Recommended Indicators to Address In-Country Supply Chain Barriers

Developed for the UN Commission on Life-Saving Commodities for Women and Children, Supply and Awareness Technical Reference Team

JSI Research & Training Institute, Inc.

May 2014

Health Logistics

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Abstract
This document recommends supply chain and related performance indicators for health programs to use to monitor and improve the availability of the 13 key life-saving commodities of the UN Commission on Life-Saving Commodities for Women and Children. These indicators are proposed in response to barriers to availability of these commodities, as identified by the Supply and Awareness Technical Reference Team of the UN Commission on Life-Saving Commodities for Women and Children. This document recommends that countries track their progress on 11 recommended performance indicators, which they can do through existing data collection instruments and ongoing efforts. The document also provides additional indicators that countries can adopt to monitor and further refine the performance of their supply chains. Detailed reference information is provided for each indicator, including definition, formula, purpose, data sources, and data requirements.

JSI Research & Training Institute, Inc.
1616 Fort Myer Drive, 16th Floor
Arlington, VA 22209 | USA
Tel | +1 703 528 7474

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Acronyms

CHW	community health worker
CMS	Central Medical Store
eLMIS	electronic logistics management information system
EMA	European Medicines Agency
FEFO	first-to-expire, first-out
IDA	International Dispensary Association
IMCI	Integrated Management of Childhood Illness
IMPAC	Integrated Management of Pregnancy and Childbirth
LMIS	logistics management information system
MOF	Ministry of Finance
MOH	Ministry of Health
MSH	Management Sciences for Health
NEML	national essential medicines list
NGO	nongovernmental organization
PO	purchase order
RMNCH	reproductive, maternal, newborn, and child health
SARA	Service Availability and Readiness Assessment
SDP	service delivery point
SOP	standard operating procedure
SRA	stringent regulatory authority
STG	standard treatment guideline
UNCoLSC	UN Commission on Life-Saving Commodities for Women and Children
UNFPA	United Nations Population Fund

USAID	U.S. Agency for International Development
USFDA	U.S. Food and Drug Administration
WHO	World Health Organization

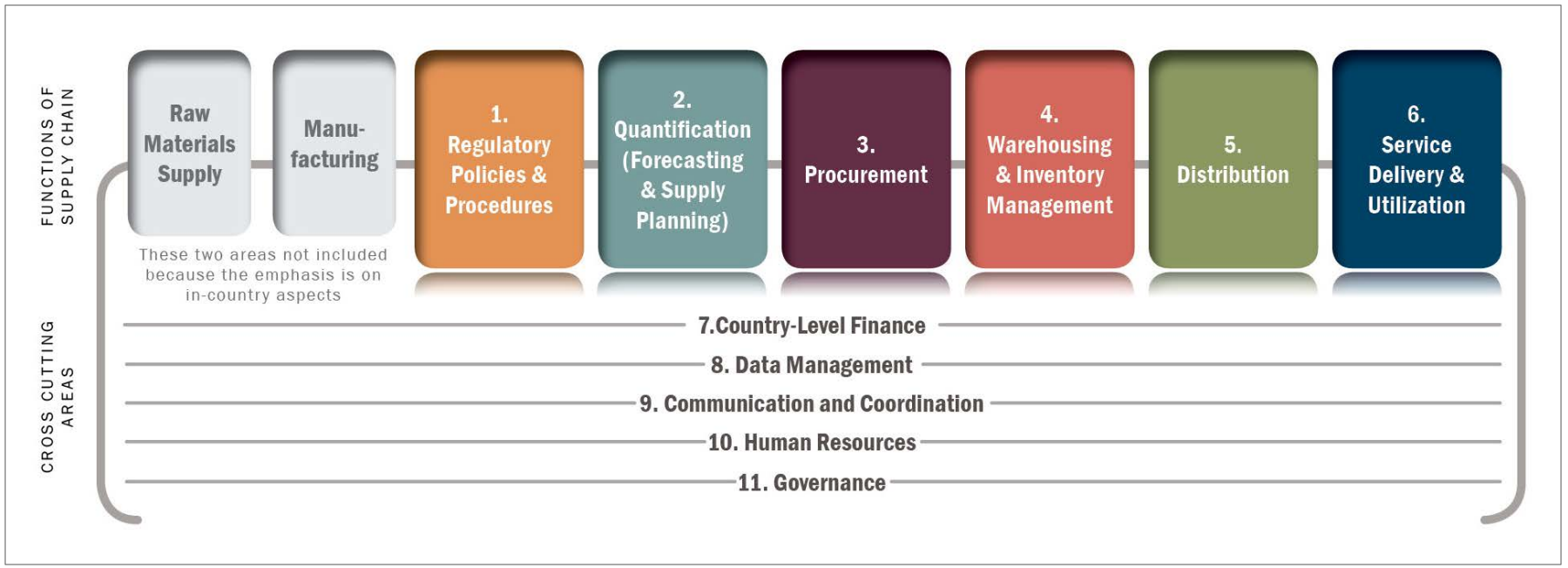
Introduction and Overview of Indicators

To increase access to life-saving commodities for women and children[1], barriers to improving in-country public health supply chains must be understood, analyzed, and addressed. This document recommends a core set of supply chain management and related indicators that can be used to measure and monitor the performance of the functional areas within in-country supply chains and respond to the barriers identified by the UNCoLSC Supply and Awareness Technical Reference Team in *Challenges and Barriers along the In-Country Supply Chain*. The performance indicators in this document are organized by supply chain and cross-cutting areas, while recognizing that many areas are interrelated and interdependent. This document focuses only on aspects specific to in-country supply chain systems, because other working groups are focused on the upstream supply chain areas. The areas of focus are numbered in the following figure.

[1] The UNCoLSC, and this document, focus on 13 overlooked life-saving commodities in the service areas of reproductive, maternal, newborn, and child health. These commodities are—

- female condoms, implants, and emergency contraception (for reproductive health);
- oxytocin, misoprostol, and magnesium sulfate (for maternal health);
- injectable antibiotics, antenatal corticosteroids, chlorhexidine, and resuscitation equipment (for newborn health); and
- amoxicillin, oral rehydration salts, and zinc (for child health).

Figure 1. Supply Chain Functions and Cross-Cutting Areas



Source: Adapted from Supply and Awareness Technical Reference Team, UN Commission on Life-Saving Commodities for Women and Children. 2013. *Challenges and Barriers along the In-Country Supply Chain*. Arlington, VA: Management Sciences for Health, Systems for Improved Access to Pharmaceuticals and Services (SIAPS) Program.

This document provides one recommended performance indicator that relates to at least one of the key barriers identified for each of the 11 supply chain function and cross-cutting areas listed in figure 1. At a minimum, countries should track their performance on these 11 recommended performance indicators, which they should be able to do by using existing data collection instruments and ongoing efforts, such as the Reproductive, Maternal, Newborn and Child Health (RMNCH) Landscape Synthesis, the United Nations Population Fund (UNFPA) Facility Assessment for Reproductive Health Commodities and Services, and/or the World Health Organization Service Availability and Readiness Assessment (WHO SARA) data collection[2]. Additional indicators are also listed for most supply chain function and cross-cutting areas; countries can adopt any of these indicators, too, to help monitor and further refine the performance of their supply chain systems.

The recommended key performance indicators are:

1. Percentage of life-saving commodities included in the country's national essential medicines list.
2. Existence of a forecasting tool or method used routinely for forecasting needs for medicines and medical devices.
3. Percentage of life-saving commodities procured through framework contracts or through a pooled-procurement mechanism.
4. Percentage of facilities stocked out of each life-saving commodity.
5. Average amount of time between ordering and receiving products at the health facility.
6. Percentage of service delivery points that offer clients access to life-saving commodities and services.
7. Percentage of service delivery points (SDPs) that offer the life-saving commodities where patients are assessed any out-of-pocket charges.
8. Presence and characteristics of the logistics management information system (LMIS).
9. Existence of an active commodity security coordinating mechanism for all life-saving commodities.
10. Level of deployment of training in supply chain management.
11. Existence and implementation of commodity security strategy(ies) for RMNCH.

A snapshot of all of the indicators in this document is included in the following table, by supply chain function or cross-cutting area.

[2] In some cases, these 11 "recommended" indicators were chosen not because they were deemed the best indicators overall, but because of the availability of the data through existing data collection mechanisms.

Table 1. Summary of Indicators

	Function/Area	Recommended Performance Indicator and Additional Indicators
Functions of In-Country Supply Chain	**1. Regulatory Policies and Procedures**	**Recommended Performance Indicator 1: Percentage of Life-Saving Commodities Included in the Country's National Essential Medicines List**
		Additional Indicators: 1.1: Percentage of Products Tested for Quality 1.2: Percentage of Branded/Generic Products for Each Life-Saving Commodity Procured in the Last Year that Are World Health Organization Prequalified or Have Stringent Regulatory Authority Approval 1.3: Percentage of Life-Saving Commodities that Have at Least One Brand Registered In-Country 1.4: Percentage of Life-Saving Commodities that Are Found in the National Standard Treatment Guidelines
	2. Quantification (Forecasting and Supply Planning)	**Recommended Performance Indicator 2: Existence of a Forecasting Tool or Method Used Routinely for Forecasting Needs for Medicines and Medical Devices**
		Additional Indicators: 2.1: Forecast Accuracy Percentage 2.2: Percentage of Life-Saving Commodities for Which a Country Supply Plan Was Developed during the Last Year and Updated Every Six Months 2.3: Percentage of Purchase Orders/Contracts Issued As Emergency Orders
	3. Procurement	**Recommended Performance Indicator 3: Percentage of Life-Saving Commodities Procured Through Framework Contracts or Through a Pooled-Procurement Mechanism**
		Additional Indicators: 3.1: Percentage of Each Vendor's Expected Orders that Were Delivered on Time and In Full 3.2: Average Lead Time for Contract/Purchase Order Issue 3.3: Average Number of Days between Purchase Order Issue and Vendor Acceptance

	Function/Area	Recommended Performance Indicator and Additional Indicators
		3.4: Average Number of Days between Product Arrival in Port/Airport and Arrival in Warehouse (Customs Clearance Cycle) for the Life-Saving Commodities 3.5: Percentage of Planned Quantities that Were Received 3.6: Average Unit Cost of Each Life-Saving Commodity as Percentage of Average International Reference Price
	4. Warehousing and Inventory Management	**Recommended Performance Indicator 4: Percentage of Facilities Stocked Out of Each Life-Saving Commodity**
		Additional Indicators: 4.1: Percentage of Life-Saving Commodities with Accurate Stock Record Balance 4.2: Unusable Stock as a Percentage of the Quantity Received 4.3: Unaccounted Stock as a Percentage of the Quantity Received 4.4: Existence of Supply Chain Management Protocols for Disposal of Medical Waste and Management of Unusable Products 4.5: Percentage of Facilities that Satisfy All of the Listed Storage Conditions 4.6: Percentage of Facilities Where Cold Chain Conditions Were Consistently Maintained
	5. Distribution	**Recommended Performance Indicator 5: Average Amount of Time between Ordering and Receiving Products at the Health Facility**
		Additional Indicators: 5.1: Percentage of Deliveries Arriving in Good Condition 5.2: Percentage of Days in the Year When a Vehicle Was Available to Transport Products
	6. Service Delivery and Utilization	**Recommended Performance Indicator 6: Percentage of Service Delivery Points that Offer Clients Access to Life-Saving Commodities and Services**

		Additional Indicators: 6.1: Percentage of Service Delivery Points Expected to Offer the Service that Have at Least One Active Trained Health Worker
Cross-Cutting Areas	**7. Country-Level Finance**	**Recommended Performance Indicator 7: Percentage of SDPs that Offer the Life-Saving Commodities Where Patients are Assessed Any Out-of-Pocket Charges**
		Additional Indicators: 7.1: Total Expenditures for the Procurement of the Life-Saving Commodity 7.2: Government Share of Total Spending on Procurement of Life-Saving Commodities 7.3: Total Expenditures on Life-Saving Commodities as Percentage of Amount Needed for Procurement
	8. Data Management	**Recommended Performance Indicator 8: Presence and Characteristics of the Logistics Management Information System**
		Additional Indicators: 8.1: Health Facility Reporting Rates
	9. Communication and Coordination	**Recommended Performance Indicator 9: Existence of an Active Commodity Security Coordinating Mechanism for All Life-Saving Commodities**
	10. Human Resources	**Recommended Performance Indicator 10: Level of Deployment of Training in Supply Chain Management**
		Additional Indicators: 10.1: Percentage of Facilities with at Least One Active Health Worker Trained in Supply Chain Management 10.2: Percentage of Facilities that Received Supervision Visits Including Supply Chain Management According to Schedule 10.3: Existence of Documented Supply Chain Management Standard Operating Procedures for Supply Chain Management Tasks at Each Level of the In-Country Supply Chain 10.4: Existence of Pre-Service Supply Chain Management Curriculum Developed and/or Implemented in Relevant Schools and Total Number of Students Who Have Completed the Pre-Service Coursework

	Function/Area	Recommended Performance Indicator and Additional Indicators
	11. Governance	**Recommended Performance Indicator 11: Existence and Implementation of Commodity Security Strategy(ies) for Reproductive, Maternal, Newborn and Child Health**
		<u>Additional Indicators:</u> 11.1: Provision of the Life-Saving Commodities by Market Sector(s)

The following sections provide more information about each of these indicators, including their definitions, purposes, formulas, data sources, and data requirements.

Indicators about Functions of the Supply Chain

1. Regulatory Policies and Procedures

Recommended Performance Indicator

Recommended Performance Indicator 1:

Percentage of Life-Saving Commodities Included in the Country's National Essential Medicines List

Definition

This indicator monitors the presence of life-saving commodities in the country's national essential medicines list (NEML). These commodities should be included on the NEMLs with a context-appropriate level of commodity specifications and/or formulations. This indicator can be monitored annually.

Formula

$$\frac{[\text{Number of life-saving commodities included in the country's NEML with appropriate commodity specifications}]}{[\text{Total number of life-saving commodities}]}$$

Purpose and Issues

Inclusion of commodities on a country's NEML is indicative of a country's commitment to maintaining an uninterrupted supply of these commodities, because the commodities are more likely to be procured for programs and are less likely to face significant importation barriers. National governments develop and maintain NEMLs. This indicator represents a key step toward the sustainability of in-country supply systems and functions and the local capacity to manage them. To fully identify the commodity, an appropriate level of technical specifications should be included, depending on the country and commodity context.

Please note that some countries may include commodities (e.g., female condoms) on an essential *device* list, or there may be a list, such as an *essential health package commodity list*. Inclusion of commodities on these lists also highlights their significance and can help ensure their availability by influencing decisions on resource allocation, procurement, prescriber protocols, and provider training.

Data Sources	Data Requirements
• Ministry of Health (MOH) records • Also available through RMNCH Landscape Synthesis	• List of life-saving commodities from http://www.everywomaneverychild.org/resources/un-commission-on-life-saving-commodities/life-saving-commodities • NEML (and any other related lists, as appropriate)

Sources of Indicator:

- UNFPA. 2010. Monitoring and Evaluation Framework for the Global Programme to Enhance Reproductive Health Commodity Security. New York: UNFPA.
- USAID │DELIVER PROJECT, Task Order 4. 2013. Contraceptive Security Indicators Data 2013. Arlington, Va.: USAID | DELIVER PROJECT, Task Order 4.
- USAID │DELIVER PROJECT, Task Order 4. 2011. Quality Assurance Surveillance Plan (QASP) and Performance Monitoring Plan (PMP). Arlington, Va.: USAID | DELIVER PROJECT, Task Order 4.

Regulatory Policies and Procedures

Additional Indicators

Additional Indicator 1.1:

Percentage of Products Tested for Quality

Definition
This indicator measures the number of individual products/lots/shipments of life-saving commodities entering the country that undergo post-shipment quality testing in one year, as a percentage of the number required, according to national guidelines. This may measure the percentage within a class of product; or, as a whole, for all products procured during a year.

Formula

$$\frac{[\text{Number of products/lots/shipments that had post} - \text{shipment testing for quality during the last year}]}{[\text{Total number of products/lots/shipments procured or received in} - \text{country that required post} - \text{shipment testing during the last year}]} \times 100$$

Note: The calculation should include only products/lots/shipments that are supposed to be tested post-shipment, according to national guidelines.

Purpose and Issues

This indicator can provide insight into a country's quality testing practices and whether a country is fulfilling its quality testing requirements for products entering the country. Products that have undergone rigorous pre-shipment testing, such as condoms procured by the U.S. Agency for International Development (USAID) and other donors, may not require post-shipment testing, unless their integrity was compromised during shipment.

Data Sources	Data Requirements
Procurement unit records—quality control division • National guidelines for quality testing of health products	• Procured quantities for a particular product/lot/shipment that entered the country during the last year • Quality testing records that indicate which products received post-shipment testing

Source of Indicator: Aronovich, Dana, Marie Tien, Ethan Collins, Adriano Sommerlatte, and Linda Allain. 2010. *Measuring Supply Chain Performance: Guide to Key Performance Indicators for Public Health Managers.* Arlington, Va.: USAID | DELIVER PROJECT, Task Order 1.

Additional Indicator 1.2:

Percentage of Branded/Generic Products for Each Life-Saving Commodity Procured in the Last Year that Are World Health Organization Prequalified or Have Stringent Regulatory Authority Approval

Definition

This indicator measures the percentage of branded/generic products for each life-saving commodity procured by a country in the last year that has been pre-qualified by WHO and/or has stringent regulatory authority (SRA) approval. This should be disaggregated by life-saving commodity.

For example, if the country procured oral contraceptive A, oral contraceptive B, and oral contraceptive C in the last year, and if only oral contraceptives A and B are WHO pre-qualified or have SRA approval, the result for this indicator for oral contraceptives would be 66 percent (2/3).

Formula

$$\frac{\begin{array}{c}[\text{Number of branded/generic products per life} - \text{saving commodity procured} \\ \text{in the last year for the country's national public health supply chain} \\ \text{that are WHO} - \text{prequalified and/or have SRA approval}]\end{array}}{\begin{array}{c}[\text{Total number of branded/generic products per life} - \text{saving commodity procured in the last year} \\ \text{for the country's national public health supply chain}]\end{array}} \times 100$$

Purpose and Issues

This indicator determines whether products being purchased meet international quality standards, as defined by WHO or another stringent regulatory authority, including the U.S. Food and Drug Administration (USFDA) or the European Medicines Agency (EMA). To ensure that only high-quality products are being procured, countries should aim to have 100 percent of products procured to meet these standards. The WHO's website (http://apps.who.int/prequal/info_general/notes.htm) lists WHO's currently pre-qualified medicines. The USFDA's website (http://www.accessdata.fda.gov/scripts/cder/drugsatfda/) and the EMEA's website (http://www.ema.europa.eu/ema) provide access to lists of products that they currently approve.

If data are available, this indicator could be revised to measure the percentage of commodity quantities/lots/shipments procured with WHO prequalification or SRA approval.

Data Sources	Data Requirements
Procurement unit records—quality control division	• List of products procured in a specific time period • List of products that have been prequalified by WHO and/or have SRA approval

Source of Indicator: Adapted from Aronovich, Dana, Marie Tien, Ethan Collins, Adriano Sommerlatte, and Linda Allain. 2010. *Measuring Supply Chain Performance: Guide to Key Performance Indicators for Public Health Managers.* Arlington, Va.: USAID | DELIVER PROJECT, Task Order 1.

Additional Indicator 1.3:

Percentage of Life-Saving Commodities that Have at Least One Brand Registered In-Country

Definition

This indicator measures the percentage of life-saving commodities that have at least one brand registered in-country.

Formula

$$\frac{[\text{Number of life} - \text{saving commodities that have at least one brand registered in} - \text{country}]}{[\text{Total number of life} - \text{saving commodities}]} \times 100$$

Purpose and Issues

Products are registered to ensure that the products being procured meet specific quality standards. Typically, governments will not procure health commodities that have not been registered in-country unless the manufacturer has secured a waiver. Therefore, tracking the percentage of life-saving commodities that have been registered can be an indicator of a country's ability to procure and offer those products to their population. This indicator can also reflect the ease of registering both branded and generic products in a country, indicating the flexibility to bring in the most cost-effective products. A low percentage of registered products could imply that there are other issues within the system (e.g., a lack of government capacity to register products quickly enough, a lack of government oversight).

Data Sources	Data Requirements
• MOH records • Procurement and planning division records • Product registration documentation and guidelines • National procurement policies • Key informant interview with procurement unit • Also available through RMNCH Landscape Synthesis	List of registered products in-country

Source of Indicator: Aronovich, Dana, Marie Tien, Ethan Collins, Adriano Sommerlatte, and Linda Allain. 2010. *Measuring Supply Chain Performance: Guide to Key Performance Indicators for Public Health Managers.* Arlington, Va.: USAID | DELIVER PROJECT, Task Order 1.

Additional Indicator 1.4:

Percentage of Life-Saving Commodities that Are Found in the National Standard Treatment Guidelines

Definition

This indicator measures the extent to which the life-saving commodities are aligned with the national standard treatment guidelines (STGs).

Formula

$$\frac{[\text{Number of life} - \text{saving commodities that are found in the national STG}]}{[\text{Total number of life} - \text{saving commodities}]} \times 100$$

Purpose and Issues

National STGs should be updated regularly, as new, more effective, and safer medicines are developed and resistance to and severe side effects of other medicines are identified. WHO regularly updates treatment guidelines. To guarantee the best possible treatment options for clients, it is important that national programs refer to updated WHO guidelines when revising their national STGs. In addition, procurement is more efficient if programs focus on obtaining sufficient quantities of nationally recommended items.

Data Sources	Data Requirements
• National MOH records • Also available through RMNCH Landscape Synthesis	Most recent national STGs (or WHO STGs, if no national STGs)

Source of Indicator: Adapted from WHO. 2011. Harmonized Monitoring and Evaluation Indicators for Procurement and Supply Management Systems. Geneva: WHO.

2. Quantification (Forecasting and Supply Planning)

Recommended Performance Indicator

Recommended Performance Indicator 2:

Existence of a Forecasting Tool or Method Used Routinely for Forecasting Needs for Medicines and Medical Devices

Definition

This indicator monitors the existence of a forecasting tool or method that is used routinely for forecasting needs for medicines and medical devices.

Formula

Is there a forecasting tool or method that is used routinely to forecast needs for medicines and medical devices? (yes/no)

Purpose and Issues

The routine use of a forecasting tool or defined method indicates that (1) forecasts are being conducted routinely, (2) proper forecasting is taken seriously and conducted with care, and (3) a consistent, rational for the methodology is used year to year. This indicator serves as an initial, proxy indicator of the quality of forecasts.

Data Sources	Data Requirements
• MOH or partner records • Also available through RMNCH Landscape Synthesis	Evidence of a tool or method used routinely for forecasting

Source of Indicator: Life Saving Commodities Initiative. 2013-2014. *RMNCH Landscape Synthesis*. New York: Life Saving Commodities Initiative.

Quantification (Forecasting and Supply Planning)

Additional Indicators

Additional Indicator 2.1:

Forecast Accuracy Percentage

Definition
For each life-saving commodity, this indicator measures the percentage difference between forecasts developed for the previous year and the actual consumption (or issues data) for that year. Evaluators should calculate the indicator for each life-saving commodity for which a forecast was created.

Formula
$$1 - \frac{[\text{absolute value of } [\text{forecasted consumption} - \text{ actual consumption}]}{[\text{actual consumption}]} \times 100$$

Purpose and Issues
This indicator should be used at the level where long-term procurement decisions are made—most commonly the central level—but it can also be applied to other levels of the system, if forecasting has been decentralized and if SDPs determine their own procurement quantities. Accurate quantification helps countries and organizations procure adequate quantities of each product and improve financial management, thereby reducing the likelihood of shortage or wastage and increasing the likelihood of meeting the needs of end users with available products. Forecasts are an estimate of future demand. Other than a make-to-order replenishment system, forecasts are typically incorrect, because it is nearly impossible to predict the future with complete accuracy. However, certain methods can aid in reducing the forecast error (e.g., analyzing historical consumption data and estimating future trends). Documenting the reasons for particularly wide discrepancies (including assumptions used in preparing the forecast) helps put the results into perspective and may lead to insights for improving future forecasts.

Data Sources	Data Requirements
• Procurement and planning unit records • Consumption/distribution records (from logistics management information system)	• List of life-saving commodities for which forecasts were developed for the last year • Forecasts, by commodity, for the last year • Actual consumption or issues data, by product, for the last year

Source of Indicator: Aronovich, Dana, Marie Tien, Ethan Collins, Adriano Sommerlatte, and Linda Allain. 2010. *Measuring Supply Chain Performance: Guide to Key Performance Indicators for Public Health Managers.* Arlington, Va.: USAID | DELIVER PROJECT, Task Order 1.

Additional Indicator 2.2:

Percentage of Life-Saving Commodities for Which a Country Supply Plan Was Developed During the Last Year and Updated Every Six Months

Definition

This indicator assesses whether the country's supply plans for the life-saving commodities are being developed annually and reviewed and updated with stakeholders (e.g., MOH, procurement agencies, and donors) every six months, according to the current stock status.

Formula

$$\frac{[\text{Number of life} - \text{saving commodities for which a country supply plan was developed during the last year and for which the supply plan was reviewed and updated every six months}]}{[\text{Total number of life} - \text{saving commodities}]} \times 100$$

Purpose and Issues

A supply plan consists of the specific shipment quantities and delivery schedules that will ensure a continuous supply of products to the country. Developing and reviewing supply plans ensures that stakeholders are closely monitoring stock status to avoid stock imbalances (e.g., overstocks, understocks, stockouts) and represent stakeholder commitment to ensuring commodity availability.

Data Sources	Data Requirements
• MOH records • Procurement and planning unit records	• List of life-saving commodities • List of supply plans prepared during the last year • List of supply plans updated during the last six months

Source of Indicator: USAID | DELIVER PROJECT, Task Order 4. 2011. *Quality Assurance Surveillance Plan (QASP) and Performance Monitoring Plan (PMP)*. Arlington, Va.: USAID | DELIVER PROJECT, Task Order 4.

Additional Indicator 2.3:

Percentage of Purchase Orders/Contracts Issued As Emergency Orders

Definition

This indicator measures the percentage of purchase orders (POs) or contracts that are issued as emergency orders for the life-saving commodities, with a desired receipt date that is earlier than the standard lead time for the particular vendor and product, out of all purchase orders or contracts issued during the last year.

Formula

$$\frac{[\text{Number of purchase orders or contracts that are issued as emergency orders for the life} - \text{saving commodities in the last year}]}{[\text{Total number of purchase orders or contracts issued for the life} - \text{saving commodities in the last year}]} \times 100$$

Purpose and Issues

This indicator can help determine the percentage of all POs or contracts issued during the last year that were emergency orders, which are usually inefficient and more costly. In environments where resources are limited, programs should try to avoid costly emergency orders. Advanced planning and the regular management of stock levels can help managers place timely orders to secure the lowest prices possible. A high percentage of emergency orders can indicate the failure of a number of processes, including the need to adjust maximum/minimum levels; adjust PO lead times; review the accuracy of LMIS data, forecasts, and supply plans; review timeliness of reporting; and review, and possibly adjust, the time span of the procurement cycle, among other issues. This indicator can help highlight when corrective action is needed.

Data Sources	Data Requirements
• Review of POs or contracts • Planning unit • Procurement unit	• Number of orders issued in the last year for the life-saving commodities with a desired receipt date that was earlier than the standard lead time for the particular vendor and product • Total number of orders for the life-saving commodities placed in the last year

Source of Indicator: Adapted from Aronovich, Dana, Marie Tien, Ethan Collins, Adriano Sommerlatte, and Linda Allain. 2010. *Measuring Supply Chain Performance: Guide to Key Performance Indicators for Public Health Managers.* Arlington, Va.: USAID | DELIVER PROJECT, Task Order 1.

3. Procurement

Recommended Performance Indicator

Recommended Performance Indicator 3:

Percentage of Life-Saving Commodities Procured Through Framework Contracts or Through a Pooled-Procurement Mechanism

Definition

This indicator measures the percentage of life-saving commodities procured through a framework contract or through a pooled-procurement mechanism during the last year. A country can utilize framework contracts, or some form of pooled procurement, to take advantage of the benefits offered by these mechanisms. Framework contracts are multiple-year contracts where terms, conditions, time periods, unit costs, and other specifications are negotiated before the contract goes into effect.

Formula

$$\frac{\begin{array}{c}[\text{Number of life} - \text{saving commodities procured through a framework contract or} \\ \text{through a pooled} - \text{procurement mechanism over the last year}]\end{array}}{[\text{Total number of life} - \text{saving commodities procured over the last year}]} \times 100$$

Purpose and Issues

Framework contracts and pooled-procurement arrangements can save time and money by reducing lead times and by eliminating the negotiation time and administrative costs that would exist if countries were to issue several individual contracts or were to contract individually with vendors. It also helps the vendors anticipate demand, leading to better planning and potentially lower unit prices for the purchaser. This indicator can help clarify whether governments are using the most efficient procurement mechanisms.

Data Sources	Data Requirements
• Procurement unit records • Also available through RMNCH Landscape Synthesis	• Number of life-saving commodities procured through framework contracts or pooled procurement • Total number of life-saving commodities procured over the last year

Sources of Indicator:

Adapted from:

- Aronovich, Dana, Marie Tien, Ethan Collins, Adriano Sommerlatte, and Linda Allain. 2010. *Measuring Supply Chain Performance: Guide to Key Performance Indicators for Public Health Managers.* Arlington, Va.: USAID | DELIVER PROJECT, Task Order 1.
- Life Saving Commodities Initiative. 2013-2014. *RMNCH Landscape Synthesis*. New York: Life Saving Commodities Initiative.

Procurement

Additional Indicators

Additional Indicator 3.1:

Percentage of Each Vendor's Expected Orders that Were Delivered on Time and In Full

Definition
This indicator measures the percentage of orders for the life-saving commodities delivered in full and on time (as stated in the purchase order/contract), per the vendor, during the last year. It measures vendor compliance with the agreed-upon quantities and delivery time. It also measures the timely clearance of goods from port.

Formula

$$\frac{[\text{Number of orders for the life} - \text{saving commodities delivered by a specific vendor in accordance with contract agreement (delivery time and quantities) during the last year}]}{[\text{Total number of orders expected for receipt from the same vendor during the last year}]} \times 100$$

Purpose and Issues

If delivery times are delayed beyond the time agreed-upon, or if the delivered quantities do not match those ordered, shortages of supplies can occur or emergency ordering may be needed. Many delivery delays are due to delays in port clearance, which may be the responsibility of national government agencies. To prevent future recurrence of the issues, the root causes for late deliveries must be identified.

Data Sources	Data Requirements
• Procurement unit records • Central Medical Stores (CMS) records	• List of orders expected for receipt from each vendor during the last year • Port clearance forms during the last year • Order receipt forms from the CMS during the last year, disaggregated by timeliness (late or on time) and quantity (in full or incomplete)

Source of Indicator: WHO. 2011. Harmonized Monitoring and Evaluation Indicators for Procurement and Supply Management Systems. Geneva: WHO.

Additional Indicator 3.2:

Average Lead Time for Contract/Purchase Order Issue

Definition

This indicator measures the average amount of time it takes from when a decision to order is made to when the procurement unit issues the contract or PO for the life-saving commodities. It can be measured over any time period, but one year is typical. It is usually measured in days.

Formula

$$\frac{\text{[Sum of number of days between when each decision to order was made and when each contract or PO was issued for the life-saving commodities for the last year]}}{\text{[Total number of contracts or POs issued for the life-saving commodities during the last year]}}$$

Purpose and Issues

To operate efficiently, it is important to minimize the lead time required to issue POs to vendors. Long contract issue lead times will extend the procurement cycle time and will delay issuing a PO to the vendor or manufacturer. This, in turn, will lead to delays in orders being processed and to delays in shipments, potentially leading to shortages and stockouts.

This indicator measures the efficiency with which requests are processed and POs are prepared. Improving the contract issue lead time will improve response times to in-country facilities that need the products.

Data Sources	Data Requirements
• Supply plan records • Procurement unit records	• Dates when supply plans were completed and orders were ready to be placed for the life-saving commodities • Issue dates of POs for the life-saving commodities • Total number of contracts or POs issued during a specified period of time for the life-saving commodities

Source of Indicator: Aronovich, Dana, Marie Tien, Ethan Collins, Adriano Sommerlatte, and Linda Allain. 2010. *Measuring Supply Chain Performance: Guide to Key Performance Indicators for Public Health Managers.* Arlington, Va.: USAID | DELIVER PROJECT, Task Order 1.

Additional Indicator 3.3:

Average Number of Days between Purchase Order Issue and Vendor Acceptance

Definition

This indicator measures the average amount of time it takes from when a PO is issued to when a contract is actually awarded and accepted by a vendor for each of the life-saving commodities. It can be measured over an annual time period, and it is usually reported in days.

Formula

$$\frac{\text{[Sum of the number of days between when each PO was issued and when the vendor accepted each contract or PO for the life-saving commodities during the last year]}}{\text{[Total number of contracts or POs awarded for the life-saving commodities during the last year]}}$$

Purpose and Issues

This indicator measures the amount of time it takes from when a PO is issued to when a vendor actually accepts a contract. The indicator can help identify delays and determine if the process of negotiating and contracting with vendors needs to be adjusted. A lengthy process can lead to procurement delays and can cause shortages in stock and, ultimately, stockouts. The indicator can be used to identify bottlenecks in the process and can be used to advocate for improved efficiency.

Data Sources	Data Requirements
• Planning unit • Procurement unit	• Issue dates of POs/contracts for the life-saving commodities • Contracts showing award/acceptance date for the life-saving commodities

Source of Indicator: Aronovich, Dana, Marie Tien, Ethan Collins, Adriano Sommerlatte, and Linda Allain. 2010. *Measuring Supply Chain Performance: Guide to Key Performance Indicators for Public Health Managers.* Arlington, Va.: USAID | DELIVER PROJECT, Task Order 1.

Additional Indicator 3.4:

Average Number of Days between Product Arrival in Port/Airport and Arrival in Warehouse (Customs Clearance Cycle) for the Life-Saving Commodities

Definition

This indicator measures the amount of time from when the cargo arrives in the port or airport until it clears customs, arrives at the warehouse, and is ready to be put away. This indicator can be calculated annually for each life-saving commodity. If other factors affect getting the product from the port to the warehouse, such as a lack of equipment at the port facility, evaluators can scale down this calculation to the specific amount of time between when the products were sent to the customs office until the customs office cleared and released them.

Formula

[Warehouse arrival date – port/airport arrival date], averaged across all shipments, calculated individually for each of the life-saving commodities in the last year

Purpose and Issues

This indicator can help identify delays in customs clearance and, with additional research, the causes, such as incomplete paperwork, poor material description, missed certificate of origin, etc. Opportunities for improvement can be identified and, based on this, action can be taken to minimize the amount of time required for products to clear customs and be made available at the warehouse.

Data Sources	Data Requirements
• Packing lists, invoices, entry notice • Receiving reports • Customs reports	• Cargo arrival date at the port/airport for all shipments of each of the life-saving commodities in the last year • Cargo arrival date at the warehouse for all shipments of each of the life-saving commodities in the last year

Sources of Indicator:

- Aronovich, Dana, Marie Tien, Ethan Collins, Adriano Sommerlatte, and Linda Allain. 2010. *Measuring Supply Chain Performance: Guide to Key Performance Indicators for Public Health Managers.* Arlington, Va.: USAID | DELIVER PROJECT, Task Order 1.
- WHO. 2011. *Harmonized Monitoring and Evaluation Indicators for Procurement and Supply Management Systems.* Geneva: WHO.

Additional Indicator 3.5:

Percentage of Planned Quantities that Were Received

Definition

This indicator measures the percentage of quantities of each life-saving commodity that were actually received (procured plus donated) during the last year, out of the total quantities planned for receipt in the year.

Formula

$$\frac{[\text{Quantities (number of smallest units) of each life} - \text{saving commodity received during the last year}]}{[\text{Quantities (number of smallest units) planned for receipt for that year}]} \times 100$$

Purpose and Issues

This indicator measures how closely the quantities of commodities received matched the expected quantities in a year. Any variation between the planned and received quantities should be explained (e.g., the planned quantities were not accurate, there was a supply shortage due to a manufacturer's production capacity, the budget for ordering the planned quantities was not available, needs have changed since the previous quantification exercise). This indicator covers all sources (e.g., procured, donated, from nongovernmental organizations [NGOs]) of the commodity to cover the country's needs. Procurement planning at the national level should include all relevant partners, including nongovernmental organizations, development partners, and international organizations, as appropriate for the country.

Although the target is typically for the total quantities received to be as close as possible to those planned for procurement, this is not always possible or desirable, for a variety of reasons. To ensure an appropriate supply of commodities, it is important to maintain the ability to adapt the planned quantities in the supply plan, as needed, based on new information.

Data Sources	Data Requirements
• Procurement unit records • Supply plan records • CMS records	• Quantities of each life-saving commodity planned for receipt for the last year • Quantities of each life-saving commodity actually received (from all sources) for the last year

Source of Indicator: WHO. 2011. Harmonized Monitoring and Evaluation Indicators for Procurement and Supply Management Systems. Geneva: WHO.

Additional Indicator 3.6:

Average Unit Cost of Each Life-Saving Commodity as Percentage of Average International Reference Price

Definition

This indicator measures the unit cost per item charged by an external vendor as a percentage of the average international unit price for each life-saving commodity. This indicator can be calculated for any vendor that supplies life-saving commodities to a requesting facility. It can be measured for any time period, but one year is standard.

Formula

$$\frac{[\text{Average unit cost for each life} - \text{saving commodity}]}{[\text{Average international unit cost for each life} - \text{saving commodity}]} \times 100$$

Purpose and Issues

This indicator measures the cost of items procured relative to the average international price paid. The lower the percentage of the average international price paid, the more the cost savings. Conversely, if the indicator is greater than 100 percent, the country is paying a premium on the average international prices. Management Science for Health's (MSH's) *International Drug Price Indicator Guide* (http://erc.msh.org/mainpage.cfm?file=1.0.htm&module=DMP&language=English) lists the most current average international prices for pharmaceuticals. This indicator can be used to measure the cost of items within a specific procurement or across many procurements. If more than one procurement is being analyzed, the average unit cost of each item, across the procurements, should be used.

Data Sources	Data Requirements
• Review of invoices at the vendor or at the requesting facility • For international unit costs, MSH's *International Drug Price Indicator Guide* and International Dispensary Association (IDA) catalogs may be referenced	• Invoices from the vendor showing unit prices for each life-saving commodity purchased • Average international unit costs for each life-saving commodity purchased

Source of Indicator: Aronovich, Dana, Marie Tien, Ethan Collins, Adriano Sommerlatte, and Linda Allain. 2010. *Measuring Supply Chain Performance: Guide to Key Performance Indicators for Public Health Managers.* Arlington, Va.: USAID | DELIVER PROJECT, Task Order 1.

4. Warehousing and Inventory Management Recommended Performance Indicator

Recommended Performance Indicator 4:

Percentage of Facilities Stocked Out of Each Life-Saving Commodity

Definition

This indicator measures the percentage of facilities (e.g., SDPs, warehouses, resupply points for community health workers [CHWs]) that experienced a stockout of a specific life-saving commodity that the facility is authorized and staffed to provide. This indicator should be measured on the day of the most recent facility visit or logistics report. National stockout rates should be calculated for each commodity across facilities.

Formula

$$\frac{[\text{Number of facilities that experienced a stockout of a specific life} - \text{saving commodity on the day of the most recent facility visit, health facility survey, or most recent logistics report}]}{[\text{Total number of facilities authorized and staffed to offer that commodity}]} \times 100$$

Purpose and Issues

This indicator measures the lack of product availability and the inability of a facility or program to meet clients' needs with products and services. This indicator should be used in conjunction with other indicators because, to avoid stockouts, facilities may ration supplies.

Data Sources	Data Requirements
• Site visits or supervision records (from physical inventories) , if available • LMIS reports • Also available through UNFPA's Facility Assessment for Reproductive Health Commodities and Services and WHO Service Availability and Readiness Assessment (SARA), by removing the facilities not staffed to offer the commodity from the denominator	• Number of facilities that experienced a stockout of a specific life-saving commodity, at a defined point in time • Total number of facilities that are expected to offer that product

Sources of Indicator: Adapted from:

- Aronovich, Dana, Marie Tien, Ethan Collins, Adriano Sommerlatte, and Linda Allain. 2010. *Measuring Supply Chain Performance: Guide to Key Performance Indicators for Public Health Managers.* Arlington, Va.: USAID | DELIVER PROJECT, Task Order 1.
- WHO. 2011. *Harmonized Monitoring and Evaluation Indicators for Procurement and Supply Management Systems.* Geneva: WHO.

Warehousing and Inventory Management

Additional Indicators

Additional Indicator 4.1:

Percentage of Life-Saving Commodities with Accurate Stock Record Balance

Definition

This indicator measures whether stock balances recorded on a stock ledger, bin card, or automated system are similar to the actual inventory on hand for each life-saving commodity. This indicator can be calculated for any facility that manages the items in question and can be calculated whenever a physical inventory is taken. If the facility uses cycle counting, this indicator can be measured over one or a number of cycle counts (e.g., over all cycle counts done in one month).

Formula

$$\frac{\text{Number of life} - \text{saving commodities for which the stock record count equals physical stock count]}}{\text{[Total number of life} - \text{saving commodities counted]}} \times 100$$

Purpose and Issues

This indicator measures the accuracy of data on product stock levels at a facility and provides information on how accurately the facilities are tracking their inventories. Physical stock counts and stock record reviews refer to the quantities of each product that are undamaged, unexpired, and available for use at an SDP or warehouse. Stock records can be reviewed by examining stock cards. Having accurate stock-on-hand values is essential for quantification and procurement exercises, as well as for proper picking and distribution.

This indicator is usually calculated during a physical inventory. Physical inventories can be done on a fixed schedule (e.g., all items are counted annually). Annual physical inventories are likely to reveal more items in error than are counts done more often, because stock records should be corrected when physical inventories are conducted. Evaluators can report each measure of discrepancy (or agreement) by facility or in the aggregate, and should report for each product of interest. It may also be useful to use these measures to calculate the percentage of facilities that are keeping accurate stock records.

Data Sources	Data Requirements
• Facility surveys or visits to all facilities or to a representative sample (e.g., data collected using the Logistics Indicator Assessment Tool) • Automated system, stock ledger, bin card, or other inventory management recording instrument on which stock balances are maintained	• Physical counts of total quantities of life-saving commodities in the facility • Recorded inventory (e.g., stock on hand) of life-saving commodities, which can be retrieved from the stock ledger, stock cards

Source of Indicator: Aronovich, Dana, Marie Tien, Ethan Collins, Adriano Sommerlatte, and Linda Allain. 2010. *Measuring Supply Chain Performance: Guide to Key Performance Indicators for Public Health Managers.* Arlington, Va.: USAID | DELIVER PROJECT, Task Order 1.

Additional Indicator 4.2:

Unusable Stock as a Percentage of the Quantity Received

Definition

This indicator measures the total quantity of stock that was unusable, due to damage or expiry, as a percentage of total items received during the last year, for each life-saving commodity. To determine the percentage of total items received that could not be used during the year, it divides the quantity of all wasted units of a certain commodity in a year by the quantity of all units of the same commodity received during the same year.

Formula

$$\frac{[\text{Quantity of unusable units per life} - \text{saving commodity}]}{[\text{Total quantity of units received during the last year of the same life} - \text{saving commodity}]} \times 100$$

Purpose and Issues

This indicator may help stock managers monitor the percentage of their receipts that are lost to damage or expiry. While having no losses is preferred, some losses may occur, and the percentage of those losses to the total quantity received may indicate deficiencies in storage or inventory policies and practices, such as a failure to practice first-to-expire, first-out (FEFO) inventory management. In addition, to avoid wastage of product and monetary losses, monitoring the percentage of unusable product will enable managers to adjust order quantities, as needed. Reducing wastage rates not only saves money for the organization, but also helps ensure that patients receive quality products.

Data Sources	Data Requirements
• Procurement and planning unit records • Resupply vouchers • Stock ledger, bin card, automated system, or other recording instrument on which stock balances are maintained • Facility survey site visits to all facilities or to a representative sample	• Total number of units of damaged and expired life-saving commodities during the last year • Total number of units of life-saving commodities received during the last year

Source of Indicator: Adapted from Aronovich, Dana, Marie Tien, Ethan Collins, Adriano Sommerlatte, and Linda Allain. 2010. *Measuring Supply Chain Performance: Guide to Key Performance Indicators for Public Health Managers.* Arlington, Va.: USAID | DELIVER PROJECT, Task Order 1.

Additional Indicator 4.3:

Unaccounted Stock as a Percentage of the Quantity Received

Definition

This indicator measures the quantity of stock that is missing or unaccounted for as a percentage of the total inventory received during the last year for each life-saving commodity managed. Similar to the percentage of wasted stock, this indicator measures the quantity of the life-saving commodity that is no longer available to patients because of unaccounted-for losses. This indicator is typically calculated during a physical inventory, when stock managers compare stock records with the physical count.

Formula

$$\frac{[\text{Quantity of missing units per life} - \text{saving commodity}]}{[\text{Total quantity of units received during the last year of the same life} - \text{saving commodity}]} \times 100$$

Purpose and Issues

This indicator is useful for estimating the losses from missing product for the purpose of reordering sufficient supplies, as well as determining if a facility has issues with inventory management (e.g., poor recordkeeping) or pilfering of supplies.

Data Sources	Data Requirements
• Resupply vouchers • Stock ledger, bin card, automated system, or other recording instrument on which stock balances are maintained • Facility survey site visits to all facilities or to a representative sample	• Per life-saving commodity, quantity of missing product from inventory, to be calculated based on the following data requirements: – total quantity of product received during the last year – total quantity of product dispensed, issued, or transferred during the last year – total quantity of unusable stock during the last year – total quantity of product currently in stock

Source of Indicator: Adapted from Aronovich, Dana, Marie Tien, Ethan Collins, Adriano Sommerlatte, and Linda Allain. 2010. *Measuring Supply Chain Performance: Guide to Key Performance Indicators for Public Health Managers.* Arlington, Va.: USAID | DELIVER PROJECT, Task Order 1.

Additional Indicator 4.4:

Existence of Supply Chain Management Protocols for Disposal of Medical Waste and Management of Unusable Products

Definition
This indicator monitors whether supply chain management protocols are established for the disposal of medical waste and for the management of expired, damaged, and/or recalled product. This indicator can be measured and reported annually.

Formula
Are supply chain management protocols established in the public health sector for disposing of medical waste and for managing expired, damaged, and/or recalled products? (yes/no)

Purpose and Issues
Protocols for reverse logistics and the disposal of medical waste are critical for the health and safety of health workers and the general population, as well as for the efficiency of the facility. This indicator represents the sustainability (in part) of in-country supply systems and functions and the local capacity to manage them. It signifies local stakeholder commitment to strengthening the in-country supply chain.

Data Sources	Data Requirements
Manuals and/or standard operating procedures (SOPs) for facility operations	• Procedures and/or SOPs for disposing of medical waste • Procedures and/or SOPs for managing expired, damaged, and/or recalled products

Source of Indicator: USAID │DELIVER PROJECT, Task Order 4. 2011. *Quality Assurance Surveillance Plan (QASP) and Performance Monitoring Plan (PMP)*. Arlington, Va.: USAID | DELIVER PROJECT, Task Order 4.

Additional Indicator 4.5:

Percentage of Facilities that Satisfy All of the Listed Storage Conditions

Definition

This indicator monitors whether facilities have adequate storage conditions and security, including sufficient space for existing products and the receipt of expected product deliveries for the foreseeable future.

Formula

$$\frac{\begin{array}{c}[\text{Number of facilities visited that satisfy all criteria in the} \\ \text{table that follows, as appropriate for facility size}]\end{array}}{[\text{Total number of facilities assessed}]} \times 100$$

Purpose and Issues

This indicator monitors facility storage conditions using a list of criteria required in order to protect the integrity of products and packaging. Evaluators may apply this indicator at each level of the logistics system. Countries may also decide to calculate the percentages for each individual storage criteria satisfied out of the total number of facilities assessed.

The following checklist notes inventory storage criteria to be assessed (yes/no) during the on-site inspection of storage areas. To receive an answer of *yes,* criteria should be satisfied for all products. Evaluators should use the first section of the checklist to assess all facilities with on-site storage (including small storage spaces at the SDP level). The second section of the checklist should be applied to larger facilities, as appropriate.

Items to Assess During the Examination of a Facility's Storage Conditions

All facilities with storage space:

- Products that are ready for distribution are arranged so that identification labels and expiry dates and/or manufacturing dates are visible. Products are stored and organized in a manner accessible for FEFO counting and general management.
- Cartons and products are in good condition and not crushed due to mishandling. If cartons are open, products are not wet or cracked due to heat/radiation (no fluorescent lights in the case of condoms, cartons right-side up for Depo-Provera).
- The facility makes it a practice to separate damaged and/or expired products from usable products and removes them from inventory.
- Products are protected from the elements (i.e., direct sunlight, water and humidity) and stored at the appropriate temperature, according to product temperature specifications.
- The storage area is secured with a lock and key, but is accessible during normal working hours; access is limited to authorized personnel.

- The storeroom is maintained in good condition (clean, visually free from harmful insects and rodents, all trash removed, sturdy shelves, organized boxes).
- The current space and organization is sufficient for existing products and reasonable expansion (e.g., receipt of expected product deliveries for the foreseeable future).
- Fire safety equipment is available and accessible (consider any item identified as being used to promote fire safety).
- Products are stored separately from insecticides and chemicals.

Facilities with large storage area(s):

- Products are stacked at least 10 cm off the floor.
- Products are stacked at least 30 cm away from the walls and other stacks.
- Products are stacked no more than 2.5 meters high.

Data Sources	Data Requirements
• Visit to all facilities or to a representative sample • Visual/physical inspection	• Checklist of acceptable storage conditions • Data collected assessing storage conditions for all facilities, or for a representative sample of facilities, by an observer knowledgeable about storage requirements

Sources of Indicator:

Adapted from:

- USAID | DELIVER PROJECT, Task Order 1. 2008. *Logistics Indicators Assessment Tool (LIAT)*. Arlington, Va.: USAID | DELIVER PROJECT, Task Order 1.
- USAID | DELIVER PROJECT, Task Order 1. 2008. *Monitoring and Evaluation Indicators for Assessing Logistics Systems Performance.* Arlington, Va.: USAID | DELIVER PROJECT, Task Order 1.

Additional Indicator 4.6:

Percentage of Facilities Where Cold Chain Conditions Were Consistently Maintained

Definition

This indicator monitors whether cold chain conditions were maintained during storage for all quantities of life-saving commodities requiring cold chain conditions that were stored in the facility during the last year. This indicator only needs to be used for commodities that require cold chain conditions (e.g., oxytocin).

Formula

$$\frac{\begin{array}{c}[\text{Number of facilities where cold chain conditions were consistently maintained} \\ \text{during inventory storage for all key life} - \text{saving commodities requiring cold chain}]\end{array}}{[\text{Total number of facilities assessed that provide life} - \text{saving commodities requiring cold chain storage}]} \times 100$$

Purpose and Issues

A cold chain is a network of refrigerators, cold stores, freezers, and/or cold boxes organized and maintained so that commodities are kept at the appropriate temperature to maintain product integrity during transportation, storage, and distribution from the factory to the SDP. Some health commodities, such as vaccines and oxytocin, require cold chain conditions in order to maintain their efficacy.

Data Sources	Data Requirements
• Procurement unit records—quality control division • Temperature log or other recording instrument on which temperature information is maintained • Inventory control records or other recording instruments on which stock balances are maintained • Visit to all facilities or to a representative sample	• Quality inspection records for commodities requiring cold chain • Temperatures noted on temperature log • Temperature-related losses noted on inventory control records (stock cards) for commodities requiring cold chain

Source of Indicator: N/A.

5. Distribution and Transportation Recommended Performance Indicator

Recommended Performance Indicator 5:

Average Amount of Time between Ordering and Receiving Products at the Health Facility

Definition

This indicator measures the average amount of time across all health facilities between when an order for life-saving commodities is placed and when the products are received at the health facility. This should be disaggregated by level of health facility, because these periods of time may vary by level.

Formula

$$\frac{[\text{Sum of amount of time between order and receipt of life} - \text{saving commodities}]}{[\text{Total number of facilities assessed}]} \times 100$$

Purpose and Issues

This information about the typical amount of time between order and receipt of products can be compared to the country's policies for delivery timelines to help determine whether deliveries are arriving in a timely manner and as scheduled. Late deliveries can cause stockouts at the receiving facility and at any lower level facility that it supplies. They can indicate systemic transportation issues, such as in fleet vehicle conditions or difficult terrain—indicating the need to adjust schedules accordingly—or potential driver performance issues.

Data Sources	Data Requirements
• Key informant interviews • Vehicle logs • Distribution schedules • Invoices or requisition and issue forms indicating receipt date • Also collected through UNFPA's Facility Assessment for Reproductive Health Commodities and Services and WHO SARA	Request and receipt dates according to requisition and issue forms

Sources of Indicator:

- UNFPA. 2013. *Facility Assessment for Reproductive Health Commodities and Services*. New York: UNFPA, Commodity Security Branch.
- WHO. 2013. *Service Availability and Readiness Assessment (SARA): An annual monitoring system for service delivery. Reference Manual, Working document version 2.1.*Geneva: WHO.

Distribution and Transportation
Additional Indicators

Additional Indicator 5.1:

Percentage of Deliveries Arriving in Good Condition

Definition

This indicator measures the percentage of life-saving commodity deliveries arriving in good condition without damage to the products (e.g., punctures to the package; crushed package; or exposure to water damage, direct sunlight, or high temperatures) during the last year.

Formula

$$\frac{[\text{Number of deliveries arriving with no damaged commodity in the last year}]}{[\text{Total number of deliveries of life} - \text{saving commodities received in the last year}]} \times 100$$

Purpose and Issues

Maintaining the integrity of products and packaging during transport prevents the wastage of products, saving money and also ensuring greater product availability and effectiveness for patient use. High rates of damage incurred during transport can indicate problems, such as product mishandling in the loading and unloading processes or inadequate protection from natural elements (e.g., sun, rain). It can also be an indication that the way the product is stored in the vehicles during shipping is at fault (e.g., product is not properly secured in the vehicle or packed incorrectly in a container or vehicle). This indicator also addresses the maintenance of the cold chain for those commodities requiring cold chain conditions (e.g., oxytocin).

Data Sources	Data Requirements
• Quality inspection records (based on visual inspection of products at receiving facilities • Vehicle copy of requisition and issue form of product with quantity and items	• Number of deliveries of life-saving commodities that arrived without damage to product or packaging during the last year • Total number of deliveries of life-saving commodities received during the last year

Source of Indicator: Aronovich, Dana, Marie Tien, Ethan Collins, Adriano Sommerlatte, and Linda Allain. 2010. *Measuring Supply Chain Performance: Guide to Key Performance Indicators for Public Health Managers.* Arlington, Va.: USAID | DELIVER PROJECT, Task Order 1.

Additional Indicator 5.2:

Percentage of Days in the Year When a Vehicle Was Available to Transport Products

Definition

This indicator measures the amount of time during the last year that a facility had at least one vehicle available to transport products. Vehicles are considered unavailable when all the facility's vehicles are out of service. When averaged across facilities, this indicator can help assess the condition of the fleet across a geographic area or facility type. This indicator applies to facilities that maintain any type of vehicle used for product collection or distribution (e.g., car, truck, boat, motorcycle, bicycle).

Formula

$$\frac{\begin{array}{c}[\text{Total number of days in which the facility operates during the year} - \text{ total number of these days} \\ \text{in which all vehicles were unavailable to transport products}]\end{array}}{[\text{Total number of days in which the facility operates during the year}]} \times 100$$

Purpose and Issues

The availability of the vehicles in a fleet is an indication of the condition of the fleet overall and reflects how the vehicles are being maintained and utilized. Low vehicle availability can impact delivery performance and, ultimately, product availability at health facilities. Because some vehicles may be out of service for short periods for routine maintenance, a target for this indicator can be between 80 percent to 95 percent availability. Note that this indicator will only apply to facilities that have vehicles assigned to them for transporting health commodities. For example, some facilities may instead rely on the higher level delivering to them, outsource transportation, or rely on public transportation.

Data Sources	Data Requirements
• Vehicle logs • Maintenance records	• Total number of days in which the facility operates during the year • Total number of these days in which the facility had no vehicles available to transport product

Source of Indicator: Aronovich, Dana, Marie Tien, Ethan Collins, Adriano Sommerlatte, and Linda Allain. 2010. *Measuring Supply Chain Performance: Guide to Key Performance Indicators for Public Health Managers.* Arlington, Va.: USAID | DELIVER PROJECT, Task Order 1.

6. Service Delivery and Utilization

Recommended Performance Indicator

Recommended Performance Indicator 6:

Percentage of Service Delivery Points that Offer Clients Access to Life-Saving Commodities and Services

Definition

This indicator measures the percentage of SDPs (and CHWs, where applicable) in a country that offers clients access to life-saving commodities and related healthcare services. National figures can be calculated per life-saving commodity and disaggregated by facility type and by geographic areas (e.g., by region).

Formula

$$\frac{[\text{Number of SDPs (and CHW resupply points, where applicable) that offer clients access to a specific life} - \text{saving commodity}]}{[\text{Total number of SDPs (and CHW resupply points, where applicable}]} \times 100$$

Purpose and Issues

This indicator assesses progress in making each life-saving commodity available at the SDP level (and community level, where applicable).

Data Sources	Data Requirements
• MOH records • Also available through UNFPA's Facility Assessment for Reproductive Health Commodities and Services and WHO SARA	• Number of SDPs (and CHW resupply points, if applicable) • Number of SDPs (and CHW resupply points, if applicable) that offer each respective life-saving commodity

Source of Indicator: UNFPA. 2010. Monitoring and Evaluation Framework for the Global Programme to Enhance Reproductive Health Commodity Security. New York: UNFPA.

Service Delivery and Utilization

Additional Indicator

Additional Indicator 6.1:

Percentage of Service Delivery Points Expected to Offer the Service that Have at Least One Active Trained Health Worker

Definition

For each of the priority service areas identified by the UNCoLSC, this indicator measures the percentage of SDPs, out of those that are expected to offer each service, where at least one active health worker has been trained in that service area within a specified time period (e.g., in the last two years).[3] An *active* health worker is someone who is assigned to full-time employment at the facility.

Formula

$$\frac{[\text{Number of SDPs with at least one active health worker who was trained in the service area within a specified time period}]}{[\text{Total number of SDPs expected to offer the service}]} \times 100$$

Purpose and Issues

To ensure the appropriate use of life-saving commodities, patients require effective counseling and service provision, as well as commodity availability. The presence of health workers trained in the appropriate interventions is critical for each SDP where the commodity is expected to be offered. This indicator should be measured separately for each of the following priority service areas identified by the UN Commission on Life-Saving Commodities for Women and Children: Integrated Management of Childhood Illness (IMCI), growth monitoring services for children, family planning, adolescent sexual and reproductive health, Integrated Management of Pregnancy and Childbirth (IMPAC), and newborn resuscitation.

Data Sources	Data Requirements
• MOH records • SDP-level training records • Also available through UNFPA's Facility Assessment for Reproductive Health Commodities and Services and WHO SARA	• Training record for staff member(s) trained in each priority service area • Number of SDPs expected to offer each service

Source of Indicator: Adapted from WHO and The Republic of Uganda Ministry of Health. 2013. *Measuring Service Availability and Readiness: Uganda 2013 Core Questionnaire*. Version Lite 2.0.1. Geneva: WHO.

[3] For newborn resuscitation, this indicator should measure if any active health worker was *ever* trained (instead of trained in the last two years).

Cross-Cutting Indicators

Cross-cutting indicators are important to measure because they provide an understanding of the environment in which the supply chain operates, which can impact the performance of the supply chain. It can be difficult to enact change when environmental factors are adversely influencing a particularly broad area like the supply chain. It is important to identify stakeholders with influence in each cross-cutting area and reach agreement and co-ownership of these performance measures.

7. Country-Level Finance

Recommended Performance Indicator

Recommended Performance Indicator 7:

Percentage of SDPs that Offer the Life-Saving Commodities Where Patients are Assessed Any Out-of-Pocket Charges

Definition

This indicator monitors whether patients are assessed user fees, or any other out-of-pocket charges, for life-saving commodities and the related healthcare services. This information should be disaggregated by RMNCH service area and also, if data is available, by facility type.

Formula

$$\frac{[\text{Number of SDPs where patients are assessed out} - \text{of} - \text{pocket charges for access to life} - \text{saving commodities or related health} - \text{care services}]}{[\text{Total number of SDPs that offer access to those commodities and services}]} \times 100$$

This should be reported for the following RMNCH service areas, respectively: family planning services, delivery services, newborn care services, and care of sick children under five years old.

Purpose and Issues

Charging user fees can sometimes impact the access that poorer segments of the population have to healthcare services. If out-of-pocket charges are assessed, countries should consider providing exemptions for those who cannot afford payment. A sliding scale fee structure also gives more patients access to life-saving commodities and services.

Data Sources	Data Requirements
• SDP-level financial records • SDP-level patient records • Also available through UNFPA Facility Assessment	SDP-level policy on patient financial charges for each relevant health area

Sources of Indicator:

Adapted from:

- UNFPA. 2013. *Facility Assessment for Reproductive Health Commodities and Services*. New York: UNFPA, Commodity Security Branch.
- USAID │DELIVER PROJECT, Task Order 4. 2013. *Contraceptive Security Indicators Data 2013*. Arlington, Va.: USAID │ DELIVER PROJECT, Task Order 4.

Country-Level Finance

Additional Indicators

Additional Indicator 7.1:

Total Expenditures for the Procurement of the Life-Saving Commodity

Definition

This indicator measures total funding spent for procuring life-saving commodities during the last year. It can be disaggregated by donated commodities versus government-funded commodities (e.g., internally generated funds, basket funds, World Bank credits or loans, other funds that donors gave the government for their use).

The results for this indicator should be disaggregated by life-saving commodity. The results should also note which sectors are included (e.g., public, NGO, social marketing) and what time frame is represented.

Formula

[Total expenditures for the procurement of each life-saving commodity during the last year]

Purpose and Issues

Measuring the total amount of funds spent for procurement of life-saving commodities is useful, particularly when measured year after year, because this information is the first step in providing an indication of whether funding is sufficient and consistent with population trends.

Data Sources	Data Requirements
• MOH records • Ministry of Finance (MOF) records • Donor records • Procurement unit records	• List of procured and/or donated life-saving commodities • Financial amounts spent by the government to procure life-saving commodities during the last year • Financial amounts spent by donors to procure life-saving commodities during the last year

Source of Indicator: Adapted from USAID | DELIVER PROJECT, Task Order 4. 2013. *Contraceptive Security Indicators Data 2013*. Arlington, Va.: USAID | DELIVER PROJECT, Task Order 4.

Additional Indicator 7.2:

Government Share of Total Spending on Procurement of Life-Saving Commodities

Definition

This indicator assesses whether the country is specifically spending *government* funds (e.g., internally generated funds, basket funds, World Bank credits or loans, or other funds that donors gave the government for their use) for procuring life-saving commodities during the last year. This indicator also provides information about the government's share of total spending.

The results for this indicator should be disaggregated by life-saving commodity and, if possible, the government funding share should be divided by funding source (e.g., internally generated funds, basket funds, World Bank credits or loans, or other funds that donors gave to the government for their use). The results should also note which sectors are included (e.g., public, NGO, social marketing) and what time frame is represented.

Formula

Government share of total amount spent:

$$\frac{[\text{Amount spent by the government to procure each life} - \text{saving commodity in the last year}]}{[\text{Total amount spent by the government and donors for procurement of each life} - \text{saving commodity in the last year}]}$$

Purpose and Issues

Measuring the total amount of government funds spent to procure life-saving commodities, and how this amount compares to total spending, is valuable; particularly when measured year after year, as government funding represents government commitment and the sustainability of commodity supply.

Data Sources	Data Requirements
• MOH records • MOF records • Donor records • Procurement unit records	• List of procured and/or donated life-saving commodities • Financial amounts spent by government to procure life-saving commodities during the last year • Financial amounts spent by donors to procure life-saving commodities during the last year

Source of Indicator: Adapted from USAID |DELIVER PROJECT, Task Order 4. 2013. *Contraceptive Security Indicators Data 2013*. Arlington, Va.: USAID | DELIVER PROJECT, Task Order 4.

Additional Indicator 7.3:

Total Expenditures on Life-Saving Commodities as Percentage of Amount Needed for Procurement

Definition

This indicator measures the percentage of funds needed for procurement that were provided (by any source) and used for procurement in the last year. This indicator should be measured by considering the procurement needs of and expenditures for the most recent, complete year. The results for this indicator should be disaggregated by life-saving commodity. The results should also note which sectors are included (e.g., public, NGO, social marketing) and what time frame is represented.

Formula

$$\frac{[\text{Total expenditures (by the government and donors) on each life} - \text{saving commodity in the last year}]}{[\text{Total amount needed for procurement of each life} - \text{saving commodity in the last year}]}$$

Purpose and Issues

This indicator should be reported by life-saving commodity to estimate whether funds spent were sufficient to meet the procurement needs identified for each of the life-saving commodities. Procurement needs for individual commodities can be estimated by reviewing supply plans.

Data Sources	Data Requirements
• MOH records • MOF records • Donor records • Procurement unit records	• List of procured and/or donated life-saving commodities • Financial amounts spent by the government to procure life-saving commodities, during a defined period • Financial amounts spent by donors to procure life-saving commodities, during a defined period • Value of product in the supply plan (monetary value of estimated need to procure the commodity)

Source of Indicator: Adapted from USAID │DELIVER PROJECT, Task Order 4. 2013. *Contraceptive Security Indicators Data 2013*. Arlington, Va.: USAID | DELIVER PROJECT, Task Order 4.

8. Data Management

Recommended Performance Indicator

Recommended Performance Indicator 8:

Presence and Characteristics of the Logistics Management Information System

Definition

This indicator monitors the existence of a functioning LMIS and assesses whether it is electronic (computerized).

A functioning LMIS provides high-quality data for (1) stock levels at central, regional, and SDP levels (specific levels may vary depending on country); (2) distribution figures for commodities; (3) SDP-level consumption; and (4) commodity losses and adjustments (e.g., transfers between facilities, product losses due to expiry, damage, or pilferage).

More and more countries are developing and implementing an electronic LMIS (eLMIS), which allows data to be more efficiently and easily transmitted and accessed, as needed, for decisionmaking.

Formula

A. Does the country have a functioning LMIS? (yes/no):

   (See previous definition section for criteria.)

B. Is the LMIS electronic/computerized? (yes/no)

   1. Does the eLMIS exist at the district level and aggregate data from the SDP levels? (yes/no)

Purpose and Issues

The use of a high-quality LMIS/eLMIS throughout the in-country supply chain, by trained staff, is critical to effective and ongoing management of the logistics cycle. Without the reliable availability of timely and complete information, decisionmakers may not have the comprehensive information needed to forecast future needs, place orders, fulfill resupply orders, or take needed action for inventory management.

Data Sources	Data Requirements
• MOH records • Medical stores inventory management records • LMIS reports • Also available through RMNCH Landscape Synthesis	• LMIS specifications • Audit of LMIS reports

Source of Indicator: Adapted from UNFPA. 2010. Monitoring and Evaluation Framework for the Global Programme to Enhance Reproductive Health Commodity Security. New York: UNFPA.

Data Management
Additional Indicator

Additional Indicator 8.1:

Health Facility Reporting Rates

Definition

This indicator monitors the uptake of health facility reporting through the LMIS.

Reporting typically includes (1) stock levels, (2) distribution figures for commodities, (3) consumption, and (4) commodity losses and adjustments (e.g., transfers between facilities, product losses due to expiry, damage, or pilferage). LMIS reports also include order and requisition forms.

Facility reporting rates indicate how widely the LMIS is being utilized and how much of the required data is, therefore, available to reach decisionmakers to influence supply decisions.

Formula

Facility reporting rates:

$$\frac{\begin{array}{c}[\text{Number of health facilities (SDPs and CHW resupply points, if applicable)} \\ \text{that submitted an LMIS report for the last reporting period}]\end{array}}{[\text{Total number of health facilities required to report}]} \times 100$$

Managers can decide whether to consider report completeness or timeliness when calculating facility reporting rates. In other words, only reports that are completely filled out or only reports that are submitted by the deadline can be counted in the numerator, or any submitted report, whether complete or incomplete, or on time or late, can be counted.

Purpose and Issues

The more facilities that report, the more complete a picture decisionmakers have to fulfill resupply orders or take needed action for inventory management.

Data Sources	Data Requirements
• MOH records • Medical stores inventory management records • SDP inventory management records • LMIS reports	• Dates reports submitted for most recent reporting period • Number of reports submitted for most recent reporting period • Reporting schedule • Total number of facilities required to report

Sources of Indicator:

Adapted from:

- Aronovich, Dana, Marie Tien, Ethan Collins, Adriano Sommerlatte, and Linda Allain. 2010. *Measuring Supply Chain*

Performance: Guide to Key Performance Indicators for Public Health Managers. Arlington, Va.: USAID | DELIVER PROJECT, Task Order 1.

- USAID |DELIVER PROJECT, Task Order 4. 2011. *Quality Assurance Surveillance Plan (QASP) and Performance Monitoring Plan (PMP)*. Arlington, Va.: USAID | DELIVER PROJECT, Task Order 4.

9. Communication and Coordination

Recommended Performance Indicator

Recommended Performance Indicator 9:

Existence of an Active Commodity Security Coordinating Mechanism for All Life-Saving Commodities

Definition

This indicator monitors the existence of an in-country coordinating mechanism(s) that focuses on commodity security for all life-saving commodities and supply chain and procurement performance management and improvement, and that champions access to life-saving commodities. A coordinating mechanism is a working group or committee. It should have some aspect of commodity security included in its mandate or terms of reference, even if it is known by a different name (e.g., technical working group on logistics). The coordinating mechanism is considered *active* if it meets regularly (e.g., quarterly, annually). Representation should include the government, NGOs, the private sector, and technical/procurement and donor agencies.

Formula

Does the country have an active in-country coordinating mechanism(s) focusing on commodity security and supply chain and procurement performance management and improvement for all life-saving commodities? (yes/no)

Purpose and Issues

A coordinating mechanism that meets regularly can help to ensure that prevention and resolution of supply issues remain a priority for stakeholders. To address issues across the total market, the coordinating mechanism should have a diverse membership of organizations. It should also meet at predefined time intervals.

Data Sources	Data Requirements
• MOH records • Records of the commodity security coordinating mechanism(s) • Also available through RMNCH Landscape Synthesis	Schedule and minutes of meetings held by the coordinating mechanism(s) during the last year

Source of Indicator:

- UNFPA. 2010. *Monitoring and Evaluation Framework for the Global Programme to Enhance Reproductive Health Commodity Security*. New York: UNFPA.
- USAID │DELIVER PROJECT, Task Order 4. 2011. *Quality Assurance Surveillance Plan (QASP) and Performance Monitoring Plan (PMP).* Arlington, Va.: USAID | DELIVER PROJECT, Task Order 4.

10. Human Resources

Recommended Performance Indicator

Recommended Performance Indicator 10:

Level of Deployment of Training in Supply Chain Management

Definition

This indicator measures whether training in supply chain management for RMNCH commodities has been deployed to SDPs at the district level.

Formula

Has training in supply chain management for RMNCH commodities been deployed to SDPs at the district level (e.g., district hospitals)?

Purpose and Issues

Training in supply chain management is important to provide staff with the knowledge and skills to effectively manage product supply. To ensure effective training, training for health workers with supply chain management duties should be linked to appropriate competency models.

Data Sources	Data Requirements
• MOH and/or partner records • Also available through RMNCH Landscape Synthesis	Supply chain management training records or reports

Source of Indicator: Life Saving Commodities Initiative. 2013-2014. *RMNCH Landscape Synthesis*. New York: Life Saving Commodities Initiative.

Human Resources

Additional Indicators

Additional Indicator 10.1:

Percentage of Facilities with at Least One Active Health Worker Trained in Supply Chain Management

Definition

This indicator measures the percentage of facilities where at least one active health worker with supply chain management responsibilities has been trained in supply chain management (whether through internally or externally developed and administered training). This training can be pre-service coursework, in-service workshops, or structured on-the-job training. An *active* health worker is someone who is assigned to full-time employment at the facility.

Formula

$$\frac{[\text{Number of facilities with at least one active health worker who was trained in supply chain management}]}{[\text{Total number of facilities assessed}]} \times 100$$

Purpose and Issues

Training in supply chain management is important to provide staff with the knowledge and skills to effectively manage product supply. This indicator provides information about the reach of such training in supply chain management for RMNCH commodities. Sufficient funding for access to training and training development is required to ensure that all staff with supply chain management responsibilities receive proper training.

Data Sources	Data Requirements
• MOH and/or partner records • Facility staff training records	• Total number of facilities assessed • Number of facilities with at least one active staff member trained in supply chain management

Source of Indicator: Adapted from USAID │DELIVER PROJECT, Task Order 4. 2013. *Human Resource Capacity Development in Public Health Supply Chain Management: Assessment Guide and Tool.* Arlington, Va.: USAID | DELIVER PROJECT, Task Order 4.

Additional Indicator 10.2:

Percentage of Facilities that Received Supervision Visits Including Supply Chain Management According to Schedule

Definition

This indicator assesses whether clear, transparent supervision guidelines that include supply chain management are operational and administered in coordination with performance management processes during the last year. Scheduled supportive supervision visits should occur either at defined time intervals or according to need. Actions from these visits should be followed up on, and feedback should be documented.

Formula

$$\frac{\text{[Number of facilities that received supervision visits including supply chain management, according to schedule, during the last year]}}{\text{[Total number of facilities assessed]}} \times 100$$

Purpose and Issues

Supportive supervision promotes quality by strengthening relationships within the system. It focuses on identifying and resolving problems, promoting higher standards, teamwork, and better two-way communication. Whenever a supervisee is responsible for certain aspects of supply chain management, the supportive supervision they receive should appropriately address their supply chain management duties and job performance.

Data Sources	Data Requirements
• MOH records—guidelines for supportive supervision • Visits to all facilities or a representative sample	• Documentation of supportive supervision received by staff • Schedule of planned supportive supervision visits • Total number of facilities assessed

Source of Indicator: Adapted from USAID │DELIVER PROJECT, Task Order 4. 2013. *Human Resource Capacity Development in Public Health Supply Chain Management: Assessment Guide and Tool.* Arlington, Va.: USAID | DELIVER PROJECT, Task Order 4.

Additional Indicator 10.3:

Existence of Documented Supply Chain Management Standard Operating Procedures for Supply Chain Management Tasks at Each Level of the In-Country Supply Chain

Definition
This indicator assesses whether SOPs for supply chain management tasks are documented at each level of the in-country supply chain.

Formula
Are SOPs for supply chain management tasks documented at each level of the in-country supply chain (e.g., central, regional, SDP)? (yes/no for each level of the supply chain)

Purpose and Issues
An SOP is a set of written instructions that documents a routine or repetitive activity followed within an organization. The development and implementation of SOPs are key to a successful system because SOPs provide individuals with the information to perform a job properly. SOPs also promote consistency in the quality and integrity of commodity management.

Data Sources	Data Requirements
MOH records—operational manuals	SOPs or other procedures, protocols, etc., documenting the instructions for performance of specific supply chain management tasks

Source of Indicator: Adapted from USAID │DELIVER PROJECT, Task Order 4. 2013. *Human Resource Capacity Development in Public Health Supply Chain Management: Assessment Guide and Tool.* Arlington, Va.: USAID | DELIVER PROJECT, Task Order 4.

Additional Indicator 10.4:

Existence of Pre-Service Supply Chain Management Curriculum Developed and/or Implemented in Relevant Schools and Total Number of Students Who Have Completed the Pre-Service Coursework

Definition

This indicator monitors the availability and provision of pre-service training in supply chain management.

Formula

A. Has pre-service supply chain management curriculum been developed in relevant schools? (yes/no; list schools with supply chain management curriculum)

B. Has pre-service supply chain management curriculum been implemented in relevant schools? (yes/no; list schools where supply chain management courses are offered)

C. What is the total number of students who have completed the pre-service coursework in supply chain management?

Purpose and Issues

Pre-service training signifies in-country commitment to supply chain management and the recognition of its importance in successfully managing health programs. Training should be linked to appropriate competency models and should support career development. Sufficient funding for curriculum development and implementation is required to ensure that students receive proper training.

Data Sources	Data Requirements
School records	• Enrollment records • Course catalog or curriculum documentation

Source of Indicator: Adapted from USAID │DELIVER PROJECT, Task Order 4. 2013. *Human Resource Capacity Development in Public Health Supply Chain Management: Assessment Guide and Tool.* Arlington, Va.: USAID | DELIVER PROJECT, Task Order 4.

11. Governance

Recommended Performance Indicator

Recommended Performance Indicator 11:

Existence and Implementation of Commodity Security Strategy(ies) for Reproductive, Maternal, Newborn and Child Health

Definition
This indicator monitors the presence of an RMNCH commodity security strategy(ies) and whether actions are being taken to implement the strategy(ies).

Formula
A. Has the MOH developed and approved an RMNCH commodity security strategy(ies)? (yes/no by RMNCH service area) B. Is the RMNCH commodity security strategy(ies) being implemented? (yes/no by RMNCH service area); evaluators may request evidence (e.g., implementation plans) demonstrating that actions are being taken currently to implement the strategy(ies)

Purpose and Issues
To coordinate partners in identifying current challenges and reaching a consensus on a plan of action to address challenges and achieve common goals, an RMNCH national commodity security strategy(ies) is critical. Sufficient funding for developing and implementing the commodity security strategy(ies) is vital. Ideally, the government (e.g., MOH) should be the convener and leader in the development, approval, and implementation of the strategy(ies).

Data Sources	Data Requirements
• MOH records • Partner records • Also available through RMNCH Landscape Synthesis	• Written RMNCH commodity strategy(ies) • Implementation plan for RMNCH commodity strategy(ies)

Source of Indicator: UNFPA. 2010. Monitoring and Evaluation Framework for the Global Programme to Enhance Reproductive Health Commodity Security. New York: UNFPA.

Governance

Additional Indicator

Additional Indicator 11.1:

Provision of the Life-Saving Commodities by Market Sector(s)

Definition
This indicator assesses whether the life-saving commodities are typically offered through the country's commercial sector, public sector, NGOs, and/or social marketing. The results may be presented by facility type (including community health workers) and/or geographically.

Formula
Is each life-saving commodity offered through each of the following market sectors in the country: commercial sector, public sector, NGOs, and social marketing (yes/no for each commodity and for each market sector)

Purpose and Issues
To meet the needs of the greatest numbers of patients in a country, access to life-saving commodities may be provided in the commercial sector, in the public sector, by NGOs, and/or through social marketing channels. A government's commitment to ensuring total market access to the life-saving commodities ensures greater access for the entire population.

Data Sources	Data Requirements
• MOH records • Market research—conducted by a market research firm and/or via first hand research	• List of life-saving commodities offered by market sector • List of life-saving commodities offered by facility type (if applicable)

Source of Indicator: USAID │DELIVER PROJECT, Task Order 4. 2013. *Contraceptive Security Indicators Data 2013*. Arlington, Va.: USAID | DELIVER PROJECT, Task Order 4.

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Aronovich, Dana, Marie Tien, Ethan Collins, Adriano Sommerlatte, and Linda Allain. 2010. *Measuring Supply Chain Performance: Guide to Key Performance Indicators for Public Health Managers.* Arlington, Va.: USAID | DELIVER PROJECT, Task Order 1.

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