CHAPTER 4
LOGISTICS

4.1 INTRODUCTION

A strong supply chain is a critical component of sexual and reproductive health (SRH) service delivery. When SRH supplies – from contraceptive methods, to antibiotics for sexually transmitted infections, to medicines that prevent maternal death and basic supplies for small and sick newborns – are not available, SRH services cannot be effective. In short, ***no product, no program***.

The success or failure of a humanitarian response can hinge on effective supply chain management. Supply chain management is the leveraging of relationships for proper forecasting of commodity demand and quantities needed, procuring, warehousing, transporting, and distributing goods. Supply chain management aims to better align supply and demand. In other words, supply chain management means getting the right goods, in the right quantity and quality, from the right place/person, through the right channels, to the right place, at the right time. The terms "logistics" and "supply chain management" are often used interchangeably.

BOX 4.1: THE SIX "RIGHTS" OF LOGISTICS

The **RIGHT** goods

In the **RIGHT** quantities

In the **RIGHT** condition

DELIVERED...

to the **RIGHT** place

at the **RIGHT** time

for the **RIGHT** cost

The processes required to ensure that high quality SRH supplies are available in good condition, when and where they are needed, include forecasting and quantification, procurement, importing, warehousing, transportation, distribution, and data collection and reporting. Coordinating and managing these processes requires clearly delineated roles and responsibilities and a high level of communication, collaboration, and coordination among government agencies and program and logistics staff across various international and national partners.

When humanitarian emergencies occur – from rapid onset flooding to protracted conflict to slow-onset drought – organizations involved in the response must quickly identify or establish functioning, agile supply chains to provide lifesaving commodities to the affected population as soon as possible. Humanitarian response agencies also have a responsibility to help make supply chains robust, flexible, and sustainable in all settings and situations, whether in cities or in remote rural areas and whether as part of preparedness activities or in acute/post-acute emergencies or protracted crisis settings. Strengthening locally sustainable supply chains is critical not only during the transition from the implementation of the minimum initial service package (MISP) to comprehensive SRH service provision, but even in the acute phase of an emergency when the MISP is implemented. In some cases, multiple supply chains may exist, but at minimum these channels must be coordinated within the overall supply chain system and move toward a sustainable integrated system as soon as possible.

No matter how the supply chain is designed, successful humanitarian supply chain management operations must address the full emergency program cycle, including emergency preparedness, initial response, and transition to sustainable supply chains. All of these phases of the emergency program cycle must be taken into consideration during the preparedness activities or the initial planning process for the response. The preparedness phase is critical to rapidly establishing a humanitarian supply chain when a crisis hits.

Logisticians may be the point persons leading many of the processes discussed in this chapter, but roles and responsibilities may vary by organization. ***SRH point persons must always coordinate with procurement and logistics staff***, whatever the specific titles or multiple roles individuals might play.

4.2 OBJECTIVES

The objectives of this chapter are to:

- Introduce key processes and stakeholders that are essential to effective humanitarian SRH supply chains
- Provide basic information about each link in the humanitarian SRH supply chain, from quantification and procurement to transportation and last-mile distribution
- Provide recommendations to facilitate a continuous smooth expansion of MISP services to comprehensive SRH programming in order to enable a return to the pre-existing supply chain system and/or facilitate a strengthened system
- Identify essential staff roles and responsibilities, including management practices, for building and maintaining effective humanitarian SRH supply chains

4.3 LOGISTICS PROGRAMMING

4.3.1 Principles in supply chain management in emergency settings

The principles underlying successful SRH supply chain management in emergency settings include:

- Meet the immediate SRH needs of the affected population, including marginalized sub-groups, by distributing SRH supplies as soon as possible after the onset of the crisis
- As soon as the situation stabilizes, transition away from reliance on Inter-Agency Reproductive Health Kits (see Table 3.7) and support a more sustainable, consumption-driven supply chain system at all levels
- Strengthen local capacity to be able to maintain a robust, sustainable supply chain over time
- Support local economies throughout the supply chain system, by sourcing locally as much as possible, when possible
- Prepare in advance to be able to meet SRH supply needs as soon after the onset of an emergency as possible
- Prevent stock outs while minimizing wastage
- Ensure provision of ***quality assured*** products

4.3.2 Essential program information needed for logistics and supply chain management decisions

Supply chain infrastructure will often be severely damaged or completely incapacitated in the wake of an emergency. In the initial stages of an acute emergency response it may not be appropriate to utilize the time, resources, and staffing to conduct a full coordinated logistics needs assessment. Instead, information collected pre-crisis such as any relevant secondary data, analysis of existing supply chains, historical data, and supplies that currently exist in country, as well as continuous collaboration with technical staff, can provide critical information for initial supply chain planning and implementation. Pre-crisis data and rapid situation overviews can help in fine-tuning supply orders. Use this information in combination with existing tools, such as the Inter-Agency Reproductive Health Kits (RH Kits) Calculator developed by the Inter-Agency Working Group (IAWG) on Reproductive Health in Crises, to guide initial SRH logistics and supply activities. Remember, just as the MISP does not need an assessment to begin implementation the same is true for the supply chains that support initial MISP implementation.

Pre-existing relationships and agreements, transportation plans, and other pre-crisis systems are also essential to planning and implementing supply chains in crises. The plans you make in your preparedness and planning activities are crucial to the success of any emergency response programming.

BOX 4.2: NEEDS ASSESSMENTS, PREPAREDNESS, AND LOGISTICS

Just as with implementing the MISP, a needs assessment for logistics and supply chain management is not immediately necessary following a new emergency. Data collected during the preparedness phase and other types of secondary/pre-existing data, can provide the information needed in the initial response. Logistics and supply chain systems should always be included in preparedness and planning activities, along with any annual contingency or security planning process.

Once possible and appropriate, multi-sector rapid/initial needs assessments will typically be performed by technical staff. These often have a focus on basic needs of affected communities such as health, shelter, food, and water, sanitation, and hygiene (WASH). It is critical that logistics, supply chain, and procurement staff work closely with technical staff (and vice versa) to gather and interpret key population data. An initial needs assessment is important to identify existing capacities and gaps in supply chain channels and key health products. This will also inform the development of a transition plan toward sustainable supply chains. The health sector and other sectors will conduct initial needs assessments within the first hours and days of an acute emergency. Agencies working on SRH programming must share assessment data across and within agencies, as well as across clusters, to inform supply chain programming.

As the response progresses, other assessments will be conducted by health and other technical sectors. These

include cross-sectoral coordinated needs assessments (typically led by the UN), which are helpful to understand the emerging health needs of the affected population (which directly informs supply chain needs). Staff working on supply chain, procurement, and logistics systems should be familiar with the data from such tools. They should share them amongst partners and encourage collaboration across clusters (health, logistics, etc.) throughout the processes to ensure robust supply chain management systems supported by well-informed stakeholders.

BOX 4.3: PARTNERSHIP AND COORDINATION

Logistics coordination encompasses all working groups and cluster mechanisms, including sub-working groups, state-level clusters, health facilities, community groups, etc. Information, data, assessments, and supply chain planning should be shared within and across agencies, as well as across clusters. True coordination mechanisms engage all key stakeholders at relevant points in the collaborative logistics process of establishing supply chain systems.

CRITICAL INFORMATION TO COLLECT AND UNDERSTAND FOR MISP IMPLEMENTATION IN ACUTE EMERGENCIES

SRH agencies should determine whether it is possible to obtain SRH supplies in-country to meet the needs of the affected population. When supplies are not already in-country, agencies will often procure RH Kits from the Procurement Services Branch of the United Nations Population Fund (UNFPA). The RH Kits can also be procured from regional warehouses where they have been pre-positioned. However, it is important to keep in mind that not every context will require procurement of RH Kits and that not every context will need every RH Kit. UNFPA's Humanitarian and Fragile Contexts Branch can help facilitate the procurement of RH Kits. For more information on the content and procurement of the RH Kits see Chapter 3.

Agencies should immediately coordinate with the clusters (health, logistics, and potentially protection) and across partner agencies to ensure SRH supplies are part of the health cluster core commodity-pipeline. This is essential to avoid unintended SRH supply gaps emerging in the confusion of the initial response– especially if the SRH sub-cluster has not been activated yet.

Several data points can be used to inform logistics planning. These include, but are not limited to, total emergency-affected population, catchment area geography and population numbers, past clinic supply levels, current stock and storage in health facilities, product specifications, partner agreements, transportation options and warehousing conditions, government import regulations, staff capacity, and waste management processes. Use these data points to inform supply chain and logistics decisions, explained below; these data should come from your preparedness planning but if they are not available they may be collected during the acute phase (this is less than ideal).

Population size of the catchment area

The population size is the most important variable that informs orders of the RH Kits and other SRH supplies in acute emergencies. Even if the only data available is population size, the RH Kits Calculator can help to determine how many of each kit to order. RH Kits are constituted based on population assumptions (e.g., the contraceptive prevalence rate is 5%). The calculator can help order RH Kits when the actual population differs from the assumptions.

Number and scope of functioning health facilities

The number, location, and scope of functioning health facilities will also inform RH Kit ordering and supply chain planning. This includes the level of facilities (primary, referral, tertiary, etc.), the accessibility of facilities, and the number of staff and their skills level at each facility; this information will help ensure that the right kinds of RH Kits are procured for the specific context (for example, where providers are trained in their use), as well as inform distribution planning. The health cluster, with the agencies engaged in the cluster and the Ministry of Health (MOH), will collect these data at the outset. Note that, moving forward, all agencies should continue to feed into surveillance and other early warning systems that monitor health systems capacity, including the supply chain systems that serve them. This can prove critical in recurrent emergency contexts and/or in times of new displacement.

BOX 4.4: FORECASTING FOR RH KITS ACUTE RESPONSE

Do not assume 1 RH Kit per facility. Instead, use the population size of the catchment area (and any other available data on available health facilities and their care level) to estimate need by inputting this data into the RH Kits Calculator (see Section 4.6). Catchment area includes not only the affected community, but all those in the surrounding area that may be drawn to the services offered at the facility; service availability can create wider demand which should inform supply planning.

RH Kit product specifications

The RH Kits Calculator will also help in calculating the weight and volume of the required kits, including those that require cold storage. These specifications should be shared with the logistics, procurement, and program support teams.

Government requirements

Government requirements impact the processes of ordering, importing, transporting, disposing, and reporting on SRH supplies, including the RH Kits. Important regulations include humanitarian import exemptions, expedited clearance, pharmaceutical importation procedures, custom clearances, local transport requirements and medical waste management guidelines (or lack thereof). These procedures and policies vary widely from country to country, as does who has the authority to develop and implement the policies. It is recommended that agencies contact the MOH, national drug regulatory authorities, customs authorities, and/or other appropriate governing bodies, including the logistics cluster, to obtain the necessary information and permissions. For pharmaceuticals, be sure to include a percentage in your order to accommodate lab testing, which is often conducted at the national point of importation.

Partner agreements

Agencies must put in place mechanisms, such as memoranda of understanding and other agreements between agencies, necessary to access RH Kits from partners, including United Nations (UN) agencies or the government, as soon as possible. Pre-existing agreements are the gold standard and are helpful for quickly reactivating relationships and procedures.

Transportation and warehousing

Agencies must identify options and partners for in-country transportation and warehousing, from the port of entry through to the final destination for supplies. Where possible, rely on any pre-existing agreements with storage or transport vendors. Some SRH supplies, such as oxytocin, require a cold chain. Evaluate cold chain needs and options; they are a central consideration for any supply chain management plans including procurement plans. The availability of key cold chain infrastructure, including temperature-controlled refrigeration in warehousing, transport, and distribution hubs, as well as generators, should be identified. It is also critical to understand the capacity of local warehousing staff to maintain cold chains. Capacity building on cold chain management should be considered. Another important consideration is the security of available transportation and warehousing options. Consider how conflict may affect issues like the safe transportation of staff or the potential loss of items on transportation routes, and find alternative solutions and creative warehousing methods.

Inventory monitoring and reporting

Agencies and the SRH sub-cluster must identify and put in place pre-existing inventory management tools and templates. Address any gaps in these tools and coordinate with the health cluster and partner agencies (including those not actively engaged in the cluster) to ensure consistency.

Staff capacity and organizational logistics infrastructure

Agencies should determine staff capacity at every point in the supply chain to carry out the needed functions. There is no standard level for a minimum number of logistics staff. The minimum number of staff will depend on an organization's size and need, as well as the presence of existing organizations with logistics capacity. When determining the number of logistics staff to hire, organizations should consider their needs in handling procurement, coordinating customs clearance and government approval, managing warehouses and inventories, managing a fleet or coordinating third-party transport, and coordinating distribution, data management, and follow-up monitoring. Agencies should also determine existing mechanisms to ensure communication and

coordination among logistics and program staff throughout the supply chain.

Waste management

Many countries and agencies have waste management procedures in place pre-emergency. Identify these regulations if you have not already done so. If national guidelines do not exist, the World Health Organization (WHO) and United Nations Office for the Coordination of Humanitarian Affairs (OCHA) have guidelines on basic waste management principles for emergencies. However, the most comprehensive guidelines for medical waste management in emergencies are by the International Committee of the Red Cross. Additional information on waste management is listed below in the last section of Pillar 2.

CRITICAL INFORMATION TO COLLECT AND UNDERSTAND FOR TRANSITIONING TO COMPREHENSIVE SRH SERVICES

After the acute phase of a crisis response, conduct a detailed assessment to identify mechanisms necessary for establishing sustainable supply chains that allow delivery of comprehensive SRH services. This can be done by each agency for their own supply chains but should ideally be conducted across agencies engaged in the health cluster. There is no common tool to use for this purpose, but IAWG has recognized the need to develop a tool that will aid in the transition to sustainable supply lines.

The RH Kits are designed to be globally applicable in the initial phase of any acute emergency response; they are not designed to meet the specific SRH needs of a particular population in any region or country. They are not meant to be used for long-term programming and over-relying on these kits often results in tremendous waste, as some products will pile up and expire while others will continue to stock out in response to local consumption patterns. Further, there may not be funding for destruction of expired items or sufficient medical waste management infrastructure in the country or region. Moreover, long-term use of the RH Kits will delay the advancement of a context-specific and needs-driven SRH program. In addition, over-relying on the kits places a severe burden on global SRH supply chains; over-use of RH Kits in one emergency can result in a shortage of kits for the next emergency.

To avoid waste and better serve populations, logisticians, supply chain managers, and/or procurement officers must coordinate with the SRH Coordinator and health program managers to immediately begin planning to transition from reliance on the pre-packaged RH Kits to more sustainable procurement and ordering mechanisms that reflect the actual SRH needs and consumption patterns in the specific context. This entails, for example, estimating future consumption to order each product individually in bulk to minimize waste; identifying the availability and quality of local products; identifying existing, sustainable transportation and warehousing options; determining existing staff capacity to manage supply chains; and integrating supply chain functions – from procurement to distribution to waste management – into local government and/or local agency processes. Assessing the supply chain components listed below as early in the response process as possible, along with the factors described above, will ensure a more effective program design and implementation.

Current stock

The current existing availability of supplies will inform all other supply chain processes. Service delivery agencies should share basic reports on inventory levels and expiration dates of products currently in health facilities, which can be used to inform current stock levels. SRH Coordinators and health program managers, or the procurement officers they work with, can also obtain information on existing supplies through data systems like the Health Management Information System (HMIS) and Logistics Management Information System (LMIS). They can also conduct very brief market assessments of commodity availability (including partners' commodity inventory). It may also be helpful to reach out to the food security cluster to inquire about relevant market assessments in emergency-affected areas. Consult the cluster coordination mechanisms for additional resources.

Product demand and consumption

Multiple sources can inform estimates of product demand and future consumption. Agencies can estimate the pre-crisis demand for SRH services and products based on health records and stock/inventory data, including HMIS and LMIS data. Health facilities must be encouraged to provide data on current product consumption patterns. If data on consumption are not available, work with national counterparts to estimate it on the basis of service provision

statistics and demographic data. It is important to continue to monitor product consumption data in order to adapt procurement to consumption patterns and to determine if commodities are actually reaching the target populations.

Transport and storage location

It is essential to conduct continuous mapping of existing transport and storage facilities at all levels – from central storage to last mile distribution. Transportation of goods and people (i.e., surge staff) will continue to be a critical component of any logistics system, particularly as the supply chain begins to support comprehensive SRH service delivery. Agencies must identify the vulnerability of key infrastructures and develop contingency plans to address any gaps in distribution.

Government policies, drug quality, and regulatory processes

Knowledge of relevant government policies, plans, and data collection mechanisms is essential for the design and implementation of SRH programs. Obtain information about regulatory processes and the quality of local drugs. The local WHO office can generally provide information on local availability of high-quality products and the quality of local vendors, as well as vendors that have been pre-vetted.

Tracking, inventory, and reporting mechanisms

Agencies should understand and feed into existing tracking and reporting mechanisms, such as the HMIS and LMIS, used to monitor consumption, inventory, supply, and other factors critical to maintaining a well-functioning supply chain.

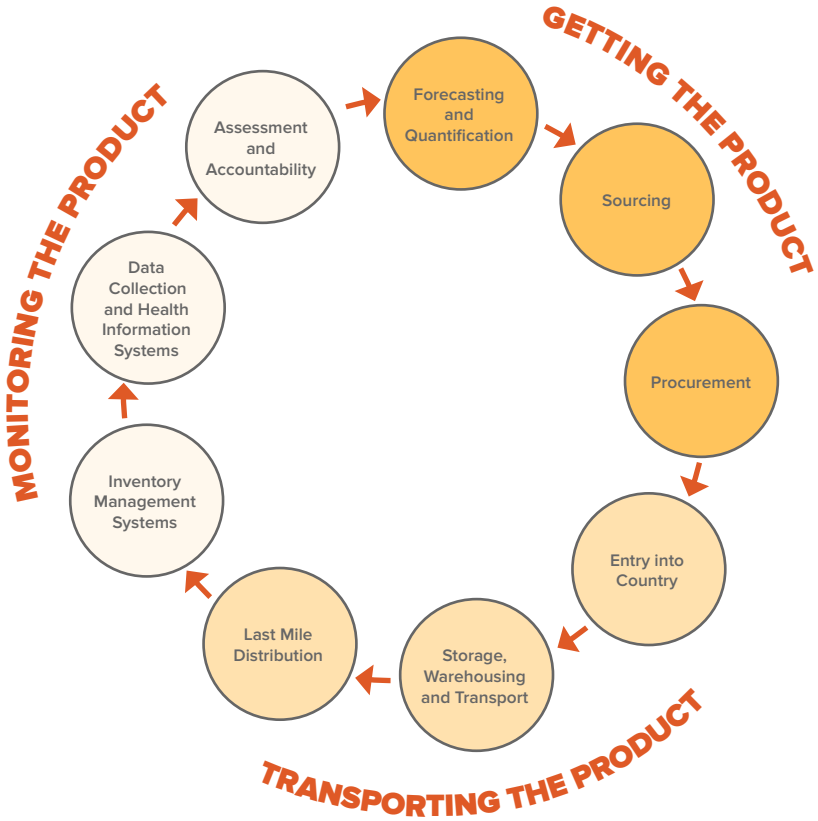
4.3.3 Supply chain steps: From quantification to distribution and from preparedness to MISP to comprehensive SRH services

This section briefly introduces each of the essential components of the supply chain. Agencies sometimes use different terminology to describe the supply chain links and some agencies combine multiple processes into fewer steps, although all frameworks capture the same basic processes. Figure 4.1 breaks the processes into many small steps so that non-logistics staff can follow and understand them.

Under each step in the supply chain outlined below, we provide key considerations that apply across the emergency program cycle, and then offer guidance specific to the preparedness, initial response, and recovery or protracted phases of an emergency. The notes on the recovery/protracted phase discuss the transition from initial response (MISP implementation) to provision of comprehensive SRH services, highlighting how emergency supply chains can be integrated into existing medical commodities supply chains, and how to establish sustainable and efficient comprehensive supply chain management systems. For more detail on supply chain management and its components (not specific to humanitarian settings), see JSI's Supply Chain Manager's Handbook (2017). Coordinating with the Health Cluster and SRH sub-cluster to analyze supply line needs and opportunities using the Health System Building Blocks (see Chapter 3) can guide planning for establishing or strengthening sustainable supply chain processes.

This section also discusses the human resource elements that need consideration throughout the supply chain

FIGURE 4.1: SUPPLY CHAIN CYCLE FOR SEXUAL AND REPRODUCTIVE HEALTH COMMODITIES IN HUMANITARIAN SETTINGS



management process. Investing in professional logisticians is critical to effective supply chain management. A logistician will most likely be moving forward many of the processes outlined below, with technical guidance from the SRH point person within each agency. It is critical to clearly delineate staff roles and responsibilities at every step, including leadership and oversight of the logistics processes (see the JSI Supply Chain Manager's Handbook for more information). Establishing effective supply chains requires people to engage with each other across the entire supply management system, including the logistician, the procurement officer, the customs agent, the provider in the clinic, the facility's pharmacy manager, and the end user. This system may look different during the acute phase versus the recovery phase, increasing in efficiency and robustness as the response expands to provide more comprehensive SRH services. The more comprehensive the SRH programming becomes, the more comprehensive the SRH supply chain management system must be. To facilitate strong and effective relationships and effective supply chain management, it is critical for technical specialists (e.g., doctors, nurses, midwives, pharmacists), program managers, and procurement and logistics specialists to understand their roles and reinforce the importance of logistics at every level of the supply management system.

PILLAR 1: GETTING THE REQUIRED COMMODITIES

Forecasting and quantification

Quantification is the process of estimating the quantities and costs of the products required to provide a population with a specific health service. It also encompasses determining when the products should be delivered to ensure an uninterrupted supply for the program. The term "quantification" is sometimes used interchangeably with "forecasting."

Accurate quantification depends on good information about products currently in stock, products on order, current consumption levels of each product, and expected changes in demand over time. Several data points can be used to inform quantification (as discussed above): total emergency-affected population, catchment area geography and population numbers, historical clinic supply levels, existing stock in health facilities, and any information on medical consumption trends. Other factors to consider include product specifications and warehousing space (to ensure there is adequate space to store products), product shelf life, and government policies and customs clearance procedures (see more below) impacting importation of specific products. Always budget to account for some level of leakage/loss of product.

Incorrect quantification estimates can result in stock-outs or waste. Individuals responsible for procurement for an organization, at the national, sub-national, and facility levels must be able to know how much of each commodity the program needs, before it needs it, to prevent stock-outs. Note: the roles and responsibilities of these point persons will vary by organization (may be program managers, procurement officers, logisticians, pharmacists, etc.). Quantification should account for the processes of resupplying stocks (including lead time from the point of order to distribution) and how these processes will change over time, along with what buffer stock will be needed to avoid shortages. Quantification strategies should not only account for current procurement needs, processes, and distribution, but should be forward-looking to what the subsequent needs will be. Consider, for example, the likelihood of the population growing, in the case of continued displacement; difficulties in sending supplies during the rainy season; or increased demand because of health promotion activities.

Programming considerations for quantification across the emergency program cycle include:

- ***Preparedness:*** Deploy quantification experts to inform pre-positioning decisions and quantities of each kit or product. Several factors will influence quantification of pre-positioned supplies, including likelihood of a crisis occurring, the number of people that may be affected, warehousing or storage space, and shelf life of the products. Products with long shelf lives are particularly good candidates for pre-positioning. Products with short shelf-life can only be prepositioned if a rotation strategy is in place (first in and first out (FIFO))
- ***Initial response:*** In the acute phase of an emergency, the number of the affected population and catchment area will be the most critical information for quantification. Agencies planning to order the RH Kits can use the IAWG RH Kit Calculator to forecast need. Note that forecasting for the RH Kits should not

be done solely based on the number of functioning health facilities; forecasting must include population numbers. It is also important to agree very early on with health cluster and MOH on the reporting tools and schedules your system will use to track commodities and consumption, which will inform quantification moving forward

- ***Transition to comprehensive SRH services:*** As the situation stabilizes, quantification should be based on health facility inventory levels and anticipated consumption. You will begin to rely more on your logistics management information system (see Pillar 3). As you move from procuring RH Kits to procuring each product separately, it is particularly critical to build capacity on good stock keeping and management of health facility pharmacies, deploy trained forecasting and quantification experts, and use high-quality resources such as the Quantification chapter of JSI's Supply Chain Handbook and the Forecasting Guide for New and Underused Methods of Family Planning (see section 4.6)

Sourcing

Sourcing is the process of determining what brand/manufacturer to use for each product. Sourcing can vary significantly from the acute to recovery phases, but should always start with consideration to the potential for sourcing high-quality, local products. It is important to source products with a certification of quality (such as Good Manufacturing Practices (GMP) or Finished Pharmaceutical Products (FPP)) and to ensure that products are manufactured to conform to the WHO International Pharmacopeia, or equivalent. A simple first step in determining quality is to check if the product has approval from a Stringent Regulatory Authority (SRA), or has been Prequalified (PQ) by the WHO PQ Program, or has been recommended by the Expert Review Panel (ERP) in tier 1 or 2 of UNFPA. Consult the health cluster or UN partners for more information on how to ensure sourcing products that meet quality standards.

It is also important to note that some donors place limitations on sourcing processes, such as only allowing for UN sourcing, requiring a waiver to source elsewhere, or prohibiting local sourcing due to lack of high-quality products. SRH Coordinators, health program managers, and the procurement officers they work with must know these restrictions before beginning the process, particularly on any pharmacological goods and large assets.

In some cases, drugs may be donated in a humanitarian emergency. This can be beneficial but also comes with risks. Sometimes local responders are not familiar with the donated products (or with the particular concentration or formulation of the drug) and have not been trained in their use. Further, the labels and instructions included in the packages may not be in a language that people can understand. Donated drugs can also have short expiry dates. For these reasons, it is critical to exercise caution with donated drugs.

Programming considerations for sourcing across the emergency program cycle include:

- ***Preparedness:*** Assess the range of SRH products available locally and their quality. Develop relationships with local vendors
- ***Initial response:*** Begin coordination across implementing partners, with the SRH sub-cluster, and/or UNFPA within the health cluster immediately, to discuss which services will be offered where. Ensure that agencies receiving supplies (often UN agencies) share requisition plans with implementing agencies (including NGOs) to inform their programming. The RH Kits can be a valuable resource during the initial response and should be used as needed. ***However, as soon as possible, source and procure locally available good-quality products*** – that is, products with a certification of quality that are already available within the country where you are working (i.e., on the local, regional, and/or national markets). In fact, some RH Kits take more time to arrive (if they are not already available in-country) and cost more than sourcing items locally. Even in the acute phase, obtaining product locally or regionally may be beneficial to complement the RH Kits
- ***Transition to comprehensive SRH services:*** Sourcing for each product should move toward a more robust process with multiple bids. As in the acute phase, decisions should be made based on product detail/specification needs and lowest price/best value (taking quality assurance into consideration). The supplier should be able to provide information like the following upon request: the manufacturer's name

and manufacturing site, GMP Certificate, Certificate of Pharmaceutical Product (CoPP), Certificate of Analysis (COA) of each batch, and batch test results of each batch

Procurement

Procurement is the process of purchasing the product, including submitting and financing orders. The most important step is obtaining all needed product detail and order specifications to procure exactly the right products. The relationships among the logisticians, procurement teams, and health teams are critical to the success of this process. The health team needs to provide precise information to the logistics team, specifically anyone managing procurement, to make the order accurately reflect factors such as the correct dosage and formulation of each medication, including different dosages and formulations needed for special populations like children and/or adolescents.

Before procuring products, make sure that all products requiring importation are registered for use in the country where you are programming (or that a waiver is in place), and that the agency is authorized to import them. It is also critical to determine, before procuring products, what funds will be used to cover which costs, taking into account handling and transport costs (see Pillar 2) and any donor restrictions on sourcing and distribution sites.

Programming considerations for procurement across the emergency program cycle include:

- ***Preparedness:*** Develop long-term agreements or other measures with UN agencies and/or master contracts or stand-by agreements with local and international vendors to facilitate the procurement process in case of an emergency. Build and support relationships among logisticians, procurement teams, and SRH teams. Pre-register commonly used pharmaceuticals, if possible
- ***Initial response:*** Consider any pre-existing contracts or other pre-emergency processes and relationships that can be leveraged (while adhering to local procurement laws and regulations)
- ***Transition to comprehensive SRH services:*** Continue to build and support relationships across logistics and programs teams, and across governments and other partners, to improve the efficiency and sustainability of procurement processes

PILLAR 2: TRANSPORTING THE COMMODITIES

Entry into the country

The entry of commodities into a country, via customs and clearances, is critical to supply chain functioning. It is important to plan and prepare for this phase by knowing the mode of transportation by which the supplier will send the product through to its arrival (air, ship, etc.), exactly when and where the arrival is scheduled, and having staff on the ground ready (and waiting) to receive the shipment. It is also important to be flexible as challenges often emerge, given that there are numerous policies and processes (from customs to laboratory inspections) that must be cleared as part of the product's entry into the country. The following steps are relevant across all phases of the emergency cycle:

- Build and maintain relationships with the staff and management at the local airport, closest shipping port, local ground transportation depot, and a warehouse close to the port of entry to facilitate the product entry processes
- Advise the port of entry as soon as notification of a shipment arrival time is received, particularly for a shipment that requires cold chain storage of any kind
- Ensure all the paperwork needed for customs clearances, and any invoicing/payments, is with the staff picking up the delivery
- Clear all goods imported into a country through customs, even relief goods that are duty-free. Every country will have its own variations on the customs clearing process
- Engage a reputable Customs Clearing Agent to assist with the clearing process
- Support rapid entry of products into the country:
    - Request for customs authorities to place a priority on relief goods. This is known as expedited clearance. There is often a fee for this service and your customs clearing agent can assist in the process

- Note that The Guidelines for Drug Donations developed by the WHO and other agencies suggest that rapid customs clearance is required for all donated drugs (see Section 4.6). Customs and Ministry of Health officials managing drug donations are responsible for allowing entry of donations
- As relief goods should be coming in duty-free, request that goods be allowed to be released from the customs zone immediately upon receipt, and made available for inland forwarding and distribution; this is known as "release of goods prior to clearance." This does not do away with the requirement to process clearance documents, but only with the need for the goods to remain in bond until clearance is completed. This is not possible in many countries so be sure to know the local processes

- Be ready to address potential policy and/or operational challenges with products that can be controversial due to misperceptions about their function or use, such as emergency contraception, manual vacuum aspiration equipment, misoprostol, and narcotics. You can identify potential challenges by comparing the list of commodities included in the RH Kits with those that are registered nationally and those on the national Essential Medicines List (EML). Be prepared to advocate for their entry into the country to ensure rapid arrival of supplies. Use the World Health Organization's Model List of Essential Medicines and list of quality-assured products as support. In some cases a UN agency may be able to bring in a product even when NGOs cannot (although this is not always the case)
- When importing pharmaceuticals and/or any kind of medical supply, keep in mind that the country will most likely conduct a laboratory inspection of a certain percentage of your supply/product and this may include the RH Kits. This is likely to take significant time and can result, at least for a period, in less product than anticipated

Programming considerations for product entry into country across the emergency program cycle include:

- ***Preparedness:*** Map existing points of entry, government policies, and regulations related to importing medicines and other health products, including in humanitarian emergencies. Advocate for policies that facilitate the rapid entry of products into the country in case of humanitarian emergencies, and for consistent implementation of such policies. These include: national registration and Essential Medicines List (EML) inclusion of all products in the RH Kits and other supplies needed to implement comprehensive SRH services; policies allowing humanitarian deliveries, including SRH supplies, to quickly enter the country and be deployed without delay; and policies establishing favorable trade/import regulations, such as tax exemptions, for humanitarian deliveries, including SRH supplies
- ***Initial response:*** Work through the UN (most frequently the United Nations High Commissioner for Refugees (UNHCR) when the organization is an implementing partner in a country, and UNFPA) to ensure duty-free imports of emergency program supplies and materials. UN agencies are covered by a blanket duty-free exemption due to their diplomatic status and a letter of donation can be included in a shipment. This may also already be in place through existing partner agreements between implementing agencies and the MOH
- ***Transition to comprehensive SRH services***: Note that government policy or regulatory entry requirements may begin to change between the acute phase of an emergency (during which particular humanitarian exemptions may apply) and the post-acute phase where organizations will procure independently and from varied sources, including the private sector (when humanitarian exemptions may no longer apply)

Storage, warehousing, and transportation

Proper warehousing and transportation ensure that products reach their final destination and remain in good quality. Conduct a needs assessment (see Section 4.4.1) to learn what goods need to be stored in what conditions (including cold chain), what storage areas are used/available at ports of entry, warehousing options available at each leg of the journey including the last mile, and the

best transport options. The following steps are relevant across all phases of the emergency program cycle:

- Identify the dimensions of the products being procured and any unique storage requirements. Compare warehouse space with anticipated volume of goods
- Understand if a cold chain system can be established and/or maintained, know the gaps, and determine how to remedy them
- Review options for contracting with local vendors for storage and transportation. Identify any existing vendor contracts and develop new relationships as needed
- Understand if certain products may be difficult to transport through the country – for example, if they may be confiscated at checkpoints. Some medical products may be associated with other, non-medical uses, such as explosives. Be aware of these context-specific issues
- Identify warehouses that can be used and/or borrowed that have medical storage facilities (e.g., temperature control, fire prevention); it may be necessary to refit these warehouses to ensure medical storage requirements. Reach out to partners to share warehouses/space (e.g., World Food Program) or cold chain storage (e.g., the United Nations Children's Fund (UNICEF)). Insecurity can impact warehousing choices. For example, in one context an organization may choose to store supplies within a UN facility to reduce the risk of looting, while in another location UN facilities may be at increased risk of looting
- Verify that the warehouses are temperate (in tropical countries you might need air conditioning or any other cooling system), dry, and protected against rain, pests, and robbery
- Explore transportation options and choose transport methods best suited to the products being shipped, including those that require cold chain. Consider the most secure/safe method and route. There may be regulations and/or in-country best practices to ensure security during transportation. Other factors to consider include the cost and speed of transport, and seasonal conditions that may impact transportation
- Ensure warehousing and transportation staff are trained on storage and transport requirements of the products, including cold chain

PROGRAMMATIC EXAMPLE 4.1: MANAGING PRODUCT ENTRY WHEN IT IS CONTROVERSIAL

ORGANIZATION: Anonymous

LOCATION: Redacted

INTRODUCTION: Misoprostol is a critical lifesaving postpartum hemorrhage medication. However, in many countries, misoprostol is controversial because of the perception that it is used as an abortifacient. This can cause problems when it enters the country, especially when the product is not included in the national Essential Medicines List or other national policies. Challenges can arise even when the product is included in national policies, norms, and guidance, as customs clearance procedures can depend on the directives of just a small number of powerful officials.

PROJECT DESCRIPTION: The humanitarian response agency procured misoprostol for use in their emergency response programming, but encountered challenges getting the products through customs due to the perceptions around misoprostol as an abortifacient. The SRH Coordinator met individually with the MOH official responsible for approving drug entry. She explained that it is on the WHO Essential Medicines List and that her agency procured a quality-assured product. She also discussed transparency of use in the program, explaining that its purpose is to save lives in cases of postpartum hemorrhage. The SRH Coordinator also offered to host a field site visit for the representative at any time in the future.

RESULTS: Following the one-on-one meeting, the MOH approved the misoprostol to enter the country and be deployed in the response. Although it is a highly regulated product, transparency, communication, and collaboration facilitated the delivery of misoprostol into this setting.

LESSONS LEARNED: Leveraging relationships and being transparent with national authorities about the use of controversial products can help to stem bottlenecks. Use global guidance, including the WHO EML, to support your case. Meeting individually with receptive MOH officials also helps.

- Develop and implement stocking/warehousing procedures around the FIFO rules (these are product rotation rules in warehousing to prevent waste due to expiration of product) and enforce stock keeping and reporting

- Remember to not only plan for inbound logistics to the clinic or program site, but also to plan for outbound logistics (from the clinic, program site, etc.). There will often be a need to transport items away from a clinic, such as empty boxes, large medical equipment no longer in use, supplies that are being redistributed to another clinic, or expired medical commodities

Programming considerations for storage and transportation across the emergency program cycle include:

- ***Preparedness:*** Map out storage and transportation options, including for cold chain, as part of preparedness activities for ongoing programs. Map out which parts of the country are prone to route disruptions, for example, due to flooding. Include back-up options and explore in advance potential partnerships with other agencies and/or local vendors. This will save time and money when an emergency strikes

- ***Initial response:*** Use the details on RH Kits (these can be obtained from UNFPA) as a guide to storage needs. However, note that kits may not always be standardized, as multiple suppliers become more common. Consider temporary warehouse solutions for each leg of the route, even to last mile delivery/distribution. Consider vulnerability of any warehouses along the supply chain, and back-up solutions

- ***Transition to comprehensive SRH services:*** Continue to analyze each point in the storage and transport system to make the supply chain as robust and efficient as possible. A network analysis identifies the most efficient set of storage nodes and transport routes for optimal service level and efficiency (see JSI Supply Chain Manager's Handbook listed in Section 4.6). Invest in strengthening national storage facilities. Continue to build staff capacity to maintain cold chains at all points. Transition, where possible, to contracting with local transportation and storage agencies, building capacity of local staff as needed

Last-mile delivery

Last-mile delivery is a crucial but often overlooked aspect of supply chain management. It involves moving goods from regional hubs to often remote program sites, such as health facilities, refugee or internally displaced person (IDP) camps, and even into homes. Engaging health staff, communities, and affected populations can increase the reliability of last-mile delivery, particularly utilizing participatory monitoring and accountability approaches. See more in the Interagency Supply Chain Group's Measuring Accountability for Last Mile Delivery (Section 4.6).

Agencies should develop storage and transportation plans all the way to the end-point, where the products will be distributed to clients. These plans should be shared with other agencies through the cluster mechanisms, including the Logistics Cluster. It is important to ensure that all goods can be stored properly once they reach their final destination (i.e., in health facilities). Consider both amount of space needed and cold chain requirements. It is also important to make sure health facility staff are aware of storage requirements, and impose stock keeping for all products. Investing in reliable store keepers will improve efficiency and reliability.

Programming considerations for last-mile delivery across the emergency program cycle include:

- ***Preparedness:*** Ensure health workers, including community health workers, in emergency/disaster prone contexts have knowledge of SRH commodities and RH Kits and understand the importance of stock-keeping. Ensure remote health centers have sufficient storage space and can meet cold chain requirements

- ***Initial response:*** Integrate all available resources and options in designing, planning, and executing the last mile delivery in your systems. Use the method(s) of delivery to the facility or distribution site that are accessible and appropriate to the context – from low-tech solutions to high-tech solutions. If a truck is needed but at a certain point the roads will be unpassable, consider human powered or animal powered methods. As technology expands, cargo drones may become more commonly used for last mile delivery in humanitarian relief. Drones have been piloted in last mile delivery in Rwanda, the Dominican

Republic, and Nepal, among other countries, with preliminary success in delivering medical supplies. It is important to ensure that supplies distribution directly to the end user (condoms, emergency contraception, other contraceptive methods, etc.) does not increase the protection risk of the end user (for example, the risk of sexual exploitation and abuse)

- ***Transition to comprehensive SRH services:*** New technologies are being piloted to improve last-mile delivery in protracted or recovery crisis situations. For example, pilot studies on the Information Mobilized for Performance Analysis and Continuous Transformation (IMPACT) Team Network, where IMPACT teams use mobile technology to provide real-time reports on stock out rates and other supply chain data, have shown improved accuracy in restocking remote clinics and health facilities (see Section 4.6)

Waste management

Waste management for medical supplies is often overlooked when planning for supply chains. Medical waste can include sharps waste (needles), pharmaceuticals (expired or damaged substances) and other hazardous medical waste (human tissue, blood). Disposing of these items in an appropriate manner will ensure that people, animals, and the environment are protected from expired medicines, used equipment or hazardous substances.

Countries have varied waste disposal policies and systems in place for normal non-medical waste, let alone for medical-waste. It is critical that humanitarian actors ensure proper medical waste disposal across all settings, meeting WHO standards and national requirements.

Programming considerations for waste management across the emergency program cycle include:

- ***Preparedness:*** Map existing government policies and regulations related to medical and non-medical waste and reconcile with what occurs in practice. If needed, support the government to create guidelines, policies and infrastructure for waste disposal in line with WHO guidance. The local WHO office may be able to support this process
- ***Initial response:*** Ensuring forecasting and procurement is done responsibly will help reduce the amount of over-ordered, and as a consequence not used and expired, commodities. Create agreements with the MOH to integrate prepositioned commodities that are near expiry into other health facilities to prevent expiry. Ensure that staff at all levels of the supply chain are aware and trained on the guidelines on medical-waste management. If no medical-waste disposal exists, it is the responsibility of the organization to transport and manage this waste in a safe manner
- ***Transition to comprehensive SRH services:*** Build national capacity to ensure that waste is being disposed of in a safe manner and in line with WHO guidelines

PILLAR 3: MONITORING THE DISTRIBUTION AND CONSUMPTION OF THE COMMODITUES

Inventory tracking and tracing tools

Establishing data collection tools to track products and stock levels in health facilities and warehouses is critical to an effective supply chain system. This data informs quantification and procurement processes to meet commodity needs, avoid stock-outs, and minimize wasted products. A variety of tracking systems and reporting tools exist, from basic spreadsheets to powerful LMIS software that optimizes quantification and planning. The tools used often differ from the acute to recovery phases of a crisis, becoming more robust and more coordinated with national systems as the situation stabilizes.

Programming considerations for tracking and tracing tools across the emergency program cycle include:

- ***Preparedness:*** Map existing national logistics stock management tools. Develop tracking and tracing tools for use during an emergency, and train staff on how to use them and why they are important
- ***Initial response:*** In coordination with the health cluster, agencies should select and immediately deploy tracking and tracing tools for use in the acute phase, considering factors such as existing national tools, internet connectivity required, and staff training needed. Use the same management system for SRH commodities as is used for other commodities. At the beginning of an acute emergency response, it may be most feasible to use a basic spreadsheet file capturing

information such as product, product specifications, inventory levels, date of expiration, and date of storage. Ensure that health facility pharmacies have sufficient stock cards to cover the items in the RH Kits and other products used in the response

- ***Transition to comprehensive SRH services:*** More powerful tracking and tracing tools should be deployed as quickly as possible, in alignment with the health cluster and in coordination with MOH national/local systems. Many agencies and governments use LMIS to centralize inventory and stock calculations, which then inform purchasing, invoicing, and stock rotation based on expiration dates, consumption, and other data points. LMIS often utilize scanning/barcode systems, cloud, and mobile databases to track and trace goods across any location in the supply management system (traveling, in a warehouse, being distributed, etc.). As with all components of supply chain management, integrate LMIS for humanitarian commodities into national systems and regular/sustainable supply chain processes as soon as possible

Data collection and reporting process (staff capacity to use logistics information systems)

With any tracking and tracing tool, a variety of staff will need to collect a range of data (such as number of pill packs on a shelf, coming in, going out), input these into the system (many open source software options are available), and send it to the teams responsible for forecasting of and procuring products. Inventory management requires the full range of staff to engage in the logistics system. Pharmacists, nurses, midwives and doctors must take stock of goods/supplies at the clinic level and report this information as part of data collection efforts. Train your teams on the critical nature of each person's role, the data points and information needed, key indicators to monitor (listed in the below monitoring section), how often they should gather the necessary data, at what stock levels in their clinics/programs they need to reorder, and when will they be in danger of stock-outs, as well as monitor losses. Respecting and empowering their roles, the challenges they face, and communicating their importance will help to ensure an effective supply management system supported by a truly engaged team.

Programming considerations for data collection processes and reporting across the emergency program include:

- ***Preparedness***: Train humanitarian staff (pre-deployment) and the national health workforce on the importance of maintaining up-to-date information systems on supplies and inventory, what their role is in this process, and how to use the data systems that will be deployed during emergencies

- ***Initial response:*** Warehousing data and health facility data on SRH commodity movements and consumption must be collected at a central point (for example, the SRH sub cluster). Encourage all implementing partners to report on the same set of SRH commodities (at a minimum the consumables in the RH Kits) using the same tool

- ***Transition to comprehensive SRH services:*** As you expand on the MISP services toward comprehensive SRH, integrate your LMIS into existing national systems and build staff capacity on its use as soon as it is possible. Use or build on government training tools if available. Train staff on why data collection and reporting on commodities is important – for example, it is particularly critical to estimate demand for contraceptive commodities, which is important to ensuring the appropriate contraceptive method mix. Move toward building capacity in use software systems that make comprehensive programming and a robust supply chain management system easy to manage

Assessment and accountability

To continuously improve supply chains and ensure accountability to clients, conduct periodic analyses of the data collected through these processes. Conducting an audit of physical inventories to compare actual holdings to stock reports and records is essential for accountability. Ideally, community representatives and health center staff would conduct monthly (full or partial) physical inventories to verify/correct stock records accordingly.

In addition, a monthly review of data on loss and waste can suggest where bottlenecks, seasonality barriers, or other challenges are occurring. Use data collected through LMIS, HMIS, and/or other data collection tools to measure progress against annual performance goals. Develop strategies that will allow the system to constantly improve, becoming responsive and flexible but maintaining infrastructure over time. Monitor a few items and drugs through stock-out reports or surveys as proxy of your supply chain.

Establish feedback/complaint mechanisms to allow beneficiaries, staff, partner agencies, and companies to provide regular feedback, such as rapid client exit interviews in which clients report on whether they received the desired/required medicine or contraceptive.

4.3.4 Coordinating and making linkages

Successful supply chain operations require extensive coordination, both internally among procurement and logistics teams within implementing agencies, and externally with a variety of stakeholders. Coordination is needed at every step, from ensuring that SRH supplies are part of the health cluster core-pipeline, to transporting

PROGRAMMATIC EXAMPLE 4.2: WORKING WITH COMMUNITY-BASED HEALTH COMMITTEES TO REDUCE STOCK OUTS OF SRH SUPPLIES IN A CRISIS-AFFECTED SETTING

ORGANIZATION: CARE

LOCATION: North Kivu, Democratic Republic of the Congo (DRC)

INTRODUCTION: North Kivu province in eastern DRC is a land of great natural beauty and resources. It is also home to a decades-long conflict that has brutalized the population, disrupted social networks, and ravaged the public healthcare system. CARE's Supporting Access to Family Planning and Post-Abortion Care (SAFPAC) Initiative has been working in eastern DRC since July 2011 to reduce unintended pregnancies and deaths from unsafe abortion in crisis-affected settings. The SAFPAC Initiative supports government health systems at primary and referral levels to provide a wide range of contraceptive services, including long-acting reversible contraception, to people affected by conflict and/or displacement. This initiative has the following components: 1) Clinical skills training, assessment, and coaching; 2) Supportive supervision; 3) Supply chain support; 4) Quality improvement; and 5) Community mobilization.

PROJECT DESCRIPTION: In the absence of a functioning public-sector supply chain for SRH supplies in our operational areas, CARE supplied all the contraceptives, medicines, and supplies required to provide quality family planning and post-abortion care services. CARE procured SRH supplies from ASRAMES (the Regional Association for the Supply of Essential Medicines) and international vendors and gave them to district health authorities for distribution to health facilities on a quarterly basis ("push" system). The initiative tracked stock outs of 8 tracer products (oral contraceptive pills, injectables, implants, intrauterine devices, manual vacuum aspiration kits, pain medicine, high-level disinfectant, and gloves) through routine monthly reports submitted by the health center.

In the first phase, the initiative experienced recurring stock outs of implants, pain medicine, and high-level disinfectant. To some extent, this was due to factors beyond CARE's control such as a global shortage of implants and insecurity impeding resupply. It was also because health facilities did not restrict the use of pain medicine and high-level disinfectant purchased by CARE to family planning and post-abortion care services. Since CARE was the only supplier of these essential inputs to health facilities, CARE did not discourage this practice. However, CARE needed to find a way to strengthen forecasting and inventory management practices to prevent future stock outs.

To begin, CARE trained stock keepers, pharmacists, providers, and community representatives on stock inventory management practices and tools for heath commodities in accordance with national guidelines. The community representatives were members of Health Area Development Committees known as CODESA. The CODESA is a community-based structure that represents all the villages/streets in the area served by a health center. It plays a vital role in holding health centers accountable to the communities they serve by reporting to them how health centers use their resources. CODESA members meet with the health center team once a month to analyze the results achieved, identify strengths and weaknesses to plan corrective actions. Initially, the initiative did not engage with CODESAs, but CARE realized this was a missed opportunity for improving the management of SRH supplies since

one of CODESAs' roles is to oversee the health center resources and, as the primary consumers of health services, they have a vested interest in good stewardship of health supplies.

In addition to training CODESA members on stock inventory management, CARE invited them to participate in monthly supportive supervision visits to health centers during which they conducted physical inventories to compare stock holdings to stock inventory records and to make sure that products in short supply got re-ordered right away. CARE also invited them to help receive deliveries from the district health pharmacy to verify the contents and documentation.

CARE helped to motivate CODESAs to take on these additional tasks by seeking their inputs during monthly supportive supervision visits to health facilities that CARE conducted jointly with district health officials and recognizing their efforts during quarterly project review meetings with all stakeholders. In addition, CODESAs got a percentage of the money that CARE paid to health centers that performed well on specified criteria, such as stock outs.

RESULTS: By involving CODESAs in routine stock inventory management, CARE reduced the number of stock outs in the health centers CARE supports to nearly zero, even during periods when insecurity prevented access to certain health centers. In the process, CARE succeeded in building mutual confidence between CODESAs and health staff in the health districts where CARE works, which, in turn, improved overall quality and uptake of SRH services.

There have been some challenges along the way. In the beginning, health staff did not trust or have confidence in the CODESA because they perceived it as a policing body that lacked health credentials. CARE addressed this by collaborating with the Ministry of Health to define the roles and responsibilities of CODESAs and health staff in the management of health supplies and equipment. Subsequently, CARE oriented CODESAs and health staff on their roles and responsibilities during the stock inventory management training and supported them to make quarterly stock management plans and review progress during quarterly stakeholder meetings.

LESSONS LEARNED: Community participation in the management and control of SRH supplies at the health-facility level is an effective mechanism for ensuring accountability of public health services, including commodities to users. In addition to improving the availability of essential SRH supplies, it is an effective way to build mutual trust between communities and government health authorities, and is a particularly useful tool for helping crisis-affected societies to lay the foundation for peace and a better future.

products around the country, to tracking stocks and addressing stock-outs.

In designing and implementing supply chain strategies, coordinate with the following stakeholders:

- ***Health, protection, and logistics clusters:*** Coordinate immediately with the health, protection, and logistics clusters to gather the data needed to estimate the SRH supply needs of the affected population and to ensure that SRH products are prioritized as part of the broader health response. At the same time, contact the UNFPA humanitarian focal point to begin the process of ordering the RH Kits
- ***SRH working group/sub-cluster:*** Ensure that SRH supply chain considerations inform broader SRH program design and implementation, and vice versa. For example, each component of SRH service delivery – from contraceptive provision to maternal and newborn health care to care for survivors of gender-based violence – should have a clearly defined essential package of commodities to inform procurement and logistics staff of what is needed
- ***Partner agencies:*** Coordinate with partner agencies to ensure coverage of SRH supplies across geographical areas, populations, and facilities. During the preparedness phase and during the expansion of the MISP toward comprehensive SRH services, partner with governments and existing/local partners in the development sector – particularly those with long-standing programs in the area – to contribute to the process of returning to non-crisis supply chains
- ***Government agencies:*** A number of government agencies can act as both partners and gatekeepers at various points throughout the supply chain. For example, government officials can provide information about laws and policies governing the supply chain system, particularly entry of medicines into the country. They also can provide stock inventory management training materials, which should form the basis of any training during the transition to sustainable supply chains. Cultivate relationships

with relevant government agencies (from national to local level) as a critical step in the process of returning to or building longer-term, sustainable supply chains. Relevant government agencies include the Ministry of Health, the national drug regulatory agency, and others

- ***On-the-ground health care staff:*** Health workers, from doctors to nurses, midwives, and medical assistants, provide technical information needed to inform and maintain well-functioning supply chains. For example, they must provide consumption data and specifications on product details like the formulations and dosage(s) of commodities to inform ordering, including information about any special doses/formulations needed for specific populations using certain products. They are also important to maintaining up-to-date tracking and inventory systems, by reporting stock levels and flagging when items are needed (low stock levels or stock outs)
- ***Local transportation and warehousing vendors:*** Given the importance of transportation and storage for successful supply chains, build strong relationships with local stakeholders responsible for carrying out, contributing to, and overseeing these processes. This may include staff and management at the local airport or shipping port, local ground transportation depot, and warehouses from port of entry to the last mile
- ***Local medical suppliers:*** It is best to procure as much as possible from local sources (balancing this with other considerations like cost and quality). Coordinate with these suppliers and, where needed, with the WHO in this process

4.3.5 Advocacy

Many entry points exist to advocate for improved humanitarian SRH supply chains. Advocacy is needed to draw attention to the importance of SRH commodities in achieving humanitarian promises and meeting human rights obligations and to encourage decision-makers to address the need to allocate resources, including strategic planning and staff time, to improve humanitarian SRH supply chains. Decision-makers at all levels, from national to local leaders and from donors to humanitarian health staff, have a role to play in designing, implementing, and monitoring policies, programs, and funding structures that improve access to SRH commodities. Advocacy messages to the following audiences may include:

Humanitarian response agencies should:

- Invest in strengthening their SRH supply chains, starting by analyzing bottlenecks, addressing gaps, building capacity, and measuring progress
- Ensure that staff trained in medical logistics/procurement are integrated into humanitarian SRH programs and at all levels of the supply chain
- Integrate senior humanitarian logistics and supply chain practitioners into the organization's strategic decision-making level and solicit their input on key fundraising and programming decisions. Often, the community of practitioners in humanitarian logistics and supply chain are still not represented at the strategic level within their organizations, and further have little direct dialogue with the institutional donor community
- Collaborate with the development sector on integrating SRH supplies into ongoing, sustainable medical commodity supply chains, including by building the presence of highly trained in-country logistics staff who are knowledgeable about SRH commodities.

National decision-makers should:

- Work with the health cluster on the procurement and distribution of SRH supplies across partners
- Register all products in the RH Kits (and other supplies needed to implement comprehensive SRH services) in the country, including emergency contraception, misoprostol, female condoms, and safe abortion supplies
- Establish policies to allow humanitarian deliveries, including RH Kits, to quickly enter the country and be deployed without delay
- Establish favorable trade/import regulations, such as tax exemptions, for humanitarian deliveries
- Establish national preparedness plans that will contribute to continuous access to SRH supplies in an

emergency (strategically pre-positioning commodities where appropriate)

- Build supply chain resilience, including contingency plans, to ensure SRH commodity security when emergencies arise. This includes identifying and addressing bottlenecks in the SRH supply chain to ensure equitable distribution to all persons in need of SRH services, taking into account how to reach traditionally vulnerable populations like adolescents, people with disabilities, and people based in very remote areas. Resilience efforts should also consider potential security concerns and power differentials among conflicting groups
- Establish sustainable waste management policies and practices for medical and non-medical waste

Local and community leaders should:

- Contribute to supply chain preparedness and planning, including contingency plans, for SRH commodities. Local and community leaders should always be included through participatory processes
- Contribute to the development of local preparedness plans in advance of emergencies that include SRH supplies within the broader health response, and implement these plans when emergencies arise

Donors should:

- Fund strategic investments to strengthen humanitarian SRH supply chains, including efforts to better understand and address bottlenecks. Donors should fund not only the full range of commodities themselves, but also the strengthening of the supply chains needed for the commodities to arrive at their final destination (the end user) when and where they are needed. These efforts should span the emergency program cycle, from preparedness to response to recovery
- Include all products in the RH Kits on their list of essential commodities for emergency response

SRH Coordinators, health program managers, and health and protection cluster officers should:

- Provide technical information and justification as needed when decision-makers claim that specific SRH products, like emergency contraception or clinical management of rape commodities, are not needed

4.4 HUMAN RIGHTS AND LEGAL CONSIDERATIONS

Sexual and reproductive health supplies are life-saving commodities. Achieving good sexual and reproductive health depends on the availability of high-quality, affordable SRH supplies. There is a critical link between access to the full range of SRH supplies and women's and girls' ability to exercise their right to decide freely and responsibly the number and spacing of children and to maintain their good health. This link is amplified for people affected by humanitarian emergencies, who often face greater risks to their SRH and challenges accessing SRH supplies that they depend on regularly (such as their preferred ongoing method of contraception), and whose needs may shift as their circumstances change in the wake of an emergency. SRH supplies are a direct contributor to self-determination, free choice, and autonomy.

Access to medicines, specifically, is critical to the realization of the rights to health and life. Human rights bodies have recognized that the provision of essential medicines is part of the minimum core obligations of the right to the highest attainable standard of health with which States must comply at all times (see ESCR Committee, General Comments 3 and 14).

Human rights bodies have provided detailed guidance (see ESCR Committee, General Comment 14) on the elements necessary to fulfill the right to health, noting that health services and goods, including SRH supplies and medicines, must be:

- Available in sufficient quantity
- Accessible to all without discrimination (this includes physical, economic, and information accessibility)
- Acceptable with respect to medical ethics as well as within a particular cultural context
- Of good quality and scientifically and medically appropriate

In the context of a humanitarian crisis, special care must be taken to ensure the safe accessibility of SRH supplies to all affected populations, including groups of people who are often marginalized – such as adolescents, people with a low-income, persons with disabilities, female and male survivors of gender-based violence, sex workers, and lesbian, gay, bisexual, transgender, queer, questioning, intersex, and asexual people. As the situation stabilizes, participation of the affected population in designing, implementing, and monitoring supply chains is key to ensuring that supplies and medicines are meeting demand and reaching marginalized groups (ESCR Committee General Comment 14). It is strongly recommended to engage these populations as soon as possible across supply chain management systems in emergency settings.

Although not codified in human rights law, the logistics sector has the opportunity to further the realization of health as a human right in tangible applications, including through ethical sourcing of products. In sourcing, the right to high-quality supplies must be paired and balanced with the right to development of local economies and communities (see United Nations General Assembly Resolution 41/128, Declaration on the Right to Development, A/RES/41/128). Sourcing products locally contributes to the local economy and to building sustainable supply chains in the affected area. Humanitarian agencies, in their efforts to "do no harm" and to leave the supply chain as strong and healthy as possible, should seek partnerships with local suppliers and vendors. At the same time, humanitarian actors must also consider product quality in their sourcing decisions. This is particularly critical for medicines because when low-quality, counterfeit, or expired products enter the supply chain, it is ultimately to the detriment of the end user. It is also an inefficient use of humanitarian sector resources. Agencies may implement their own processes for assessing product quality, drawing upon global and national standards and guidance to help them determine whether local products are high quality. As discussed above, goods should meet specific requirements for FPP. When high quality products are available locally, they should be used. When high quality products are not available locally, they must be procured elsewhere.

4.5 MONITORING AND EVALUATION

Metrics and data on logistics and the supply chain are crucial to the success of a humanitarian response. There are many indicators that logisticians use in non-emergency contexts to monitor the supply chain that are relevant in the acute and protracted phases of humanitarian programming. Coordinate with the logistics cluster to gather key cluster priorities and indicators in the country/context. Different donors and partners may also have other indicators to consider. Based on these resources and engagement with the cluster system in the emergency affected areas, develop the organizational logistics priorities and indicators. From this list, establish your key indicators – the necessary 4-5 indicators that capture information at particular points in the supply chain – ensuring consistency across agencies and with the clusters. These will be the basic data points the LMIS will collect, at all levels. In moving from acute response towards more comprehensive SRH programming, adjust the monitoring systems and data collection tools to collect more comprehensive information. Below are some key indicators that may be considered as priority data for collection. Some are appropriate for the acute phase and some are more appropriate for protracted settings, as well as recovery and transition to comprehensive logistics systems. Key indicators may include:

GENERAL

Acute

- Number of days delayed by customs clearance processes
- Number and percentage of items returned/rejected (# items returned/total products from clinic orders, define reason for return)
- Data management system established at every point in supply chain management system - at warehouse, at clinic, at country office, as part of HMIS, etc. This could be a robust LMIS software package or a Microsoft Excel spreadsheet

Recovery and protracted phases, and/or comprehensive systems

- Number and percentage of on-time commodity deliveries (# commodity deliveries on time/total # of commodity deliveries)

LMIS DATA POINTS FROM EACH WAREHOUSE/CLINIC/STOCKPILE, SUCH AS:

- Stock on hand
- Total amount and dollar value of damaged/lost/expired goods
- Total amount and dollar value of goods expired or damaged prior to field delivery/distribution/utilization
- Inventory levels vs. forecasted need (monthly inventory levels (by product type)/forecasted need from previous month forecasted need)
- Stock outs – the SPHERE indicator for stock outs, which can be used across all emergencies, is: "no health facility is out of stock of selected essential medicines and tracer products for more than one week." Additional stock out indicators that are very useful include:
  - Half-level of stock was flagged for ordering more product (y/n by type)
  - Data system captured this need (y/n)
  - Product was ordered (y/n)
  - Time to delivery to user (in days)
  - Percentage of stock cards properly maintained (with all IN and OUT entered and with physical inventory matching figure on the card)

For a much more comprehensive review of supply chain and logistics indicators, see JSI's Measuring Supply Chain Performance: Guide to Key Performance Indicators for Public Health Managers. See also the list of indicators in the Interagency Supply Chain Group's Measuring Accountability for Last Mile Delivery (Section 4.6).

4.6 FURTHER READING AND ADDITIONAL RESOURCES

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