processes, and data transparency to run the emergency supply chain</td>
<td>Stockpiled commodities based on an up-to-date hazard assessment</td>
<td>Storage and transportation arrangements in place to move commodities</td>
</tr>
</tbody>
</table>
Contents

- Overview
- User guide
  - Getting Started
    - Module 1: People and Processes
    - Module 2: Commodity Planning
    - Module 3: Transport and Logistics
- Appendix
## Getting Started: Process Summary

<table>
<thead>
<tr>
<th>PROCESS STEPS</th>
<th>RELEVANT SECTIONS IN USER GUIDE</th>
<th>OUTPUT</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 Identify senior sponsors and core ESC core team: Identify senior sponsors to champion initiative. Pick core team to implement playbook. Identify team members with skills relevant to the emergency supply chain functions</td>
<td>Governance and Organizational Structure, Step 1A-B: Populate organizational chart with ESC core team</td>
<td>Core ESC core team identified (2-4 weeks)</td>
</tr>
<tr>
<td>2 Develop playbook implementation workplan: Define a schedule and cadence to work through playbook by identifying responsible team members and setting deadlines for accomplishing items on Management Checklist</td>
<td>Governance and Organizational Structure, Step 1C-1D: Fill in names of responsible individuals and due dates for key items on Management Checklist</td>
<td>Checklist populated (1-2 weeks)</td>
</tr>
<tr>
<td>3 Identify core stakeholders: Identify key contacts across each of the topics on the emergency supply chain checklist to provide initial input while implementing ESC Playbook</td>
<td>Governance and Organizational Structure, Step 2A-2B: Write key points of contact in relevant section of database</td>
<td>Essential stakeholders identified (2-4 weeks)</td>
</tr>
<tr>
<td>4 Prioritize hazards to prepare for: Develop list of priority diseases facing the country by holding a hazard prioritization workshop with experts. Reference “Triggers” section for details on conducting Hazard Assessment workshop</td>
<td>Triggers, Step 1: Use materials to guide hazard prioritization discussion</td>
<td>Prioritized list of diseases documented (3-6 weeks)</td>
</tr>
</tbody>
</table>

*These steps should be executed at the beginning of the Playbook’s implementation as they provide the structure and information necessary to undertake the rest of the journey*
Contents

▪ Overview

▪ User guide
  – Getting Started
  – Module 1: People and Processes
    ▪ Governance and Organizational Structure
    ▪ Triggers
    ▪ Financing
    ▪ Data Visibility
  – Module 2: Commodity Planning
  – Module 3: Logistics and Transport

▪ Appendix
# Goals

- Identify who is accountable for the emergency supply chain’s functioning, define how partners will work together to prepare for and respond to emergencies, and put in place training mechanisms

## Outputs

- Emergency supply chain organizational chart written with names and contact information listed
- Contact list for emergency supply chain partners updated
- Trainings planned for emergency supply chain staff and partners

## Responsible

**WORKSTREAM LEAD**

(e.g., emergency supply chain lead)

**TEAM MEMBERS**
# Governance and Organizational Structure:
## Process Summary

### Process Steps

1. **Develop governance system**
   - Determine who is accountable and who has authority for emergency supply chain by defining roles and responsibilities, ensuring national ESC lead is appointed, and building a national reporting structure.

2. **Establish partnership collaboration mechanisms**
   - Identify partners to work with and set up regular meetings, listservs, etc. for ongoing coordination.

3. **Conduct simulations**
   - Identify trainers and schedule simulation trainings with relevant stakeholders using response protocols and simulations materials, track attendance.

4. **Document protocols**
   - Write governance system for ESC (e.g., roles, responsibilities, who to call, EOC stand-up) to use at outbreak onset and update Response Job Aid.

### Supporting Materials

- **Organizational chart**
  - Populate organizational chart listing names with contact information under each role.

- **Management checklist**
  - Fill in names of responsible individuals and due dates for key items.

- **Stakeholder Map**
  - Populate Stakeholder Map with potential partner organizations and points of contact.

- **Training tracker**
  - Schedule simulations, track participation, and record follow-up actions in spreadsheet.

- **Response materials**
  - Customize and add protocols for governance in the relevant section, and update back side of Response Job Aid.

### Output

- **Emergency supply chain organizational chart written with names and contact information** (~1-3 weeks)

- **Contact list for ESC partners updated** (~1-3 weeks)

- **Simulation trainings planned for all ESC staff and partners** (~2-4 weeks)
SUB-STEPS

IA. Establish accountability by identifying ESC sponsor

Identify a ministry-level sponsor for the emergency supply chain. This person is responsible for holding regular report-outs with the ESC core team to hear progress updates. Unlike the ESC lead, this person will not be involved in day-to-day ESC activities, but will ensure overall progress and escalate issues when necessary (e.g., securing funding). In most countries, this sponsor is from the Ministry of Health.

IB. Identify and communicate roles

- Ensure ESC lead role is filled. ESC Lead will be responsible for “People and Processes” module
- Make sure that ESC appoints core national ESC core team. The core roles are listed below:
  - Medical lead to identify threats to plan for and liaise with One Health infrastructure
  - Commodity Planning lead to identify which commodities and specifications are necessary. Procurement Lead will be responsible for “Procurement and Sourcing” section
  - Procurement lead to work with suppliers to procure commodities. Commodity Planning lead will be responsible for “Commodity Forecasting” and “Stockpiling” sections
  - Logistics lead to coordinate storage and transport. Logistics lead will be responsible for “Transport and Logistics” module
- Reach out to regional governments to appoint regional point people
- Communicate to all appointees what their roles are
- Record all names and contact information on chart at each level and add boxes as necessary

Appointments may require passage of an official administrative act
Revisit organizational chart on an annual basis, or every time new staff is added to ESC structure

SUPPORTING MATERIAL

Organizational chart
I.C. Assign responsibilities and due dates

- Gather ESC core team
- Assign roles and responsibilities on management checklist. Each item should have a clear owner. As project is implemented, use ESC core team members for all roles and responsibilities. As capabilities grow, other individuals in the government can take on responsibilities.
- Communicate responsibilities to team members
- ESC lead to define due dates for key activities by working with responsible team members
- Some routine responsibilities may have to be reassigned to ensure appointees have enough capacity for ESC

ID. Define working cadence

- Establish weekly and daily stand-up meetings for ESC core team
- Schedule biweekly report-outs to senior sponsor on progress against management checklist. Report-outs provide opportunity to escalate issues and resolve roadblocks as well as ensure accountability
- After initial implementation of ESC playbook, revisit checklist to determine ongoing maintenance and refresh plan for all key outputs and responsibilities, and update on management checklist

**Supporting Material**

**Management checklist**

**Poster in your box**

**Emergency Supply Chain Management Checklist**

<table>
<thead>
<tr>
<th>Step</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>01</td>
<td>Establish weekly and daily stand-up meetings for ESC core team. Schedule biweekly report-outs to senior sponsor on progress against management checklist. Report-outs provide opportunity to escalate issues and resolve roadblocks as well as ensure accountability. After initial implementation of ESC playbook, revisit checklist to determine ongoing maintenance and refresh plan for all key outputs and responsibilities, and update on management checklist.</td>
</tr>
</tbody>
</table>
### 2A. Identify stakeholders

- Interview individuals involved in past emergency responses, read after-action reports, and study assessments to identify organizations involved in preparedness and response.
- Engage One Health stakeholders early on.
- Look across sectors:
  - Pinpoint local and international NGOs with in-country offices.
  - Identify government stakeholders, ministries, and individuals in government involved in emergencies (e.g., Ministry of Agriculture, army).
  - Identify private sector stakeholders incentivized to prevent and respond.
- Reassess stakeholder landscape on an annual basis.

### 2B. Reach out to potential partners

- Contact organization’s offices to confirm interest and identify ongoing point of contact.
- Record point of contact’s information and mark relevant area of expertise on database.

#### Stakeholder Map

*Playbook Templates.xls > Stakeholder map*

<table>
<thead>
<tr>
<th>Organization</th>
<th>Experise</th>
<th>Name of point of contact</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
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</tbody>
</table>

*People and processes*  
*Financing*  
*Triggers*  

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**SUPPORTING MATERIAL**

- Stakeholder Map
  - [Playbook Templates.xls > Stakeholder map](#)
Step 2 Establish Partnership Collaboration Mechanism (2/2)

SUB-STEPS

2C. Set up coordination mechanisms

- Set up a simple alert mechanism (e.g., listserv, text blast) to contact all stakeholders in the event of an emergency and link mechanism to their point of contact
- Use alert mechanism to share ongoing updates on preparedness and response, and to solicit input
- If there is sufficient interest, set up subgroups by area of expertise

2D. Hold kickoff and schedule meetings

- Reach out to all stakeholders to plan a kickoff meeting for emergency partnership
- Define working norms and location (e.g., EOC) at kickoff
- Establish monthly meeting cadence
- Link partnership to the country’s Emergency Operations Center if it is year-round
- Hold meetings on an ongoing basis. Reassess stakeholder landscape on an annual basis and incorporate new additions into existing stakeholder infrastructure

SUPPORTING MATERIAL

Stakeholder Map

Playbook Templates.xls > Stakeholder map
3A. Review and customize simulation materials

- Read through Facilitator Guide to determine learning objectives, training requirements, and points of customization (e.g., specific country references in simulation handouts, speaker notes, organizational chart)
- Incorporate best practices from previous outbreaks or earlier simulations and trainings (if this is not the first training)

3B. Identify facilitator and trainees

- Select a facilitator to coordinate and lead simulations. First simulation should be led by someone who is an expert or has participated in past response efforts. Once the ESC core team members have been trained, they can lead trainings moving forward
- Identify participants for simulation exercise. There should be no more than 30 participants per facilitator
- Use organizational chart to identify roles for participation in simulation. Training should be mandatory for all ESC appointees
- Reference Stakeholder Mapping to identify partners to participate in simulation exercise. International partner participation is crucial for success

SUPPORTING MATERIAL

Facilitator guide

Organizational chart

USAID | Global Health Supply Chain - Technical Assistance Francophone Task Order
**Step 3 Conduct Simulations (2/3)**

### SUB-STEPS

**3C. Schedule simulation**

- Schedule 1-3 days every 6 months for simulation and review of ESC protocols. *First simulation should take place after majority of Playbook has been implemented.*

- Use logistics guidelines in Facilitator Guide to identify location convenient for attendees with sufficient space to conduct simulation and prepare all materials.

- Contact all trainees to share training logistics and pre-read material ahead of time.

  - Schedule full training every year to conduct simulation exercises. This training should be repeated yearly to ensure new individuals who join ESC core team learn the necessary skills for effective response.

  - The trainings are designed to be modular, such that the facilitator can choose to conduct either portions or the entire suite of trainings.

**3D. Track training participation**

- Write down names of attendees at training. *Training tracker will be a primary performance management tool for the emergency supply chain.*

- Ensure trainees attend sessions on an annual basis.

### SUPPORTING MATERIAL

**Training tracker**

![Training Tracker.xlsx](Training_Tracker.xlsx)
During and after simulation, record all feedback on any gaps identified in current preparedness and response efforts, push participants to identify action items and next steps, and track them on an ongoing basis.

Incorporate lessons learned from any outbreaks into training and playbook materials as well.

Report out on progress on past lessons learned and action items during the subsequent simulation to hold ESC stakeholders and staff accountable.

Write down names of attendees at trainings and simulations. Training tracker will be a primary performance management tool for the emergency supply chain.

Ensure trainees attend sessions on an annual basis.
4A. Review and Customize Protocols

- Reference “Governance and Organizational Structure” section of Response Quick Guide
- Customize protocols with names of all relevant actors
  - Ensure accountability is clearly highlighted in protocols (e.g., once emergency is triggered, ESC Lead has authority over supply chain commodities)
  - Customize and add protocols to the sample protocols listed as needed

4B. Record Protocol(s)

- Assess which protocols are most important for response
- Synthesize into one essential protocol
- Update back side of Response Job Aid with essential protocol
Contents

- Overview

- User guide
  - Getting Started
  - Module 1: People and Processes
    - Governance and Organizational Structure
      - Triggers
        - Financing
        - Data Visibility
  - Module 2: Commodity Planning
  - Module 3: Logistics and Transport

- Appendix
### Goals

- Define what types of diseases the emergency supply chain will prepare for and which events will trigger its activation

### Outputs

- List of priority diseases that emergency supply chain should prepare for defined in annual expert workshop

- Emergency triggers for priority diseases defined

### Responsible

**WORKSTREAM LEAD**

(e.g., emergency supply chain lead)

- **TEAM MEMBERS**
## Triggers: Process Summary

### PROCESS STEPS

<table>
<thead>
<tr>
<th>Step</th>
<th>Description</th>
<th>Supporting Materials</th>
<th>Output</th>
</tr>
</thead>
</table>
| 1    | Prioritize diseases  
Conduct a workshop with experts to determine list of potentially threatening diseases, develop threat profiles for them, and prioritize them | Logistics checklist  
Use checklist to plan hazard assessment workshop  
Disease prioritization worksheet and prioritization matrices  
Prioritize diseases using matrices and record relevant data in worksheet | List of prioritized diseases defined in hazard assessment workshop  
(~4-6 weeks) |
| 2    | Codify and communicate triggers  
For each priority disease, define objective, quantitative triggers. Link to externally-defined triggers and develop any additional preemptive internal triggers as needed. Document triggers and incorporate into official guidelines as necessary to establish official emergency designations. Note triggers may vary according to setting (e.g. different thresholds in urban vs. rural areas) | Disease prioritization worksheet  
Update each disease's threat profile on worksheet with defined triggers | Defined triggers for prioritized hazards  
(~2-4 weeks) |
| 3    | Document protocols  
Write out protocols for triggers to use at outbreak onset and update Response Job Aid | Response materials  
Customize and add protocols for Triggers in the relevant section, and update back side of Response Job Aid | Output |
**SUB-STEPS**

**IA. Plan workshop**
- Identify participants: Put together a group of participants that represents all areas of expertise needed based on checklist. Use contact information in Stakeholder Map to choose relevant partners.
- Schedule meeting: Coordinate with participants to plan a meeting date and choose locations ahead of time.
- Circulate resources: Identify resources necessary to inform conversation and circulate relevant information as a pre-read to participants.

**IB. Identify range of potential diseases**
- Ask experts to think through answers to disease questions ahead of workshop, such as:
  - What outbreaks have occurred in the past?
  - What has already been identified as a hazard through previous assessments (e.g., zoonotic disease prioritization workshops)?
  - What are diseases that neighboring geographies deal with?
- Discuss questions during workshop to identify the full range of potential disease threats to profile.
- Populate disease prioritization worksheet with responses. These responses represent the full list of diseases that will be profiled and prioritized during workshop.

**SUPPORTING MATERIAL**

**Logistics checklist**
- **Attendees**
  - ESC core team
  - Medical experts (epidemiologists, zoonotic experts)
  - Key partners (e.g., WHO)
  - Surveillance team
- **Logistics activities**
  - Email expert partners from Stakeholder Map (e.g., WHO)
  - Coordinate date
  - Book private room with capacity
  - Circulate information
- **Resources**
  - Previous emergency preparedness assessments (IEEs, LCA, One Health Prioritizations)
  - Historical outbreak information
  - Health indicator data
  - NGO health reports and surveys
  - Healthcare infrastructure and surveillance overview
  - Healthcare infrastructure and surveillance overview
- **Day-of logistics**
  - Print template for participants
  - Print facilitator guide
  - Bring necessary tools (markers, post-its, pens, flip charts)

**Disease prioritization worksheet**

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USAID | Global Health Supply Chain - Technical Assistance Francophone Task Order
SUB-STEPS

IC. Profile diseases

- Work with experts to profile diseases based on criteria listed on disease prioritization worksheet
- Determine how likely a disease is based on key elements (such as historical country incidents, favorable ecology, global incidents) and record
- Determine how severe a disease’s consequences will be based on key elements (Size of population at risk, clinical severity) and record
- Determine country-specific disease characteristics to support ESC planning on Disease prioritization worksheet
- Hypothesize number of cases projected in first month of each disease for use in Stockpiling section and record
- Score and plot diseases on likelihood and severity matrices

SUPPORTING MATERIAL

Disease prioritization worksheet

Playbook Templates.xls > Disease prioritization worksheet

Prioritization framework

USAID | Global Health Supply Chain - Technical Assistance Francophone Task Order
People and Processes > Governance and Organizational Structure

Step 1  Conduct Hazard Assessment Workshop (3/3)

**SUB-STEPS**

**ID. Plot diseases**
- Plot diseases on prioritization framework based on scores and record top priorities

**IE. Develop strategic plan**
- Put together a strategic plan for how to address each tier of disease. Emergency supply chain will prepare for red diseases
- Conduct hazard assessments on an annual basis or whenever surveillance data suggests a change in threat levels. Risk assessments for individual diseases will be conducted immediately upon an outbreak’s occurrence to update disease threat profile

**SUPPORTING MATERIAL**

**Prioritization framework**

- *Technical User Guide.ppt > Appendix*
  - **Likelihood**
    - Almost certain
    - Highly likely
    - Likely
    - Unlikely
    - Very unlikely
  - **Severity**
    - Minimal
    - Minor
    - Moderate
    - Major
    - Severe

- Green: Lowest risk
- Yellow: Moderate risk
- Red: Very high risk, ESC must prepare
- Orange: High risk, ESC may prepare

USAID | Global Health Supply Chain - Technical Assistance Francophone Task Order
Sub-Steps

2A. Define triggers

- For each priority disease (disease identified as red or orange in Hazard Assessment workshop), establish an objective, quantitative definition of what will trigger an emergency. Quantitative definitions of diseases could be a single case of certain diseases, X number of cases within Y time, Z cases in neighboring country, etc.

- Confirm triggers with experts from WHO and other external organizations with independent criteria.

- Record definition in disease prioritization worksheet.

- Note that triggers may vary by setting type within a country – e.g. highly populated areas and low-populated areas.

2B. Communicate triggers

- Review existing official guidelines on emergency triggers, both internal and external.

- Work with partners (e.g., WHO) to align internal triggers with partner triggers.

- Work with senior sponsor to incorporate defined triggers into official guidelines.

- Publish official triggers to establish clear accountability and build public trust.

SUPPORTING MATERIAL

Disease prioritization worksheet

- Playbook Templates.xls > Disease prioritization worksheet

[Insert image of disease prioritization worksheet]
People and Processes > Triggers

Step 3 Develop Protocols

**SUB-STEPS**

3A. Review and Customize Protocols
- Reference “Triggers” section of Response Quick Guide
- Customize protocols with names of all relevant actors
  - Ensure accountability is clearly highlighted in protocols (e.g., once emergency is triggered, ESC Lead has authority over supply chain commodities)
- Customize and add protocols to the sample protocols listed as needed

3B. Record Protocol(s)
- Assess which protocols are most important for response
- Synthesize into one essential protocol
- Update back side of Response Job Aid with essential protocol

**SUPPORTING MATERIAL**

**Response Quick Guide**

- “Triggers” section of Response Quick Guide.ppt

**Protocol Template**

- Response Job Aid.ppt
Contents

- Overview

- User guide
  - Getting Started
  - Module 1: People and Processes
    - Governance and Organizational Structure
    - Triggers
    - Financing
      - Data Visibility
  - Module 2: Commodity Planning
  - Module 3: Logistics and Transport

- Appendix
### Goals

- Calculate the amount of funds necessary for ongoing preparedness and emergency response, identify funding sources, and appropriate funds

### Outputs

- Funds necessary for ongoing emergency supply chain preparedness budgeted and set aside
- Sources for response reserve funds identified and discussed

### Responsible

**WORKSTREAM LEAD**
(e.g., emergency supply chain lead)

**TEAM MEMBERS**

**Deadline**

- DD / MM / YYYY
## Financing: Process Summary

<table>
<thead>
<tr>
<th>PROCESS STEPS</th>
<th>SUPPORTING MATERIALS</th>
<th>OUTPUT</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>1</strong> Calculate preparedness budget</td>
<td>List of preparedness costs</td>
<td>Funds necessary for ongoing emergency supply chain preparedness budgeted and set aside (~2-6 months: will vary by country)</td>
</tr>
<tr>
<td>Determine funds required annually to maintain emergency SC</td>
<td>Use list to help calculate funds necessary for preparedness</td>
<td></td>
</tr>
<tr>
<td><strong>2</strong> Allocate ongoing preparedness funds</td>
<td>Preparedness budget sources</td>
<td>Sources for response funds identified and discussed (~3-6 weeks)</td>
</tr>
<tr>
<td>Pass necessary bills/appropriate funds within ministry to ensure funds calculated are allocated towards ESC</td>
<td>Populate worksheet to keep track of sources of preparedness funds and protocols for accessing</td>
<td></td>
</tr>
<tr>
<td><strong>3</strong> Determine potential response funding sources</td>
<td>Funding mechanisms database</td>
<td></td>
</tr>
<tr>
<td>Share estimates with partners to determine potential funding sources and put agreements and fund release mechanisms in place</td>
<td>List out pre-syndicated donors and potential funding mechanisms in relevant section of stakeholder map, along with ways of accessing funds</td>
<td></td>
</tr>
<tr>
<td><strong>4</strong> Document protocols</td>
<td>Response materials</td>
<td></td>
</tr>
<tr>
<td>Write out protocols for financing (e.g., list of pre-syndicated funding sources with requirements to follow for fund release) to use at outbreak onset and update Response Job Aid</td>
<td>Customize and add protocols for financing in the relevant section, and update back side of Response Job Aid</td>
<td></td>
</tr>
</tbody>
</table>
### IA. Calculate preparedness costs

- Determine funds necessary to run ongoing ESC preparedness program. Use list of preparedness costs worksheet to guide estimation of expenses. Estimate both capital and recurring expenses. It may be useful to identify similarly-sized government initiatives to model costs off of. Major categories of spend are as follows:
  - Personnel and training costs for central and regional ESC core team
  - Facilities costs for office space, storage, transport, and stockpiling
  - Maintenance and supplies for all components of ESC
  - Utilities and administrative costs

- Once additional playbook modules have been completed, revise initial estimate based on additional costs such as stockpile inventory management, additional warehousing needs, etc.

#### Recalculate funds on a calendared annual basis

### SUPPORTING MATERIAL

#### List of preparedness costs

<table>
<thead>
<tr>
<th>Expense type</th>
<th>Expense category</th>
<th>Components</th>
<th>Detailed assumptions on cost and revenue model (pension/medical)</th>
<th>Estimated cost (F)</th>
<th>Final cost ($)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Operating costs</td>
<td>Personnel</td>
<td>Subject to ESC core team's operating ESC, regional ESC, and national ESC, including management, transport staff salaries, and training.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Training</td>
<td>Cost of training includes salaries, training materials, and travel expenses.</td>
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<tr>
<td></td>
<td>Material supplies</td>
<td>Office supplies costs, including supplies for damage and warehousing.</td>
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<tr>
<td></td>
<td>Transport operating costs</td>
<td>Cost of operating transport vehicles as needed by ESC, e.g., cost of fuel. Maintenance costs are minimal at 5% of overall costs (e.g., for storage and warehousing, maintenance costs are 5% of overall storage and warehousing costs).</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>Maintenance</td>
<td>Maintenance</td>
<td>Subject to ESC core team's operating ESC, regional ESC, and national ESC, including management, transport staff salaries, and training.</td>
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</tr>
</tbody>
</table>
**SUB-STEPS**

### 2B. Determine sources of funds
- Engage senior sponsor to spearhead funding allocation process as this will likely involve senior leadership
- Determine which budgets will provide funds for the national emergency supply chain program (e.g., national or regional, MoH or Ministry of Agriculture, Ministry of Finance)
- Use preparedness budget sources worksheet to sources of funds, share of costs covered, contacts, and notes on allocation process to guide future allocation

### 2C. Allocate funds
- Work with relevant ministry to identify process for approving budgets and record in Preparedness Budget Sources worksheet
- Ensure ESC preparedness budget is built into annual allocation process for relevant ministries
- Identify requirements (e.g., quarterly reports) for ministries and other sources of funds
  - Engage senior sponsor to spearhead funding allocation
  - Ensure preparedness funding is refreshed and reallocated on the same calendar as the overall budget allocation process

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**SUPPORTING MATERIAL**

**Preparedness budget sources**

*Playbook Templates.xls > Preparedness budget sources*

<table>
<thead>
<tr>
<th>Source</th>
<th>Costs covered</th>
<th>Working level contact</th>
<th>Roles in budget allocation processes</th>
<th>Details for budget request</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ministry of Finance</td>
<td>$X</td>
<td>Joe Smith</td>
<td>Manager of Preparedness</td>
<td>Date of Budget Approval</td>
</tr>
<tr>
<td>Ministry of Agriculture</td>
<td>$Y</td>
<td>Jane Doe</td>
<td>Assistant Director</td>
<td>Budget Allocation Strategy</td>
</tr>
<tr>
<td>Ministry of Health</td>
<td>$Z</td>
<td>Mike Brown</td>
<td>Program Manager</td>
<td>Budget Review Process</td>
</tr>
</tbody>
</table>

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**USAID | Global Health Supply Chain - Technical Assistance Francophone Task Order**
3A. Identify potential existing funding mechanisms

- Review pre-populated list of funding mechanisms in funding mechanisms database to determine whether country and disease context meet the requirements listed on “Protocol to access funds”
- Identify alternative sources by reaching out to stakeholders about other potential funding mechanisms
- Add additional sources to funding mechanisms database and specify protocols for accessing

3B. Compare needs to existing funding mechanisms

- Determine which funding mechanisms are best suited to meeting country needs for response funds based on hazard assessment and country qualifications for accessing funds
- Identify matches as priority funds to access and update them in the funding mechanisms database
SUB-STEPs

3C. Contact funds

- Identify and record points of contact for accessing funds
- Contact fund POCs to review requirements for accessing funds
- Determine timeline for accessing funds (e.g., when would funds actually arrive in-country)
- Identify ongoing point person to call in the event of an emergency to access funds and update in funding mechanisms database
- Ask "owners" to share any application materials ahead of time and update protocols to access funds in funding mechanisms database

3D. Prepare applications

- Pre-populate as many materials required for fund access as possible ahead of time to ease response

نبيتحديث قائمة اليد والمستهدفين بشكل منتظم (على الأقل سنوياً) ومراجعة مصادر الأموال الجديدة المتاحة.

SUPPORTING MATERIAL

Funding mechanisms

Playbook Templates.xls > Funding mechanisms database

- Refresh both lists of funds and potentially viable sources as new hazard assessments are conducted (i.e., at least annually) and as new funding mechanisms become available

USAID | Global Health Supply Chain - Technical Assistance Francophone Task Order
**SUB-STEPS**

4A. Review and Customize Protocols

- Reference “Governance and Organizational Structure” section of Response Quick Guide
- Customize protocols with names of all relevant actors
  - Ensure accountability is clearly highlighted in protocols (e.g., once emergency is triggered, ESC Lead has authority over supply chain commodities)
- Customize and add protocols to the sample protocols listed as needed

4B. Record Protocol(s)

- Assess which protocols are most important for response
- Synthesize into one essential protocol
- Update back side of Response Job Aid with essential protocol

**SUPPORTING MATERIAL**

**Response Quick Guide**

- “Financing” section of Response Quick Guide.ppt

**Job Aid Protocol Template**

- Response Job Aid.ppt

**SUPPLY CHAIN PROTOCOLS AND CONTACTS**

- Essential ESC Protocols
- Contact key stakeholders directly or through established channels.
- Ensure clear communication and collaboration.
- Establish protocols for emergency supply chains.
- Coordinate with international partners and agencies.
- Monitor and report on supply chain activities.
- Ensure safety and security protocols are in place.

**USAID | Global Health Supply Chain - Technical Assistance Francophone Task Order**
Contents

- Overview
- User guide
  - Getting Started
  - Module 1: People and Processes
    - Governance and Organizational Structure
    - Triggers
    - Financing
  - Data Visibility
    - Module 2: Commodity Planning
    - Module 3: Logistics and Transport
- Appendix
## Data Visibility: Goals and Outputs

<table>
<thead>
<tr>
<th>Goals</th>
<th>Outputs</th>
</tr>
</thead>
<tbody>
<tr>
<td>▪ Put in place a system of inventory management to track stock levels and determine resupply needs during an emergency</td>
<td>System in place for data tracking during emergency</td>
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### Responsible

**WORKSTREAM LEAD**
(e.g., logistics lead)

- Emergency Supply Chain Lead

**TEAM MEMBERS**

<table>
<thead>
<tr>
<th>Name TBD</th>
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</thead>
<tbody>
<tr>
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</table>
## Data Visibility: Process Summary

<table>
<thead>
<tr>
<th>PROCESS STEPS</th>
<th>SUPPORTING MATERIALS</th>
<th>OUTPUT</th>
</tr>
</thead>
</table>
| 1. Assess routine information system  
Determine whether current logistics management information system provides sufficient visibility into stock levels for resupply and funding relief |  | Data tracking system in place (~1-6 months) |
| 2. Create new emergency system (if existing system is not a good fit)  
Use Excel-based tracker to record data (e.g., inventory stock levels) which provides sufficient visibility to enable resupply and funding | Data tracker template  
Populate template fields by item, including name, description, stock quantity, and location |  |
| 3. Document protocols  
Write protocols for emergency response (e.g., data recording protocols) and update back side of Response Job Aid | Response materials  
Customize and add protocols for Data Visibility in the relevant section, and update back side of Response Job Aid |  |
Step \( \text{Assess Routine Information System (1/4)} \)

**SUB-STEP**

**IA. Assess Functionality**

- A data visibility system for the emergency supply chain must satisfy the following objectives: (1) monitor stock levels at national, regional, and sub-national levels of the supply chain, (2) determine when to push commodities down-stream and (3) determine when and how much to re-order at the national level. Reference current system to see whether it meets these objectives (detailed in following steps)

⚠️ Be sure to consult major donors to ensure all data visibility funding requirements are met by existing tool

**IA.1 Objective 1: monitor stock levels at all levels of the supply chain**

- The tool should provide visibility into stock levels for all commodities necessary to respond to priority disease outbreaks
- The tool must monitor stock on national, regional, and sub-regional levels. Specifically:
  - Stock levels at the national medical store and at each regional distribution center should be monitored week-to-week
  - Aggregate stock of all districts in a region and all regions in the country outside of the national or regional warehouses must also be monitored

⚠️ Tracking hundreds of commodities is complex and time-consuming so a more time-efficient way of doing this is using indicator commodities. These indicator commodities will act as proxies for other items that are consumed at a similar rate/in relation to the proxy commodity (i.e., buckets can be used as a proxy to track mops, gloves can be used as a proxy to track masks and aprons)
SUB-STEP

IA.2 Objective 2: determine when to push commodities downstream

- An information system should document the change in consumption for all SC levels (national, regional, sub-regional) to calculate consumption rates and track the progress of an epidemic. Consumption rate could be measured as defined as the difference in stock level from week to week after taking into account any stock pushed to the region.
  - In order to fully assess consumption rate, a tool must capture how much stock has been "pushed" to different levels of the SC (e.g., from national to regional, and regional to sub-regional).
  - This can be tracked weekly and recorded. Extra challenges involve commodities that are not pushed directly from the central medical store but from unique suppliers, and these must be taken into account as well.
- The ESC should “push” sufficient stock down to more local SC levels based on consumption rate: it should compare stock levels to consumption rate, and if stock levels will not last until next delivery at current consumption rate, then the ESC must “push” stock down.

IA.3 Objective 3: determine when to re-order commodities

- The tool must contain a minimum threshold for stock in the national medical store. Any commodity whose threshold is lower than this should have re-order triggered.
- The re-order quantity for each commodity should be programmed into the information system. The re-order quantity is the amount for each commodity ordered from the supplier when its stock levels dip below the minimum threshold, and should be sufficient to last past the supplier’s lead time (e.g., if supplier’s lead time is 8 weeks, reorder quantity should be at least 8 times the weekly consumption rate for that commodity, plus several week’s buffer time).
  - For this reason, any system should incorporate supplier lead time – ideally, it should base reorder quantities off of the longest lead time of the supplier for each commodity.
- The tool should also track any adjustments to consumption rate. Adjustments may be made based on expert consultation of the disease (e.g., relating to its epi-curve) or if vaccination rates are increasing. Changes to the consumption rate will change the re-order quantity, as these 2 values are inter-related.
### SUB-STEP
#### IB. Assess Process

- The data visibility system can be kept updated using several processes that can be narrowed down to two methods: (1) a system of phone calls across ESC levels or (2) in-person site visits to regional and sub-regional warehouses. Compare these methods against existing inventory management system

### IB.1 Method 1: multi-tiered system of phone calls across ESC levels

- Under a phone-based system involves a national point person contacting regional managers, and these regional managers contacting sub-regional managers to record updated stock levels
- The timing of these calls ought to be at least weekly beginning at the outset of an outbreak to capture rapid changes in consumption
- In consultation with the sub-regional managers, the regional managers should record stock and consumption data for each of their districts, as well as an aggregate for their region. Regional managers should also record the amount of each commodity pushed downstream to sub-regions
- The stock manager for the National Medical Store should record stock and consumption data for each region, as well as an aggregate for the country. The national stock manager should also record the amount of each commodity pushed downstream to regions
- Training on how to execute these calls may be required for regional managers, who may not currently monitor stock at the sub-regional level for the routine SC

### IB.1 Method 2: in-person site visits to regional and sub-regional warehouses

- When stocks are delivered from the national to the regional level or from the regional to the sub-regional level, part of the delivery will include physically checking stocks from each warehouse and recording information on stock levels to aggregate.
- This system could be electronic or paper-based, as all the documented stock levels will physically return to the national medical store and be compiled.
- In a nationally directed "push" system where all stock is delivered centrally, this system is a good choice. However, if some stock is delivered separately by suppliers this system could be error-prone
SUB-STEP

IC. Customize system

- Reference current inventory management system(s) and the above assessments on functionality and process (outlined in Steps 1A and 1B)

⚠️ Be sure to reference existing data systems in use such as Enterprise Resource Planning (ERP) systems (e.g. SAGE) and/or the existing OPEN logistics management information systems (LMIS). In addition, reference the work the ministries or international organizations in-country have undertaken to map stock management systems in-country

- Determine whether the existing system(s) can be tweaked so as to meet all 3 functionality objectives:
  - Objective 1: monitor stock levels at national, regional, and sub-regional levels of supply chain
  - Objective 2: determine when to push commodities down-stream
  - Objective 3: determine when and how much to re-order at national level

- Determine whether the existing system(s) can be tweaked so as to meet one of the 2 following methods:
  - Method 1: multi-tiered system of phone calls
  - Method 2: in-person site visits

- If it can be tweaked, customize system(s) to include the following criteria mentioned in Sub-step 1B. Specifically:
  - Incorporate emergency suppliers and stockpiles in Commodity Planning (Module II)
  - Populate with all specifications and SKUs identified in Commodity Planning (Module II)
  - Incorporate reporting requirements for different funding mechanisms identified in Sub-Step 1A
**Step 2 Use New Emergency System (1/3)**

**SUB- STEPS**

**2A. Select new emergency system**

- Consult experts to decide whether another existing tool meets your needs, or whether it would be best build your own from scratch.

**Before deciding to build a data management tool from scratch, evaluate existing data systems in use such as Enterprise Resource Planning (ERP) systems (e.g. SAGE) and/or the existing OPEN logistics management information systems (LMIS)**

**Below (steps 2B-2D) is an example of a very basic model from which a customized Excel Tracker could be adapted**

**2B. Institute data collection system**

- Institute two-tiered system of weekly calls to monitor consumption and stock levels of key commodities

- Appoint regional and sub-regional inventory managers from warehousing and storage database to supply weekly inputs to tracker

- Work with experts to establish a short-list of “indicator” commodities to track

**SUPPORTING MATERIAL**

**“Contacts” Tab of Excel Tracker**

- **Data Tracker.xls**

**Data Tracker - National**

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<tr>
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**Data Tracker - Region A**

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**Data Tracker - Sub-region A**

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<td>120%</td>
</tr>
</tbody>
</table>
2C. Customize Excel Tracker

- Add in a tab for each region of the country. An example of a Regional Tab is located in the Supporting Materials of this slide.

- Each regional tab should have the following data:
  - Item SKU and description
  - The most recent (i.e. last week’s) consumption rates for all sub-regions in the region
  - Week-by-week consumption rate for the region
  - Quantity of each tracker commodity delivered to the regional warehouse last week
  - Regional warehouse stock level

- Add in a tab for each sub-region of each region. An example of a Sub-regional Tab is located in the Supporting Materials of this slide.

- Each sub-regional tab should have the following data:
  - Item SKU and description
  - Week-by-week stock levels for the district
  - The most recent (i.e., last week’s) consumption rate
  - Quantity of each commodity pushed from regional warehouse last week
**Step 2: Create New Emergency System (3/3)**

### SUB-STEPS

#### 2C. Populate Excel-based Tracker

- National warehouse manager to assess national stock level data (and call regional managers)
- Regional managers to assess regional stock level data (and call local managers)
- Local managers to assess local stock levels

⚠️ This initial update can be viewed as a test of the initial data collection system. Any missing data here must be fixed.

#### 2D. Update Excel-based Tracker

- Update Excel-Tracker with:
  - National, regional, and sub-regional stock levels once per week
  - Most recent week’s consumption rate (calculated as the difference in stock levels from week to week) at all levels of the supply chain
  - Up-to-date lead times from all suppliers
- With this information, check re-supply on a national level, and replenish stock levels at local warehouses
- Include any extra stock “pushed” from national to regional and sub-regional levels or adjustments to the consumption rate in consultation with experts

---

**SUPPORTING MATERIAL**

**Excel Tracker**

**Data Tracker**

- **Data Tracker - National**

- **Data Tracker - Region A**

- **Data Tracker - Sub-region A**
### SUB-STEPS

**3A. Review and Customize Protocols**

- Reference any existing MCM medical supply chain protocols (governmental or partners) after completing Playbook chapter
- Assess whether any existing protocols should be added, modified, or updated based on the progress made during Playbook implementation and ensure all items have a clearly-identified set of next steps, owners, and time frames.
- Record essential response actions into “Response Quick Guide” for reference during response
- Customize protocols with names of all relevant actors

**3B. Record Protocol(s)**

- Assess which protocols are most important for response
- Synthesize into one essential protocol
- Update back side of Response Job Aid with essential protocol

### SUPPORTING MATERIAL

**Survey Quick Guide**

- “Data Visibility” section of Response Quick Guide.ppt

**Job Aid Protocol Template**

- Response Job Aid.ppt

---

USAID | Global Health Supply Chain - Technical Assistance Francophone Task Order
Contents

▪ Overview

▪ User guide
  - Getting Started
  - Module 1: People and Processes
  - Module 2: Commodity Planning
    ▪ Commodity Forecasting
    ▪ Procurement and Sourcing
    ▪ Stockpiling
  - Module 3: Transport and Logistics

▪ Appendix
### Goals

- Identify the types of commodities that the emergency supply chain will be responsible for

### Outputs

- List of commodities for which the emergency supply chain is responsible defined
- Commodity quantity calculation data identified

<table>
<thead>
<tr>
<th>Responsible</th>
<th>Deadline</th>
</tr>
</thead>
<tbody>
<tr>
<td>WORKSTREAM LEAD (e.g., emergency supply chain lead)</td>
<td>DD / MM / YYYY</td>
</tr>
<tr>
<td>TEAM MEMBERS</td>
<td></td>
</tr>
</tbody>
</table>
## Commodity Forecasting: Process Summary

<table>
<thead>
<tr>
<th>PROCESS STEPS</th>
<th>SUPPORTING MATERIALS</th>
<th>OUTPUT</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>1. Identify supplies</strong>&lt;br&gt;Use hazard assessment’s list of priority diseases to identify which commodities from commodity list are necessary for emergency response</td>
<td><strong>Commodities database</strong>&lt;br&gt;Use commodity list and Response Job Aids showing commodities required for each disease to populate template</td>
<td>Commodity list defined (~1-3 weeks)</td>
</tr>
<tr>
<td><strong>2. Calculate quantities</strong>&lt;br&gt;For each necessary commodity, work with experts to determine the consumption ratio to use to calculate quantities in the event of an outbreak</td>
<td><strong>Commodities database</strong>&lt;br&gt;Document consumption ratios for each required commodity using expert input or historical data</td>
<td>Commodity quantity calculation data identified (~2-4 weeks)</td>
</tr>
<tr>
<td><strong>3. Document protocols</strong>&lt;br&gt;Write response protocols (e.g., reference disease-specific commodities and quantities from commodity list template) to use at outbreak onset and update Response Job Aid</td>
<td><strong>Response materials</strong>&lt;br&gt;Customize and add protocols for commodity forecasting in the relevant section, and update back side of Response Job Aid</td>
<td></td>
</tr>
</tbody>
</table>
Sub-steps

1A. Reference priority diseases
- Reference hazard assessment to identify priority diseases to plan for and review them on commodities database dashboard, adding in any diseases not included on the tool.
- Commodities will pre-populate for all diseases listed in the tool; reference specific columns that are relevant to priority diseases (e.g., if Ebola is identified as priority disease, reference “Ebola” column).

1B. Select specifications
- Identify specifications and standards for commodities and check them against national specifications for imports, using international codes where possible.
- Update weights and volumes per unit for selected specifications.

1C. Confirm with experts
- Check commodities and specifications for pre-populated items with medical experts to ensure list is fully up to date, and consult with medical experts to determine specifications for new inputs.
- Note that for medical commodities and other specialized commodities (e.g., vaccines) ESC core team should work with other SC groups such as pharmacy department and malaria teams to pressure-test assumptions.

- Refresh commodity list every time hazard assessment is conducted or when major changes in medical treatments occur.
**SUB-STEPS**

**2A. Identify experts**

- Reference the participants from hazard assessment workshop and stakeholders on stakeholder map. Choose medical experts with experience in infectious diseases, zoonoses, and outbreak response
- Contact experts and arrange for a quantity forecasting discussion
  
  *Make sure to call WHO, UNICEF, and WFP for help on consumption ratios*

**2B. Define consumption ratios**

- For each of those diseases, work with experts to identify usual consumption ratios per case. These consumption ratios will be used to calculate quantities required in the event of an outbreak
- Document consumption ratios in commodity database for use when an outbreak occurs
- Identify which commodities will be “indicator” commodities that have the same consumption patterns as others (e.g., mops and buckets). **Indicator commodities can be used to predict consumption ratios for other commodities, and can be tracked in inventory management to simplify reporting and provide assumptions on stock levels of other commodities**

**SUPPORTING MATERIAL**

**Stakeholder map**

*Playbook Templates.xls > Stakeholder map*

**Commodities database**

*Playbook Templates.xls > Commodities database*
SUB-STEPS

2C. Test response scenarios

- Select disease to test response scenarios on and estimate potential number of monthly cases at peak of outbreak based on Priority Diseases worksheet and expert input
- Examine “Outbreak Response” section of worksheet to see total requirements by commodity
- These estimates will be used in Procurement, Storage, and Transport tabs to test out different response scenario requirements

SUPPORTING MATERIAL

Commodities database

Playbook Templates.xls > Commodities database
3A. Review and Customize Protocols

- Reference “Commodity Forecasting” section of Response Quick Guide
- Customize protocols with names of all relevant actors
  - Ensure accountability is clearly highlighted in protocols (e.g., once emergency is triggered, ESC Lead has authority over supply chain commodities)
  - Customize and add protocols to the sample protocols listed as needed

3B. Record Protocol(s)

- Assess which protocols are most important for response
- Synthesize into one essential protocol
- Update back side of Response Job Aid with essential protocol
Contents

- Overview
- **User guide**
  - Getting Started
  - Module 1: People and Processes
  - Module 2: Commodity Planning
    - Commodity Forecasting
    - **Procurement and Sourcing**
    - Stockpiling
  - Module 3: Transport and Logistics
- Appendix
### Goals
- Identify suppliers for all necessary commodities and put in place agreements to purchase commodities for emergency response

### Outputs
- List of vetted suppliers for emergency supply chain commodities updated
- Agreements with emergency supply chain suppliers written

### Responsible
**WORKSTREAM LEAD**
(e.g., procurement lead)

**TEAM MEMBERS**

### Deadline
DD / MM / YYYY
## Procurement and Sourcing: Process Summary

<table>
<thead>
<tr>
<th>PROCESS STEPS</th>
<th>SUPPORTING MATERIALS</th>
<th>OUTPUT</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>1. Identify suppliers and capacity</strong></td>
<td><strong>Procurement database</strong>&lt;br&gt;Write name of supplier, quantities of commodities available, and points of contact in database</td>
<td><strong>List of vetted suppliers for emergency supply chain commodities updated (~1-2 months)</strong></td>
</tr>
<tr>
<td>Create list of suppliers of necessary commodities (identified in commodity database), vet quality (WHO prequalified or stringent regulatory authority), and identify points of contact. Work with suppliers to estimate the capacity that each supplier could provide.</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>2. Negotiate standby agreements</strong></td>
<td><strong>Contract checklist</strong>&lt;br&gt;Use checklist to inform negotiations with potential suppliers &lt;br&gt;<strong>Procurement database</strong>&lt;br&gt;Document contract terms on timing, storage, transport, and payment</td>
<td><strong>Agreements with emergency supply chain suppliers written (~1-3 months)</strong></td>
</tr>
<tr>
<td>Reach out to supplier contacts to establish payment and delivery conditions. Write contracts to document the agreement.</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>3. Document protocols</strong></td>
<td><strong>Response materials</strong>&lt;br&gt;Customize protocols for procurement and sourcing in the relevant section, and update back side of Response Job Aid</td>
<td></td>
</tr>
<tr>
<td>Write protocols for emergency response (e.g., call suppliers to activate agreements, resupply) and update back side of Response Job Aid.</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Step 1 Identify Suppliers and Capacity (1/2)

**SUB-STEPS**

**IA. Identify suppliers**

- Reference procurement database to identify which commodities are necessary to procure based on disease prioritization and commodity planning. List of necessary commodities and quantities comes from “Commodity Planning” section and is auto populated in spreadsheet.

- Identify at least 2 suppliers for each necessary commodity to minimize risk. Note: suppliers are both existing partners (e.g., WHO, FAO) as well as private sector sources.
  - Look at historical sources of supplies by commodity type.
  - Should be WHO prequalified or Stringent Regulatory Authority approved.
  - Scan national marketplace and reference regional and international databases (e.g., UN Global Marketplace) to identify additional suppliers.

- Document points of contact.

**IB. Determine supplier capacity**

- Share desired quantity of commodities with suppliers.

- Work with supplier POCs to determine how much capacity the supplier can meet. If supplier will not share capacity, estimate based on historical orders.

**SUPPORTING MATERIAL**

- Playbook Templates.xls > Procurement database

---

USAID | Global Health Supply Chain - Technical Assistance Francophone Task Order
Identify Suppliers and Capacity (2/2)

**SUB-STEPS**

1C. Compare capacity to potential response requirements

- Determine whether additional suppliers are needed by comparing supplier’s capacity to required quantity for each necessary commodity
- Select disease to test response scenarios on by going to “Commodities” database and estimate potential number of monthly cases at peak of outbreak based on Priority Diseases worksheet and expert input. The procurement database will auto-populate with required quantity for each commodity based on disease scenario.

1D. Input suppliers into tracker

- If Data Tracker (e.g., LMIS) system is in place, put names and necessary information of potential suppliers into system to speed response time.

**SUPPORTING MATERIAL**

- **Procurement database**
  - Playbook Templates.xls > Procurement database
  - Procurement worksheet
    - Commodity list and corresponding suppliers
## Procurement Worksheet

### Commodity list and corresponding suppliers

<table>
<thead>
<tr>
<th>Item Names</th>
<th>Quantity</th>
<th>Supplier 1</th>
<th>Supplier 2</th>
<th>Supplier 3</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Name</td>
<td>Location</td>
<td>Point of contact</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Capacity</td>
<td>Cost per unit ($</td>
<td>Contract start and end date</td>
</tr>
<tr>
<td>Examination gloves</td>
<td>1400</td>
<td>Gloves Co</td>
<td>Yaounde</td>
<td>John Doe</td>
</tr>
<tr>
<td>Mask, surgical, flat rectangular with folds</td>
<td>600</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Surgical N95 respirator</td>
<td>90</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Coveralls, fluid-resistant, disposable, with elastic wrists, ankles and hood</td>
<td>250</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Hood</td>
<td>160</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Gown, disposable, with elastic wrists</td>
<td>0</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Gown, fluid-resistant, disposable, with elastic wrists</td>
<td>175</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Full face shield</td>
<td>200</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Goggles</td>
<td>350</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Scrubs, tops/pants</td>
<td>0</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Negotiate Standby Agreements

**SUB-STEPS**

**2A. Negotiate terms**
- Reach out to supplier point of contact
- If long-term agreement is in place, leveraging existing long-term agreement. If not, use negotiation checklist to negotiate essential terms on what, when, and how suppliers will deliver
- Establish timing of commodity delivery and confirm capacity
- Determine whether supplier will store commodities on-site or transport commodities to CMS or point of care. If so, ESC does not need to plan storage or transport for these commodities
- Plan payment structure (e.g., will ESC pay a surge rate, when will funds be released)

**2B. Record transaction**
- Log contract date and specifications for reference in the event of an outbreak in “Procurement” worksheet
- Update contract as necessary

**SUPPORTING MATERIAL**

**Negotiation checklist**

- **Timing**: Within how many weeks of emergency trigger (Step 1C) will commodities be available?
  
  **Answer:**

- **Capacity**: How much of the necessary quantity will supplier fill?
  
  **Answer:**

- **Storage**: Will supplier keep commodities on site?
  
  **Answer:**

- **Transport**: Where will supplier transport commodities to?
  
  **Answer:**

- **Payment structure**: How will funds be released?
  
  **Answer:**

**Procurement database**

- **Procurement worksheet**

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<table>
<thead>
<tr>
<th>Question</th>
<th>Answer</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Timing</strong> Within how many weeks of emergency trigger (Step 1C) will commodities be available?</td>
<td>Answer:</td>
</tr>
<tr>
<td><strong>Capacity</strong> How much of the necessary quantity will supplier fill?</td>
<td>Answer:</td>
</tr>
<tr>
<td><strong>Storage</strong> Will supplier keep commodities on site?</td>
<td>Answer:</td>
</tr>
<tr>
<td><strong>Transport</strong> Where will supplier transport commodities to?</td>
<td>Answer:</td>
</tr>
<tr>
<td><strong>Payment structure</strong> How will funds be released?</td>
<td>Answer:</td>
</tr>
</tbody>
</table>
**SUB-STEPS**

3A. Review and Customize Protocols

- Reference “Procurement and Sourcing” section of Response Quick Guide
- Customize protocols with names of all relevant actors
  
  - Ensure accountability is clearly highlighted in protocols (e.g., once emergency is triggered, ESC Lead has authority over supply chain commodities)
  
  - Customize and add protocols to the sample protocols listed as needed

3B. Record Protocol(s)

- Assess which protocols are most important for response
- Synthesize into one essential protocol
- Update back side of Response Job Aid with essential protocol

**SUPPORTING MATERIAL**

### Response Quick Guide

"Procurement and Sourcing" section of Response Quick Guide.ppt

**SUPPLY CHAIN PROTOCOLS AND CONTACTS**

- Essential ESC Protocols
  - Anticipate emergency supply chain organizational needs. Contact all personnel on emergency supply chain organizational chart.
  - Arrange a meeting with all stakeholders. Make contact with emergency supply chain partners and local government.
  - Hold initial meeting with ESC logistics function to make sure the emergency supply chain lead and the ESC logistics function coordinate.
  - Plan emergency supply chain resources. Technical leads for procurement, transport, and storage should make detailed plans for their areas and coordinate with relevant partners.
  - Anticipate transport. Conduct emergency transportation to ensure agreements are in place on emergency supply chain transport.
  - Establish internal mechanisms. Contact customs to activate emergency customs procedures expediting emergency supplies.
  - Use relationships. Release stockpiled commodities to affected areas.
  - Demand supplies and resources. Contact suppliers to arrange agreements in place and immediately begin expediting items.
  - Anticipate emergency over-credit supply chain. Follow protocol that emergency supply chain takes precedence over other transactions.
  - Licensed to work in the country. Secure funding for emergency supply chain from responsible party.
  - Secure ESC capacity. Contact ESC leadership to coordinate logistics and transport.
  - Dispose carefully. Follow waste management protocols.
  - Educate stakeholders. Contact suppliers to replace stockouts.
  - Update plan for emergency supply chain response. Technical leads for procurement, transport, and storage should continuously update plans with new information.

### Job Aid Protocol Template

Response Job Aid.ppt
Contents

- Overview

- User guide
  - Getting Started
  - Module 1: People and Processes
  - Module 2: Commodity Planning
    - Commodity Forecasting
    - Procurement and Sourcing
    - Stockpiling
  - Module 3: Transport and Logistics

- Appendix
### Stockpiling: Goals and Outputs

<table>
<thead>
<tr>
<th>Goals</th>
<th>Outputs</th>
</tr>
</thead>
<tbody>
<tr>
<td>▪ Determine the quantity of commodities necessary to respond to prioritized diseases and plan where to stockpile those commodities to ensure they are readily accessible.</td>
<td>Existing stockpiles for necessary commodities identified</td>
</tr>
<tr>
<td></td>
<td>National stockpile in place (if necessary)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Responsible</th>
<th>Deadline</th>
</tr>
</thead>
</table>
| WORKSTREAM LEAD  
(e.g., emergency supply chain lead) | DD / MM / YYYY |
| TEAM MEMBERS | |

---

USAID | Global Health Supply Chain - Technical Assistance Francophone Task Order
# Stockpiling: Process Summary

## PROCESS STEPS

<table>
<thead>
<tr>
<th>Step</th>
<th>Process Description</th>
<th>Supporting Materials</th>
<th>Output</th>
</tr>
</thead>
</table>
| 1    | **Quantify stockpile needs**  
Determine appropriate quantities to stockpile to ensure supplies are readily accessible to respond to outbreaks of priority diseases in a short time frame | Stockpile worksheet  
Use stockpile worksheet in Commodity Database to calculate quantities needed for first month of a response | Stocks of existing stockpiles for commodities identified (~1-2 weeks) |
| 2    | **Assess existing stockpile options**  
Hold workshop with experts to determine whether stockpiles of necessary commodities are sufficiently accessible and whether country should use regional stockpiling capabilities (e.g., UNHRD). If regional/virtual stockpiles are not sufficient, determine how necessary commodities that are not located in existing stockpiles will be rapidly accessed | UNHRD  
Use UNHRD database to determine quantities available in existing stockpiles | National stockpile in place (if necessary) (~3-6 months) |
| 3    | **Implement national stockpile plan**  
If national stockpile plan has been developed, procure commodities, and set up national storage and inventory management for stockpile | Commodities database  
Update commodities database to identify whether that commodity is found in an accessible stockpile, and if so, where |  |
| 4    | **Document protocols**  
Write response protocols (e.g., when to rotate stockpiled commodities into routine supply chain, requirements for utilizing emergency stockpile) to manage stockpile. Include proper protocols for donning and doffing of PPE (how to put on and take-off PPE). | Response materials  
Customize and add protocols for stockpiling in the relevant section, and update back side of Response Job Aid |  |
Pull up hazard assessment ranking of priority diseases to determine which diseases are essential to stockpile for. You will calculate quantities necessary for all your highest priority diseases, but will only stockpile for the disease requiring the greatest amount of resources to respond.

Select these diseases on the “Priority Diseases” section of the stockpile worksheet to automatically populate the commodities necessary, based on projected cases in first month from Priority Disease Worksheet, consumption ratios from Commodities database, and supplier lead times from Procurement database. Note – if information on supplier lead times is not yet available, assume average supplier lead times for type of commodity in routine SC until additional information is available. Default stockpile should sustain country through first month of outbreak; however if lead time for any commodities is greater than one month, stockpile should cover average monthly consumption times number of months of lead time.
Reach out to internal (MoH, Ministry of Agriculture) and external medical experts (WHO, UNICEF, MSF, WFP) from Stakeholder Map and hazard assessment who are knowledgeable on priority diseases to determine quantity of commodities necessary to respond to the first month of an outbreak of priority diseases if this information was not identified during hazard assessment, or to pressure-test stockpiling assumptions.

- External experts can provide access to powerful modeling tools (e.g., WHO OPALS).
- Medical experts will provide disease-specific information while in-country health experts can provide country-specific demographics to predict number of cases in the first month.
If experts have provided necessary quantities (e.g., from WHO OPALS tool), utilize expert input. If not, carry out consumption calculation based on historical data gathered to estimate stockpile needs.

Calculate monthly average consumption: for each commodity, divide first month’s total consumption by population in the area to develop monthly average consumption rate per case.

Adjust monthly consumption if necessary based on country-specific elements (e.g., vaccination levels) or disease-specific elements (e.g., if disease is more serious, increase consumption rate).

Plug in newly-calculated estimated consumption rate per case in “Monthly consumption rate” to produce stockpile calculation.

SUPPORTING MATERIAL

Stockpile worksheet

Playbook Templates.xls > Stockpile worksheet
People and Processes > Governance and Organizational Structure

Step 2 Assess Existing Stockpiles (1/3)

**SUB-STEPS**

2A. Gather experts necessary

- Identify experts necessary to confirm appropriate amount of commodities to be stockpiled and provide inputs on existing and potential locations for stockpiles
- Reach out to internal (MoH) and external medical experts (e.g., MSF, WHO) from Stakeholder Map and hazard assessment
- Contact logisticians (e.g., WFP, UNICEF) and UNHRD representative
- Engage private sector stakeholders. **Stockpiles can also be virtual stockpiles, not just regional depots, so gather a diverse group of stakeholders**

2B. Identify existing stockpiles of commodities

- Work with partners to identify locations of stockpiles that can ensure access to commodities within 72 hours and determine which stockpiles are most convenient. Goal of stockpile is to provide access to essential commodities rapidly in the event of an outbreak

**SUPPORTING MATERIAL**

**UNHRD Stock Report**


**Stockpile worksheet**

[Playbook Templates.xls > Stockpile worksheet](http://unhrd.org/page/stock-report)
Step 2: Assess Existing Stockpiles (2/3)

**SUB-STEPs**

2C. Determine which existing stockpiles to leverage

- Determine whether proximal locations contain either storage place for country-specific stocks or available stockpiles of necessary commodities, and if so, whether they can be leveraged (e.g., loan system can be put in place or supplies can be earmarked).
- Use UNHRD stock report to examine available commodities in accessible stockpiles. Ask for expert insight into non-UNHRD stock levels and accessibility (e.g., reference FAO stockpile stock levels).
- Compare available stockpiles of necessary commodities (if any) with necessary quantities listed on stockpile worksheet.
- Take account of differential disease risks across countries.
- Document available resources in stockpile worksheet under “Regional stockpile” for each commodity.

2D. Put in place agreements with existing stockpiles

- Confirm and document on paper what share of storage space or stockpiles you will leverage, who will handle inventory management, and what stockpile release protocols will be.

**SUPPORTING MATERIAL**

UNHRD Stock Report

[UNHRD Stock Report](http://unhrd.org/page/stock-report)
Work with stakeholders to determine how best to fill any remaining stockpile gap by weighing cost of being short on product versus cost of being long (e.g., expired product, inventory holding) by considering:

- Demand for commodity: Likelihood of use, substitutability (e.g., can another product or method be used for the same effect?), consumption patterns, existing stock levels in routine supply chain
- Ability to manage inventory locally: Life-cycle, complexity of management, cold chain capability required, storage capacity available/affordable locally
- Ease of import: Ease of passing customs, risk level posed by travel time

Determine virtual, regional, or local stockpiling for each remaining commodity.
People and Processes > Governance and Organizational Structure

Step 3 Implement National Stockpile Plan (1/2)

SUB-STEPS

3A. If developing national stockpile, identify storage

- Use stockpile worksheet of commodity database to determine total capacity required and compare with available storage in warehousing and storage database to determine stockpile storage location, taking into account commodity storage specifications (e.g. cold chain). Note – existing storage may not yet have been mapped, so storage may have to be revisited.
- Carry out necessary contracting steps to secure storage if it is not owned and document.
- Ensure storage is sufficiently separate from routine supply chain to prevent appropriation.

3B. Procure commodities

- Consult procurement database to identify sources for stockpiled commodities.
- Purchase commodities through existing contracts if already in place.
- Update in stockpile worksheet under “National stockpile”.

SUPPORTING MATERIAL

Stockpile worksheet

Playbook Templates.xls > Stockpile worksheet
SUB-STEPS

3C. Set up inventory management

- Hire and train staff for stockpile management
- Develop a system for rotating supply through routine supply chain while regularly replenishing emergency stocks by tracking stock levels and triggering resupply with existing suppliers
- Conduct stock monitoring on at least a quarterly basis to avoid expiry and misappropriation, and update quantities in “Stockpile” worksheet

SUPPORTING MATERIAL

Stockpile worksheet

![Stockpile worksheet](Playbook_Templates.xls_stockpile_worksheet.png)
SUB-STEPS

4A. Review and Customize Protocols

- Reference “Stockpiling” section of Response Quick Guide
- Customize protocols with names of all relevant actors
  - Ensure accountability is clearly highlighted in protocols (e.g., once emergency is triggered, ESC Lead has authority over supply chain commodities)
  - Customize and add protocols to the sample protocols listed as needed
- Ensure that PPE donning and doffing protocols are prominently included

4B. Record Protocol(s)

- Assess which protocols are most important for response
- Synthesize into one essential protocol
- Update back side of Response Job Aid with essential protocol
Contents

- Overview

- **User guide**
  - Getting Started
  - Module 1: People and Processes
  - Module 2: Commodity Planning
  - Module 3: Logistics and Transport
    - **Warehousing and Storage**
      - Transportation and Waste Management
  - Appendix
### Goals

- Determine storage and warehousing needs for emergency supply chain commodities and map storage options

### Outputs

- Warehousing and storage needs for emergency supply chain commodities identified
- Available storage options mapped
- Temporary warehousing plan in place

### Responsible

**WORKSTREAM LEAD**  
(e.g., emergency supply chain lead)

**TEAM MEMBERS**

### Deadline

DD / MM / YYYY
## Warehousing and Storage: Process Summary

<table>
<thead>
<tr>
<th>PROCESS STEPS</th>
<th>SUPPORTING MATERIALS</th>
<th>OUTPUT</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Determine total storage requirements</td>
<td>Use commodity specifications and quantity estimates (identified in Commodity Forecasting) to determine total storage capacity required</td>
<td>Warehousing and storage database Use ‘required storage’ dashboard for historical benchmark and calculated storage requirement based on response scenario</td>
</tr>
<tr>
<td>2. Determine available “owned” storage capacity</td>
<td>Review existing warehouse and storage facilities to determine capacity available, taking into account commodity storage specifications (e.g., cold chain). Compare against total storage capacity to determine gap</td>
<td>Warehousing and storage database Write location, capacity, and points of contact for owned storage in Storage Database; use dashboard to record owned capacity and calculate gap</td>
</tr>
<tr>
<td>3. Identify non-owned permanent storage options</td>
<td>Identify storage options (e.g., army, private sector, contractor) by region and compare against commodity storage specifications</td>
<td>Warehousing and storage database: Write location, capacity, and points of contact for non-owned storage in Storage Database; use dashboard to record owned capacity and calculate gap</td>
</tr>
<tr>
<td>4. Draft contracts</td>
<td>Negotiate and write contracts with storage providers to lease additional capacity for emergency, and compare against total storage capacity to determine new gap</td>
<td>Warehousing and storage database Use Dashboard to record new total capacity and calculate new gap</td>
</tr>
<tr>
<td>5. Plan for temporary warehousing</td>
<td>Identify sites for temporary warehousing facilities in strategic locations (e.g., near airport and seaports)</td>
<td>Temporary warehousing sites database Write location, size, and points of contact in database</td>
</tr>
<tr>
<td>6. Document protocols</td>
<td>Write protocols for emergency response (e.g., temporary warehousing protocols) and update back side of Response Job Aid</td>
<td>Response materials Customize and add protocols for warehouse and storage in the relevant section, and update back side of Response Job Aid</td>
</tr>
</tbody>
</table>
### SUB-STEPS

#### I.A. Reference ‘Required Storage’ dashboard
- Check that fields in “required storage” dashboard are pre-populated based on the selected response scenario. This dashboard contains 2 ways of calculating required storage: (1) from historical data on commodities stored in epidemics and (2) by summing commodities required for a given response scenario.

#### I.B. Estimate historical benchmarks
- Check “Storage and Transport Benchmarks” tab in Playbook Templates.xls to select appropriate benchmarks for standard storage. If planning for most extreme requirements, select the weeks with the highest values (pre-selected).
- Estimate the historical benchmark for commodities requiring cold chain in consultation with experts by calculating a percentage of the volume for standard storage (e.g., 10%), and enter this into the dashboard.

#### I.C. Sum total storage needs for response scenario
- Check sums for Cold Chain (CC) Storage and Standard Storage requirements on the Commodities Database are auto-populated in the ‘Required Storage’ dashboard based on the “Response Scenario” selection. These are calculated as the total monthly warehousing needs to respond to an outbreak.

---

### SUPPORTING MATERIAL

#### Storage database

**Playbook Templates.xls > Storage database**

#### Storage Database

<table>
<thead>
<tr>
<th>Type</th>
<th>Region</th>
<th>Unit Type</th>
<th>Quantity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Item</td>
<td>USA</td>
<td>F0</td>
<td>100</td>
</tr>
<tr>
<td>Item</td>
<td>USA</td>
<td>F1</td>
<td>200</td>
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<tr>
<td>Item</td>
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<tr>
<td>Item</td>
<td>USA</td>
<td>F9</td>
<td>1000</td>
</tr>
</tbody>
</table>

**Note:** These are calculated as the total monthly warehousing needs to respond to an outbreak.
Step 2 Determine Available “Owned” Storage Capacity

**SUB-STEPS**

2A. Identify contacts
- Work with Routine SC Lead to identify contacts for owned in-country storage facilities. *If these are not on ESC’s organizational chart, add them.*

2B. Assess existing capacity
- Work with MINATD to tour all government-owned warehousing and storage facilities and clear out all unused/expired commodities. *MINATD coordinates regional stores because so it is important to involve them early in this process.*
- Record available Standard and Cold Chain (CC) storage capacity in Storage Database along with cost per unit.

2C. Sum existing capacity
- Sum Standard and CC capacity of all owned facilities
- Calculate total cost for Standard Capacity and CC capacity by multiplying storage capacity with cost per unit of storage
- Existing government storage capacity will be auto-populated into the dashboard

**SUPPORTING MATERIAL**

Storage database

- **Playbook Templates.xls > Storage database**
  
- **Storage Database**
  
- | Type | Name | Unit Type | Unit Cost | Total Capacity |
<table>
<thead>
<tr>
<th></th>
<th></th>
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<th></th>
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<tbody>
<tr>
<td>Facility</td>
<td>1</td>
<td>Standard</td>
<td>$5</td>
<td>100</td>
</tr>
<tr>
<td>Facility</td>
<td>2</td>
<td>Cold Chain</td>
<td>$5</td>
<td>200</td>
</tr>
<tr>
<td>Facility</td>
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<td>Standard</td>
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<tr>
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<tr>
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<td>Cold Chain</td>
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<tr>
<td>Total Owned</td>
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<td></td>
<td></td>
<td>200</td>
</tr>
</tbody>
</table>
Step 3 Identify non-governmental Permanent Storage Options

**SUB- STEPS**

3A. Identify options

- Work with Routine SC Lead and partners to identify organizations which have warehousing and storage facilities both regionally and nationally.
- Record provider type, facility name, POC, and supply chain level (e.g., regional) in database.

⚠️ Be sure to include:

- Non-MoH government departments (e.g., Dept. of Education, Dept. of Agriculture)
- Large multinational corporations (e.g., Coca Cola)
- Private contractors

⚠️ Be sure to make this list as comprehensive as possible.
⚠️ Be sure to target providers with greatest capacity and situated in at-risk regions (as identified in Hazard Assessment in Step 1C.1)

3B. Assess provider capacity

- Contact POCs in Storage Options Database.
- Determine provider capacity for Cold Chain and Regular storage and input into “Storage Database”.

**SUPPORTING MATERIAL**

Storage database

- **Playbook Templates.xls > Storage database**

<table>
<thead>
<tr>
<th>Type</th>
<th>Name</th>
<th>Provider Information</th>
<th>Contact Information</th>
<th>Supply Chain Level</th>
<th>Region</th>
<th>Unit Type</th>
<th>Price</th>
<th>Price per Unit</th>
<th>Total Unit Cost</th>
<th>Total Cost</th>
</tr>
</thead>
<tbody>
<tr>
<td>Storage</td>
<td>Total</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Storage Database

- This database is a spreadsheet of storage options and can be used to prioritize and compare storage needs.

- Select whether to use “Breakout” or “Breakout scenarios” to drop down populated from the drop-down menu of the respective scenario.

- Required capacity for each service type is listed.

- Total storage capacity is calculated for each type.

- Total cost is calculated by multiplying unit cost by total units.

- Breakout scenarios are used to prioritize and compare storage needs.

- Storage options are listed with provider type, facility name, and contact information.

- Supply chain level is classified as national, sub-national, or regional.

- Region is classified as urban or rural.

- Unit type is classified as standard or cold chain.

- Price per unit is listed for each type.

- Total unit cost and total cost are calculated.

- Breakout scenarios are used to prioritize and compare storage needs.
### SUB-STEPs

#### 4A. Specify contract terms

- Negotiate essential conditions of leasing agreement and document them in writing. These conditions are:
  - Payment structure: how much will be owed by ESC in exchange for storage and what method and quantity of payment will be
  - Activation of contract: establish that ESC is given priority access to this space at the triggering of a public health emergency
  - Pledged storage amount: the amount of storage (in meters cubed) either pledged or rented must be quantified
  - Staffing requirements: make clear what staffing is required for the storage to be functional. At least twice the capacity will be required during an emergency to operate the current warehouses. This is in addition to staffing requirements for other storage facilities.

#### 4B. Calculate gap

- Determine gap between total permanent storage and required storage for Cold Chain and regular storage by using dashboard on database

*Total permanent storage = Existing Government Storage + Partner Storage. It does not include Temporary Storage (covered in Sub-step 5A) but will inform how much temporary storage is needed*
### SUB-STEPS

**5A. Identify site options**

- Work with routine SC storage and warehousing lead to identify strategic locations:
  - **Near airports and seaports** to create extra capacity for unloading imported commodities
  - **In centrally located sites** in regions identified as at-risk by the Hazard Assessment (conducted in Step 1C.1)
  - **In non-traditional storage facilities** such as sports stadiums or private sector warehouses
- Record coordinates and a point of contact for each site
- Pick sites that can be easily secured to prevent theft of commodities stored. *Temporary warehousing is not as secure as permanent storage*
- Select sites that are protected from adverse environmental conditions (e.g., flooding, storms). *Temporary warehousing is less protected from the elements than permanent storage*
- This site identification may involve sites that need to be leveled in preparation for use as temporary warehousing areas

### SUPPORTING MATERIAL

#### Temporary Storage Sites Database

*Playbook Templates.xls > Temporary storage sites database*

<table>
<thead>
<tr>
<th>Property Type</th>
<th>Name</th>
<th>POC</th>
<th>Contact Info</th>
<th>Coordinates</th>
<th>Size (m²)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Private</td>
<td>Facility 1</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Public</td>
<td>Facility 2</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Private</td>
<td>Facility 3</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Public</td>
<td>Facility 4</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Private</td>
<td>Facility 5</td>
<td></td>
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<tr>
<td>Public</td>
<td>Facility 6</td>
<td></td>
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<tr>
<td>Private</td>
<td>Facility 7</td>
<td></td>
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<tr>
<td>Public</td>
<td>Facility 8</td>
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<tr>
<td>Private</td>
<td>Facility 9</td>
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<td></td>
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<tr>
<td>Public</td>
<td>Facility 10</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Private</td>
<td>Facility 11</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

This tab serves as a database to store all potential temporary storage site information.
**SUB-STEPS**

**6A. Review and Customize Protocols**

- Reference “Warehousing and Storage” section of Response Quick Guide
- Customize protocols with names of all relevant actors
  - Ensure accountability is clearly highlighted in protocols (e.g., once emergency is triggered, ESC Lead has authority over supply chain commodities)
  - Customizing and add protocols to the sample protocols listed as needed

**6B. Record Protocol(s)**

- Assess which protocols are most important for response
- Synthesize into one essential protocol
- Update back side of Response Job Aid with essential protocol
Contents

- Overview

- User guide
  - Getting Started
  - Module 1: People and Processes
  - Module 2: Commodity Planning
  - Module 3: Logistics and Transport
    - Warehousing and Storage
    - Transportation and Waste Management

- Appendix
### Transport and Logistics: Goals and Outputs

<table>
<thead>
<tr>
<th>Goals</th>
<th>Outputs</th>
</tr>
</thead>
<tbody>
<tr>
<td>▪ Determine how emergency commodities will get to the front lines and plan how and where waste should be disposed of</td>
<td>Customs procedures for emergency supplies updated</td>
</tr>
<tr>
<td></td>
<td>Agreements with emergency supply chain transport providers written</td>
</tr>
<tr>
<td></td>
<td>Waste disposal facilities mapped</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Responsible</th>
<th>Deadline</th>
</tr>
</thead>
<tbody>
<tr>
<td>WORKSTREAM LEAD</td>
<td>DD / MM / YYYY</td>
</tr>
<tr>
<td>(e.g., logistics lead)</td>
<td></td>
</tr>
<tr>
<td>TEAM MEMBERS</td>
<td></td>
</tr>
</tbody>
</table>

---

**USAID | Global Health Supply Chain - Technical Assistance Francophone Task Order**
## Transport and Logistics: Process Summary

### PROCESS STEPS

<table>
<thead>
<tr>
<th>Step</th>
<th>Description</th>
<th>Supporting Materials</th>
<th>Output</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Establish agreements with customs office</td>
<td>Stakeholder Map</td>
<td>Customs procedures updated (~2-3 months)</td>
</tr>
<tr>
<td></td>
<td>Assign point person from office and work with them to establish tariff-free and expedited treatment of needed commodities</td>
<td>Use contact information for customs officials by department to initiate contact</td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>Identify regional transport options</td>
<td>Transport options database</td>
<td>Agreements with transport providers written (~1-2 months)</td>
</tr>
<tr>
<td></td>
<td>Identify transport options by region (e.g., army, 3PL, multinational corporations) and compare against commodity transport specifications</td>
<td>Write name of transporter, type(s) of commodity transported, quantity, and points of contact in database.</td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>Draft contracts</td>
<td>Transport options database</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Negotiate and write contracts with transport providers ensuring priority status in emergency and establishing general payment structure</td>
<td>Use “Capacity Gap” dashboard and ensure all inputs are correct</td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>Calculate Capacity Gap</td>
<td>Transport options database</td>
<td>Waste disposal sites mapped (~1-2 months)</td>
</tr>
<tr>
<td></td>
<td>Determine total transport capacity needed using “Capacity Gap” dashboard</td>
<td>Use “Capacity Gap” dashboard and ensure all inputs are correct</td>
<td></td>
</tr>
<tr>
<td>5</td>
<td>Categorize waste and identify disposal sites</td>
<td>Waste disposal site database</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Categorize waste by disposal method (e.g., sharps containers), map disposal sites by region, and record capacity to dispose of different waste types</td>
<td>Record site location and capacity to dispose of different waste types identified in database</td>
<td></td>
</tr>
<tr>
<td>6</td>
<td>Document protocols</td>
<td>Response materials</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Write transport and waste management protocols (e.g., worker safety during disposal) and update back side of Response Job Aid</td>
<td>Customize and add protocols for Transport and Logistics in the relevant section, and update back side of Response Job Aid</td>
<td></td>
</tr>
</tbody>
</table>
Establish Agreements with Customs Office

**SUB-STEPS**

**IA. Contact Customs**
- Reach out to the point of contact identified in the Stakeholder Map

**IB. Record Protocol(s)**
- Reference the procurement database to determine the list of imported commodities and their suppliers
- Specify essential conditions of national humanitarian response, including:
  - Expedited and tariff-free processing of pre-defined goods from pre-defined suppliers as soon as an emergency is triggered
  - Storage of commodities in the clearance process during outbreaks
  - Qualifying entities and commodities that will be granted expedited and tariff-free status
  - Specific process through which qualifying suppliers will get goods through customs, including letters of exemption and special permission from relevant government ministries
- Use these terms to implement ASYREC, the Automated System for Customs Relief Emergency Consignments, an online platform to streamline these agreements. Submit an expression of interest to contact@asyrec.org and work with OCHA to execute this.

**SUPPORTING MATERIAL**

**Stakeholder Map**
- Playbook Templates.xls > Stakeholder map

**Procurement database**
- Playbook Templates.xls > Procurement database
Step 2 Identify Regional Transport Options

SUB-STEPS

2A. Identify options

- Work with Routine SC Lead to identify organizations which transport goods both regionally and nationally

- Record provider type, provider name, POC, operational regions, and vehicle type in the Transport Options Database. Be sure to include:
  - Government vehicles (from routine SC and army)
  - Third-party logistics companies
  - Large multi-national corporations (e.g., Coca Cola)
  - NGOs

Be sure to make this list as comprehensive as possible.

Be sure to take special note and target providers with the greatest accessibility in the country, and consider areas that can only be reached by certain means of transportation, or road closures due to certain seasons (as identified in Hazard Assessment (Step 1C.1))

2B. Assess provider capacity

- Reach out to designated point of contact in transport options database

- Determine provider capacity for Cold Chain and Regular storage.

Supporting Material

Transport options database

Playbook Templates.xls > Transport options database

USAID | Global Health Supply Chain - Technical Assistance Francophone Task Order
Negotiate essential conditions of leasing agreement and document them in writing. These conditions are:

- Payment structure: how and how much will be owed by MoH in exchange for transport
- Activation of contract: establish that MoH is given priority access to resources at the triggering of a public health emergency
- Pledged vehicle amount: the amount of transportation (in vehicles and volume) either pledged or rented must be quantified
- Staffing requirements: make clear what labor is required for the transport to be functional

Ensure a yearly review of contract arrangements to account for changes in transport provider capacity.

Ensure special contracts exist with Ministry of Transportation and the army specifically to bolster on-site unloading capacity at ports and seaports.
**Step 4 Calculate Capacity Gap**

**SUB-STEPS**

**4A. Reference ‘Required capacity’ dashboard**
- Check that fields in “required transport” dashboard are pre-populated based on the selected response scenario. *This dashboard contains two ways of calculating required storage: (1) from historical data on commodities transported in epidemics and (2) by summing commodities required for transport for a given response scenario.*

**4B. Estimate historical benchmarks**
- Check “Storage and Transport Benchmarks” tab in *Playbook Templates.xls* to select appropriate benchmarks for standard transport. *If planning for most extreme requirements, select the weeks with the highest values (pre-selected).*
- Estimate the historical benchmark for commodities requiring cold chain in consultation with experts by calculating a percentage of the volume for standard transport (e.g., 10%) , and enter this into the dashboard.

**4C. Reference “Capacity Gap” dashboard**
- Check sums for Cold Chain (CC) Transport and Standard Transport requirements on the Commodities Database are auto-populated in the ‘Required capacity’ dashboard based on the “Response Scenario” selection. *These are calculated as the total monthly transport needs to respond to an outbreak.*
- Based on information gathered from drafted contracts (Sub-step 3A) populate the final three rows of this database. *They are titled “Usable During Response?” “Total usable capacity (Standard)” and “Total usable capacity (CC).”*
- Check that pre-populated cells for in the “Existing Government and Partner Capacity” row of the dashboard contain a sum of the cold chain and standard transport capacity of identified partners and government-controlled providers.

**SUPPORTING MATERIAL**

- Transport options database
  - *Playbook Templates.xls > Transport options database*

---

*USAID | Global Health Supply Chain - Technical Assistance Francophone Task Order*
Step 5 Categorize waste and identify disposal sites

SUB-STEPS

5A. Identify existing waste disposal sites

- Reach out to point of contact identified in the Stakeholder Map
- Record contact information, facility size, and location in Waste Disposal Database

⚠️ Much of the waste disposal from health commodities is likely to occur on-site at healthcare facilities

5B. Assess site capacity

- Reach out to POC in Waste Disposal Database
- Determine capacity to treat and dispose of toxic and general waste

SUPPORTING MATERIAL

Waste Disposal Database

This table serves as a database to show all potential waste disposal options.

<table>
<thead>
<tr>
<th>Site Name</th>
<th>POC (Name)</th>
<th>POC (Contact Information)</th>
<th>Site Capacity</th>
<th>Coordinates</th>
<th>Region</th>
<th>Types of Waste Treated</th>
</tr>
</thead>
<tbody>
<tr>
<td>Site 1</td>
<td>A</td>
<td>1234567890</td>
<td>1000</td>
<td>45,678</td>
<td>A</td>
<td>Non-hazardous</td>
</tr>
<tr>
<td>Site 2</td>
<td>B</td>
<td>2345678901</td>
<td>2000</td>
<td>98,765</td>
<td>B</td>
<td>Hazardous</td>
</tr>
<tr>
<td>Site 3</td>
<td>C</td>
<td>3456789012</td>
<td>3000</td>
<td>67,543</td>
<td>C</td>
<td>Non-hazardous</td>
</tr>
<tr>
<td>Site 4</td>
<td>D</td>
<td>4567890123</td>
<td>4000</td>
<td>54,321</td>
<td>D</td>
<td>Hazardous</td>
</tr>
</tbody>
</table>

USAID | Global Health Supply Chain - Technical Assistance Francophone Task Order
**SUB-STEPS**

**6A. Review and Customize Protocols**

- Reference “Transportation and Waste Management” section of Response Quick Guide
- Customize protocols with names of all relevant actors
  - Ensure accountability is clearly highlighted in protocols (e.g., once emergency is triggered, ESC Lead has authority over supply chain commodities)
  - Customize and add protocols to the sample protocols listed as needed
- Include PPE donning and doffing protocols

**6B. Record Protocol(s)**

- Assess which protocols are most important for response
- Synthesize into one essential protocol
- Update back side of Response Job Aid with essential protocol

**SUPPORTING MATERIAL**

**Response Quick Guide**

“Transportation and Waste Management” section of Response Quick Guide.ppt

**Job Aid Protocol Template**

Response Job Aid.ppt
Contents

▪ Overview

▪ User guide
  – Getting Started
  – Module 1: People and Processes
  – Module 2: Commodity Planning
  – Module 3: Logistics and Transport
    ▪ Warehousing and Storage
    ▪ Transportation and Waste Management

▪ Appendix
Contents

- Overview
- User guide
- Appendix
Contents

- Overview
- User guide
- Appendix
<table>
<thead>
<tr>
<th>Trainee name</th>
<th>Role</th>
<th>Most recent training attended</th>
<th>Next scheduled training</th>
</tr>
</thead>
<tbody>
<tr>
<td>National ESC</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Regional ESC</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Partner</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
### Logistics Checklist

#### A Attendees
- ESC core team
- Medical experts (epidemiologists, zoonotic experts)
- Key partners (e.g., WHO)
- Surveillance team

#### B Logistics activities
- Email expert partners from Stakeholder Map (e.g., WHO)
- Coordinate date
- Book private room with capacity
- Circulate information

#### C Resources
- Previous emergency preparedness assessments (JEEs, LCAs, One Health Prioritizations)
- Historical outbreak information
- Health indicator data
- NGO health reports and surveys
- Healthcare infrastructure and surveillance overview
- Healthcare infrastructure and surveillance overview

#### D Day-of logistics
- Print template for participants
- Print facilitator guide
- Bring necessary tools (markers, post-its, pens, flip charts)
### Prioritization Matrix (1/2)

#### Likelihood

<table>
<thead>
<tr>
<th>Historical number of cases</th>
<th>Low</th>
<th>High</th>
</tr>
</thead>
<tbody>
<tr>
<td>Favorable ecology</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Global likelihood</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

#### Severity

<table>
<thead>
<tr>
<th>Size of population at risk</th>
<th>Low</th>
<th>High</th>
</tr>
</thead>
<tbody>
<tr>
<td>Clinical severity</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

#### Overall

<table>
<thead>
<tr>
<th>Low</th>
<th>High</th>
</tr>
</thead>
</table>
END OF USER GUIDE