

# HPDP TECHNICAL ASSISTANCE ON SUPPLY CHAIN MANAGEMENT: CHALLENGES, INTERVENTIONS, AND IMPERATIVES

Prepared by the Health Policy Development Program



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# **HPDP TECHNICAL ASSISTANCE ON SUPPLY CHAIN MANAGEMENT: CHALLENGES, INTERVENTIONS, AND IMPERATIVES**

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# Acronyms and Abbreviations

3PL	third-party logistics service provider
AIR21	Airfreight 2100, Inc.
AO	Administrative Order
APP	Annual Procurement Plan
AS	Administrative Service
BAC	Bids and Awards Committee
BHS	Barangay Health Station
BLHD	Bureau of Local Health Development
CA	coordinating agencies
CALABARZON	Cavite, Laguna, Batangas, Rizal, and Quezon
CDLMIS	Contraceptive Distribution and Logistics Management Information System
CHO	City Health Office
COBAC	Central Office Bids and Awards Committee
COC	Combined Oral Contraceptive
CSCMP	Council for Supply Chain Management Professionals
CR	current requirements
CSR	contraceptive self-reliance
DMOs	Development Management Officers
DMPA	depot medroxyprogesterone acetate
DO	Department Order
DOH	Department of Health
DOTS	Directly Observed Treatment, Short-course
DPO	Department Personnel Order
FB	Facebook
FHO	Family Health Office
FHSIS	Field Health Service Information System

FS	Finance Service
FP	family planning
FP/MNCHN	Family Planning/Maternal, Neonatal, Child Health and Nutrition
FPLM	Family Planning Logistics Management
GMA	General Mariano Alvarez (Cavite)
GSI	Global Standards One
HealthGov	Strengthening Local Governance for Health
HEMB	Health Emergency Management Bureau
HIV/AIDS	Human Immunodeficiency Virus/Acquired Immunodeficiency Syndrome
HPDPB	Health Policy Development and Planning Bureau
HPDP	Health Policy Development Program
HRH	human resources for health
iClinicSys	Integrated Clinic Information System
IMPACT	Innovations and Multi-sectoral Partnerships to Achieve Control of TB
IRP	Invoice Receipt for Property
IUD	intrauterine device
JSI	John Snow, Inc.
KPI	key performance indicators
KMITS	Knowledge Management and Information Technology Service
KP	<i>Kalusugan Pangkalahatan</i>
LBC	Luzon Brokerage Company
LGU	local government unit
LMD	Logistics Management Division
LMIS	logistics management information system
LPP	LGU Performance-based Program

M&E	monitoring and evaluation
MHO	Municipal Health Office
MIS	Management Information System
NDHS	National Demographic Health Survey
NCR	National Capital Region
NDP	Nurse Deployment Program
NOSIRS	National Online Stock Inventory Reporting System
NR	new requirements
NTP	National Tuberculosis Program
PD	Pharmaceutical Division
POP	Progestin Only Pill
PS	Procurement Service
PHA	Public Health Associate
PhilPost	Philippine Post Office
PHO	Provincial Health Office
PMDT	Programmatic Management of Drug-resistant TB
PopCom	Commission on Population
PPMP	Project Procurement Management Plan
PSRC	Philippine Survey and Research Center
PHN	Public Health Nurse
RTI	Research Triangle Institute
RHU	rural health unit
RO	Regional Office
RPRH-NIT	Responsible Parenthood and Reproductive Health – National Implementation Team
SCMU	Supply Chain Management Unit
SDP	service delivery point

<b>SMRS</b>	Stock Management and Recording System
<b>SMS</b>	Short Messaging Service, also known as “text message”
<b>TB</b>	Tuberculosis
<b>TWG</b>	Technical Working Group
<b>ULAP</b>	Union of Local Authorities of the Philippines
<b>UHC</b>	Universal Health Care
<b>UN</b>	United Nations
<b>UNPF</b>	United Nations Population Fund
<b>UPecon</b>	UPecon Foundation, Inc.
<b>UPecon-HPDP</b>	UPecon-Health Policy Development Program
<b>US</b>	United States
<b>USAID</b>	United States Agency for International Development
<b>Ximex</b>	Ximex Delivery Express, Inc.

# Executive Summary

The UPecon-Health Policy Development Program (UPecon-HPDP) is a five-year Cooperative Agreement (AID-492-A-12-00016) awarded by the United States Agency for International Development (USAID) to the UPecon Foundation, Inc. (UPecon) covering the period October 1, 2012 to September 30, 2017. The Health Policy Development Program (HPDP) aims to strengthen a supportive policy and financing environment for Family Planning/Maternal, Neonatal, Child Health and Nutrition (FP/MNCHN) and tuberculosis (TB). The HPDP has the primary mandate of addressing policy and systems barriers that limit the supply of and demand for FP/MNCHN and TB services.

Several years of HPDP support reveal that the Department of Health (DOH) requires technical assistance to manage the public health supply chain given the increasing volume of commodities. Moreover, the fragmented supply chain leads to more problems for the DOH and service delivery points (SDPs). This report points to necessary short-term reforms including enhancements in contracting third-party logistics service provider, bridging the information gap between the DOH and SDPs through simple and easy-to-use tools, and addressing stockout and oversupply through improvements in the entire logistics cycle including quantification, procurement, inventory strategy, warehousing, and distribution. However, a key long-term reform that needs to be put in place is the organization and operationalization of a Supply Chain Management Unit (SCMU) with dedicated staff led by a Supply Chain Manager who reports directly to the Secretary of Health (SOH).

Based on the series of engagements with the Department of Health (DOH) on supply chain management<sup>1</sup>, there are three key challenges. First, there are difficulties due to gaps in strategic leadership both from top level management and from a Supply Chain Management Unit (SCMU) with dedicated staff. Second, there are difficulties due to the increasing volume of public health commodities that necessitate adjustment in systems and capacities. Third, the fragmentation of the public health supply chain not only results to inefficiencies but also causes more problems with the different stakeholders in the supply chain.

In the short term, the DOH needs to implement logistics contracting reforms to extract better performance from its logistics service provider. At the same time, the DOH

<sup>1</sup> Logistics management is the process that focuses on efficient and effective forward and reverse flow of commodities between the point of origin and the point of consumption in order to meet the customers' requirements (Council for Supply Chain Management Professionals, 2013). On the other hand, supply chain management is a broader process that includes the coordination of staff, activities (e.g., quantification, procurement, warehousing, inventory management, and distribution), and programs (e.g., FP, TB, and HIV/AIDS) at different levels (e.g., central, regional, provincial, and service delivery point) with the goal of aligning demand and supply to ensure availability of health commodities to the people who need them (John Snow, Inc., 2017).

needs to improve its own systems and processes, e.g., processing of payments and official communications with the logistics service provider. While long-term reforms in electronic logistics management information systems (LMIS) are being planned and implemented, the DOH should bridge the information gap between the DOH and the local government units (LGUs) by implementing simple tools, e.g., short message service (SMS) to report stockout, and a short inventory form to extract consumption data from health facilities.

In addition, the DOH also needs to consciously conduct documentation of technical assistance and interventions to facilitate information sharing and the extraction of lessons. Documentation does not only preserve the stories in neat reports, but also ensures that projects have the paper trail despite the movement of consultants. Project-based organizations lack the human repositories of institutional memory present in institutions like government agencies and other organizations. Unlike projects, these institutions continue to exist even after implementing a major program or activity. To ensure availability of materials to draw lessons during scale-up, or learn from past mistakes and challenges, documentation of the process needs to be done and integrated in the regular reports of consultants.

However, a key long-term reform that needs to be in place is the establishment and operationalization of the Supply Chain Management Unit (SCMU) to address the fragmentation of the DOH supply chain. The SCMU needs to have a dedicated staff and should report directly to the Secretary of Health.

The key lessons from the HPDP's more than four years of technical assistance on supply chain management were derived from an iterative process of planning, consultation, implementation through coordination and collaboration with the client and other partners, monitoring, mentoring, periodic assessment, adjustment, and documentation. These are not always elaborate and step-by-step procedures. These are often processes undertaken at the level of the lead consultant during implementation because of the need to quickly adjust and respond to the challenges. These were made possible mainly because of the familiarity with the products, planning and forecasting, allocation, public health logistics distribution process, information requirements, and motivation or interests of key actors in the supply chain.

The purpose of this volume on supply chain management is to provide a documentation of the experiences, challenges, adjustments, and lessons in the provision of technical assistance to improve the management of public health supply chain focused on the

family planning (FP) program<sup>2</sup> of the DOH. This volume is written mainly for the DOH and its technical assistance partners. It contains challenges and adjustments in implementing supply chain management reforms, and is a source of information for scaling up other programs across regions and LGUs.

The idea behind this volume is that addressing supply chain bottlenecks requires knowledge of and corresponding adjustments to all pieces of the supply chain puzzle, e.g., quantification and forecasting, allocation, distribution, monitoring and tracking, and use of consumption data. Technical assistance cannot be provided on a single and specific item but should be from a health systems perspective. While technical assistance is welcome even with limited scale-up possibilities, technical assistance providers should strive to deliver products mindful of the scale-up potentials and challenges. From start to finish, it is critical to be aware and to appreciate the point of view of the entire DOH— or of the Secretary of Health—as the steward of the entire health sector.

This volume is organized as follows: Part I describes the historical background of securing FP commodity requirements, explains the basic processes in the DOH supply chain and the distribution process, briefly discusses the summary of HPDP support in ten main technical assistance products, and highlights the key challenges and recommendations to improve DOH supply chain management. Part II provides the detailed report on the ten technical assistance products including situation, nature of assistance, results, and key lessons.

<sup>2</sup> While FP is the focus of HPDP's technical assistance on supply chain management, the challenges, adjustments, and lessons are common and applicable to most, if not all, public health programs.



# PART I

## HPDP Support, Key Challenges, and Recommendations

Background

Summary of HPDP Support on Supply Chain Management

Key Challenges on DOH Supply Chain Management

Key Recommendations



# 1.0 Background

This section presents two main items. First, it briefly describes the historical background of securing FP commodity requirements during the time when FP commodities were donated by the United States up to the present when the DOH budget is the major source of FP commodities, even for most local government units (LGUs). It explains the basic processes in the DOH supply chain and the process of distributing public health commodities. It then highlights the key challenges and recommendations to improve management of the supply chain of public health commodities. The main part of this section is the summary of HPDP support for supply chain management highlighting the challenges, nature of support, results, and lessons from ten main technical assistance products.

## 1.1 Historical Background of Securing Family Planning Commodity Requirements

Family planning commodities in the early 1990s were largely from USAID donation. During that time, the DOH was delivering FP commodities to its Regional Offices (ROs). Ideally, ROs then deliver to the Provincial Health Offices (PHOs), and the PHOs transfer the commodities to different municipalities and cities. Due to issues related to budget and lack of transportation, the LGUs often had to pick up the commodities from the ROs.

With the technical assistance from USAID's Family Planning Logistics Management (FPLM) implemented by John Snow, Inc. (JSI), the Philippines started using the Contraceptive Distribution and Logistics Management Information System (CDLMIS) in 1992. The CDLMIS was a system used to manage the distribution of FP commodities and was based on a model implemented in DOH Region XI (Davao Region) which had the following features:

- a. Contraceptives went directly from Manila to the provinces and cities instead of the regional warehouses;
- b. Provinces delivered directly to rural health units (RHUs), hospitals, and even non-governmental organizations (NGOs);
- c. Provinces and cities spent for distribution costs;
- d. The DOH gave midwives and RHU staff members a Barangay Health Station (BHS) worksheet to determine the quantity to be delivered to the BHSs;
- e. An authorized stock level based on recent consumption was set at all levels, with focus on the barangay;
- f. RHU staff members accomplished the contraceptive order form upon delivery; and

- g. Data collected from the order forms went into the national database, for feedback to local and regional program managers (Kinzett & Ayala, 2000).

Based on the review of documentation of CDLMIS implementation, five factors enabled the successful implementation of CDLMIS.

These are:

- a. A logistics section with dedicated staff members within the DOH allowed for sustainability;
- b. LGU Performance-based Program (LPP) cash grants were used to pay for distribution costs (e.g., gasoline);
- c. Clear, simple, standardized, and thus user-friendly forms were used;
- d. Outsourcing of clearly-identified parts (e.g., software, encoding) increased efficiency; and
- e. Constant monitoring of stocks on hand, consumption levels, and emergency orders was important for decision-making (UPecon-Health Policy Development Program, 2014).

With the phase out of donated commodities in 2003, the DOH developed a contraceptive self-reliance (CSR) strategy to ensure that gains are sustained despite the phase out of contraceptive donations. In 2012, around 22 million cycles of pills, 2.3 million vials of depot medroxyprogesterone acetate (DMPA), and almost 790,000 intrauterine devices (IUDs) were procured by the DOH Central Office to address FP requirements nationwide. These were delivered to the various PHOs for distribution to the different Municipal and City Health Offices (M/CHOs). The M/CHOs are expected to issue these commodities to their respective RHUs and CHOs. While some RHUs also dispense FP commodities, RHUs and CHOs usually issue these commodities to their Barangay Health Stations (BHSs) which do most of the dispensing of FP commodities to clients.

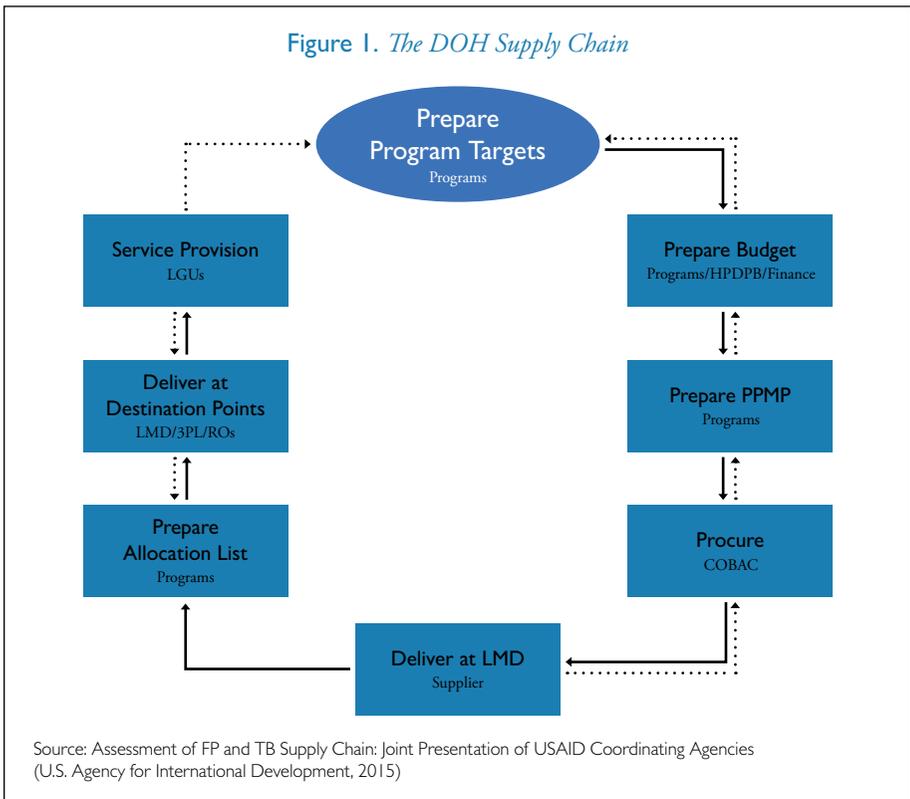
## I.2 The DOH Supply Chain Management and Distribution

A basic description of the DOH supply chain of family planning commodities<sup>3</sup> is shown in Figure 1. Program offices prepare targets to be used for budget preparation. This step also includes the preparation of an annual forecast of commodity requirements of the different programs. The program targets become the bases for the development of budget proposals. Once the DOH budget is approved by Congress, the Health Policy Development and Planning Bureau (HPDPB) and Finance Service (FS) inform program offices of the approved budget. That sends a signal to the program offices to start preparing their Project Procurement Management Plan (PPMP) which gets consolidated into an agency Annual Procurement Plan (APP). Based on the PPMP, program offices prepare purchase requests indicating the type and quantity of commodities to be purchased. The final APP and the purchase requests are provided to Finance Service and Procurement Service. Consequently, the Central Office Bids and Awards Committee (COBAC) undertakes public bidding and procurement. Negotiated procurement may also be done through UN agencies as indicated in the PPMP. During this process, the program offices are apprised of the status of procurement of their respective purchase requests.

The supplier then delivers the commodities to the DOH through the Logistics Management Division (LMD). The status of delivery is communicated to the COBAC and the concerned program offices, e.g., the Family Health Office (FHO) for family planning commodities, and the National Tuberculosis Program (NTP) for TB drugs. The different program offices prepare an allocation list. Usually, this requires adjusting the original forecast based on available commodities. The allocation list is given to LMD, which is then given to the logistics service provider. The service provider undertakes picking and repacking of commodities. Once repacking is done, the commodities are delivered to intended recipients based on the allocation list. For FP, commodities are delivered to the different rural health units (RHUs) and city health offices (CHOs). Buffer stock is also sent to the Regional Offices (ROs). For TB, drugs and commodities are delivered to the ROs and some Provincial Health Offices (PHOs). These commodities are then used in the provision of services to clients. In the case of FP, the recipient RHUs and CHOs issue commodities to BHSs which dispense such commodities to FP clients. For TB, drugs and commodities are brought to the

<sup>3</sup> While this diagram uses FP (and, to a certain extent, TB) to demonstrate the supply chain processes, it is also applicable to other DOH programs.

different Directly Observed Treatment, Short-course (DOTS) and Programmatic Management of Drug-resistant TB (PMDT) centers nationwide for TB diagnosis and treatment. Other service delivery points include hospitals and other health facilities. Ideally, corresponding adjustments in the program targets and forecasts are done based on actual service provision. This would involve collection and using consumption data to adjust budgets and forecasts.



Given the DOH’s role in the provision of public health commodities at the different service delivery points (e.g., hospitals, RHUs, and health centers), one of the critical activities in the DOH supply chain is distribution. When the HPDP conducted its mid-term evaluation of *Kalusugan Pangkalabatan* (KP) in 2012 (UPEcon-Health Policy Development Program, 2012) and its consultation on scaling up FP/ Maternal, Newborn, Child Health and Nutrition (FP/MNCHN) in 2013 (UPEcon-Health Policy Development Program, 2013), there

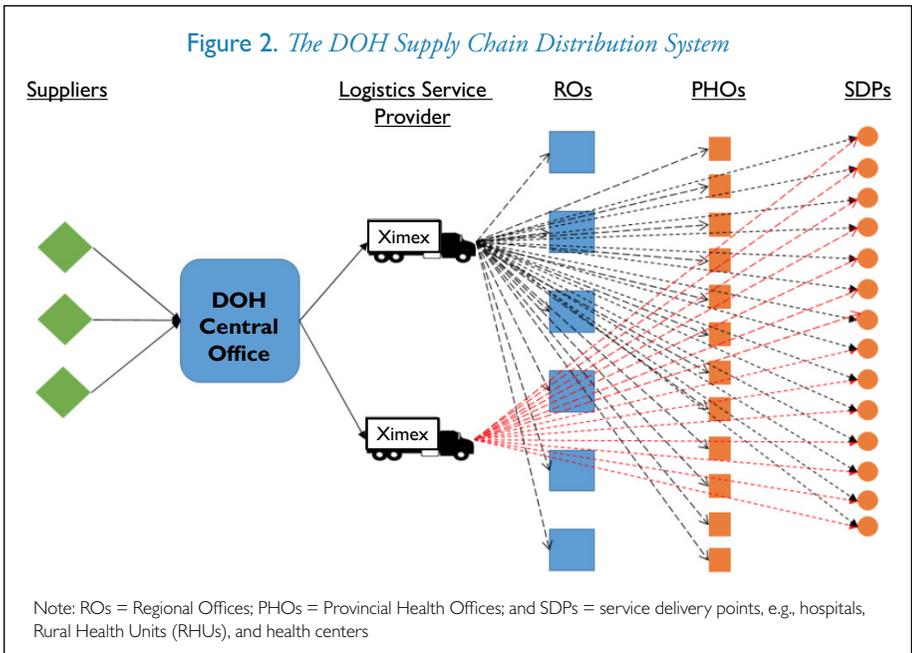
were reports of stockout of FP commodities despite the availability of commodities at the DOH Central Office. This particular issue highlighted the role of distribution in the entire supply chain. In several technical assistance products discussed in detail in Part II of this report, a number of reports cited delays in delivery due to bottlenecks in the distribution process.

The distribution system being used to deliver commodities in the DOH supply chain follows the allocation list provided by the different program offices as shown in Figure 2. There is no standard distribution system or a single model being followed. Instead, each program manager of a public health program (e.g., FP, TB, HIV/AIDS, and malaria) determines where the commodities of a particular program will be distributed. Once delivered, the ROs, PHOs, or LGUs ensure that such commodities reaches the health facility that will dispense such commodities to clients or patients.

Upon the delivery of supplies to the DOH Central Office, these are temporarily stored in DOH warehouses. When these commodities are ready for picking and repacking, the DOH LMD provides the logistics service provider the allocation lists, as provided by the different programs, that determine how each commodity is going to be repacked (e.g., separately in specific quantities per recipient or combined with other commodities in one shipment), and where it is going to be sent. Some commodities are delivered directly to SDPs such as RHUs and hospitals (e.g., family planning commodities), while some are delivered either to the ROs or the PHOs (e.g., TB drugs). For some commodities delivered to the ROs, the ROs deliver such commodities to the PHOs or hospitals. In some instances, the ROs ask the PHOs or hospitals to pick up the commodities. The PHOs then deliver the commodities to the different LGUs through the Municipal/City Health Offices (M/CHOs). Similarly, the PHOs also ask the M/CHOs to pick up commodities from the PHOs. The M/CHOs ensure that these commodities are distributed to the different service delivery points, e.g., the RHUs or health centers.

There are also commodities from different programs that are delivered to the same recipient (RHUs and CHOs) as in the case of FP commodities and drugs for diabetes and hypertension. Although intended for the same recipients, these commodities are being delivered at different schedules. This means that the logistics service

provider delivers DOH commodities to the same recipients more than once in one quarter<sup>4</sup>.



<sup>4</sup> Prior to 2014, there were two logistics service provider hired by the DOH: AIR21 for drugs for diabetes and hypertension, and Ximex for all other health commodities, including equipment. In 2014, the DOH consolidated distribution of all health commodities and equipment through one logistics service provider.

## 2.0

# Summary of HPDP Support on Supply Chain Management

This section presents the major technical assistance products and activities delivered by the HPDP in the past four years. It should be noted, however, that as early as 2009, the HPDP<sup>5</sup> already started to develop a concept note on the possibility of developing a public health Commodity Tracking System. In response to the series of budget increases of the DOH, the HPDP anticipated the corresponding increase in the procurement of health commodities, and thus the need to improve inventory management and reporting. In addition, the HPDP also conducted an initial assessment of bottlenecks in the delivery and availment of public health commodities in Pangasinan, Quezon City, Batangas, Leyte, and Davao del Sur in 2012. This assessment was done in the context of scaling up *Kalusugan Pangkalahatan* (KP), especially FP and facility-based deliveries in the said provinces. These activities, however, were not used or further developed into full-blown technical assistance products focused on supply chain management until 2013.

### 2.1 Support for the Assessment of FP Logistics

In 2012, around 22 million cycles of pills, 2.3 million vials of DMPA, and almost 790,000 IUDs were procured by the DOH Central Office to address FP requirements nationwide. Despite these resources, there were initial reports from Pangasinan, Quezon City, Batangas, Leyte, and Davao del Sur<sup>6</sup> of unmet need of women in said areas due to stockout of commodities. There were also stockout reports received from DOH ROs in Luzon, Visayas, and Mindanao during the consultation conducted in the first quarter of 2013 on scaling up interventions on FP/Maternal, Newborn, Child Health and Nutrition (FP/MNCHN) (UPecon-Health Policy Development Program, 2013). These reports were consistent with the findings of the Mid-Term Report on *Kalusugan Pangkalahatan* (KP) in August 2012 that showed insufficient commodities to address unmet need for modern FP (UPecon-Health Policy Development Program, 2012).

The purpose of the assessment was to examine the supply chain management system for centrally-procured FP commodities from the supplier, the DOH Central Office, CHDs, PHOs, and MHOs all the way to the service delivery points, e.g., RHUs and health centers. The HPDP engaged the services of the Philippine Survey and Research Center (PSRC), a private market research

<sup>5</sup> The first Health Policy Development Program (2006-2011) was also implemented by the UPecon Foundation, Inc.

<sup>6</sup> The HPDP's demonstration sites for the scaled up KP implementation

agency, to conduct the interviews with selected respondents from the DOH Central Office, DOH RO I, Pangasinan PHO and MHOs, a regional hospital in La Union, the UNFPA, and Ximex Delivery Express, DOH's logistics service provider at the time. Follow-up interviews were conducted by an HPDP consultant, and respondents included the DOH's Family Health Office (FHO) and then Materials Management Division, now known as the Logistics Management Division.

The assessment revealed several weaknesses in the supply chain management of FP commodities in terms of organizing and staffing, forecasting, procurement, storage, distribution, and logistics management information system (LMIS) (UPECON-Health Policy Development Program, 2013). The key lesson from this technical assistance is that removing bottlenecks in the flow of public health commodities to the service delivery points needs to look into the entire supply chain management process. The stockouts of FP commodities at the time were merely symptoms of a bigger problem. Addressing it requires corresponding reforms in all aspects of the supply chain, including planning and forecasting, information sharing on procurement and delivery schedules, efficient warehousing and storage, performance evaluation of the service provider to ensure deliveries are on time, and effective logistics management information system.

For more details on the support for the assessment of FP logistics in the DOH Central Office, DOH RO I, and Pangasinan, please refer to Part II, Chapter 1.0.

## 2.2 Support for the Direct Delivery of FP Commodities to the RHUs and CHOs

Prior to 2012, FP commodities were delivered to the DOH ROs, which delivered to Provincial Health Offices (PHOs) within the region. These PHOs, in turn, delivered the commodities to municipalities and cities within the province. The commodities were then dispensed at the different RHUs, health centers, and Barangay Health Stations (BHSs). As there were delays associated with this series of deliveries, the DOH Central Office implemented direct delivery to the PHOs starting 2012, bypassing the DOH ROs. Given the lack of vehicles and budget for gasoline, delays were still encountered.

To address this issue, the HPDP identified main bottlenecks and proposed key recommendations to address such challenges. The recommendations were contained in the Technical Advisory on Engaging a Full-Service Logistics Provider to Distribute FP Commodities (UPEcon-Health Policy Development Program, 2014).

One of the main recommendations in the technical advisory was the direct delivery of FP commodities to around 2,500 rural health units (RHUs) and city health offices (CHOs) nationwide, with priority to be given to the RHUs and CHOs with reported stockout. To address the information gap, another recommendation was for the DOH, through the Family Health Office and Logistics Management Division, to provide the ROs, PHOs, and RHUs/CHOs the allocation list and schedule of delivery. As a result of the technical advisory in 2014, deliveries of FP commodities were brought directly to the different RHUs and CHOs nationwide starting second semester of 2014. This increased the recipients from around 100 provinces and cities to around 1,700 RHUs and CHOs<sup>7</sup> for family planning only.

A key lesson from this technical assistance is that it is crucial to anticipate the additional requirements from the increase in delivery recipients including additional staff requirements. Another key lesson is the need to widely disseminate information to the PHOs and ROs to enable them to monitor deliveries and to augment commodities as necessary.

A more detailed discussion on the support for direct delivery of FP commodities from the DOH Central Office to the RHUs and CHOs, please refer to Part II, Chapter 2.0.

<sup>7</sup> Initial deliveries were made to the main RHUs and CHOs. As majority of municipalities and cities have only one RHU or CHO, this was not much of a problem. However, in some municipalities and cities with more than one RHU or CHO, the main RHU or CHO usually received the commodities and distributed the stocks to the different RHUs and CHOs. These commodities were sometimes not distributed immediately. In addition, when the allocation list did not reflect the actual consumption, deliveries were sometimes short of total requirements. Thus, there were cases when the main RHU received its full supply requirements while the others did not.

## 2.3 Support for Contracting a Third- party Logistics Service Provider

During the first quarter of 2014, the DOH was preparing for the bidding of an incoming logistics service provider, as the contract of the current service provider was about to end. Based on the initial assessment conducted by the HPDP (UPEcon-Health Policy Development Program, 2013), deliveries by the current service forwarder were delayed more than half the time. Delays were also encountered in the submission of delivery reports that could be explained by the forwarder's lack of an operational tracking (i.e., information) system. Similarly, in its Technical Advisory on Engaging a Full-Service Logistics Provider (UPEcon-Health Policy Development Program, 2014), the HPDP recommended that the DOH engage a full-service private logistics provider to deliver FP commodities to SDPs (i.e., including warehousing, inventory management, collecting consumption data, and the development and use of a logistics management information system).

To help DOH in the preparation of a detailed scope of work and the eventual contracting of the new service provider, the HPDP engaged the services of a private sector logistics expert. The private sector logistics expert conducted the assessment of procurement, inventory management and distribution, and recommended key sections of the scope of work of the new service provider.

In the area of logistics service provider contracting, the assessment revealed that the current contract of the logistics service provider did not have sufficient and effective performance indicators at par with industry standards. Lead times in all the stages were also not properly defined in the contract. In addition, the penalties were not stiff enough to deter poor performance from the logistics service provider. Some specific recommendations for the revised contract include:

- a. Conformity with international standards, e.g., GS1 international coding standards for health commodities, use of bar coding, and computerized warehouse management information system;
- b. Stricter lead times for delivery, e.g., three days for the National Capital Region (NCR), seven days for Luzon, 10 days for Visayas, and 13 days for Mindanao;
- c. Specific reports to be required from the service provider, e.g., dispatch report, stock movement report, physical inventory report, stock aging report, inventory accuracy, and dispatch lead time conformance; and

- d. Stricter penalties in terms of deductions from delivery charges, including for delays in submission of reports and not just for delivery delays.

A key lesson from this technical assistance is that the DOH needs to implement certain adjustments in its systems, contracts, and capacities given the increasing volume of delivery. Deliveries to more than 2,500 destinations from the usual less than 100 recipients for FP alone will require key improvements in work processes, in collaboration with other programs. Contract provisions need to be continuously studied and adjusted as well to extract better performance from its service provider.

For more details on support for the contracting of a third-party logistics service provider, please refer to Part II, Chapter 3.0.

## 2.4 Support for the Assessment of Distribution and LMIS

Based on the April 2014 assessment of the HPDP, there were overstocking and stockout of products at facilities, primarily due to:

- a. The absence of reliable, timely information and improper planning due to a not fully functioning logistics management information system (LMIS);
- b. Irregular delivery schedules and delivery delays by the logistics service provider; and
- c. Communication gaps between the Family Health Office (FHO) and other DOH units as well as with the regional, provincial, and municipality health offices.

Following these findings, the HPDP collaborated with the USAID | DELIVER PROJECT implemented by John Snow, Inc. (JSI) for the conduct of a distribution assessment and management information system review. The main objectives of the technical assistance were to:

- a. Assist in assessing the LMIS landscape and the necessary requirements; and
- b. Assess the current DOH distribution system for all their health commodities, as well as the monitoring of the performance of the logistics service provider.

It was the first comprehensive review of the National Online Stock Inventory Reporting System (NOSIRS) in terms of its design and operations.

Based on the LMIS assessment, NOSIRS was able to generate key reports, including available stocks per facility, zero stocks per facility, available stocks per commodity, near expiry commodity, and stock card. However, there were a lot of functions in the system that were not available but were critical to have an operational LMIS, i.e., requisition, storage, order processing, distribution management, dispensing, forecasting, supply planning and pipeline monitoring, handling returned products and adjustments, capturing consumption data, and using collected data for resupply, redistribution, forecasting, or management decisions (Bem, Bock, Char, & Diallo, Philippines Department of Health Distribution Assessment and Management Information System Review: Exploratory Visits for Determination of Next Steps, 2015). The most pressing deficiency among the findings was the inability of NOSIRS to generate stock status per facility. In logistics management, the actual quantities are less important than the determination of how long the existing stocks will last.

The following were the recommendations on developing and strengthening the DOH LMIS:

- a. Develop a strategic LMIS roadmap for developing and strengthening health information systems;
- b. Specifically for NOSIRS, review similar tools such as the Stock Management and Recording System (SMRS) and the Contraceptive Distribution and Logistics Management Information System (CDLMIS) and identify gaps in collecting essential logistics data;
- c. Develop an action plan for the continuous enhancement and deployment of NOSIRS;
- d. Develop interface between NOSIRS and forecasting to help ensure that allocation is based on actual data;
- e. Expand automation at all levels, where appropriate, assuming that a sound inventory management system is already in place; and
- f. Build capacity on LMIS, particularly on data collection, recording, data analysis, and use of data for decision making.

A key lesson from this technical assistance is that reforms in the LMIS cannot be done separately from the improvements in other aspects of the supply chain, particularly in the distribution system, as both require the critical role of the LMD. Along with the systems

improvement, the LMD's capacity should be improved in the use of LMIS, including data analysis and use of data in decision-making. Another key lesson is the need to develop NOSIRS within an overall Management Information System (MIS) roadmap in public health and clinical systems. It should not be a stand-alone system for logistics but it should link operationally with other systems, e.g., Integrated Clinic Information System (iClinicSys).

For more details on the support for the assessment of distribution and LMIS, please refer to Part II, Chapter 4.0.

## 2.5 Support for Commodity Tracking through Google Sheets and SMS

Following the LMIS assessment done by JSI in 2014, the improvement and further development of NOSIRS continued. Oversupply and shortages still occurred as the DOH continued to implement a "blind push system" because of its inability to collect and use consumption data. Hence, there was an urgent need for information on stock status. In particular, availability of and access to FP commodities needed to be ensured at service delivery points to address unmet need for modern FP.

During the first quarter of 2015, the HPDP embarked on a very basic reporting system which has the sole purpose of sending information on which facilities are experiencing stockout or nearing stockout of FP and TB commodities (UPECON-Health Policy Development Program, March 4, 2015). The tools consisted of an SMS-based reporting system<sup>8</sup> for stockout, and a cloud-based spreadsheet using Google Sheets<sup>9</sup> to monitor stock level of FP and TB commodities at the facility level. These tools aimed to immediately inform the DOH on stockout for appropriate action, as well as to provide quick feedback. The tools were implemented by the HPDP in collaboration with other USAID projects, namely LuzonHealth, VisayasHealth, and MindanaoHealth for FP, and Innovations and Multi-sectoral Partnerships to Achieve Control of TB (IMPACT) for TB in USAID project sites. Inventory data were collected through opportunistic visits and calls to partners at service delivery points and submitted to the HPDP for consolidation and reporting to the DOH.

<sup>8</sup> Short messaging service, more popularly known as "text message"

<sup>9</sup> Google Sheets is a free online spreadsheet app that allows the creation, formatting, and sharing of spread sheets with other people. The app can be accessed at <https://www.google.com/sheets/about/>.

Based on the SMS reports, areas experiencing stockout of FP commodities were prioritized by the DOH for delivery<sup>10</sup>. The DOH also used the reports by citing findings on stockout (Del Mundo, April 23, 2015) and erroneous deliveries (Del Mundo, April 24, 2015) in its regular communication to the logistics service provider.

While the SMS and Google Sheets tools were useful in relaying information on areas experiencing stockout or nearing stockout, the following lessons were gathered that may be useful for possible scale-up:

- a. The covered areas only included USAID project sites because monitoring activities were done during routine visits of project staff;
- b. As these activities were done during routine visits only, no extra effort was exerted for this endeavor;
- c. Sending SMS reports and making calls are not toll-free; and
- d. The file size of Google Sheets becomes huge as additional data are added.

For more details on the support for commodity tracking through Google Sheets and SMS, please refer to Part II, Chapter 5.0.

## 2.6 Support for the Creation and Opera- tionalization of the FP Logistics Hotline

Numerous and alarming reports on stockout, nearing stockout, and oversupply of FP commodities were being brought to the attention of the DOH Central Office primarily from data collected by the UPEcon-HPDP in collaboration with other USAID projects in USAID project sites. There was a need to broaden the scope of data collection to determine if there are more areas experiencing stockout and oversupply, and to address these problems correspondingly. In view of this, the DOH decided to implement the FP inventory data collection initially done at USAID project sites on a nationwide scale through the creation of the Family Planning Logistics Hotline. In the May 15, 2015 meeting of the Responsible Parenthood and Reproductive Health – National Implementation Team (RPRH-NIT), the NIT agreed to create a Technical Working Group (TWG) composed of the Knowledge Management and Information Technology Service (KMITS), Women and Men's Health Development Division of the FHO, Procurement Service, Commission on Population (PopCom), and the Union of Local

<sup>10</sup> Incidentally, almost all reports from coordinating agencies (CAs) were on family planning, i.e., from LuzonHealth, VisayasHealth and MindanaoHealth.

Authorities of the Philippines (ULAP), with technical support from the USAID and UNFPA (Department of Health, May 2015). It was also agreed that the Family Planning Logistics Hotline shall be created under PopCom<sup>11</sup> to facilitate reporting of stockout in service delivery points.

Starting May 2015, the HPDP provided technical assistance to the DOH in the organization and operationalization of the DOH FP Logistics Hotline, initially through a pilot implementation in Luzon. The HPDP provided technical assistance in terms of helping specify the functions, work flow, protocols, forms, and procedures in handling calls. The HPDP also conducted a series of orientation and periodic mentoring for Hotline staff.

The Hotline served as a link between the DOH Central Office and the RHUs, CHOs, and health centers nationwide, including the ROs and PHOs (Department of Health, November 2015). It received phoned-in reports on stockout and oversupply from the RHUs and health centers, conducted spot checks through phone calls to validate inventory reports and receipt of deliveries, and submitted consumption data to the DOH to be used for succeeding allocation of FP commodities.<sup>12</sup>

In 2016, the Hotline was instrumental in ensuring the continuous collection and use of FP consumption data for the generation of succeeding allocation list for all the RHUs and CHOs in Luzon, and for those in Visayas and Mindanao which were able to submit consumption data. For these areas, the use of such data resulted in providing allocation based on actual consumption. Starting June 2016, RHUs and CHOs experiencing oversupply were not receiving additional deliveries or were receiving just enough stocks to bring their stock status to around six months of stock<sup>13</sup>. On the other hand, those regularly experiencing stockout or shortage were allocated additional stocks to ensure that they have enough stocks before the next delivery arrives.

The FP Logistics Hotline provided the DOH an intervention for proactive search of areas with stockout and oversupply. Through spot

<sup>11</sup> The Commission on Population (PopCom) is an attached agency of the Department of Health (GOVPH, 2003).

<sup>12</sup> For more details on the FP Logistics Hotline, please see Part II, Chapter 6.0.

<sup>13</sup> Six months of stock was more than enough to cover for the current round, as the DOH delivers every four months. A delivery contains four months of stock of a particular FP commodity, plus two months buffer stock.

checks<sup>14</sup>, the Hotline addressed stockout by referring the matter for immediate action. It also prevented stockout by getting reports of health facilities nearing stockout. Similarly, it facilitated prevention of expiration as it collected information on health facilities experiencing oversupply. However, calls and messages sent through SMS to the Hotline were not toll-free. The RHUs and CHOs, including the health workers who used their personal phones, shouldered the cost of calls and messages (Eberle & Millar, 2017). For reporting through SMS and calls, collaboration with telephone companies may be explored, particularly in getting a dedicated and shorter number accessible through messages and calls similar to the President's 8888 Hotline (GOVPH, 2016). Calls and SMS to the Hotline should also be sent at no cost to the caller or the sender.

For more details on the support for the creation and operationalization of the FP Logistics Hotline, please refer to Part II, Chapter 6.0.

## 2.7 Support for Commodity Monitoring using Social Media

When the FP Logistics Hotline was created, it needed a platform through which stakeholders at the DOH Central Office, ROs, Hotline staff, PHOs, and health workers at the SDPs can interact in real-time aside from phone calls. The Hotline also needed a means to share allocation lists, delivery schedules, and updates to everyone other than through email exchanges. Phone calls are effective insofar as one-on-one communication is concerned. However, it does not have a facility to do a broadcast message to all recipients. While this can be done through email, it is not easy to go through previous communication, especially if one is receiving many emails in a day. At the same time, while not all health workers have stable internet connection through computer terminals at work or at home, it was observed that most of them have access to Facebook through their mobile phones.

The FP and TB Commodity Monitoring Facebook Page was created in March 2015 to post and share the latest updates on the data generated through the SMS and Google Sheets initiative in USAID project sites. Thus, the HPDP decided to continue using social media and revitalize the FP and TB Commodity Monitoring Facebook Page. As indicated in the page description, the "Facebook

<sup>14</sup> Outgoing calls to a randomly chosen RHU or CHO to conduct monitoring of status of deliveries, existence of stockout, nearing stockout, oversupply, expiration, and other problems at the RHUs, CHOs, and BHSs.

group page provides the latest updates on the procurement, allocation, and delivery of FP and TB commodities” (FP Logistics Hotline, March 2017).

As the Facebook page became the social media platform of the FP Logistics Hotline, where the Hotline regularly posted updates, allocation lists, and delivery schedules, its membership grew from almost a hundred members in 2015 to 616 members as of May 2017. At present, the FP and TB Commodity Monitoring Facebook page is completely under the management of the FP Logistics Hotline. Moreover, reports on TB stock status are now being posted on the Facebook page, in addition to FP reports. Such reports are referred to the staff of the National Tuberculosis Program for immediate action. While membership started with USAID project staff, the members now include staff from the RHUs and CHOs, PHOs, ROs, and the DOH Central Office. Thus, as soon as reports are posted, these are immediately referred to the appropriate person through Facebook “tagging.” Reminders through emails and SMS are also sent to ensure that the reports are received and acted upon by the concerned person.

The FP and TB Commodity Monitoring through Facebook helped increase the frequency of reporting because of its accessibility to staff members at the RHUs and CHOs. Members can easily upload reports and photos of their monitoring visits. Similarly, they can easily access files being shared by the DOH and the Logistics Hotline, e.g., allocation lists, delivery schedules, and new policies. The Facebook page also enabled the Logistics Hotline to disseminate reporting forms easily by uploading files on Facebook.

For more details on the support for commodity monitoring using social media, please refer to Part II, Chapter 7.0.

## 2.8 Support for the Demon- stration Project on Demand- driven Logistics

Stockout and oversupply in the past happened partly because the DOH was using estimates of actual requirements of service delivery points (SDPs), and did not adjust its allocation within the year. Quantification and allocation of FP commodities were based on estimated need of current users and new acceptors which was, in turn, based on proportions from the National Demographic Health Survey (NDHS). The estimates were applied to entities like municipalities and cities. Meanwhile, the DOH Central Office delivered the FP commodities through its forwarder to service delivery points (SDPs) at the LGUs twice a year<sup>15</sup> with no adjustment related to consumption levels in previous months. These SDPs received quantities of FP commodities that had nothing to do with actual consumption, i.e., the deliveries may either be less or more than what was actually needed. If the deliveries were less than actual requirements, the SDPs experienced stockout even before the next batch of deliveries. If the deliveries were more than the actual requirement, inventories piled up as the DOH delivered the same quantities in the succeeding delivery batches. These practices persisted because of the inability to collect consumption data from the SDPs and use it for adjusting allocation within the year, for annual forecasting of requirements, and for the procurement of commodities.

DOH Regional Office IV-A (CALABARZON), with support from the UPecon-HPDP and in collaboration with the PHO of Cavite, implemented a demonstration project on a possible approach in collecting and using consumption data. The project aimed to prevent stockout and oversupply of commodities by bridging the information gap through the collection of consumption data from service delivery points, and by using such data to adjust succeeding allocation of FP commodities. The project covered all 36 RHUs and CHOs in Cavite and was implemented from October 2015 to September 2016. The approach focused on the use of a one-page form for collecting basic information on inventory management from the SDPs. The data were processed by the FP Logistics Hotline and forwarded to the Family Health Office (FHO). The one-page form does not intend to replace existing systems but just extracts data from the RHUs and CHOs.

<sup>15</sup> Due to delays in the distribution of commodities to service delivery points, deliveries were still being done twice a year even if the DOH intended to deliver three times a year. For example, as of December 2016, most service delivery points have not received the third tranche of commodities.

The demonstration project was able to attain all the expected results:

- a. All Cavite RHUs and CHOs are using the FP Inventory and Order Form;
- b. Consumption data from all the RHUs and CHOs in Cavite are collected using the Form;
- c. The consumption data collected are used to adjust succeeding allocation; and
- d. Allocation of FP commodities for all 36 Cavite RHUs and CHOs is based on actual consumption by September 2016.

As early as June 2016, the DOH Central Office scaled up the use of the Inventory and Order Form nationwide by issuing a memorandum called “Submission of Accomplished Family Planning Commodity Inventory and Consumption Form” to all DOH Regional Offices on June 27, 2016 (Department of Health, June 2016).

There are several lessons from the demonstration project that can be scaled up to sustain gains to improve performance for FP and other programs as well. Among these are as follows:

- a. The DOH needs to continuously assess the deployment of Human Resources for Health (HRH) for inventory management, and may need to continuously deploy nurses under the Nurse Deployment Program (NDP) and Public Health Associates (PHAs);
- b. Data processing is critical and requires a lot of judgment calls, especially when data is incomplete;
- c. Rejection of deliveries provides immediate feedback from recipients, deliveries require adjustment, demand generation, and data cleaning; and
- d. Nationwide rollout of the FP Commodity Inventory and Order Form requires orientation and supervision of users.

For more details on the support for the demonstration project on demand-driven logistics, please refer to Part II, Chapter 8.0.

## 2.9 Support for the Creation of the Supply Chain Management Unit

The current management of supply chain of public health commodities was too fragmented. No single person or unit was coordinating the entire supply chain of the DOH. Different programs take charge of forecasting commodity requirements for planning and procurement, and prepare the procurement requests. The Bids and Awards Committee (BAC) conducts the procurement based on individual procurement requests. Moreover, the Logistics Management Division (LMD) handles warehousing and distribution through the logistics service provider. LMD has limited communication with programs and regional offices. All these functions were also being executed without a functional information system.

The HPDP issued a technical advisory on the creation of a Supply Chain Management Unit (SCMU) that shall coordinate and manage the supply chain for DOH centrally-procured commodities to ensure the availability of stocks across service delivery points (UPEcon-Health Policy Development Program, June 2015). It shall be composed of an Operations Sub-Unit that shall focus on the orchestration of planning, procurement, and distribution, and of a Monitoring and Evaluation Sub-Unit that shall manage and oversee the timely collection of logistics data. The SCMU shall be headed by an Undersecretary, e.g., Undersecretary for Administration, Finance, and Procurement, while an expert on public health supply chain management shall act as the Director or Head who shall oversee the day-to-day tasks of the SCMU.

After almost a year, the DOH created the Supply Chain Management Unit (SCMU) through Department Personnel Order No. 2016-0789 (Department of Health, March 2016) to address the fragmentation that characterize the current supply chain of public health commodities. The SCMU has two groups: the core operations group, and the Technical Working Group (TWG). The core operations group is composed of existing program managers and key staff handling matters related to logistics. The TWG, on the other hand, is composed of Directors of the Bureau of Local Health Development (BLHD), Health Emergency Management Bureau (HEMB), Chief Technical Officers of DOH ROs NCR and IV-A, Chief Pharmacist of Jose Reyes Memorial Medical Center, and supply chain management consultants. The SCMU is chaired by the Undersecretary for Regulations and vice-chaired by the Chief of the Pharmaceutical Division, Secretariat.

It should be noted that the current SCMU is a watered-down version of the SCMU indicated in the HPDP's June 25, 2015 technical advisory (UPecon-Health Policy Development Program, June 2015). As a consequence of having an ad hoc setup of staff with additional responsibilities on supply chain management, the SCMU became, for the most part, a venue for discussion of updates on deliveries, and for review of contract provisions for the next bidding of the logistics service provider.

For the SCMU to become effective in addressing the fragmentation of supply chain, it has to have dedicated staff to take care of day-to-day tasks related to coordination of different DOH programs, e.g., procurement requests, forecasting and allocation, and LMD for distribution. More importantly, having a dedicated staff ensures that there is a staff or a small team who can be relied on to do some strategic thinking about the direction of the SCMU in relation to the entire public health supply chain.

For more details on the support for the creation of the Supply Chain Management Unit, please refer to Part II, Chapter 9.0.

## 2.10 Support for the Assessment of the SMRS<sup>16</sup>

Consultation with key RHU and CHO staff during the implementation of the demonstration project in Cavite revealed that they found the Supply Management and Recording System (SMRS) and the National Online Stock Inventory Reporting System (NOSIRS) complicated and challenging to use. NOSIRS was heavily dependent on internet connection, which in itself is a huge problem at the RHU and CHO level. On the other hand, most RHUs found SMRS complicated given the need to maintain around eight Excel forms. Specifically, current SMRS use was limited to manually writing on one or two of the eight SMRS Excel-based forms<sup>17</sup>. The very few RHUs and CHOs using NOSIRS and SMRS usually had dedicated encoders and supply officers.

<sup>16</sup> The Supply Management and Recording System (SMRS) is an Excel-based tool that seeks to help local government units track and record health commodities, and facilitate a consumption-based allocation and distribution by the DOH. SMRS was developed by the DOH with assistance from the USAID through the Strengthening Local Governance for Health (HealthGov) Project implemented by the Research Triangle Institute (RTI) in partnership with the USAID | DELIVER Project implemented by John Snow, Inc. (JSI).

<sup>17</sup> The SMRS has eight forms, namely: Form A (Daily Stock Record Book); Form B (Daily Dispensing Record Book); Form C (Stock Issue Record); Form D I (Baseline Physical Inventory and Drug Expiration Record); Form D2 (Monthly Physical Inventory and Drug Expiration Record); Form E (Stock Replenishment Request Form); Form F (Stock Purchase Request Form); and Form G (Program Reporting Form).

Given these challenges, the USAID, through the USAID | DELIVER PROJECT implemented by John Snow, Inc. (JSI), conducted an assessment of SMRS implementation which aims to:

- a. Determine specific issues and challenges on SMRS implementation;
- b. Recommend adjustments to its design and implementation;
- c. Propose measures to better institutionalize SMRS; and
- d. Present options for scaling up to all service delivery points (Eberle & Millar, 2017).

The assessment validated earlier findings that the SMRS was not being used in the majority of the health facilities, except in most areas in Luzon where LuzonHealth operates. Use of SMRS was higher for health facilities that were reportedly trained by LuzonHealth. The following were some of the specific recommendations on moving forward with DOH supply chain management:

- a. Develop a standardized system for collecting quarterly consumption and stock-on-hand data from the respective programs;
- b. Outsource the data processing of this consumption and stock-on-hand data;
- c. Revise the national quantification- and allocation-based systems towards a consumption-based system once consumption data are available;
- d. Develop a new set of guidelines for the use of the revised forms;
- e. Develop an online system that enables the self-training of those responsible for supply chain issues; and
- f. Ensure that the DOH issues a memorandum mandating usage of the new forms, and coordinate with other entities with the DOH to ensure compliance.

The 2017 JSI assessment identified key attributes that should be present to implement any logistics management information system. These are the following:

- a. It should contain only the necessary forms;
- b. The information from such system should be used by the DOH in making decisions, e.g., allocation and replenishment; and
- c. It should only be automated if there is a dedicated person to do inventory management, and if there is an available computer and a functional internet connection.

Furthermore, tools for use by LGU health workers should have accompanying job aids or detailed instructions. This should make it easier for health workers, especially new ones, to understand and appreciate the value of the form.

For more details on the support for the assessment of the Supply Management and Recording System, please refer to Part II, Chapter 10.0.



## 3.0

# Key Challenges on DOH Supply Chain Management

The three main challenges being faced by the DOH in managing the supply chain of public health commodities include:

- a. Gaps in strategic leadership;
- b. Inadequate capacity to handle increasing volume of public health commodities; and
- c. Fragmentation of the supply chain, which leads to more problems for the DOH and service delivery points.

### 3.1 Difficulties due to Gaps in Strategic Leadership

As a policy project, it is crucial to secure top-level support, especially from the Secretary of Health. The support facilitates immediate start-up of technical assistance and participation of key actors. During the leadership of then Secretary Enrique Ona, the HPDP had regular meetings with the Secretary on various health issues and concerns. These meetings were the Secretary's opportunity to seek technical advice from the HPDP's pool of consultants. The meetings also provided the HPDP a venue to present to the Secretary its findings and proposed recommendations on various policy issues, including supply chain management.

Since Secretary Ona's resignation in December 2014, top-level support was not sustained. The regular meetings were not convened, and the new administration relied less on HPDP's technical assistance. However, this did not stop the HPDP from helping the DOH, despite unaccommodating leadership after the resignation of Secretary Ona. HPDP consultants continued to provide technical assistance to different bureaus and offices, and even the DOH Regional Offices.

Included in the HPDP's continuing support to the DOH are a number of assessments on supply chain management such as the LMIS, distribution, and logistics service provider performance. It also provided technical assistance to the DOH RO IV-A (CALABARZON) on the demonstration project on collecting and using family planning consumption data; to the LMD on logistics contracts reform; and to the DOH and PopCom on the creation and operationalization of the FP Logistics Hotline, and on the creation of the Supply Chain Management Unit (SCMU).

Without the usual backing of the Secretary of Health, or in the absence of strategic leadership, it is imperative to know the motivation and concerns of the key parties involved. Knowing these will help understand which strings to pull and who to approach to address operational challenges, especially when it is necessary to elicit supportive action from key stakeholders.

This was a key factor in partly addressing the issue of oversupply of FP commodities during the initial stages of collecting and using consumption data. Before the Family Health Office (FHO) in the DOH Central Office started to use consumption data in allocating FP commodities, the FHO developed its allocation for the RHUs and CHOs nationwide based on estimated requirements. As these estimates are based on proportions from national surveys applied to municipalities and cities, these estimates were either less or more than the actual requirements.

After one round of data collection from the RHUs in the demonstration site (Cavite) in 2016, the consumption data were forwarded to the FHO through the FP Logistics Hotline. Unfortunately, the allocation list had already been prepared and was about to be issued to the Logistics Management Division (LMD) to be used in the repacking of stocks for delivery by the logistics service provider to the different RHUs and health centers. If the previous allocation list was used, the same problems of shortages and oversupply would have been perpetuated given that such allocation list was not based on consumption. Moreover, this is also a problem for the sustainability of data collection as the reporting RHUs and CHOs might be discouraged to continuously submit consumption reports if they realize that their reports are not being used.

HPDP consultants working on the demonstration project on demand-driven FP logistics and providing support to the FP Logistics Hotline were aware that the RHUs and health centers have been rejecting deliveries and requesting for postponement of further deliveries due to oversupply. As early as the first quarter of 2016, the RHUs and CHOs were advised through the FP Logistics Hotline that they can reject deliveries if they are experiencing oversupply, i.e., if their stock status will last for more than six months.<sup>18</sup> This

<sup>18</sup> This is a contingency measure to provide immediate feedback to the DOH that the quantities being delivered exceed actual requirements. The DOH delivers six months of stock every four months, inclusive of two months of stock as buffer.

was also the reason the DOH issued a memorandum in April 2016 which stated that all commodities deferred, including those rejected, be delivered to the DOH ROs (Department of Health, April 2016). As the LMD directly supervises the logistics service provider, the LMD needed to repeatedly manage the reverse logistics<sup>19</sup> of returned commodities. Because of this, the LMD usually receives negative feedback from the DOH ROs, as these rejected stocks imply that the DOH ROs are forced to store such commodities in their already congested warehouses.

Given knowledge of these developments and the dynamics involved, the HPDP explained to the LMD the implication of not using the consumption data, i.e., that this may mean another batch of rejected deliveries which the DOH ROs will have to store. The LMD immediately coordinated with the FHO and requested that the allocation list for all those who submitted consumption data be adjusted.<sup>20</sup> This led to the preparation of the first consumption-based allocation list of FP commodities.

However, these functional linkages between and among bureaus and offices (e.g., LMD with different programs) should have been handled by a dedicated unit in charge of supply chain management of public health commodities. Even without the full support and active role of the Secretary of Health, the orchestration, coordination, and leadership of the supply chain could have been exercised by the Supply Chain Management Unit (SCMU). The SCMU was created through DPO 2016-0789 to address the fragmentation of the supply chain of public health commodities (Department of Health, March 2016).<sup>21</sup> However, instead of being a small unit composed of dedicated staff including a supply chain management expert, the SCMU became merely a committee of existing DOH staff members from different DOH offices. These existing staff members were assigned as members of the SCMU through DPO 2016-0789.

<sup>19</sup> The Council for Supply Chain Management Professionals (CSCMP) defines reverse logistics as a segment of logistics “focusing on the movement and management of products and resources after the sale and after delivery to the customer.” This includes product returns.

<sup>20</sup> In addition to the RHUs and health centers in Cavite, a number of RHUs from other provinces in Luzon were also able to submit consumption data through the FP Logistics Hotline. The allocation for these other RHUs were also adjusted based on consumption, together with those for Cavite RHUs and health centers.

<sup>21</sup> For details on the HPDP’s support for the creation of the Supply Chain Management Unit (SCMU), please refer to Part II, Chapter 9.0.

Furthermore, while the SCMU was headed by the DOH Undersecretary for Health Regulations, the more logical and effective placement of the SCMU within the organizational structure of the DOH could have been under the Undersecretary for Administration, Finance, and Procurement. More strategic leadership could have been exercised in supply chain management as part of the office that also oversees the Finance Service (FS), Procurement Service (PS), and Administrative Service (AS). The FS handles internal DOH budget and financing; the PS for procurement, including procurement requests from different offices; and the AS for internal (e.g., office supplies and equipment) and external logistics concerns (e.g., drugs and other commodities) of the DOH. Moreover, the functional leadership of the Office for Administration, Finance, and Procurement on matters related to its functions cut across different bureaus and offices as all units submits budgets, procurement requests, and allocation lists to the FS, the Central Office Bids and Awards Committee (COBAC), and the AS, respectively.

### 3.2 Difficulties due to Increasing Volume of Public Health Commodities

The difficulties encountered with respect to logistics management were not new challenges. These problems were just made more pronounced because of the magnitude of commodity requirements being quantified, procured, allocated, and distributed. Meanwhile, the DOH continues to manage inventories and deliveries with its staff and warehouses. While warehouse capacity was expanded, e.g., engaging the Philippine Post Office (PhilPost) and using PopCom's warehouse, this move was mainly in response to increasing storage requirements. The DOH may have to seriously consider the fact that it is not in the best interest of the DOH to build and strengthen capacity on logistics management, particularly warehousing and management of inventory. These tasks are best outsourced to a private sector third-party logistics (3PL) service provider.

This challenge is similar to the DOH's budget execution problems, especially after the initial onset of huge budget increases starting 2008 and given the addition of sin tax proceeds to the DOH budget after 2013 (Department of Health, 2016). As DOH staff have been used to doing the activities themselves (e.g., series of training and workshops), budget spending has been challenging. There seems to have been an inability to adapt to the huge budget regime, especially during the initial years, as more than PHP3 billion have been returned to the National Treasury as unspent budgets from 2012 to 2015 (UPEcon-Health Policy Development Program, 2016). The

capacity gap in terms of outsourcing and contracts management in logistics seems to be a smaller version of the bigger challenge in overall DOH budget execution.

The DOH is still very much preoccupied with the flow of commodities, mainly from the Central Office to the service delivery points, typically rural health units and barangay health stations). It has not substantially moved into aligning demand for and supply of public health commodities, and has not addressed the need for supply chain integration. In addition, it has not availed of the services of a 3PL that is supposed to manage warehousing, distribution, returns, and collection of data and information from recipients. Until now, the DOH struggles in managing its warehouses and engaging a forwarder for the distribution of public health commodities only. This is similar when one pays a local forwarding company like LBC Express, Inc. to send a package from Manila to a relative in the province. The only difference is that there are more than 2,500 recipients for the FP program only, and the package contains a combination of items with different quantities for each recipient.

However, even with logistics management, it has always been focused on the forward flow of goods to intended recipients (e.g., the RHUs and CHOs) and has not seriously considered the implications of reverse logistics to its work flow, including warehouse capacity at all levels. With the huge increases in the DOH budget, procurement of additional public health commodities naturally followed. As the supply chain management was not able to respond or keep up, and commodities were distributed regardless of actual requirements, more commodities flowed into the system all the way to the recipient LGUs, RHUs, and health centers, resulting in oversupply and expiration (Millar A. O., 2017). In the case of FP, a number of recipient LGUs have rejected deliveries which they did not need or which were currently on oversupply. These returns were handled by the LMD by facilitating re-delivery to the respective DOH Regional Offices (DOH ROs), and making the DOH ROs responsible for storage, inventory management, and distribution to service delivery points within the area (Department of Health, April 2016). This was done despite the limited storage space at the DOH ROs and limited time to conduct orientation of the DOH ROs with respect to procedures on returned FP commodities.

### 3.3 Fragmentation of the Supply Chain

The fragmented supply chain leads to poor planning and quantification, inefficient allocation of commodities, improperly timed schedule of deliveries, and proliferation of program-based forms for data capture and reporting.

Each program conducts its own quantification of requirements and procurement requests for the year. While there is supposed to be an agency-wide procurement plan where all procurement requests are consolidated, there have been instances of duplication of procured commodities by different programs, sometimes even using different prices for the same items (Millar A. O., 2016).

Despite having only one forwarder to deliver the commodities to recipients, different programs also have their respective delivery schedules. These schedules are usually provided to the LMD together with the allocation list, and are subsequently provided to the forwarder. It is not uncommon for a recipient rural health unit to receive consecutive deliveries of health commodities within the same quarter. In addition to the problem on fragmentation, this is also an issue related to cost efficiency. As the hired forwarder charges the DOH per delivery, delivering different program commodities multiple times to the same recipient results in the DOH paying its forwarder more than it should.

For health workers at the service delivery points, the most critical among the abovementioned issues arising from a fragmented supply chain is having multiple forms for data capture and reporting corresponding to different vertical programs. This is an important issue for health workers because there is usually one person in the rural health unit in charge of regularly accomplishing the forms. This could be addressed by automation or electronic logistics management information system such as the National Online Stock Inventory Reporting System (NOSIRS). Unfortunately, this system is currently experiencing problems due to a lot of factors, including internet connectivity at the service delivery points.

# 4.0

## Key Recommendations

This section presents specific implementation adjustments, recommendations, and lessons learned in the provision of technical assistance in supply chain management. These are presented in the context of specific cases or technical assistance products. Short-term recommendations include sustaining logistics contracting reform with good housekeeping, bridging information gap through simple tools, and conducting documentation to inform a wider audience and generate more support. The key long-term recommendation, however, is the establishment and operationalization of the SCMU with dedicated staff to address the fragmentation of the DOH supply chain.

### 4.1 Short term #1: Implementing Contracting Reforms and Good Housekeeping

For the most part, the technical assistance on logistics contracting reform<sup>22</sup> involved helping the DOH prepare the scope of work for the bidding process for the incoming logistics service provider. The technical assistance drew from the results of the assessment of performance of the logistics service provider, which led to revising the scope of work of the incoming service provider by adding provisions to align performance with international standards, impose stricter penalties for delays, and shorten the lead times for distribution, among others.

At the outset, the concerns were mostly in the form of improving efficiency of the service provider. Provisions for regular performance evaluation of the service provider were inserted in the scope of work. However, the version of the scope of work used in the bidding process did not contain this provision. It was not clear whether this was a deliberate or an accidental omission. However, it was later realized that even without this provision, the LMD conducted its own evaluation of performance of the service provider.

Upon careful examination of the procedures, it is possible that one of the reasons why the DOH could not impose stiff penalties indicated in the new scope of work was because there were considerable delays in the DOH's payment for services rendered by the service provider. Based on a reliable source, Ximex records posted delayed payments in 2016, which went as high as around PHP33 million. There were unpaid bills and transactions, some of which amounted to around PHP1 million per bill or transaction, with delays that lasted from 29 days to more than two years. The magnitude of the amounts prompted Ximex to cite that the payment delays were affecting its operations.

<sup>22</sup> For details on the HPDP support for contracting a third-party logistics service provider, please see Part II, Chapter 3.0.

The HPDP also received information from another reliable source that when the DOH wanted to post-disqualify Ximex from the ongoing bidding process in 2014, the service provider cited several procedural lapses. These include the DOH's failure to call Ximex's attention in writing about the delivery delays, and the DOH's non-response to an official letter from Ximex citing delivery issues such as returns due to lack of space, absence of order or request, wrong addresses, and the near expiry of health commodities.

Reforms in contracting can be very effective when implemented the way it was designed. Unfortunately, good housekeeping on the part of the DOH is required before it can truly impose stiff penalties and extract better performance from its service provider. These include addressing the issues on delayed payments, as well as undertaking performance evaluation and officially calling the attention of Ximex for delivery delays.

## 4.2 Short term #2: Bridging Information Gap through Simple Tools

The development and implementation of NOSIRS was regarded by the DOH as the key to resolving the information gap on supply chain management. However, it took a long time to be improved and redesigned. An offline version was needed to enable use even with intermittent internet connection. It was also necessary to link with other existing systems like iClinicsys. However, the problems on stockout and oversupply could not wait until the grand solutions related to automation are in place.

This was what the HPDP had in mind when it collaborated with USAID projects to implement a basic SMS tracking and the use of Google Sheets. For some, this could be regarded as crude tools. The ability to bridge information gap by providing the DOH information on the RHUs experiencing stockout was, however, very useful. This is despite the fact that these initiatives were used only in USAID project areas. For the health workers and FP clients urgently needing additional commodities, it does not matter whether information was transmitted through high technology interventions and gadgets. What matters is that the information was received by the DOH, and that the DOH was able to address the prevailing stockout in the area.

As the SMS and the Google Sheets initiatives developed into the FP Logistics Hotline and the FP and TB Commodity Monitoring,

bridging the information gap became more manageable. For the Hotline, the availability of mobile numbers from all networks (i.e., Globe, Smart, Sun Cellular, as well as landline contact numbers) made it easier for health workers to report and to provide additional information. As almost everyone has a Facebook account, exploiting the use of this social media platform also proved to be useful and informative. Using Facebook for work also makes commodity tracking more convenient.

The most important lesson in the implementation and scale-up of the Hotline and Facebook Page is that these are not rocket-science interventions. The DOH merely bridged the information gap by having a number of phone numbers available, having a few staff members to call from time to time, and using Facebook to interact with personnel and disseminate information.

Furthermore, addressing stockout and oversupply of public health commodities is not just a matter of downloading stocks to the service delivery points or ensuring that deliveries are not flooding them with items that they do not need. The situation demands a health systems approach from top to bottom.

In terms of deployment, the DOH needs to continuously deploy human resources for inventory management. In most RHUs and CHOs, the time of the RHU staff members are mostly spent in service delivery. They usually have very little time to spare for keeping track of inventories and preparing reports. The nurses and health staff deployed by the DOH usually support the RHU and CHO FP Coordinators. They are usually more technologically savvy and can handle spreadsheets better. In the implementation of the demonstration project, the RHUs and CHOs with dedicated staff members who prepare reports to keep track of inventories are able to submit reports earlier than those without dedicated staff.

In collaboration with the different RHUs and CHOs in Cavite<sup>23</sup>, the HPDP continuously advised the FP Coordinators that for those encountering oversupply, including those who requested for postponement of deliveries, the RHUs and CHOs may reject delivery of all or specific commodities if the RHU or CHO has more than six months of stock. As the DOH is scheduled to make three

<sup>23</sup> A similar advice was also given to the RHUs and CHOs in other parts of the country by the FP Logistics Hotline, at least for those who were reached through incoming and outgoing calls.

deliveries for 2016, six months of stock is more than enough to cover for the current round. The RHUs and CHOs, including their BHSs, are expected to consume four months of stock, which will leave them with a buffer stock for more or less two months before the next delivery arrives.

As an immediate implication to program implementation, the DOH should determine proper inventory level for the RHUs and CHOs that rejected deliveries. This can be done by assessing its consumption data. Once the appropriate inventory level is determined, reduction of allocation needs to be undertaken for the next cycle. In case the requirements for total current users indicated in the FHSIS or any other record indicate a large discrepancy with the actual consumption, i.e., significantly low consumption than the registered current users, the DOH should interpret this as an issue of inadequate demand generation or bloated number of current users. The former requires collaboration with local partners such as the LGU concerned (e.g., province, city, and municipality) for intensified demand generation campaigns. The latter requires data cleaning to ensure that the roster has been purged of users, who have shifted, dropped, moved residence, and died, among others.

### 4.3 Short term #3: Documentation to Inform a Wider Audience and Generate Support

The HPDP prepared and used at least two forms of documentation of its technical assistance in supply chain management. The first set of documentation usually presents results of assessment and recommendations to remove bottlenecks. These are commonly in the form of technical advisories to the Secretary of Health during the leadership of Secretary Ona, and to the Undersecretary for Administration, Finance, and Procurement later on as he covers the supply chain management of public health commodities. The second form of documentation discusses processes, difficulties, and adjustments made to address the challenges encountered in the implementation of the technical assistance. Both forms are useful especially in light of the fact that the HPDP, like any other projects, have a definite project life. There is no institutional memory to easily refer to unlike in “permanent” institutions like government agencies and international organizations.

Furthermore, the advisories and process documentation were disseminated to and discussed by the HPDP with other key stakeholders in addressing supply chain bottlenecks. As the lead

consultant for the demonstration project on demand-driven FP logistics was also the main consultant for the creation and operationalization of the FP Logistics Hotline, the process documentation was used in mentoring the Hotline staff members so that they could advise and help other RHUs in submitting consumption reports. The findings and recommendations from the advisories, as well as the emerging findings from the demonstration project, were also shared and discussed with the members of the Supply Chain Management Unit (SCMU) during its meetings and especially during its action planning on April 20-21, 2017 (Millar A. O., 2016). The lessons from advisories and process documentation validated similar findings especially from the DOH Pharmaceutical Division, and helped develop common strategies for addressing supply chain bottlenecks.

The documentation of technical assistance needs to be integrated as a critical part in the provision of technical assistance or in the delivery of interventions. These are important reports necessary for scaling up interventions to other programs or in other areas.

#### 4.4 Long term: Addressing Fragmenta- tion through the SCMU

Creating an SCMU is not simply putting together the people in charge of logistics in their respective programs or offices. One of the reasons why the DOH has a fragmented supply chain is that the key staff members are unable to bring the proper solutions to the table because they are busy with day-to-day tasks. The SCMU is meant to be a strategic intervention, and requires a new and dedicated team. This is the reason why, in its technical advisory, the HPDP proposed the hiring of a few experts and staff to operationalize the SCMU's strategic tasks.<sup>24</sup>

The issuance of DPO 2016-0789 may not be faithful to the original intention of the nature and purpose of the SCMU but it is nevertheless a welcome initiative. Unfortunately, the SCMU's current inactivity only proves that the SCMU needs a dedicated team to strategize and develop solutions to the currently fragmented supply chain. It needs to be reorganized soon before the initiative leads to nothing and the DOH will be back to square one.

<sup>24</sup> For details on the HPDP's support for the creation of the Supply Chain Management Unit (SCMU), please refer to Part II, Chapter 9.0.



# PART II

## Detailed Report of HPDP Support on Supply Chain Management

Support for the Assessment of FP Logistics

Support for the Direct Delivery of FP Commodities to the RHUs and CHOs

Support for Contracting a Third-party Logistics Service Provider

Support for the Assessment of Distribution and LMIS

Support for Commodity Tracking through Google Sheets and SMS

Support for the Creation and Operationalization of the FP Logistics Hotline

Support for Commodity Monitoring using Social Media

Support for the Demonstration Project on Demand-driven Logistics

Support for the Creation of the Supply Chain Management Unit

Support for the Assessment of the SMRS



# 1.0

## Support for the Assessment of FP Logistics

**Situation.** In 2012, around 22 million cycles of pills, 2.3 million vials of DMPA, and almost 790,000 IUDs were procured by the DOH Central Office to address FP requirements nationwide. Despite these resources, there were initial reports of unmet need of women in Pangasinan, Quezon City, Batangas, Leyte, and Davao del Sur<sup>25</sup> due to stockout of commodities. In the conduct of demonstration projects on scaling up the implementation of *Kalusugan Pangkalahatan* (Universal Health Care) in 2012, women with unmet need for modern FP were assisted in developing their health use plans for FP. The health use plans indicate which methods they prefer based on orientation and guidance provided by the members of the community health team or the barangay health workers. Unfortunately, they were not able to avail of FP services due to stockout in nearby government health facilities. There were also stockout reports received from the DOH ROs in Luzon, Visayas, and Mindanao during the consultation on scaling up interventions on FP/Maternal, Newborn, Child Health and Nutrition (FP/MNCHN) conducted in the first quarter of 2013 (UPEcon-Health Policy Development Program, 2013).

These reports were consistent with the findings of the Mid-Term Report on *Kalusugan Pangkalahatan* in August 2012 that showed insufficient commodities to address unmet need for modern FP (UPEcon-Health Policy Development Program, 2012). Specifically, all sample provinces except for Zamboanga Del Sur received only half the oral contraceptive pills they actually needed to address women's unmet FP needs. Only 27 percent of the almost 12 million cycles of pills have been distributed to service delivery points at different local government units (LGUs) due to delays in distribution and other problems related to having a fragmented supply chain. In addition, there were even PHOs from 15 provinces who claimed they have not received any contraceptives from the DOH. It was particularly alarming for provinces which have a large proportion of the poor population and yet reported to have received no FP commodities at all, e.g., Abra. In addition, the City Health Offices (CHOs) from Las Piñas, Caloocan, Quezon City, Puerto Princesa, Mandaluyong, Manila, Naga, and Lucena claimed they have received contraceptives from the DOH which are barely enough to address at most 10 percent of unmet need for modern FP. For some Luzon provinces like Quezon, the FP commodities from the DOH are sufficient to cover only 40 percent of women with unmet need for modern FP. The province of Iloilo, Negros Occidental, and Siquijor received commodities sufficient to cover only 30 percent of women with unmet need for modern FP. Similarly, Zamboanga del Norte and Zamboanga Sibugay reported receiving commodities that can only meet the needs of less than 20 percent of women with unmet need for modern FP.

<sup>25</sup> The HPDP's demonstration sites for the scaled up KP implementation

**Nature of assistance.** The purpose of the assessment was to examine the supply chain management system for centrally-procured FP commodities from the supplier, the DOH Central Office, ROs, PHOs, and MHOs all the way to the service delivery points, e.g., the RHUs and health centers. Eventually, the goal was to use the results of the assessment to guide further development of policies and guidelines to improve replenishment at service delivery points. The HPDP engaged the services of the Philippine Survey and Research Center (PSRC), a private market research agency, to conduct the interviews with selected respondents from the DOH Central Office, DOH RO I (Ilocos Region), Pangasinan PHO and MHOs, a regional hospital in La Union, United Nations Populations Fund (UNFPA), and Ximex Delivery Express, the DOH's logistics service provider at the time. Follow-up interviews were conducted by an HPDP consultant with respondents including the DOH Family Health Office (FHO) and then Materials Management Division, now called the Logistics Management Division (LMD).

This assessment was done during the initial stages of the implementation of the Responsible Parenthood and Reproductive Health Act of 2012 which guarantees universal access to family planning methods (GOVPH, 2012), as well as of the Administrative Order 2012-0009 on the National Strategy Towards Reducing Unmet Need for Modern Family Planning as a Means to Achieving MDGs for Maternal Health (Department of Health, June 2012).

**Results.** The assessment revealed several weaknesses of supply chain management of FP commodities in the areas of organizing and staffing, forecasting, procurement, storage, distribution, and logistics management information system (LMIS) (UPECON-Health Policy Development Program, 2013).

In terms of staffing, the FP Program Manager was managing and overseeing everything related to FP at the Central Office. These included developing and updating policies and clinical standards on FP; developing manuals for the conduct of training and workshops for FP; preparing annual budgetary requirements; participating in the bidding process; and a number of tasks concerning supply chain management such as forecasting, preparing procurement requests, consolidating reports from the ROs and PHOs, and preparing allocation lists.

The logistics information officer was tasked to assist the Program Manager in matters related to FP, especially those related to FP logistics. Unfortunately, the Program Manager and the logistics information officer were also given other duties. In addition, it was not uncommon for both staff members to go on field work or attend workshops out of town, resulting in some FP-related tasks being put on hold, e.g., preparation of allocation lists and physical inspection of FP commodities. At the RHUs and CHOs, the FP Coordinator was also performing other tasks not related to FP, and was also

participating in training and workshops being organized by the DOH Central Office, RO, or PHO. There was no logistics staff dedicated for FP as the logistics officer in the RHU or CHO was handling all the commodities in the facility.

Forecasting of FP requirements for the entire country for the whole year was based on estimates using population data and proportions from national surveys. Based on the forecast, an allocation list must be prepared and forwarded to the LMD ideally before the arrival of procured commodities. However, there were no timelines set for the preparation and submission of the allocation list to the LMD. Hence, it was reported that it took several follow-up calls before the LMD received the allocation list, possibly due to the heavy workload of the FP Program Manager. At the RO level, the FP Coordinator was also tasked to prepare a forecast for the entire year and then an allocation list based on the forecast. It was not clear if these regional forecasts were being used by the Central Office. At the PHO level, the FP Coordinator was using data from actual consumption and the Field Health Statistics Information System (FHSIS). Similar to the Central Office, there were no timelines associated with the preparation of allocation lists at the RO, PHO, and SDP levels.

Procurement of FP commodities was undertaken at all levels. The DOH Central Office procured commodities corresponding to the estimated requirements of poor women for the whole year. It also received donations from development partners such as the United Nations Population Fund (UNFPA). Local government units (LGUs) also procured commodities for its constituents using grants from the DOH Central Office and their own budgets. However, information related to procurement, e.g., quantities to be procured and the schedule of deliveries were not provided to the DOH RO I. At one point, this problem caused an oversupply of pills as the DOH RO I (Ilocos Region) purchased pills for distribution to the PHOs and hospitals only to receive delivery of pills from the Central Office within the same year.

Preparation of shipping documents and repacking of commodities took around one month: one week for the preparation of shipping documents, given the almost 100 recipients in different provinces and cities, and three weeks for the repacking based on the allocation list. This was because preparation of shipping documents was being handled by only one person in the LMD. Moreover, repacking by the logistics service provider took a long time because the exact allocation per recipient was being followed in the repacking of commodities, i.e., delivery quantities are not rounded off to the nearest packaging such as a box or a carton.

Deliveries from the Central Office were delayed more than half the time. Out of the 67 deliveries in February and July 2013, almost 61 percent of the deliveries were delayed (Table 1). In addition, delays were also encountered for DOH RO-purchased commodities as these commodities were usually picked-up by the PHO due to the

RO's lack of vehicle and delivery team. Furthermore, recipient facilities were not always informed of incoming deliveries.

**Table 1.**  
*Details of Ximex Deliveries (February and July 2013)*

Source:  
Delivery receipts from the DOH Logistics Management Division (UPecon-Health Policy Development Program, 2013)

	Average delivery time (in days)	No. of delayed deliveries	Range of days of delays			Areas with delays >20 days (arranged in increasing order)
			<10	11-20	>20	
Luzon* (n=33)	12	19	10	5	4	Mountain Province, Ilocos Sur, Isabela
Visayas* (n= 13)	28	8	1	1	6	Leyte, Southern Leyte, Antique, Western Samar, Northern Samar, Eastern Samar, Guimaras
Mindanao* (n=21)	18	14	12	2	0	
<b>Total (n=67)</b>	<b>17</b>	<b>41</b>	<b>23</b>	<b>8</b>	<b>10</b>	

\*Luzon – Abra, Apayao, Aurora, Bataan, Batangas, Benguet, Bulacan, Cagayan, Cavite, Ifugao, Ilocos Norte, Ilocos Sur, Isabela, Kalinga, La Union, Laguna, Marinduque, Mountain Province, Nueva Ecija, Nueva Vizcaya, Occidental Mindoro, Oriental Mindoro, Palawan, Pampanga, Pangasinan, National Capital Region, Quezon, Quirino, Rizal, Tarlac, Zambales; Visayas – Antique, Biliran, Central Visayas, Eastern Samar, Guimaras, Leyte, Northern Leyte, Northern Samar, Romblon, Siquijor, Southern Leyte, Western Samar; Mindanao – Agusan del Norte, Agusan del Sur, Camiguin, Compostela Valley, Cotabato, Davao del Norte, Davao del Sur, Davao Oriental, Lanao del Sur, Maguindanao, North Cotabato, Northern Mindanao, Sarangani, South Cotabato, Southern Mindanao, Surigao del Norte, Surigao del Sur, Zamboanga del Norte

In addition to the delays in the processing of delivery documents and repacking, including delivery delays of other non-FP commodities, information on allocation lists and forthcoming deliveries were not being communicated to recipients. As a result, storage space at DOH warehouses and recipient health facilities were not prepared. Some recipients had to reject deliveries due to unavailability of storage space.

In terms of reporting, the National Online Stock Inventory Reporting System (NOSIRS) was not yet fully functional at the time. The DOH Central Office relies on Excel-based reports from the ROs. However, only 14 out of the 17 ROs submit reports regularly. Among those reports submitted, not all are complete as some PHOs submit directly to the DOH Central Office. ROs had a hard time collecting reports from their PHOs as reports were often incomplete and unconsolidated. In addition, reports were not received on time and, hence, not used for the determination of the succeeding allocation.

Several recommendations were identified, including the following:

- **Ensure the availability of dedicated staff from the Central Office to the SDPs.** FP Program Managers and Coordinators should be able to focus on FP-related tasks only. In addition, they should be assisted by staff members who can fully devote time to logistics management.
- **Thorough planning on specifications of commodities to prevent delays in procurement, repacking, and provision of advance information to the LMD on the volume of commodities to be purchased.** Repacking delays can be reduced by indicating the preferred packaging from suppliers. Moreover, repacking should be done without any loose items, i.e., at the nearest box or carton. On warehousing and delivery, informing the LMD of procurement volume and recipients will help ensure the LMD and recipients will be able to prepare the necessary storage space.
- **Periodically update the forecasting tool to ensure inclusion of all commodities, and include timelines for the preparation and submission of allocation list.** New commodities that were not in the forecasting tool should be added. Timelines for the preparation and submission of allocation lists should be specified and properly monitored to ensure that the succeeding steps are implemented without delay, e.g., picking, repacking, and delivery.
- **Provide information to recipients about the details of incoming deliveries.** This will enable recipients to anticipate the volume of incoming deliveries and thereby prepare the storage space needed. This will also enable them to continuously dispense commodities. Moreover, knowing the volume of incoming deliveries will help them determine procurement request for additional commodities, if necessary.
- **Explore automation of the LMD warehouses.** This will help improve inventory management, as well as speed up processes at the different warehouses. At the very least, warehouses of the logistics service provider should be automated with a functioning electronic LMIS that provides real-time reports to the DOH. For DOH warehouses, an automated system of warehouse management is ideal, although some basic housekeeping should be implemented first in relation to ensuring regular schedule of picking, repacking, and deliveries to prevent warehouses from being congested with slow-moving goods.
- **Include provision of warehousing in the succeeding contracts of the forwarder.** Including this portion explicitly in the next contract will help decongest warehousing functions being done by the DOH. Most

warehousing activities should be contracted to the logistics service provider not only to decongest the DOH with these tasks but also because the comparative advantage in warehousing belongs to the private sector. With this improvement, the DOH can focus its effort in improving its capacity in contracts management, monitoring, and performance evaluation of its logistics service provider.

- **Conduct monthly or quarterly performance evaluation of the forwarder to address delays and to increase penalties for delays.** The performance evaluation should be included in the logistics service provider's contract, including stiffer penalties for delays.
- **Develop a logistics management information system, e.g., National Online Stock Inventory Reporting System (NOSIRS).** A functional electronic LMIS such as the NOSIRS is a must in monitoring and ensuring the timely flow of quality information, particularly from the SDPs to the DOH Central Office. This will enable the DOH to adjust its succeeding allocation accordingly, thereby reducing shortages and oversupply.

**Key lesson.** The key lesson from this technical assistance is that removing bottlenecks in the flow of public health commodities to the service delivery points needs to look into the entire supply chain management process. The stockout of FP commodities at the time was merely a symptom of a bigger problem. Addressing it requires corresponding reforms in all aspects of the supply chain, including planning and forecasting; information sharing on procurement and delivery schedules; efficient warehousing and storage; performance evaluation of the service provider to ensure deliveries are on time; and effective logistics management information system.

## 2.0

# Support for the Direct Delivery of FP Commodities to the RHUs and CHOs

**Situation.** Prior to 2012, FP commodities were being delivered to the DOH ROs, which delivered commodities to the PHOs within the region. These PHOs, in turn, delivered the commodities to municipalities and cities within the province. The commodities were then being dispensed at the different RHUs, health centers, and barangay health stations (BHSs). As there were delays associated with this series of deliveries, the DOH Central Office implemented direct delivery to the PHOs in 2012, bypassing the DOH ROs. Given the lack of vehicles and of budget for gasoline, delays were still encountered.

**Nature of assistance.** To address this issue, the HPDP identified main bottlenecks and proposed key recommendations to address such challenges. The recommendations were contained in the Technical Advisory on Engaging a Full-Service Logistics Provider to Distribute FP Commodities (UPEcon-Health Policy Development Program, 2014) issued to the Secretary of Health, Dr. Enrique T. Ona. For a copy of the technical advisory, please refer to Appendix A.

**Results.** The February 2014 technical advisory highlighted the following major bottlenecks:

- **Allocation of FP commodities for the year was based on estimates, not actual consumption data.** Difficulty was being encountered in generating actual consumption data from field reports because of poor inventory management and recording at the RHUs and CHOs. The DOH's electronic LMIS (i.e., NOSIRS) was not fully functional and beset with problems related to the internet connectivity of users at all levels. As a result, commodity requirements continued to be estimated based on data from national surveys. When these data were applied to individual health facilities, the estimates were often either more or less than actual requirements.
- **There was a lack of communications protocol to coordinate pick-up and delivery from the DOH Central Office to the ROs to other service delivery points.** There were no set procedures for the relay of information about forthcoming deliveries. The PHOs were generally not aware of the volume of FP commodities to be delivered and, hence, could not anticipate storage requirements at the provincial level. This led to the refusal of some PHOs to accept deliveries due to lack of storage space. The absence of protocol for

information sharing also caused delays for commodities to be picked up by recipients.

- **The logistics service provider delivered only up to the provincial level.** As soon as received, commodities needed to be delivered by the PHOs to the municipalities and cities in their respective areas. However, it was reported that the PHOs usually ask the LGUs to pick up the commodities given the lack of staff members, vehicle, or even budget for gasoline.
- **Monitoring of stock on hand and consumption were not done regularly.** There was no regular monitoring of inventories and actual consumption at service delivery points. As a result, stock status was not monitored, leading to frequent shortages or oversupply of certain commodities.

One of the main recommendations in the technical advisory was the direct delivery of FP commodities to around 2,500 RHUs and CHOs nationwide, with priority to be given to the RHUs and CHOs with reported stockout. To address the information gap, another recommendation was for the DOH, through the Family Health Office (FHO) and Logistics Management Division (LMD), to provide the ROs, PHOs, and RHUs or CHOs the allocation list and schedule of delivery.

Lessons from the implementation of the Contraceptive Distribution and Logistics Management Information System (CDLMIS) also support such recommendation (Kinzett & Ayala, 2000). The review of the CDLMIS implementation indicated that one of the factors responsible for timely delivery of commodities was the presence of delivery vehicles and the use of the LGU Performance-based Program (LPP) grants to pay for distribution costs (e.g., gasoline). These were considered critical to facilitate immediate delivery of commodities to the RHUs and CHOs.

Given that these were not present or very limited, a better option was to eliminate the docking of goods at the PHOs and instead deliver directly to the RHUs and CHOs. As a result of the technical advisory in 2014, deliveries of FP commodities were brought directly to the different RHUs and CHOs nationwide starting second semester of 2014. This increased the recipients from around 100 provinces and cities to around 1,700 RHUs and CHOs<sup>26</sup> for family planning only.

<sup>26</sup> Initial deliveries are made to the main RHUs and CHOs. As majority of municipalities and cities have only one RHU or CHO, this was not much of a problem. However, in some municipalities and cities with more than one RHU or CHO, the main RHU or CHO received the commodities and conducts the distribution to the different RHUs and CHOs. These commodities were sometimes not distributed immediately. In addition, when the allocation list does not reflect the actual consumption, deliveries were sometimes short of total requirements. Thus, there were cases when the main RHU received full supply requirements while the others did not.

Also included in the recommendations was the hiring of job contractors to assist in preparing invoice receipts to all recipients. This step is important to consider because one invoice receipt per delivery recipient was being prepared. This was a key recommendation to enable adjustment in terms of work load. Unfortunately, the additional job contractors were not hired right away, and when the hiring pushed through, the DOH did not hire the required number of contractors. Hence, there were not enough newly hired contractors to handle the work load.<sup>27</sup>

While direct delivery to the RHUs and CHOs was a significant reform in distribution, there were considerable bottlenecks still encountered in the preparation of invoice receipts. In addition, the allocation lists and distribution schedules were not disseminated to the recipient RHUs, CHOs, PHOs, and ROs. Due to this new setup, the PHOs and ROs often complained that the DOH Central Office does not provide the necessary information that may be useful for their monitoring, collection of reports, and augmentation of commodities. As a result, recipients were not usually able to prepare their respective storage areas for the incoming deliveries, and the PHOs and ROs were not able to timely augment the provision of stocks, as well as to monitor the commodities being delivered to the RHUs and CHOs in their respective areas.

**Key lessons.** A key lesson from this technical assistance is that it is crucial to anticipate the additional requirements from the increase in delivery recipients. The experience of the FP program during the initial year of direct delivery to the RHUs and CHOs revealed that the additional staff supposed to be engaged for the preparation of invoice receipts could have reduced considerable delays in the processing of deliveries.

Another key lesson is the need to widely disseminate information to the PHOs and ROs—previous recipients of deliveries—so that these entities can monitor deliveries and augment commodities as necessary. Based on several consultations, the PHOs and ROs recognized the value of delivering directly to the intended recipients. However, they clamored for timely and complete information on allocation and schedule of deliveries.

Note that direct delivery to the RHUs and CHOs was being done with the FP program only. Commodities from other programs like TB were still being delivered to the ROs, with some commodities delivered to the PHOs. These programs should explore having their commodities delivered directly to the RHUs and CHOs, except when the end-users are the ROs and PHOs, to minimize delays and other problems associated with the standard distribution system.

<sup>27</sup> To prepare invoice receipts for around 100 provinces or cities, the HPDP estimated that the work would require two work-days. This is under the assumption that the person would be working full time on this assignment, with access to a good internet connection. Given this, it would take around 50 work-days to prepare invoice receipts for all deliveries to 2,500 RHUs for FP only. At this rate, it will take 10 days for five job contractors to prepare said invoice receipts.



## 3.0

# Support for Contracting a Third-party Logistics Service Provider

**Situation.** During the first quarter of 2014, the DOH was preparing for the bidding of an incoming logistics service provider, as the contract of the current service provider was about to end. Based on the initial assessment conducted by the HPDP (UPEcon-Health Policy Development Program, 2013), deliveries by the current service provider were delayed more than half the time. Delays were also encountered in the submission of delivery reports that could be explained by the forwarder's lack of an operational tracking (i.e., information) system. In addition, clear, simple, and standardized system and forms that could be used and followed were lacking.

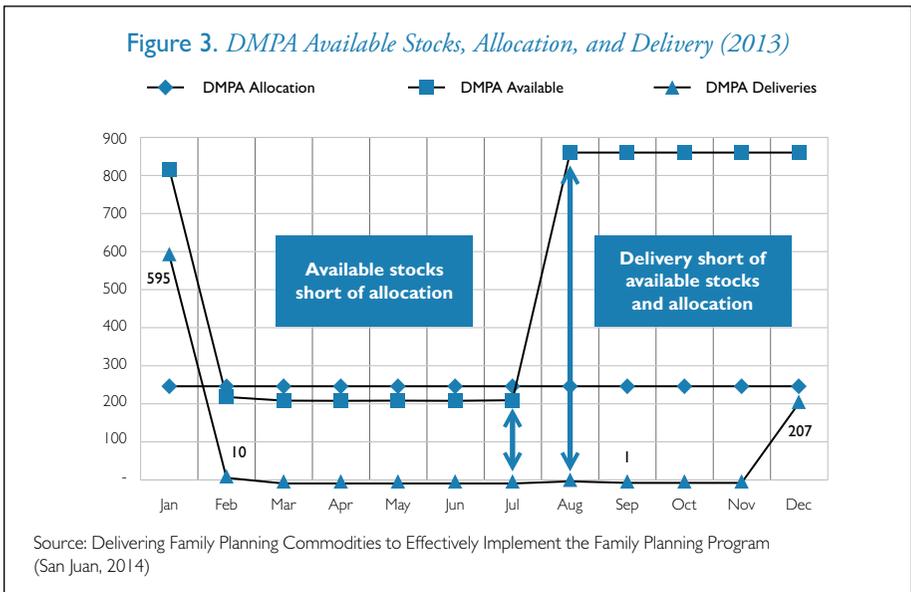
In its Technical Advisory on Engaging a Full-Service Logistics Provider (UPEcon-Health Policy Development Program, 2014), the HPDP recommended that the DOH engage a full-service private logistics provider to deliver FP commodities to SDPs (i.e., including warehousing, inventory management, collecting consumption data, and development and use of a logistics management information system). The comparative advantage for logistics management is with the private sector given the broader experience in handling logistics and the substantial investments in human resources, and logistics management information systems. While the engagement of a full-service private provider may cost more than the current contracts that the DOH currently had with private forwarders, this was expected to come out more economical when savings from additional warehouse space, delivery delays, and spoilage of goods owing to the current distribution system were eventually considered.

**Nature of assistance.** To help the DOH prepare for the development of the detailed scope of work and the eventual contracting of the new service provider, the HPDP engaged the services of a private sector logistics expert. The private sector logistics expert conducted the assessment of procurement, inventory management and distribution, and recommended key sections of the scope of work of the new service provider. The assessment made use of existing data from the Logistics Management Division (LMD), including delivery receipts and inventory records. Some of the key findings of the assessment are described in the succeeding paragraphs.

**Results.** In terms of demand planning, the inability to collect consumption reports forced the FP Program Manager to use an inaccurate forecasting tool which does not include implants and other commodities. The National Online Stock Inventory Reporting System (NOSIRS) was developed as the electronic LMIS. The NOSIRS should, among others, provide consumption data as basis for succeeding allocation of FP commodities. Unfortunately, the NOSIRS was far from being fully functional as it was facing challenges related to incomplete functionality, weak internet connectivity, and the

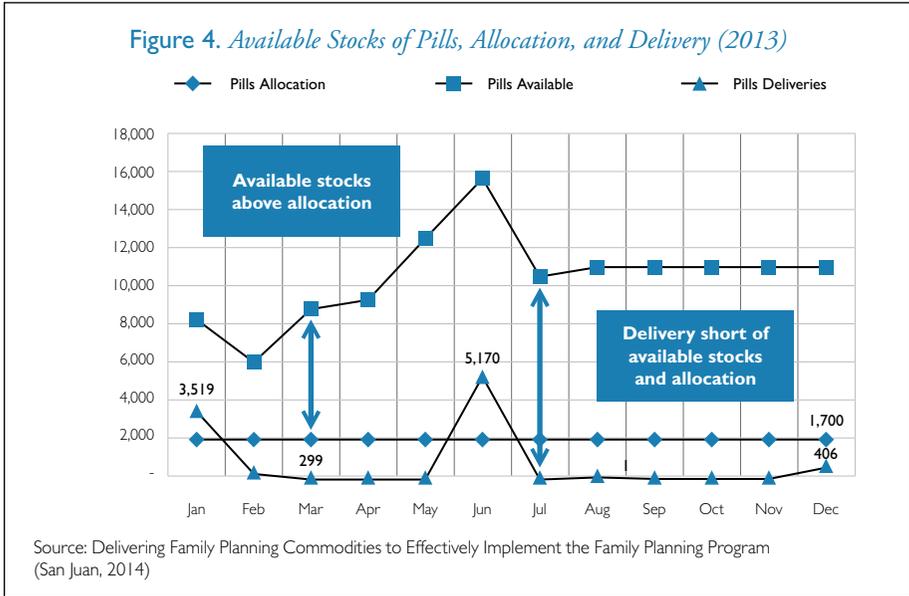
lack of dedicated encoders at the service delivery points. Collecting actual consumption data would have helped in the preparation of a demand-based allocation list.

With respect to distribution, available stocks were not being delivered; and when deliveries do occur, the quantities were often greater than the allocation. Based on 2013 deliveries, DMPA, pills, and IUDs followed the same pattern: the delivered quantities were always greater than the allocation, but were always less than the available stocks. Delivered DPMAs in January were almost 200 percent greater than the allocation, while deliveries in December were almost equal with the allocated amount as seen in Figure 3. One would expect that the allocation should be the basis of delivery, although it did not seem to be the case for DMPA. In addition, the huge gap between quantities allocated and delivered on one hand versus quantities available on the other seem to suggest that the DOH was procuring significantly more than its annual requirements.



In the case of pills, quantities delivered to the RHUs and CHOs in January 2013 were higher than the allocation but lower than the available quantities at the warehouse as seen in Figure 4. This was the same case for deliveries in June of the same year. Assuming the allocation was correct, this pattern showed that the DOH had an oversupply of pills at the warehouse, and was flooding the RHUs and CHOs with excess commodities.

In fact, quantities delivered in January and June 2013 seem to be based more on the available stocks rather than the allocation. IUD stocks follow the same pattern similar to DMPAs and pills.



It takes almost one year to undertake procurement of FP commodities. With procurement starting in 2012 (i.e., invitation to bid), it took condoms 202 to 208 days to be delivered to the DOH as seen in Table 2. For pills and DMPA, the cycle was longer at 315 days. Note the encircled extremely high elapsed time for particular phases.

**Table 2.**  
*Elapsed Time in FP Procurement, in Number of Days*

		Pre-Proc Conference	Invitation to Bid	Pre-bid Conference	Eligibility Check	Sub/Open of Bids	Bid Evaluation	Post Qualification	Notice of Award	Contract Signing	Notice to Proceed	Delivery/ Completion	Acceptance/ Turnover
<b>Condoms</b>	Days Elapsed	1/30/2012	11	10	14	-	3	40	34	30	-	60	-
	Days Elapsed		11	21	35	35	38	78	112	142	142	202	202
	To Date												
<b>Condoms</b>	Days Elapsed	9/25/2012	3	3	28	-	1	14	29	40	-	90	-
	Days Elapsed		3	6	34	34	35	49	78	118	118	208	208
	To Date												
<b>Pills</b>	Days Elapsed	8/17/2012				26	-	-		169	-	120	-
	Days Elapsed					26	26	26		195	195	315	315
	To Date												
<b>DMPA</b>	Days Elapsed	8/17/2012				26	-	-		169	-	120	-
	Days Elapsed					26	26	26		195	195	315	315
	To Date												

Source: Delivering Family Planning Commodities to Effectively Implement the Family Planning Program (San Juan, 2014)

The current contract of the logistics service provider did not have sufficient and effective performance indicators at par with industry standards. Lead times in all the stages were also not properly defined in the contract. In addition, the penalties were not stiff enough to deter poor performance from the logistics service provider.

The major recommendations of the assessment are as follows:

- **Use of a stand-alone electronic logistics management information system while NOSIRS is not yet fully operational.** The system should be a quick and temporary fix to address the absence of an electronic system that can capture data from service delivery points. Data to be collected should be compatible with the NOSIRS. This should cover issued stocks, receipts, and returns at all levels, delivery status, and procurement order status.
- **Temporarily use estimates of requirements based on population, and then shift to the use of actual consumption data for planning and allocation.** Gradually shift the allocation process into one that is based on consumption data. This gradual shift may involve the use of estimates which should be moving from one that is based on the use of proportions from national surveys applied to the RHUs and CHO to one that is based on the actual number of users. Eventually, the allocation process should then use data from a functional and effective system of collecting consumption data.
- **Development of an inventory policy for each product, e.g., safety stock, reorder level, maximum stock based on committed standard order and delivery lead times.** These inventory policies should help facilitate order and reorder, emergency reorder, and prevention of oversupply. However, it requires

the DOH and the logistics service provider to specify lead times of the different steps or processes in the supply chain including preparation of allocation list, shipping documents, and deliveries.

- **Development and regular review of key performance indicators for DOH units with built-in reward system and sanctions.** Customer-oriented relationships should be fostered among implementers at all levels, including the DOH, and should start with the identification of the “customers” or clients for each level, e.g., the target clients of FP commodities as the customers of the RHU or MHO, who in turn become the customers of the warehouse and delivery contractors, and so on. Once clients at different levels are defined, key performance indicators (KPIs) should be identified as well starting with the DOH FHO, DOH ROs, logistics service provider, and the RHUs or CHOs, among others. In addition, KPI achievement should be rewarded to encourage good performance, while failure should have sanctions to instill discipline necessary to achieve program objectives.
- **Engagement of warehousing and delivery contractor based on international standards of the pharmaceutical industry.** This should allow the DOH to focus on its competency on health care, and raise its warehouse and delivery operations to international standards given that these competencies can be found in the private sector. The warehousing contractor may be different from the delivery contractor, but both should be well-supervised by the DOH to ensure close coordination of a coordinated effort in delivering commodities.
- **Appointment of a Supply Chain Manager.** A full-time Supply Chain Manager is needed to regularly review KPIs, undertake corrective actions, and ensure continuous process improvements to optimize costs, increase efficiency, and ensure the delivery of the right products at the time of need. They should report directly to the Secretary of Health and have authority over procurement, warehousing, and delivery.

Part of the report is an appendix containing inputs to the scope of work for engaging third-party logistics provider. The said appendix contains technical specifications and schedule of requirements that can be adopted as part of the scope of work that can be used for bidding. For a copy of the appendix, please refer to Appendix B.

Specific inputs include:

- Conformity with international standards, e.g., GS1 international coding standards for health commodities, use of bar coding, and computerized warehouse management information system;
- Stricter lead times for delivery, e.g., three days for NCR, seven days for Luzon, 10 days for Visayas, and 13 days for Mindanao;
- Specific reports to be required from the service provider, e.g., dispatch report, stock movement report, physical inventory report, stock aging report, inventory accuracy, and dispatch lead time conformance; and
- Stricter penalties in terms of deductions from delivery charges, including delays for the submission of reports and not just delivery delays.

As a result of the technical assistance, the draft scope of work was used by the DOH in the bidding process for engaging the next service provider in 2014. Subsequently, the same scope of work was used for the next round of bidding for the next logistics service provider with some modifications including:

- Separate TORs for warehousing and distribution which will require close coordination, management, and supervision by the DOH LMD;
- Distribution contracts to be further subdivided in three, corresponding to island groups;
- Weekly and monthly inventory report requirements for different contractors; and
- Evaluation of performance of contractors by the LMD every two months.

**Key lesson.** A key lesson from this technical assistance is that the DOH needs to implement certain adjustments including its systems, contracts, and capacities given the increasing volume of delivery. Deliveries to more than 2,500 destinations from the usual less than 100 recipients for FP alone will require key improvements in work processes, in collaboration with other programs. Contract provisions need to be continuously studied and adjusted as well to extract better performance from its service provider.

## 4.0

# Support for the Assessment of Distribution and LMIS

**Situation.** Based on the April 2014 assessment of the HPDP, there were overstocking and stockout of products at facilities, primarily due to:

- a. The absence of reliable, timely information and improper planning due to a not fully functional logistics management information system (LMIS);
- b. Irregular delivery schedules and delivery delays by the logistics service provider; and
- c. Communication gaps between the Family Health Office (FHO) and other DOH units, as well as with the regional, provincial, and municipality health offices.

**Nature of assistance.** Following these findings, the HPDP collaborated with the USAID | DELIVER PROJECT implemented by John Snow, Inc. (JSI) for the conduct of a distribution assessment and management information system review. The main objectives of the technical assistance were to assess the following:

- a. The LMIS landscape and the necessary requirements; and
- b. The current DOH distribution system for all their health commodities, as well as the monitoring of the performance of the logistics service provider.

The focus of the JSI assessment was on understanding the current landscape of the use of logistics management information system (LMIS), and to identify strengths, weaknesses, and recommendations or options for improving the development and use of the LMIS. It was the first comprehensive review of the NOSIRS in terms of its design and operations. The JSI team conducted site visits and interviews with the DOH Central Office units, DOH warehouses, Bulacan PHO, Pandi and Angat RHUs, as well as Ximex and AIR21<sup>28</sup>.

**Results.** The distribution assessment revealed that the DOH distribution system for public health commodities lacked a systematic design at different levels (Bem, Bock, Char, & Diallo, 2015). There were no inventory control procedures, and no common schedule and frequency of distribution across programs. As a result, recipients from various levels were receiving products from different programs at different times. Health facilities were also often not aware and sometimes not ready to accept forthcoming deliveries.

<sup>28</sup> AIR21 was the logistics service provider engaged by the Pharmaceutical Division to deliver Complete Treatment Packs, which are packed medicines for lifestyle-related diseases such as hypertension and diabetes, to the RHUs and CHOs. Prior to 2014, these drugs were being delivered by AIR21 while the rest of health commodities were being handled by Ximex. AIR21 was also engaged as the interim service provider in 2014 after the end of the contract period of Ximex and while the bidding process for the next logistics service provider was ongoing. After 2014, delivery of all health commodities were contracted to only one logistics service provider.

Deliveries were also made to the DOH warehouses, which are managed by the LMD, without advance notification. Different programs coordinated directly with their suppliers and agreed on delivery schedules without any prior knowledge of the LMD. Without advanced notice, the LMD's preparation of shipping documents suffer delay, and had to delay deliveries while waiting for paperwork to be completed.

In view of the not fully functional LMIS and lack of an overall inventory policy, the LMD, and the entire DOH in general, did not have any information on the stock status. Therefore, the different programs were forced to operate on a “blind push system,” the DOH distributed FP commodities without any indication if the commodities were actually needed, when such products were needed, and how much were required. Deliveries were sometimes declined because either the LGUs were already regularly procuring such commodities or additional stocks were not needed. Returned commodities were usually stored temporarily at the warehouse of the logistics service provider before returning them to the DOH, when they could not be redirected to another recipient. Either way, excess commodities and returns cost time and effort, valuable warehouse space, and money.

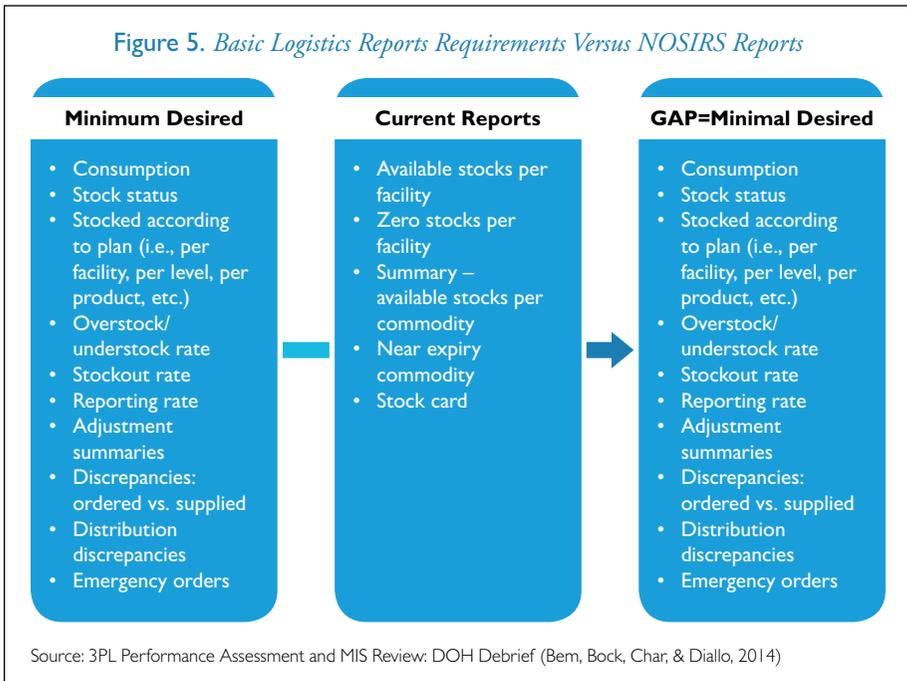
In terms of contracting with its logistics service provider, the DOH through the LMD engages its service provider through annual contracts. Negotiating contracts every year was time-consuming and necessitated the DOH to extend the contract of the current service provider in cases of delays in contracting the incoming service provider. More importantly, the service provider had no incentive investing in systems and technologies that could have increased efficiency or improved distribution of public health commodities.

Based on the LMIS assessment, the NOSIRS was able to generate key reports including available stocks per facility, zero stocks per facility, available stocks per commodity, near expiry commodity, and stock card as seen in Figure 5. However, there were a lot of functions in the system that were not available but which were considered critical in an operational LMIS. These include requisition, storage, order processing, distribution management, dispensing, forecasting, supply planning and pipeline monitoring, handling returned products and adjustments, capturing consumption data, and using collected data for resupply, redistribution, forecasting, or management decisions (Bem, Bock, Char, & Diallo, 2015). The requisition function could have been used by the RHUs to indicate how much they need in succeeding periods. As there was no requisition function, the order processing function was also absent. It was not linked to dispensing and, hence, there was no distribution management module. The forecasting and pipeline monitoring functions could have linked existing stocks and requirements to succeeding quantification activities. As such, it could not produce a number of critical reports including consumption data, overstock and understock rates, stockout rate, adjustment summaries, and discrepancies between ordered versus supplied commodities.

The most depressing deficiency among the findings was the inability of the NOSIRS to generate stock status per facility. In logistics management, the actual quantities are less important than the determination of how long the existing stocks will last. Two RHUs could both have 1,000 cycles of pills but RHU A may consume 100 cycles per month while RHU B, 250 cycles per month. RHU A's stocks may last up to 10 months including the buffer, while RHU B's stocks may only last up to four months. Stock status, not stock level, is a valuable piece of information needed in resupply of commodities.

In terms of its requirements for operation, the service delivery points were plagued with internet connectivity issues. Being an online system, this was a critical limitation. The computers in some service delivery points were also limited in terms of number. Even for those with computers and internet, the speed was also a limiting factor perhaps due to the quality of internet connection or a host of other issues. In addition, the central server used by the NOSIRS was shared with other systems, which could have an impact on data processing time and system response.

Figure 5. Basic Logistics Reports Requirements Versus NOSIRS Reports



The NOSIRS also had no interface with other systems such as the iClinicsys, which handles patient level data. This means that data on commodity use were not linked with actual treatment at the facility. The other crucial limitation at the service delivery point level was the inadequacy of data encoders. Even if there were encoders, they were usually handling all the programs. In fact, even the deployed staff members of the DOH (e.g., NDPs) who were supposed to assist in service delivery at the barangay level were also assisting in the encoding of reports.

In terms of usability, the NOSIRS only performed two basic functions: receiving and issuing commodities. The application was not intuitive to use and the menus were not consistent with the functions labeled in the menu. The NOSIRS response time was slow, and showed poor performance in refreshing the screen and accessing data.<sup>29</sup>

The JSI recommended key actions to begin addressing such critical gaps. These included the following recommendations on improving distribution:

- **Develop a monitoring and evaluation plan for the distribution of all products and its logistics service provider.** The monitoring and evaluation plan should include targets agreed upon by tracer products from each program to be used for monitoring, and the schedule of the provision of routine data and conduct of physical stock checks at warehouses.
- **Review the data currently available and identify additional required data.** The LMD should have access to data from the logistics service provider and should request the service provider to provide the key data points, e.g., stock on hand, data received, date issued, expiry date, dispatch reports, and delivery reports. A thorough review of the currently available data should be done to identify any information gaps that should be addressed.
- **Strengthen the capacity of the LMD to conduct monitoring and data analysis.** A review of current tasks and work flow of the LMD is in order. Additional staff should be hired and trained to carry out monitoring and data analysis.
- **Establish and strengthen feedback mechanisms.** The LMD should effectively communicate with the different programs and its logistics service provider possibly through routine reporting to programs. In turn, programs should inform and update the LMD if there are new information from their interaction with suppliers, especially those related to incoming deliveries of commodities to the DOH warehouses. Regular reporting and feedback should

<sup>29</sup> Incidentally, based on feedback from the LMD, preparation of invoice receipts for the distribution of goods during relief operations for the Super Typhoon Yolanda (International Code Name: Haiyan) in 2013 initially started using the NOSIRS. However, due to the slow response of the system, the LMD had to prepare the invoice receipts manually.

also be arranged between the LMD and its service provider regarding deliveries, stock status, and other matters related to the execution of the service provider's contract with the DOH.

The following are the recommendations on developing and strengthening the DOH LMIS:

- **Develop strategic LMIS roadmap to have a framework for developing and strengthening health information systems that are linked in terms of structure and use.** The roadmap should identify how the DOH LMIS should be continuously developed and strengthened. It should also include linkages with all public health and clinical information systems.
- **Specifically for the NOSIRS, review similar tools such as the SMRS and the CDLMIS, and identify gaps in collecting essential logistics data.** This review should result in the identification of the set of critical data to be collected, and the functionality that needs to be present in the NOSIRS.
- **Develop an action plan for the continuous enhancement and deployment of the NOSIRS.** The action plan should facilitate proper planning, training, and rollout of the identified functionalities, including reporting and feedback. The action plan should also include aspects of software change management, release management, deployment, and the organization, training, and operation of the help desk.
- **Develop interface between the NOSIRS and forecasting to help ensure that allocation is based on actual data.** As the NOSIRS improves its functionality, including collection and generation of consumption data, these data should be used in the preparation of succeeding allocation.
- **Expand automation at all levels, where appropriate, assuming that a sound inventory management system is already in place.** The continuous expansion of automation from the Central Office to the service delivery points is important to ensure timeliness and quality of data. This should be pursued as an overall strategy. When automation is not feasible due to challenges in execution, bottlenecks should be identified and steps should be taken immediately to remove such bottlenecks. The assumption is that a sound inventory management system is already in place. If not, this should be established and strengthened, backed up with an inventory policy that clearly defines important standards, e.g., lead times, maximum and minimum levels, reorder point, and buffer stock.

- **Build capacity on the LMIS, particularly on data collection, recording, data analysis, and use of data for decision-making.** In conjunction with strengthening the capacity of the LMD on monitoring and data analysis, its capacity should also be improved on the operation and use of the LMIS. It should be able to come up with regular reports that facilitate decision-making on supply chain management through the use of data from the LMIS.

**Key lesson.** A key lesson from this technical assistance is that reforms in the LMIS cannot be done separately from the improvements in other aspects of the supply chain, particularly in the distribution system, as both require the critical role of the LMD. Hence, once the fundamental logistics practice is in place, the electronic LMIS needs to be continuously assessed and improved. Along with the systems improvement, the LMD's capacity should be improved in the use of LMIS, including data analysis and use of data in decision-making. Another key lesson is the need to develop the NOSIRS within an overall MIS roadmap in public health and clinical systems. It should not be a stand-alone system for logistics but it should link operationally with other systems, e.g., iClinicSys.

## 5.0

# Support for Commodity Tracking through Google Sheets and SMS

**Situation.** Following the LMIS assessment done by JSI in 2014, the NOSIRS underwent continuous improvement and development. Oversupply and shortages were still happening as the DOH continued to implement a “blind push system” because of its inability to collect and use consumption data. Hence, there was an urgent need for information on stock status. In particular, availability of and access to FP commodities need to be ensured at the service delivery points to address unmet need for modern FP. While medium- to long-term efforts were being done in the areas of electronic LMIS, there was a clear and present need to address the information gap.

**Nature of assistance.** During the first quarter of 2015, the HPDP embarked on a very basic reporting system which had the sole purpose of sending information on which facilities are experiencing stockout or nearing stockout of FP and TB commodities (UPECON-Health Policy Development Program, March 4, 2015). The tools consisted of an SMS-based reporting system for stockout, and a cloud-based spreadsheet using Google Sheets to monitor stock level of FP and TB commodities at the facility level. These tools intended to immediately inform the DOH on stockout for appropriate action, as well as to provide quick feedback.

The tools were implemented by the HPDP in collaboration with LuzonHealth, VisayasHealth, and MindanaoHealth for FP, and the Innovations and Multi-sectoral Partnerships to Achieve Control of TB (IMPACT) for TB. Inventory data were collected through opportunistic visits and calls to partners at the service delivery points, and then submitted to the HPDP for consolidation and reporting to the DOH. Specifically, upon finding out that a health facility has a stockout of any FP or TB commodity, any project staff member shall send an SMS to the designated numbers by the HPDP. The message should specify the province, municipality, city, facility name, and the type of commodity with stockout as seen in Figure 6. It is assumed that the reported stockout is current as of the date the SMS was sent.

<sup>30</sup> Short messaging service, more popularly known as “text message”

<sup>31</sup> Google Sheets is a free online spreadsheet app that allows the creation, formatting, and sharing of spreadsheets with other people. The app can be accessed at <https://www.google.com/sheets/about/>.

Figure 6. *Instructions in Reporting Stockout through SMS*

Step 1: CAs get stock level info from SDPs\*

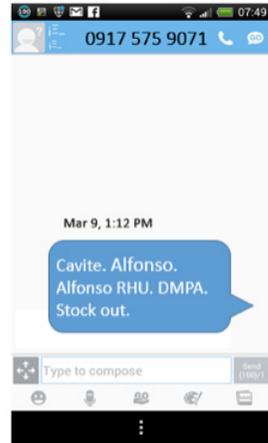


\* Stock level information can be obtained by CAs during routine visits or from calls or emails to partners in the field

Step 2: CAs to Send following SMS\*\* to 0917 575 9071:

Province.  
Municipality/  
City. RHU name.  
Commodity  
type. Stock out.

\*\* You may also send through Viber



Source: Instructions in using SMS and Google Sheets Tools (UPecon-Health Policy Development Program, March 2015)

Stockout reports were relayed to the DOH within 24 hours from receipt. Reports on stockout may also come from calls, emails, or any similar communication from partners in the field or health facilities. A weekly follow-up was made by the HPDP to determine the status of actions taken to address reported stockout.

Monitoring of stock levels, particularly to proactively respond to those nearing stockout, was done through the cloud-based Google Sheets. The Google Sheets automatically compared these stock levels with the required buffer level per commodity item and indicated which commodities were stocked out, below the required buffer, or more than the required buffer as seen in Figure 7. For commodities that have stock levels below the required buffer, the HPDP alerted the LMD and the FP Program Manager for possible stockout. For commodities that had stock levels greater than the required buffer, the HPDP analyzed monthly or quarterly monitoring reports to verify if the situation repeatedly persists. The quantities of the succeeding allocation for the facility may then be adjusted. As mentioned above, those experiencing stockout were immediately relayed to the DOH so that stocks can be sent to the facility as soon as possible.

Figure 7. Sample Summary Inventory Spreadsheet using Google Sheets

REGION	PROVINCE	MUNICIPALITY/CITY	FACILITY NAME	COMMODITY	ALLOCATION	AMOUNT LAST RECEIVED FROM DOH CENTRAL	DELIVERY DATE	STOCK DIFFERENCE (ALLOCATION - AMOUNT LAST RECEIVED)	REMAINING STOCKS TO DATE	DATE OF ENCODING	STATUS	ACTION TAKEN
REG ON NYA (CALABARZON)	CAVITE	BACODOR CITY	BACODOR	DMPA vials (with syringe) (in vial)	572	572	12/8/2014	0	0	3/20/2015	Stock out	
REG ON NYA (CALABARZON)	CAVITE	BACODOR CITY	CTY/Bacod RHU 1	RUD (in pack)	100	100	12/8/2014	0	56	3/20/2015	Greater than buffer	
REG ON NYA (CALABARZON)	CAVITE	BACODOR CITY	BACODOR	CC (e.g. Micrognomon, Althea, Famila, etc.) (in cycles)	5238	5238	12/8/2014	0	3000	3/20/2015	Greater than buffer	
REG ON NYA (CALABARZON)	CAVITE	BACODOR CITY	CTY/Bacod RHU 2	POP (e.g. Eoluton, etc.) (in cycles)	705	705	12/8/2014	0	0	3/20/2015	Stock out	
REG ON NYA (CALABARZON)	CAVITE	BACODOR CITY	BACODOR	DMPA vials (with syringe) (in vial)	1253	1253	12/8/2014	0	56	3/20/2015	Less than buffer	
REG ON NYA (CALABARZON)	CAVITE	BACODOR CITY	BACODOR	RUD (in pack)	218	218	12/8/2014	0	100	3/20/2015	Greater than buffer	
REG ON NYA (CALABARZON)	CAVITE	ALFONSO	ALFONSO/Alfonso RHU	CC (e.g. Micrognomon, Althea, Famila, etc.) (in cycles)	1707	1300	12/10/2014	207	3000	3/23/2015	Greater than buffer	
REG ON NYA (CALABARZON)	CAVITE	ALFONSO	ALFONSO/Alfonso RHU	POP (e.g. Eoluton, etc.) (in cycles)	231	231	12/10/2014	0	0	3/23/2015	Stock out	
REG ON NYA (CALABARZON)	CAVITE	ALFONSO	ALFONSO/Alfonso RHU	DMPA vials (with syringe) (in vial)	400	400	12/10/2014	0	15	3/23/2015	Less than buffer	

Source: Instructions in using SMS and Google Sheets Tools (UPEcon-Health Policy Development Program, March 2015)

Without consumption data being collected at the time, it was not possible to determine stock status so stock levels were mentioned instead. There was no inventory policy indicating maximum and minimum inventory levels as well.

Moreover, stock levels at the facility level were monitored regardless of the source of commodities. This was done to ensure that the overall stock situation at the facility level was considered, not just the stocks coming from the DOH Central Office. This was particularly relevant to the LGUs that regularly procure commodities for their respective RHUs and CHOs. In addition, some PHOs and ROs were also procuring commodities for augmentation of stocks from the DOH Central Office.

A weekly summary report containing these updates was prepared and submitted to the DOH FHO and LMD. To facilitate the relay of updates, a Facebook group<sup>32</sup> accessible to the USAID CAs and DOH was also created in March 2015 to serve as a social media platform where updates, announcements, and relevant files are shared.

To fully implement this initiative, the USAID Manila Office of Health Chief Karen Klimowski officially communicated to the Chiefs of Party of LuzonHealth,

<sup>32</sup> The FP and TB Commodity Monitoring Facebook Page is accessible through this URL: <https://www.facebook.com/groups/commoditymonitoring/>

VisayasHealth, MindanaoHealth, and IMPACT to collect information at the facility level for FP and TB during routine visits to facilities (Klimowski, 2015). Based on agreements with the DOH during the TWG on Supply Chain Management Organizational Meeting on March 12, 2015 (Millar A. O., March 2015), the HPDP shall relay the information immediately to the DOH through the LMD and concerned program managers for appropriate action. This was expected to trigger coordination between the the DOH Program Manager and concerned DOH Regional Program Coordinators to authorize the delivery of additional stocks. The Logistics Management Division (LMD) also agreed to send additional stocks through the DOH logistics service provider ahead of the regular, quarterly schedule of deliveries, subject to the preparation of allocation list by the program offices.

**Results.** Orientation on SMS and Google Sheets were conducted by the HPDP with the different CA staff from March to April 2015. These systems were implemented in USAID project sites for three quarters. During these quarters, areas experiencing stockout of FP commodities were prioritized by the DOH for delivery<sup>33</sup>. The DOH used these reports by citing findings on stockout (Del Mundo, April 23, 2015) and erroneous deliveries (Del Mundo, April 24, 2015) in its regular communication to the logistics service provider.

By the last quarter of 2015, the DOH created the DOH FP Logistics Hotline (Department of Health, November 2015) for the monitoring and reporting of stock status of the RHUs and CHOs, as well as coordinating with the different DOH units for immediate action. Although the Hotline is focused on FP, it also accepts reports on other programs and forwards such reports to the concerned program managers.

**Key lessons.** While the SMS and Google Sheets tools were useful in relaying information on areas experiencing stockout or nearing stockout, the following lessons were gathered that may be useful for possible scale-up:

- **The covered areas only included USAID project sites because monitoring activities were done during routine visits of project staff.** This limited the information that can be extracted from the use of the tools.
- **As these activities were done during routine visits only, no extra effort was exerted for this endeavor.** If there were no routine visits, no data were collected and no report was sent regardless of stockout situation in the area, except when LGU partners alert project staff on stockout in their respective areas.

<sup>33</sup> Incidentally, almost all reports from the CAs were on family planning, i.e., from LuzonHealth, VisayasHealth, and MindanaoHealth.

- **The opportunistic way of reporting was heavily dependent on the commitment and effort of the project staff of USAID projects, i.e., LuzonHealth, VisayasHealth, MindanaoHealth, and IMPACT.** As this was not part of the projects' contracts with the USAID, it was not possible to impose additional monitoring activities. Hence, the frequency and quality of reports varied. As noted earlier, almost all reports were on FP by LuzonHealth, VisayasHealth, and MindanaoHealth.
- **There were technical limitations associated with the use of SMS and Google Sheets.** The cost of sending SMS reports, including calls if necessary, was shouldered by the sender. This may be a limitation for those on prepaid subscription who may not have available credits. For Google Sheets, as this is built on Microsoft Excel platform, the file size became larger as additional reports were encoded. As the file size grew, basic operations slowed down, e.g., loading time and saving. There is a need for more sophisticated solutions to address the same concerns at scale.
- **Reporting can be sustained through the continuous use of data.** Health workers will continue to use the system or any similar system if the stock status or stockout is immediately adjusted or addressed.



## 6.0

# Support for the Creation and Operationalization of the FP Logistics Hotline

**Situation.** Numerous and alarming reports on stockout, nearing stockout, and oversupply of FP commodities were being brought to the attention of the DOH Central Office, primarily from data collected by the UPEcon-Health Policy Development Program from USAID project sites. To address these issues, the DOH prioritized delivery of FP commodities to areas experiencing stockout. Information from these project sites provided the DOH an indication that if the allocation would continue in its present form, the same areas would always encounter stockout before the next delivery. Therefore, there was a need to broaden the scope of data collection to determine if there were more areas experiencing stockout and oversupply, and correspondingly address these problems.

In view of this, the DOH decided to implement a nationwide FP inventory data collection, initially done at USAID project sites through the creation of the Family Planning Logistics Hotline. During the May 15, 2015 meeting of the Responsible Parenthood and Reproductive Health – National Implementation Team (RPRH-NIT), the NIT agreed to create a Technical Working Group composed of the Knowledge Management and Information Technology Service (KMITS), the Women and Men's Health Development Division of the FHO, Procurement Service, PopCom, and the Union of Local Authorities of the Philippines (ULAP), with technical support from the USAID and UNFPA (Department of Health, May 2015). It was also agreed that the Family Planning Logistics Hotline shall be created under PopCom<sup>34</sup> to facilitate reporting of stockout in service delivery points.

**Nature of assistance.** Starting May 2015, the HPDP provided technical assistance to the DOH in the organization and operationalization of the DOH FP Logistics Hotline, initially through a pilot implementation in Luzon. The HPDP provided technical assistance in terms of helping specify the functions, work flow, protocols, forms, and procedures in handling calls. The technical assistance included specifying protocols for receiving and recording reports and complaints from the RHUs and CHOs including on the following:

- a. Consumption data (inventory and order form);
- b. Receipt of delivery;
- c. Stockout;
- d. Oversupply or suspension of delivery;
- e. Delivery to wrong address;

<sup>34</sup> The Commission on Population (PopCom) is an attached agency of the Department of Health (GOVPH, 2003).

- f. Mismatch between delivery receipt and actual contents delivered;
- g. Complaints due to side effects;
- h. Expired or soon-to-expire commodities;<sup>35</sup> and
- i. Other complaints.

The HPDP also conducted a series of orientation and periodic mentoring for Hotline staff. The Hotline was being managed by the PopCom, and was also regularly reporting to the FP Program Manager for matters related to allocation and procurement, and to the LMD for delivery issues.

In November 2015, the DOH issued Department Memorandum 2015-0384 officially creating the DOH FP Logistics Hotline (Department of Health, November 2015). The goal was to provide a method to quickly address inventory problems at health facilities. The creation of the Hotline institutionalized and expanded the stockout monitoring done through SMS and Google Sheets initially implemented in USAID project sites. It collected not only stockout data but also FP consumption data. Specifically, the FP Logistics Hotline performed reactive and proactive functions, such as:

- a. Receiving stockout reports, including complaints and other related information;
- b. Conducting spot checks through phone calls to validate receipt of deliveries;
- c. Receiving, consolidating, and collecting consumption reports, as well as providing feedback on previous complaints and reports; and
- d. Referring the reports to appropriate offices for immediate action.

The FP Logistics Hotline consists of four full-time staff located at the PopCom Central Office as seen in Figure 8. In 2017, the PopCom organized counterpart Logistics Hotline units at the different PopCom Regional Offices. The regional counterparts facilitate the validation of stock status and faster checking of existing stocks at the DOH Regional Offices and PHOs, primarily to augment shortages.

**Results.** In 2016, the Hotline was instrumental in ensuring the continuous collection and use of FP consumption data for the generation of succeeding allocation list for the RHUs and CHOs in Luzon, and those in Visayas and Mindanao that were able to submit consumption data. For these areas, the use of such data resulted in providing allocation based on actual consumption. Operationally, this means that starting June 2016, the RHUs and CHOs experiencing oversupply were not receiving additional deliveries or were receiving just enough stocks to bring their stock status to around six months of stock. The current quantity was enough for the next four months, with buffer stock good for two months of as deliveries were done every four months. The RHUs and CHOs that requested suspension of deliveries were not given any additional

<sup>35</sup> Commodities that will expire within six months.

Figure 8. *FP Logistics Hotline Flyer (left) and Staff Members (right)*



Source: NOSIRS Assessment, Demand-Driven Logistics, and Logistics Hotline (Millar A. O., April 2015)

commodities for the delivery period. On the other hand, those regularly experiencing stockout or shortage were allocated additional stocks to ensure that they have enough stocks before the next delivery arrives.

In addition, the Hotline was also able to collect logistics-related information through its spot checks to randomly selected RHUs and CHOs, such as information on the latest delivery received (items, quantity, and date); whether the facility was experiencing stockout, nearing stockout, oversupply, or had expired commodities; sources of stocks other than the DOH Central Office; and remaining months of stock, especially for those experiencing oversupply as seen in Table 3.

Upon validation of delivery reports, there were a number of reports from the RHUs indicating that they did not receive the deliveries as reported to the DOH by the logistics service provider (FP Logistics Hotline, August 2016). The Hotline reports revealed that there were signatures with no names of recipients, indicating that the deliveries may have been received but could not be validated. In the August 1, 2016 report, for example, there were 13 RHUs and CHOs with reports that they did not receive any delivery as stated in the logistics service provider's report. Note that these 13 instances were different from the RHUs and CHOs who reported the same complaints in the June 2016 Hotline report. The Hotline brought this matter to the attention of

**Table 3.**  
*Sample Hotline Report on Stockout and Oversupply (August 1, 2016)*

Source:  
FP Logistics Hotline Report (FP Logistics Hotline, August 2016)

Location	Total No. of RHUs contacted	No. of RHUs with stockout by commodity					No. of RHUs with oversupply by commodity				
		COC	POP	DMPA	IUD	Condom	COC	POP	DMPA	IUD	Condom
NCR	14	0	1	1	0	0	2	0	0	1	0
Luzon	481	44	46	31	1	5	70	17	33	35	30
Visayas	255	4	15	10	1	2	52	16	16	18	13
Mindanao	258	3	11	3	1	7	80	20	40	15	15
<b>Grand Total</b>	<b>1,008</b>	<b>51</b>	<b>73</b>	<b>45</b>	<b>3</b>	<b>14</b>	<b>204</b>	<b>53</b>	<b>89</b>	<b>69</b>	<b>58</b>

Note: Some RHUs report oversupply for more than one commodity type; COC = Combined Oral Contraceptive; POP = Progestin Only Pill; DMPA = depot medroxyprogesterone acetate; and IUD = intrauterine device

the LMD which, in turn, asked the service provider to produce evidence with names of recipients to prove that the deliveries were indeed received by the recipient RHUs and CHOs.

**Key lessons.** The FP Logistics Hotline provided the DOH an intervention for proactive search of areas with stockout and oversupply. The Hotline helped address stockouts through spot checks and by referring reported incidences of stockouts for immediate action. . It also helped prevent stockout by getting reports of health facilities nearing stockout. It was also able to collect areas with expired commodities which was an indication for the DOH to postpone delivery of such commodities to avoid further wastage. Similarly, it facilitated prevention of expiration as it collected information on health facilities experiencing oversupply.

Direct delivery to the recipient RHUs and CHOs, as well as direct submission of reports, needed to be matched with the dissemination of information to the PHOs and ROs regarding allocation and delivery schedules. The Hotline was deliberately designed not to replace but to supplement existing functional reporting structures and processes among the DOH Central Office, ROs, PHOs, RHUs, and CHOs. The Hotline made it possible to shorten the process by extracting data directly from the RHUs and CHOs.

Based on several consultations, the PHOs and ROs did not have any objection against the direct submission or extraction of reports from the RHUs and CHOs to the DOH Central Office through the Hotline as long as they are informed as to the allocation and delivery schedules. To address concerns that existing structures and reportorial processes were being bypassed, the Hotline needs to continuously communicate with the ROs and PHOs, and provide the necessary information provided by and to the RHUs and CHOs.

Other than the possibility of augmenting fast-moving commodities, the PHOs and ROs can facilitate adjustments, such as the transfer of commodities from health facilities with oversupply to those experiencing shortage. Moreover, the DOH Central Office allocates five percent of the total requirements of poor clients of the FP program to the ROs as buffer and allocation for hospitals and civil society organizations. Hence, knowing where the rest of the commodities are going and when stocks are going to be delivered are valuable pieces of information that can be used to properly augment allocation in certain areas.

In terms of data processing, the data in the consumption reports submitted by the RHUs and CHOs cannot be used as is and need to be processed before the data can be more useful to the preparation of allocation list. With time lags between key milestones such as the submission of consumption data, preparation of allocation list, and the delivery of commodities, data processing is not a straightforward process because it needs to adjust to such time lags. The orders and consumption data indicated in the consumption reports need to be adjusted in consideration of the time to be spent for preparing the allocation list, repacking, and actual delivery.

For example, for the preparation of the second trimester allocation list in June 2016, the latest available consumption data was for the period January to March 2016. If this report was submitted on the first week of June, the ending balance as of March 31 would have already changed. In addition, the order may already be insufficient because, by this time, the RHU and CHO had already consumed two more months of stocks for April and May. Another complication was that a number of deliveries were delayed and, by end of May, some RHUs and CHOs were just receiving their first trimester deliveries. The HPDP provided technical assistance in data processing to the Hotline, and this needs to be done continuously to ensure that the collected data are adjusted appropriately.

Finally, calls and messages sent through SMS to the Hotline were not toll-free. The RHUs and CHOs, including the health workers if personal phones are used, shouldered the cost of calls and messages (Eberle & Millar, 2017). For SMS reporting, collaboration with telephone companies may be explored, particularly in getting a dedicated and shorter number accessible through messages and calls similar to the President's 8888 Hotline (GOVPH, 2016). Calls and SMS to the Hotline should be sent at no cost to the caller or sender.



# 7.0 Support for Commodity Monitoring using Social Media

**Situation.** When the FP Logistics Hotline was created, it needed a platform through which stakeholders at the DOH Central Office, ROs, Hotline staff, PHOs, and health workers at the SDPs can interact in real time in addition to phone calls. The Hotline also needed a means to share allocation lists, delivery schedules, and updates to everyone other than through email exchanges. Phone calls were effective insofar as one-on-one communication was concerned. However, it did not have a facility to do a broadcast message to all recipients. While this can be done through email, it is not easy to go through previous communication, especially if one receives many emails in a day. At the same time, while not all health workers have stable internet connection through computer terminals at work or at home, it was observed that most of them use Facebook through their mobile phones.

**Nature of assistance.** The FP and TB Commodity Monitoring Facebook Page was created in March 2015 to post and share the latest updates on the data generated through the SMS and Google Sheets initiative in USAID project sites (FP Logistics

Figure 9. Sample Delivery Updates on the FP and TB Commodity Monitoring Facebook Page

REGION	TOTAL NUMBER OF FBPs	TOTAL NUMBER OF FBPs THAT HAVE RECEIVED THE DELIVERIES	TOTAL NUMBER OF FBPs WITH COMPLETED RECIPIENT'S NAME AND RECEIVED DATE	REMARKS
		NO. OF FBPs	NO. OF FBPs	
1	15	100.00%		CLOSED
2	91	85.28%		ON GOING
3	100	94.48%		ON GOING
4	104	83.42%		ON GOING
5	124	100.00%		ON GOING
6	124	100.00%		ON GOING
7	124	100.00%		ON GOING
8	124	100.00%		ON GOING
9	124	100.00%		ON GOING
10	124	100.00%		ON GOING
11	124	100.00%		ON GOING
12	124	100.00%		ON GOING
13	124	100.00%		ON GOING
14	124	100.00%		ON GOING
15	124	100.00%		ON GOING
16	124	100.00%		ON GOING
17	124	100.00%		ON GOING
18	124	100.00%		ON GOING
19	124	100.00%		ON GOING
20	124	100.00%		ON GOING

Source: Delivery updates from FP and TB Commodity Monitoring (FP Logistics Hotline, March 10, 2017)

Hotline, March 10, 2017). Thus, the HPDP decided to continue using social media and revitalize the FP and TB Commodity Monitoring Facebook Page. As indicated in the page description, the “Facebook group page provides the latest updates on procurement, allocation, and delivery of FP and TB commodities” (FP Logistics Hotline, March 2017).

**Results.** As the Facebook page became the social media platform of the FP Logistics Hotline, and as the Hotline regularly posted updates, allocation lists, and delivery schedules, its membership grew from almost a hundred members in 2015 to 616 members as of May 2017.

Initially, the HPDP’s lead consultant for supply chain management acted as the administrator of the Facebook page. Given the increasing membership and updates to be posted as of the second quarter of 2016, the lead staff of the FP Logistics Hotline was made co-administrator of the Facebook page. Consequently, mentoring sessions were done with the lead staff of the FP Logistics Hotline with respect to the content, length, and frequency of posts and updates, as well as how to handle queries through replies to posts reinforced by email and SMS. At present, the FP and TB Commodity Monitoring Facebook page is completely under the management of the FP Logistics Hotline.

The limitation of the Logistics Hotline being focused on FP was also partly addressed when the Hotline used the Facebook page as its social media platform. Reports on TB stock status are now being posted on the Facebook page in addition to FP reports. Such reports were usually referred to the staff of the National Tuberculosis Program (NTP) for immediate action.

While membership started with USAID project staff, the members now include staff from the RHUs and CHOs, PHOs, ROs, and the DOH Central Office. Thus, as soon as reports were posted, these were immediately referred to the appropriate person through Facebook “tagging.” For example, if an action is required from the FHO, the Hotline “tags” the Facebook account name of the FP Program Manager so that he receives a Facebook alert on his mobile phone. The Hotline also sends an email to the same person containing the summary of the concern posted on the Facebook Page and the link to the post. The same message is sent through SMS to the same person by the Hotline, and follow-up messages are sent until a response is received. The corresponding response or action taken is usually posted as a reply to the post by the concerned person or by the Hotline.

**Key lessons.** The FP and TB Commodity Monitoring through Facebook helped increase the frequency of reporting because of its accessibility to staff members at the RHUs and CHOs. Members could easily upload reports and photos of their monitoring visits. Similarly, they could easily access files being shared by the DOH and the FP

Logistics Hotline, e.g., allocation lists, delivery schedules, and new policies. The FP Logistics Hotline was also able to disseminate reporting forms easily by uploading such files in the appropriate section of the Facebook page.

Interaction in real time was also fostered among staff of the DOH Central Office, ROs, PHOs, RHUs, and CHOs. Health workers were able to ask for updates on the delivery of stocks to their respective health facilities. This provided a signal to the FP Logistics Hotline and the DOH that possible delays were happening, and prompted the Hotline to immediately validate the status of ongoing delivery.



## 8.0

# Support for the Demonstration Project on Demand-driven Logistics

**Situation.** Stockout and oversupply happened partly because the DOH was using estimates of actual requirements of the SDPs, and was not adjusting its allocation within the year. Quantification and allocation of FP commodities were based on estimated need of current users and new acceptors, which were in turn based on proportions from the National Demographic Health Survey (NDHS). The estimates were applied to entities like municipalities and cities. The DOH Central Office delivered the FP commodities through its forwarder<sup>36</sup> to the SDPs at the LGUs twice a year,<sup>37</sup> with no adjustment related to consumption levels in previous months. These SDPs received quantities of FP commodities which had nothing to do with actual consumption, i.e., the deliveries may either be less or more than what they actually need. If the deliveries were less than actual requirements, the SDPs experienced stockout even before the next batch of deliveries. If the deliveries were more than the actual requirement, inventories piled up because the DOH delivered the same quantities in the succeeding delivery batches.

These practices persisted because of the inability to collect consumption data from the SDPs and use it for adjusting allocation within the year, annual forecasting of requirements, and for procuring commodities. If these challenges were not addressed, shortages would have resulted in inadequate access to FP commodities and services, especially by poor women, that may further contribute to additional unintended pregnancies. Continuous oversupply, on the other hand, would have led to wastage of commodities and budget that could otherwise be used to procure and distribute needed commodities.

Other specific issues related to the project site include:

- **Existing staff members were generally inadequate in most, if not all, RHUs and CHOs.** The Public Health Nurses (PHNs) and midwives were usually supported by the NDP<sup>38</sup> nurses deployed by the DOH at the Barangay Health Stations (BHSs). Most of the RHUs and CHOs did not have dedicated

<sup>36</sup> The demonstration project focused on potential interventions covering allocation and recording of actual consumption, and using consumption data in determining succeeding allocation. Shortage due to delays in delivery was also a critical factor in the supply chain of public health commodities. However, addressing delivery delays was not covered by the demonstration project. Monitoring delivery delays and doing spot checks with the recipient RHUs and CHOs were part of the HPDP's support for the DOH FP Logistics Hotline, also being supervised by the author in his capacity as an HPDP Consultant.

<sup>37</sup> Due to delays in the distribution of commodities to service delivery points, deliveries were still being done twice a year even if the DOH intended to deliver three times a year. For example, as of December 2016, most service delivery points have not received the third tranche of FP commodities.

<sup>38</sup> The Nurse Deployment Program (NDP) is one of the deployment programs being implemented by the DOH through its ROs. The NDP assigns nurses to the RHUs and BHSs to assist in the delivery of health services including maternal and child health programs, disease surveillance, health education and training, monitoring of health programs, and the preparation of reports.

encoders for the preparation of FP reports. For most RHUs and CHOs, it was the same person providing the service at the RHU or BHS who was also expected to keep track of inventories and encode data.

- **No standard tool or system for inventory management in all Cavite RHUs and CHOs.** Day-to-day management of inventory of FP commodities was being done mostly through various manual systems, e.g., logbooks and other pen-and-paper systems. Most RHUs and CHOs were trained in the use of Supply Management and Recording System (SMRS) and the National Online Stock Inventory Reporting System (NOSIRS). However, only three of the 36 RHUs and CHOs were using SMRS. Similarly, only one CHO admitted to using the NOSIRS, but only for encoding and storing data.
- **Difficulties in using electronic systems posed constraints on inventory management.** Consultation with key RHU and CHO staff members revealed that they found the SMRS and NOSIRS complicated and challenging to use.
- **Inventory management was not done regularly at the RHUs, CHOs, and BHSs.** Information on dispensed commodities were not linked to the inventory records at the RHU and CHO, and issuance by the RHUs and CHOs to the midwives at the BHS was not based on actual consumption. The records at the BHSs were not regularly collected, if at all, to be used as basis for succeeding issuance. Some RHUs and CHOs had some form of inventory data, e.g., through logbooks and stock cards at the RHU, but did not have inventory and dispensed data from the BHSs.
- **Issuance usually done every month, but also once every quarter and as the need arises.** Most RHUs and CHOs issue FP commodities to the BHSs on a monthly basis. However, replenishment became more frequent when midwives ran out of stock within the month. In these cases, midwives at the BHSs would request for additional issuance of commodities. Some RHUs and CHOs issued commodities to the midwives at the BHSs as commodities arrive at the RHUs and CHOs, e.g., once every quarter in view of very limited storage space at the RHUs and CHOs.
- **Out-of-pocket purchase by clients due to stockout and preference for other brands.** All RHUs and CHOs in Cavite had clients who buy FP commodities, e.g., pills from pharmacies and cooperatives. Clients would usually buy from pharmacies when there were no stocks at the RHU and CHO. Some clients used their own money to buy commodities because the available brands at the RHU or BHS were reportedly causing headache, dizziness, and other side effects.

- **Without adjustment of allocation based on actual consumption, fast-moving commodities experienced stockout while slow-moving commodities led to oversupply and expiration.** Because there were no adjustments in allocation based on stock status at service delivery points, the RHUs and CHOs received the same type and quantities of drugs every delivery<sup>39</sup>. Fast-moving drugs tended to run out even before the next delivery. Slow-moving drugs piled up in the inventories of the RHUs and expired.
- **Majority of the LGUs do not procure FP commodities.** Stocks coming from the DOH were sometimes augmented by the LGU procurement in a few RHUs and CHOs, as in the case of Imus City I, II and III; Indang; Carmona; Tanza; Rosario; Bacoor City; and Dasmariñas City. However, majority of the LGUs relied on the DOH as the sole source of FP commodities.

**Nature of assistance.** The DOH Regional Office IV-A (CALABARZON), with support from the UPecon-HPDP and in collaboration with the PHO of Cavite, implemented a demonstration project on a possible approach in collecting and using consumption data. The project aimed to prevent stockout and oversupply of commodities by bridging the information gap through the collection of consumption data from service delivery points, and using such data to adjust succeeding allocation of FP commodities. The project covered all 36 RHUs and CHOs in Cavite from October 2015 to September 2016.

The demonstration project's approach focused on the use of a one-page form for collecting basic information on inventory management from the SDPs (Appendix D). The data were processed by the FP Logistics Hotline and forwarded to the Family Health Office.

<sup>39</sup> In the case of Noveleta and Rosario RHUs, it had more than one-year supply of Combined Oral Contraceptives (COCs) as of December 2015. In addition, even before the expected delivery for the second half of 2015 arrived, GMA II RHU reported to have more than 10-month supply of COCs. Noveleta RHU and Imus CHO II admitted to have experienced expiration of FP commodities, i.e., COCs and IUDs. Tanza RHU also reported expiration in February 2015 of Trust pills given by the PHO around two years ago.

Specifically, the demonstration project's approach involved the following steps:

- a. Develop and revise the protocol and forms based on the consultation and lessons from implementing the demonstration project;
- b. Extract information from existing inventory systems, e.g., SMRS, logbooks using a one-page Inventory and Order Form;<sup>40</sup>
- c. Train RO, PHO, RHU, CHO, and FP Logistics Hotline staff to extract, record, consolidate, and process data;
- d. Conduct coaching and follow-up visits to all RHUs and CHOs;
- e. Tap health personnel (e.g., NDPs, PHAs) deployed by the DOH at the SDPs to assist FP Coordinators;
- f. Mobilize Development Management Officers (DMOs)<sup>41</sup> to collect and follow-up consumption data;
- g. Provide consumption reports to the Central Office through the DOH RO, to be used for succeeding allocation and delivery; and
- h. Assess for readiness to scale up to other programs or to other areas.

**Results.** The demonstration project was able to attain all the expected results, such as:

- a. All Cavite RHUs and CHOs are using the FP Inventory and Order Form;
- b. Consumption data from all RHUs and CHOs in Cavite are collected using the form;
- c. The consumption data collected are used to adjust succeeding allocation; and
- d. Allocation of FP commodities for all 36 Cavite RHUs and CHOs is based on actual consumption by September 2016.

As early as June 2016, the DOH Central Office scaled up the use of a slightly modified Inventory and Order Form nationwide by issuing a memorandum called “Submission of Accomplished Family Planning Commodity Inventory and Consumption Form” to all DOH Regional Offices on June 27, 2016 (Department of Health, June 2016). This, in effect, rolled out the collection of FP consumption data to all RHUs and CHOs nationwide.

Prior to the issuance of the memorandum from the DOH Central Office, key policies from RO IV-A (CALABARZON) and Cavite PHO were issued to rollout the initiative to the rest of the province. Dr. Rio Magpantay, Regional Director of RO IV-A, issued a memorandum dated March 16, 2016 expressing support for the demonstration

<sup>40</sup> The one-page form does not intend to replace existing systems but just extracts data from existing systems. At the end of the form is the order per RHU or CHO for the next cycle that takes into consideration projected requirements for its current users and new acceptors, less remaining stocks on hand.

<sup>41</sup> The Development Management Officers (DMOs) are DOH RO staff usually based at the PHO or within the vicinity of the provincial capital. As part of the DOH RO, they comprise the unit called the Provincial DOH Office (PDOHO). DOH ROs have one PDOHO for each province. Each DMO is assigned to a number of municipalities or cities within the province, typically at least four municipalities per DMO.

project. He also instructed all DMOs (Development Management Officers, formerly DOH Representatives) in the Cavite Provincial DOH Office (PDOHO) to assist in the collection of consumption data from their respective covered municipalities or cities, and also in the accomplishment of the forms by the RHUs and CHOs (Department of Health-CALABARZON, 2016). On the other hand, Dr. George Repique, Jr., Cavite Provincial Health Officer, issued an advisory in March 2016 to all midwives and FP Coordinators in municipalities and cities in Cavite to regularly collect, record, and submit FP consumption data to the PHO every quarter (Provincial Health Office of Cavite, 2016).

By August 2016, consumption data from all Cavite RHUs and CHOs were collected and forwarded to the FP Logistics Hotline.<sup>42</sup> In collaboration with the FP Logistics Hotline, consumption data from additional RHUs and CHOs in NCR, Luzon, Visayas, and Mindanao were also collected. Such consumption data were used to adjust allocation for Cavite RHUs and CHOs, as well as for Luzon RHUs and CHOs.

Lastly, allocation list beginning August 2016 has been prepared based on actual consumption of all 36 Cavite RHUs and CHOs, including those RHUs and CHOs in Luzon that have submitted consumption data through the FP Logistics Hotline. In short, in addition to attaining expected results earlier, i.e., by August instead of September 2016, consumption data were also collected from other RHUs and CHOs in NCR, Luzon, Visayas, and Mindanao. Adjustments to allocation lists were also done for other RHUs and CHOs in Luzon, in addition to those in Cavite.

These results were attained earlier with additional areas because of specific strategies such as:

- a. Field visits for monitoring and mentoring to all the RHUs and CHOs in Cavite;
- b. Constant feedback to PHO and RO partners;
- c. Documentation, advisories, and issuances from the RO and PHO; and
- d. Links with Support to the DOH Logistics Hotline and Supply Chain Management Unit.

**Key lessons.** There were several lessons from the demonstration project that can be used to sustain gains and scale up implementation of FP and other programs. Among these are as follows:

- **The DOH needs to continuously assess deployment of HRH for inventory management.** The RHUs and CHOs with dedicated staff members who prepare reports and keep track of inventories were able to submit regularly and earlier than those without dedicated staff members. The deployment of

<sup>42</sup> The FP Logistics Hotline consolidates and processes all consumption data, and submits recommendations to the DOH Family Health Office in terms of allocation for the succeeding cycle based on consumption reports.

PHAs to the LGUs, along with other deployed health professionals, is seen as a “temporary” measure to address the backlog in human resources for health (HRH) at the LGU level. This should be subjected to careful assessment and discussion because, while the LGUs are supposed to put up counterparts including local staff, these are often grossly inadequate. The DOH may want to look into implementing the NDP and PHA as “permanent” deployment programs, and also into the possibility of increasing PHA deployment. If and when the deployment program is downsized or terminated, it is doubtful if the LGUs can address the staff backlog. If that happens, the country will be left with thousands of nurses and health staff unemployed, and the health sector is left with gaps in service delivery and health systems reporting.

- **Data processing is critical and requires a lot of judgment calls, especially when data is incomplete.** Based on the experience of the demonstration project, it is best that the RHUs and CHOs be required to submit data using simple and easy-to-accomplish forms. With time lags between key milestones such as the submission of consumption data, preparation of allocation list, and delivery of commodities, data processing is not a straightforward process because it needs to adjust to such time lags. For example, for the preparation of the second trimester allocation list in June 2016, the latest available consumption data were for the period January to March 2016. If this report was submitted as is on the first week of June 2016, the ending balance as of March 31 would have already changed. In addition, the order may already be insufficient because, by this time as the RHU or CHO has already consumed two more months of stock for April and May. Data processing needs to be done centrally, i.e., through the FHO with support from the FP Logistics Hotline. In addition, some form of staff augmentation may be necessary for the FP Logistics Hotline.
- **Rejection of deliveries as an immediate feedback from recipients requires adjustment, demand generation, and data cleaning.** In collaboration with the different RHUs and CHOs in Cavite<sup>43</sup>, FP Coordinators were advised that for RHUs and CHOs encountering oversupply, including those who requested for postponement of deliveries, the RHUs and CHOs may reject delivery of all or specific commodities if the RHU or CHO has more than six months of stock.<sup>44</sup> As an immediate implication to program implementation, the DOH

<sup>43</sup> A similar advice was also given to the RHUs and CHOs in other parts of the country by the FP Logistics Hotline, at least for those that were reached through incoming and outgoing calls.

<sup>44</sup> As the DOH is scheduled to make three deliveries in a year, six months of stock is more than enough to cover the current round. The RHUs and CHOs, including their BHSs, are expected to consume four months of stock, which will leave them with a buffer stock for more or less two months before the next delivery arrives. A delivery contains four months of stock of a particular FP commodity, plus two months buffer stock.

should determine proper inventory level through an inventory policy, especially for the RHUs and CHOs that rejected deliveries. Reduction of allocation needs to be undertaken for the next cycle. In case the requirements for total current users indicated in the FHSIS or any other record indicate a large discrepancy with the actual consumption, i.e., significantly low consumption than registered current users, the DOH should interpret this as an issue of inadequate demand generation or bloated number of current users. The former requires collaboration with local partners such as the LGU concerned (e.g., province, city, and municipality) for intensified demand generation campaigns. The latter requires data cleaning to ensure purging of the roster for users who have shifted, dropped, moved residence, and died, among others.

- **Nationwide rollout of the FP Commodity Inventory and Order Form requires orientation and supervision of users.** Users need to be oriented on the use of the form, in addition to providing written instructions. If orientation of LGU users is not possible at the time, the DMOs of the different ROs should orient and supervise the staff in their respective areas of assignments. To do this, the FHO should conduct an orientation with the ROs, particularly the DMOs.



## 9.0

# Support for the Creation of the Supply Chain Management Unit

**Situation.** The current management of supply chain of public health commodities was too fragmented. No single person or unit was coordinating the entire supply chain of the DOH. Different programs conduct forecasting commodity requirements for planning and procurement, and prepare the procurement requests. The Bids and Awards Committee (BAC) conducts the procurement based on individual procurement requests. Moreover, the Logistics Management Division (LMD) handles warehousing and distribution through the logistics service provider. The LMD has limited communication with programs and regional offices. All these functions were also being executed without a functional information system.

Furthermore, forecasting, allocation, and distribution were done in the absence of information on consumption and stock levels at service delivery points. Central procurement faced challenges regarding delays indicated by turn-around time that could go as long as 300 days (San Juan, 2014). There was inadequacy of supply chain management protocols especially for dissemination of allocation lists and delivery schedules, and in evaluating the logistics service provider performance to prevent delivery delays.

Program offices were preparing allocation lists for delivery to different destinations, e.g., the ROs, PHOs, RHUs, and CHOs at varying frequencies (i.e., quarterly, semi-annually, or as the need arises). This practice was costly for the DOH as deliveries were initiated by different programs repeatedly for the same destination. In addition, while delivery lead times were specified in the logistics service provider contracts, other processes being done in-house by the DOH were not subject to limits or lead times. For example, the preparation of delivery documents, e.g., draft Invoice Receipts for Property (IRPs),<sup>45</sup> could range from a few days to several months, depending on the number of recipients and on the number of staff preparing the documents.

**Nature of assistance.** The HPDP conducted a review of the challenges and issued a technical advisory on the creation of a Supply Chain Management Unit (SCMU). The SCMU shall coordinate and manage the supply chain for DOH centrally-procured commodities to ensure the availability of stocks across service delivery points (UPEcon-Health Policy Development Program, June 2015). It shall be composed of an Operations Sub-Unit that shall focus on the orchestration of planning, procurement,

<sup>45</sup> The Invoice Receipt of Property (IRP) is the document that the Logistics Management Division (LMD) sends to the logistics service provider indicating which commodities or combination of commodities are to be delivered for a recipient or destination. The service provider is required to secure the signature of the recipient on the IRP upon delivery. The logistics service provider is also expected to submit the signed IRP to the LMD as proof of completed delivery, which serves as basis for payment of services.

and distribution, and of a Monitoring and Evaluation Sub-Unit that shall manage and oversee the timely collection of logistics data (Table 4). The SCMU shall be headed by an Undersecretary, e.g., Undersecretary for Administration, Finance, and Procurement, while an expert on public health supply chain management shall act as the Director or Head who shall oversee the day-to-day tasks of the SCMU.

**Table 4.**  
*Proposed Tasks of the SCMU*

Source:  
Technical Advisory on the Creation of a Supply Chain Management Unit (UPecon-Health Policy Development Program, June 2015)

Proposed task	Unit/person responsible
<b>I. Logistics Data Management</b>	<b>Monitoring and Evaluation Sub-Unit</b>
Communicating directly with facilities for receiving, reviewing, and approving reports and orders; following up on missing reports and orders; and generating feedback reports for the facilities	Project Assistants, in coordination with program managers and the ROs through the DMOs and program coordinators
Collection of consumption reports from facilities and other recipients	Project Assistants, in coordination with program managers and the ROs through the DMOs and program coordinators
Aggregating, analyzing, and interpreting logistics data to produce reports on logistics system performance, which are disseminated up and down the supply chain to all appropriate stakeholders	M&E Coordinator shall take the lead; Logistics Expert and Pharmacist to provide support
<b>II. Monitoring and Evaluation</b>	<b>Monitoring and Evaluation Sub-Unit</b>
Monitoring and preparing regular reports on the procurement, donation, deliveries, and inventories at different warehouses	Project Assistants, in coordination with program managers, the LMD, and ROs through the DMOs and program coordinators
Assessing stock status	Logistics Expert to take the lead, with support from the Pharmacist in coordination with the LMD
Coordinating and facilitating assessment of supply chain bottlenecks and providing feedback	M&E Coordinator
<b>III. System Design, Implementation, and Training</b>	<b>Operations Sub-Unit</b>
Facilitating the development, use, and periodic review and revision of supply chain standard operating procedures, manuals, and training curricula	Logistics Expert to take the lead, with support from the Pharmacist
Ensuring appropriate staff members are trained in logistics system procedures	Logistics Expert to take the lead, with support from the Pharmacist

IV. Coordination and Collaboration	Operations Sub-Unit
Convening regularly scheduled coordination meetings with stakeholders involved in the management of the DOH supply chain, including the TWG on Supply Chain Management	Operations Coordinator, with support from the Project Assistant
Coordinating with programs and relevant units for the: <ul style="list-style-type: none"> <li>• Conduct of annual quantification and quarterly quantification updates;</li> <li>• Preparation of allocation list;</li> <li>• Status of procurement, donation, deliveries, and inventories at different warehouses; and</li> <li>• Engagement of third-party logistics provider consistent with DO 2014-0184 and its regular performance evaluation</li> </ul>	Operations Coordinator, with support from the Project Assistant

Specifically, the SCMU Director shall oversee the implementation of the Unit’s work plan and the supervision of staff, including effective collection and use of SCM data, monitoring and evaluation, logistics design, as well as collaboration with programs and relevant units. The Sub-Unit Coordinators shall support the SCMU Chief in the conduct of these tasks and assume other roles and responsibilities as may be assigned.

Within a month after its organization, the SCMU shall prepare its work plan for the DOH that shall contain, among others, its proposed activities and targets to improve the planning and quantification, allocation, warehousing, distribution, tracking, and feedback of supply chain management in the short, medium, and long term.

**Results.** After almost a year since the issuance of the technical advisory, the DOH created the Supply Chain Management Unit (SCMU) through Department Personnel Order No. 2016-0789 (Department of Health, March 2016) to address the fragmentation that characterize the current supply chain of public health commodities. It seeks to become a clearing house of commodity procurement to stop separate procurement of similar health commodities; a platform for coordination and collaboration across programs and offices in the DOH; and a venue for the discussion of continuing interventions to improve public health logistics and supply chain.

The SCMU has two groups: the core operations group, and the technical working group (TWG). The core operations group consists of program managers and key staff members handling matters related to logistics. The TWG is composed of the Directors of the BLHD and the HEMB; Chief Technical Officers of the DOH ROs NCR and IV-A; Chief Pharmacist of Jose Reyes Memorial Medical Center; and supply chain

management consultants. The SCMU is chaired by the Undersecretary for Regulations and vice-chaired by the Chief of the Pharmaceutical Division (Secretariat).

It should be noted that this is a watered-down version of the SCMU indicated in the HPDP's June 25, 2015 technical advisory (UPEcon-Health Policy Development Program, June 2015). The design of the original SCMU was not an ad hoc committee among existing staff. Realizing the need for new ideas and fresh insights, the SCMU was envisioned to be composed of new staff, e.g., one Logistics Expert, three Pharmacists, four Project Assistants, and one IT staff. The main task of the SCMU in the original technical advisory was to coordinate and manage the supply chain for centrally-procured commodities of the DOH to ensure the availability of stocks across service delivery points. It shall be composed of an Operations Sub-Unit for the orchestration of planning, procurement, and distribution, and of a Monitoring and Evaluation Sub-Unit for managing and overseeing the timely collection of logistics data. The SCMU shall report to the Undersecretary for Administration, Finance, and Procurement through the Office of Administrative Service.

Furthermore, without dedicated staff, critical tasks related to supply chain management would regularly compete with the other tasks of the assigned staff to the SCMU. This was the experience of the current SCMU with respect to the inputs and participation of staff concerned. The current staff members of the DOH have existing responsibilities within their respective programs and offices. Hence, submission of inputs and reports were often delayed. Attendance to meetings was also difficult given other responsibilities. In addition, it seems that the SCMU was placed under the Office of Health Regulations because the Vice-Chairperson and Head of the Secretariat—the Head of the Pharmaceutical Division—was under such Office. Ideally, the SCMU should be placed under the Office of Administration, Finance, and Procurement to consolidate functions related to budgeting and finance, procurement, and logistics management.

As a consequence of having an ad hoc setup of staff with additional responsibilities on supply chain management, for the most part, the SCMU became a venue for discussion of updates on deliveries, and for the review of contract provisions for the next bidding of the logistics service provider. It started work on the preparation of the action plan to harmonize all supply chain activities of the DOH by convening an action planning workshop among all members in April 2016. The SCMU also dispatched small teams to selected health facilities nationwide in the same year to validate problems in supply chain management at the service delivery points. Moreover, it has started consolidating and revising the manual of operations of different programs on managing the supply of their respective products or commodities. While these are significant achievements, the public health supply chain of the DOH is still fragmented and there seems to be no direction or indication at the moment how such fragmentation is going to be addressed.

**Key lessons.** For the SCMU to become effective in addressing the fragmentation of supply chain, it has to have dedicated staff to take care of day-to-day tasks related to the coordination of different DOH programs, e.g., for procurement requests, forecasting, allocation, and the LMD for distribution. More importantly, having a dedicated staff ensures that there is a staff or a small team who can be relied on to do some strategic thinking about the direction of the SCMU in relation to the entire public health supply chain. Furthermore, an SCMU with dedicated staff gives more time to program managers to make decisions on matters related to clinical standards, policy development, training, and other matters related to program implementation and monitoring.

However, reorganizing the SCMU and letting it hit the ground running may be too much to expect. Revitalizing the SCMU may require initial technical assistance from a small team of supply chain management experts or consultants who can orchestrate the re-entry planning or development of a strategy to reorganize the SCMU. This team should handle the operations of the SCMU temporarily and report directly to the Secretary of Health while the SCMU is being set up. The idea is to develop a work plan of critical activities and milestones, organize the SCMU, and guide its operationalization in collaboration with the different DOH units. The team should begin to disengage from SCMU operations after a year and let the SCMU fully function on its own. The consultants can be retained as advisers who may be called from time to time.



# 10.0

## Support for the Assessment of the SMRS

**Situation.** From October 2015 to September 2016, the DOH Regional Office IV-A (CALABARZON), with support from the UPecon-HPDP and in collaboration with the Provincial Health Office (PHO) of Cavite, implemented a demonstration project on a possible approach in collecting and using consumption data. Consultation with key RHU and CHO staff revealed that they find the Supply Management and Recording System (SMRS) and the National Online Stock Inventory Reporting System (NOSIRS) complicated and challenging to use. The NOSIRS is heavily dependent on internet connection, which in itself is a huge problem at the RHU and CHO level. On the other hand, most RHUs find the SMRS complicated given the need to maintain around eight Excel-based forms<sup>46</sup>. Specifically, current SMRS use, if any, is limited to manually writing on one or two of the eight SMRS Excel-based forms. The very few RHUs and CHOs using the NOSIRS and SMRS usually have dedicated encoders and supply officers.

The Supply Management and Recording System (SMRS) is an Excel-based tool that seeks to help LGUs track and record health commodities, and facilitate a consumption-based allocation and distribution by the DOH. The SMRS was developed in 2011 by the DOH with assistance from the USAID through the Strengthening Local Governance for Health (HealthGov) Project implemented by the Research Triangle Institute (RTI), in partnership with the USAID | DELIVER PROJECT implemented by John Snow, Inc. (JSI).

Specifically, the SMRS was designed to help rural health units (RHUs), city health offices (CHOs), and health centers track commodities in health facilities by organizing and updating records for quantities received, issued to midwives or Barangay Health Stations (BHSs), dispensed to clients, and stocked on hand. The SMRS was designed to be used daily by the concerned health facility staff for inventory management, and monthly and quarterly for physical inventory tracking, requisition, and replenishment (Department of Health, November 2012).

Based on the health facility survey done by the USAID-assisted MindanaoHealth Project in December 2015, only around four percent of the 768 RHUs and health centers in Mindanao were using the SMRS (MindanaoHealth, 2015). As RHUs found it challenging to regularly accomplish and encode numerous forms, most facilities

<sup>46</sup> The SMRS has eight forms, namely: Form A (Daily Stock Record Book); Form B (Daily Dispensing Record Book); Form C (Stock Issue Record); Form D-1 (Baseline Physical Inventory and Drug Expiration Record); Form D-2 (Monthly Physical Inventory and Drug Expiration Record); Form E (Stock Replenishment Request Form); Form F (Stock Purchase Request Form); and Form G (Program Reporting Form).

relied on logbooks for tracking inventories. This made it even more difficult to extract information from service delivery points as basis for allocation and delivery.

**Nature of assistance.** Given these challenges, the USAID, through John Snow Inc., conducted an assessment of the SMRS implementation which aims to:

- a. Determine specific issues and challenges on the SMRS implementation;
- b. Recommend adjustments to its design and implementation;
- c. Propose measures to better institutionalize the SMRS; and
- d. Present options for scaling up to all service delivery points.

The first phase of the assessment, which was held from mid-August to end of September, 2016, consisted of key informant interviews to understand the background or context within which the SMRS functions. The second phase, held from early October to mid-November 2016, consisted of a random survey of health facilities to answer key research questions to provide information that could be used to achieve the objectives of the assessment (Eberle & Millar, 2017).

**Results.** The assessment validated earlier findings that the SMRS was not being used in the majority of the health facilities, except in most areas in Luzon where LuzonHealth operates.<sup>47</sup> Use of the SMRS was higher for health facilities that were reportedly trained by LuzonHealth. However, one would expect that this should be used widely nationwide as the tool had already been rolled out by the DOH. It has been adopted and implemented by the DOH beginning 2011 as it was included in the DOH's Manual of Operations for Maternal, Neonatal, and Child Health and Nutrition (Department of Health, 2011). It was also issued in a Trainer's Handbook issued by the DOH in 2012 (Department of Health, November 2012).

When asked why the SMRS was not being used, the most popular responses revealed that health workers thought the forms were not necessary or useful, and that there was no available documentation on how to use them, which would indicate that the forms are not self-explanatory or even difficult to accomplish especially for new staff. The main conclusion of the assessment is that the DOH has not sustained the rollout of the SMRS and that many health facilities did not find most of the forms useful. This was consistent with previous experiences and survey findings. Given the competing demands for the time of health workers, they prefer very simple tools, especially in health facilities where there are no dedicated encoders or supply officers. In most cases, those who deliver services are also the same persons accomplishing the forms for family planning as well as for other programs.

<sup>47</sup> LuzonHealth is implemented by the Research Triangle Institute (RTI), the same Implementing Partner of the USAID for the HealthGov Project which initiated the development of the SMRS in 2011.

Specifically on the SMRS forms, the report recommends modifying Form A (Daily Stock Record Book) to include a “transfers” column, and then change the “losses” column to “adjustments” and record all adjustments in this column whether it is positive or negative. Form B (Daily Dispensing Record Book) should be made mandatory for health facilities. It should include column heading for different types of products, e.g., contraceptives, and ensure that there are multiple columns for each type. Instructions should be made so that recording on new page is done at the start of the resupply period, e.g., every quarter for the RHUs. Form C (Stock Issue Record Book) should only be used by the RHUs and CHOs, not the BHSs. Like Form B, it should include column headings for different types of products, e.g., contraceptives, and ensure that there are multiple columns for each type. Also, a new page should be used at the start of the resupply period. It is also suggested that the two Form Ds (Baseline and Monthly Physical and Inventory Drug Expiration Record) be merged into one Form D only. Once revised, this form should be made mandatory as part of the annual physical inventory mandated by the DOH. Form E (Stock Replenishment Form) should be dropped and replaced with a simplified form similar to the “Family Planning Commodity Inventory and Consumption Report Form” (Department of Health, June 2016). Form F (Purchase Request Form) should also be dropped as there is already an existing form for this purpose being widely used by the LGUs.

The following were some of the specific recommendations on moving forward with the DOH supply chain management:

- **Develop a standardized system for collecting quarterly consumption and stock-on-hand data from the respective programs.** Do not use any integrated inventory control system, e.g., the NOSIRS at the time. The DOH should strive to ensure that the fundamental inventory management procedures are present and functioning at the health facilities. This should, as much as possible, be standardized across programs and across products, e.g., the SMRS forms, review period, and distribution. Once the fundamentals are setup, then full integration into one automated system can be explored.
- **Outsource the data processing of this consumption and stock-on-hand data so that it can be utilized and made available to the logistics service provider through the LMD to advise deliveries.** This is in view of the magnitude of the eventual quantity of submission and required time to conduct analysis and processing. The DOH staff does not have the capacity and time to process all the orders or consumption data.
- **Eventually revise the national quantification and allocation based systems towards a consumption-based system once consumption data are available.** This should be the general direction of quantification and allocation within the public health supply chain.

- **Develop a new set of guidelines for the use of the revised forms. This would include a revised user’s guide and job aids for using the forms.** Once revised SMRS forms—or any new forms for that matter—are issued for the use of health facilities, the DOH needs to ensure that a simple user’s guide and job aids be prepared and sent to accompany the forms. This should facilitate understanding and use of the forms.
- **Develop an online system that enables the self-training of those responsible for supply chain issues.** The DOH can look into the existing free online modules on supply chain management, and come up with the customized or simplified version for its staff, especially new staff members who will be assigned tasks related to supply chain management.
- **Ensure that the DOH issues a memorandum mandating the usage of the new forms and coordinate with other entities within the DOH to ensure compliance.** This is essential in getting LGU partners to use the forms for inventory management. Based on the feedback from respondents, they will not use the form if there is no mandate attached to it.

**Lessons.** The 2017 JSI assessment identified key attributes that should be present to implement any logistics management information system:

- a. It should contain only the necessary forms;
- b. The information from such system should be used by the DOH in making decisions, e.g., allocation and replenishment; and
- c. It should only be automated if there are dedicated inventory management personnel, an available computer, and a functional internet connection.

Furthermore, tools for use by LGU health workers should have accompanying job aids or detailed instructions. This should make it easier for health workers, especially for new ones, to understand and appreciate the value of the form.

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## A. Technical Advisory on Engaging a Full-Service Logistics Provider

### Technical Advisory on Engaging a Full-Service Logistics Provider to Distribute FP Commodities

UPecon-Health Policy Development Program

February 12, 2014

This technical advisory describes the issues on FP logistics management and information system, extracts lessons from the implementation of the Contraceptive Distribution and Logistics Management Information System (CDLMIS), and proposes specific interventions to engage a full-service private logistics provider to effectively manage and distribute FP commodities.

#### Assessment of the Current System

HPDP conducted an assessment of the FP logistics management and information system by interviewing resource persons from DOH Central Office, CHD, PHO, hospitals, and RHUs. The objective of the assessment is to identify specific bottlenecks in FP logistics particularly in the distribution process, as well as identify RHUs experiencing stockouts.

At present, the DOH Central Office is still distributing FP commodities procured in 2012 and those that were donated in 2013. FP commodities procured in 2013 are still either awaiting delivery, undergoing FDA testing, or being prepared for invoicing. A detailed status report of FP commodity logistics is shown in Appendices 1 and 2. The following major bottlenecks were identified:

- a. *Estimates of FP commodities for the year are not based on actual consumption data.* There is difficulty in generating actual consumption data from field reports because of the inability to get information on stock inventory at the CHDs and LGUs.
- b. *There is a lack of communications protocol to coordinate pick up and delivery (central office to region to service delivery points).* There are no standard procedures in terms of relay of information on the availability of FP commodities for pick up and delivery, which results to delay in distribution to service delivery points and ultimately to clients. Some PHOs are also not informed of the indicative volume of commodities that will be delivered, including delivery schedules. This often results in PHOs refusing to accept deliveries due to lack of storage space.
- c. *There are delays related to repacking.* Delays happen because the boxes of commodities need to be divided into the exact volumes (i.e., cycles, vials, pieces) based on the allocation list. This could have been avoided by distributing in terms of boxes as the basic unit for allocation and distribution.
- d. *The current private forwarder delivers only up to the province level.* There is considerable delay in distributing FP commodities from the province to the service delivery points (SDPs) owing to the “come and get” system. This has resulted to substantial delays in delivery and led to stockouts at the SDPs themselves. For a list of selected RHUs that have stockouts, please refer to Appendix 3.
- e. *Deliveries by the current private forwarder are delayed more than half the time.* Based on 67 vouchers prepared for February and July 2013, around 61 percent of deliveries by the forwarder were delayed. Delays were also encountered in the submission of delivery reports that could be explained by the forwarder’s lack of an operational tracking (i.e., information) system.

- f. *There is a lack of transportation and warehousing facilities.* The lack of vehicles to deliver and/or pick up commodities from the CHD to PHO and ultimately to SDPs is a common cause of delay in distribution. Many facilities also report the lack of storage space for commodities being delivered by DOH.

### Lessons from Past and Present Systems

Before 1991, the DOH implemented five models from which to generate lessons to guide the development and implementation of the would-be Contraceptive Distribution and Logistics Management Information System (CDLMIS). While not a single one of these still operates today, we revisited these models and the CDLMIS itself in order to extract lessons that may help solve current challenges in FP logistics and information management:

- a. *Model 1* was pilot tested in Region VI wherein the Commission on Population (POPCOM) Regional Office VI used its warehouse and vehicles to deliver contraceptives directly to SDPs. In addition, the DOH Central Office used USAID funds (originally intended for a national workshop on logistics) for training, gasoline, vehicle maintenance, per diems and communications.
- b. *Model 2* was pilot tested in Region XI wherein each province and city made quarterly deliveries to SDPs. At that time, there was a USAID-assisted Family Planning Logistics Management Project (FPLMP), and this project funded per diems, vehicle maintenance, gasoline and communications.
- c. *Model 3* was pilot tested in the National Capital Region (NCR). Four district offices of the NCR Regional Health Office (now CHD NCR) were assigned to deliver contraceptives to SDPs. In this pilot, the DOH Central Office provided funding for training in the use of forms.
- d. *Model 4* was pilot tested in selected provinces of Region IV, wherein provinces themselves made quarterly deliveries to SDPs. However, DOH did not provide any funding support for delivery costs.
- e. *Model 5* was not pilot tested. The model proposed to engage a private distributor (Metro Drug Distribution) to assist DOH in distributing contraceptives all the way to SDPs. Testing the model did not push through as the DOH considered the engagement of a private distributor as displacing the LGU's role in logistics distribution.

Based on the pilot tests, DOH adopted a modified Model 2<sup>1</sup> to allow provinces and cities to manage their own distribution system to SDPs. This became the CDLMIS that was implemented from 1991-1997.

Based on the review of documentation<sup>2</sup> of CDLMIS implementation, five factors enabled the successful implementation of CDLMIS. These are:

- a. A logistics section with dedicated staff within the DOH allowed for sustainability;
- b. LGU Performance-based Program (LPP) cash grants were used to pay for distribution costs (e.g., gasoline);
- c. Clear, simple, standardized, and hence user-friendly forms were used;
- d. Outsourcing of clearly identified parts (software, encoding) increased efficiency; and
- e. Constant monitoring of stocks on hand, consumption levels, and emergency orders was important for decision-making.

<sup>1</sup> This had several features, specifically: a) contraceptives went directly from Manila to provinces and cities (instead of CHD warehouses); b) provinces delivered directly to RHUs, hospitals and even NGOs; c) provinces and cities spent for distribution costs; d) DOH gave midwives and RHU staff a barangay health station (BHS) worksheet to determine the quantity to be delivered to BHS; e) an authorized stock level based on recent consumption was set at all levels (focusing on the barangay); f) RHU staff accomplished the contraceptive order form upon delivery; and g) data collected from the order forms went into the national database, for feedback to local and regional program managers.

<sup>2</sup> Kinzett, Steve, and Beatriz Ayala. 2000. Philippines: Contraceptive Logistics System, Review of Accomplishments and Lessons Learned (1991-1997). Arlington, VA: Family Planning Logistics Management/John Snow, Inc., for the U.S. Agency for International Development (USAID)

In our assessment of the gaps in the current logistics capacity of DOH and LGUs, the above enabling factors are not present. Specifically:

- a. There is no dedicated logistics section (or staff) within DOH to manage the FPlogistics system;
- b. Not all CHDs and LGUs used the MNCHN to help finance distribution costs even if this was allowed;
- c. There is lack of a clear, simple, and standardized system and forms that could be used and followed;
- d. Outsourcing is limited to the distribution of commodities; and
- e. Monitoring of stocks on hand and consumption levels are not done regularly.

While the DOH currently has private sector providers/forwarders engaged for logistics<sup>3</sup>, an assessment<sup>4</sup> of these current engagements reveals that the scopes of work/contracts fall short of what should be a full-service arrangement.

Logistics management functions	Ximex	AIR21	Full-service logistics provider
<b>Storage</b>	Uses DOH warehouse and forwarder's warehouse	Uses forwarder's warehouse only	Uses its own warehouse/s only
<b>Picking and Packing</b>	Being done by MMD and forwarder	Being done by forwarder only	Done by logistics provider only
<b>Inventory</b>	Being done by MMD and forwarder	Being done by forwarder only	Done by logistics provider only
<b>LMIS</b>	Not operational	Operational but limited to tracking delivery status only <sup>5</sup>	With operational logistics management information system including tracking of delivery and retrieval of consumption reports or stock levels including expiration dates
<b>Delivery</b>	Delivery to PHOs (-100)	Direct delivery to RHUs (end-to-end for 2467 RHUs)	Direct delivery to service delivery points (end-to-end)
<b>Scope</b>	Various DOH commodities	Exclusive for complete treatment packs (COMPACKS)	Segregation of items in trucking and warehousing; dedicated trucks for drugs and medicines, cold chain for temperature-sensitive drugs, exclusive use of warehouse for drugs and medicines
<b>Contract Price</b>	30M (3.8 M for FP Commodities)	49M	–
<b>Volume of delivery in cubic meter (CBM)</b>	1,137 (FP only)	1,477	–
<b>Performance</b>	61% delays in delivery <sup>6</sup>	28% delays in delivery <sup>7</sup>	–

<sup>3</sup> Ximex for commodities including FP, and Air21 for complete treatment packs

<sup>4</sup> By HPDP in coordination with MMD, FHO and NCPAM.

<sup>5</sup> Based on our consultation with the Air21 account manager for DOH, Air21 could have provided a full LMIS service to NCPAM including retrieval of consumption reports. DOH did not avail of this because it was expecting the National Online Stocks and Inventory System (NOSIRS) to be fully operational in 2013.

<sup>6</sup> Based on 67 vouchers prepared for February and July 2013.

<sup>7</sup> Based on 1355 vouchers prepared for 2013

Based on the table above, the volume of delivery of Air21 is slightly higher than Ximex. However, Air21 delivers to almost 2,500 RHUs while Ximex delivers to only around 100 provinces and cities. Although Air21's contract price is around P49M in contrast to around P3.8M (for FP commodities only), Air21's cost per delivery point is cheaper: Ximex:  $P3.8M/100 = P38,000$  versus Air21:  $P49M/2,467 = P19,862$ .

In addition, Air21's services is closer to the description of a full-service logistics provider with services such as warehousing and storage, picking and packing, inventory, and tracking system fully outsourced by DOH to Air21. This has resulted in lesser delays in delivering COMPACKS relative to other commodities owing to inadequate human resources and capacity, equipment, and transport of DOH in logistics management, and the need to manage warehouse space.

### Proposed Solutions

- Engage a full-service private logistics provider to deliver FP commodities to SDPs (i.e., end to end). Outsourcing to a full-service provider will address weaknesses of DOH and LGUs in logistics management. The comparative advantage for logistics management is with the private sector given their broader experience in handling health commodity logistics and substantial investments in human resource, logistics and information systems. While the engagement of a full-service private provider may cost more than the current contracts that DOH has with private forwarders, this is expected to come out more economical when savings from additional warehouse space, delivery delays and spoilage of goods owing to the current distribution system will be factored in.
- Instruct Ximex to deliver remaining FP commodity stocks directly to the 2,500 RHUs. Priority should be given to RHUs with reported stockouts. CHDs, provinces and SDPs should also be informed as to the volume and status of deliveries to avoid refusals at delivery. In order to do this, the Family Health Office needs to provide an allocation list for RHUs for the remaining commodities. In addition, we also recommend that XIMEX be asked to subcontract additional forwarding services to speed up deliveries to SDPs.
- Hire Job Orders (JOs) to prepare the invoice receipts for around 2,500 RHUs nationwide. Currently, there is only one person at MMD in charge of preparing the invoice receipts.<sup>8</sup> To prepare invoice receipts for around 100 provinces/cities we estimate that this will take 2 person days. This is under the assumption that the person works full time on this assignment and has access to a good internet connection. Given this, we estimate that it will take around 50 person days to prepare invoice receipts for all deliveries to 2,500 RHUs. At this rate, it will take 10 days for five JOs to prepare said invoice receipts. Assuming this is done, the remaining stocks procured in 2012 and those donated in 2013 could be delivered by Ximex to SDPs starting second week of March 2014. This will require the following actions:
  - a. Undersecretary Janette Garin issues an order to FHO to prepare allocation list for remaining commodities for around 2,500 RHUs as soon as possible;
  - b. Allocation list for remaining commodities for around 2,500 RHUs are prepared by FHO and sent to MMD on or before February 21, 2014. Said allocation list is broken down into the nearest carton/box denomination (not into exact number such as cycles, vials, pieces) to minimize delays in picking and packing;
  - c. MMD develops a delivery schedule with Ximex on or before February 24, 2014 with provisions for subcontracting to other forwarders to ensure timely deliveries;
  - d. DOH mobilizes five JOs to prepare invoice receipts, and JOs start preparing invoice receipts right after receiving allocation list (on or before February 21, 2014); and
  - e. Invoice receipts finished on or before March 6, 2014.

<sup>8</sup> This preparation of invoice receipts is already automated using the National Online Stock and Inventory System (NOSIRS). Based on consultation with MMD, preparation of invoice receipts for distribution of goods during relief operations for typhoon Yolanda initially started using NOSIRS. However, due to the slow response of the system, MMD had to do the invoice receipt manually.

- Given that the contracts of AIR21 and Ximex will expire in February and April, respectively, we recommend that the scope of work for a new logistics provider be prepared to include features of a full-service logistics provider.

The new scope of work should include specifications for:

- Warehousing, picking and packing, preparation of invoice receipts, and LMIS including extracting information on actual stock levels/requirements;
  - Use of GPS for tracking deliveries;
  - Segregation of items in trucking and warehousing;
  - Use of dedicated trucks for drugs and medicines, cold chain for temperature-sensitive drugs, exclusive use of warehouse for drugs and medicines;
  - Use of key performance indicators (KPIs) as deliverables; and
  - Conduct of random checks/audits and validation using sentinel facilities in coordination with other USAID regional projects operating in the area.
- In order to properly specify a new scope of work, the following steps are recommended:
    - Prepare critical information for contracting including volume and types of commodities to be delivered, frequency of delivery, unit of measure; cost of drugs and medicines, location of all SDPs (RHUs and hospitals);
    - Conduct value chain mapping (order booking, dispatch, delivery, proof of delivery, clearing) and prepare process flow;
    - Explore models such as Watsons<sup>9</sup> (delivery to individual stores, no warehouse requirement, just-in-time delivery);
    - Develop evaluation criteria for selecting private logistics provider; and
    - Engage private sector consultant with expertise in logistics management to help write the new scope of work.
  - HPDP can assist DOH in developing the scope of work for the new full-service logistics provider. To do this, HPDP will engage the services of a private sector logistics management expert who will assist in the preparation of the new scope of work in coordination with DOH. By February 28, 2014, the scope of work should be ready for DOH to start the bidding process by March 2014. Barring any delays in the procurement process, the initial allocation of commodities for 2014 should be delivered to SDPs by June 2014.

<sup>9</sup> The Watsons model uses just-in-time (JIT) delivery, which is a materials management system which aims to work with zero inventory and to ensure materials when they are required. JIT delivery is a system that gets rid of some supplying, storing and securing activities to save time and reduce the cost (Ozalp, Suvaci & Tonus, 2010).

## B. Scope of Work for Engaging Third-Party Logistics Provider

### SCHEDULE OF REQUIREMENT

The Service Provider shall store and distribute door-to-door Health and/or Health-related Commodities from any point of origin to any destination specified by the Procuring Entity or any of its Representatives (DOH Central Office Logistics Management, Program Managers, CHDs/facilities under the CHDs [i.e., PHO/CHO, Hospital, etc.]), as the case may be, within the Philippines. Goods or Services to be delivered or performed by the Service Provider shall consist of the following:

#### A. Warehousing Services

1. The Service Provider shall implement processes as specified in the DOH Warehouse Operations Manual including maintaining cleanliness and orderliness of its warehouse and those maintained by representatives / sub-contractors.
2. The Service Provider shall provide personnel to receive, package, pick and issue Health and/or Health-related Commodities.
3. The Service Provider shall maintain stock movement and stock inventory records using an up-to-date logistics management information system preferably the National Online Stock Inventory and Reporting System (NOSIRS) or its equivalent. The Service Provider shall submit regular monthly reports as required by the Procuring Entity.
4. The Service Provider shall monitor and record twice daily the temperature and humidity of all warehouses including those maintained by its representatives / sub-contractors. The data shall be submitted weekly to the Procuring Entity. The Service Provider shall report to the Procuring Entity any instances of temperature and humidity readings exceeding specified limits.
5. The Service Provider shall provide office tables with desktop computer and printer in its Main Warehouses for the use of the procuring entity's personnel who will monitor or do the inspection for the delivered health commodities by the Procuring Entity's suppliers.
6. The Service Provider personnel shall maintain bin card for each inventory/item.
7. The Service Provider shall immediately report any incidence of breakages, damages, losses and other deviations to the Procuring Entity. All damages shall be liquidated to the Procuring Entity.
8. The Service Provider shall provide additional warehouse space should the existing warehouse allocated for DOH becomes FULL and can no longer accommodate items for storage. A 1-month lead time shall be given which will commence from the date the need for additional warehouse has been reported by the Procuring Entity. The payment for this additional warehouse space shall be charged based on the rate offered by the Service Provider as submitted during the bid.
9. Shall have conformance to International Standards for Healthcare Commodities:
  - Uses GS1 International Coding Standard for healthcare commodities/products with Expiry and Production Batch Identification and other relevant information such as volume (CBM) and weight in kilograms.
  - Must have Bar Code reader linked with the contractors computerized warehouse management information system.

- Shall have computerized warehouse management information system that ensures the compliance of warehouse processes to DOH standards inclusive of improvements thereof.
- Shall have computerized commodity locator to ensure issuance of commodities on a First Expiry First Out (FEFO) basis, or First In First Out (FIFO) basis if the former is not applicable.

*B. Distribution Services*

1. This shall include the receipt and handling of goods for delivery to destination(s) specified by the Procuring Entity or any of its Representatives and vice versa within the Philippines by land or by sea or by air, as appropriate. The Procuring Entity or any of its Representatives, as the case may be, reserves the right to specify the date the goods for distribution should reach the specified destination, and place the words “PRIORITY” or “URGENT” as necessary. Such date shall be stamped in the Bill of Lading.
2. The Service Provider shall pick up the goods from the Procuring Entity’s Warehouses and/or any of its Representatives and vice versa within the time frame agreed upon between the Procuring Entity or any of its Representatives and vice versa, as the case may be, and the Supplier. If so required, the Service Provider shall store such goods at the Service Provider’s warehouse for safekeeping and segregation based on the distribution list provided by the Procuring Entity or any of its CHDs/facilities under the CHDs (e.g., PHO/CHO, Hospital, etc.) and vice versa, as the case may be.
3. For items stored in the Service Provider’s and/or any of its representatives’/sub-contractors’ warehouses, the same shall prepare and deliver commodities according to Procuring Entity’s instructions.
4. Computation of hauling cost shall be based on actual volume in cubic meters for land and sea freight; for air freight, basis shall be the weight in kilograms or volume in cubic meters at applicable rates whichever is higher.

In addition, the Service Provider shall have the capability to provide various transport delivery vehicles such as motorcycles, 4-wheel, 6-wheel and 10-wheel delivery vehicles and the cargo capacity of each in cubic meters

The Service Provider shall provide the Procuring Entity its regular delivery route schedules by location and any updates thereof.

Parcel delivery will only apply to out-of-schedule deliveries and small volume deliveries and delivery time will be dependent on its urgency. If it is not urgent, delivery shall follow Service Provider’s regular routing schedule.

5. The Service Provider shall inform the Procuring Entity or the concerned CHD/recipients of the name of shipping line or carrier within a day from departure of shipment.
6. The Procuring Entity reserves the right to specify the mode of transportation. Deviations from the standard, which results to an increase in delivery cost shall be for the account of the Service Provider unless prior approval has been granted by the Head of the Procuring Entity or his duly authorized representative.
7. The Service Provider shall ensure that goods are picked up and delivered to the destination point (door to door) during government working hours and day, 8:00 a.m. to 5:00 p.m. from Monday to Friday except for emergency and special arrangement.
8. Commodities should be picked up from the warehouse at the specified date and time. The Service Provider shall be advised by the Procuring Entity of delivery schedules at least 1 month before the dispatch schedule. The Service Provider shall make the necessary carrier reservations as necessary.

The Service Provider shall be advised by the Procuring Entity of any change at least a day before the scheduled pick up.

9. The Service Provider with delivery sub-contractor shall implement delivery schedules to specific destinations consistent with the regular delivery frequency of the delivery sub-contractor.
10. The Service Provider shall ensure that the temperature requirement of commodities such as vaccines, reagents and other perishable health goods is maintained for the duration that the commodities are in transit from the Procuring Entity's desired pick-up location to the desired destination.
11. The Service Provider shall use the route with the shortest travel time or go directly to the recipient in transporting the vaccines and other perishable goods.
12. The Service Provider shall transport health commodities within the following timelines:
  - a. Vaccines, blood/ blood products, emergency drugs and other perishable goods shall be delivered within 24 hours after pick up from the point of origin and should be able to maintain the required temperature while the goods are in transit.
  - b. Other drugs, medical supplies/devices and office supplies depending on the mode of transportation after pick up from the point of origin.
    - NCR – within 3 days
    - Luzon – within 7 days
    - Visayas – within 10 days
    - Mindanao – within 13 days
    - Islands separate from the major islands of Luzon – 10 days
    - Islands separate from the major islands of Visayas – 13 days
    - Islands separate from the major islands of Mindanao – 15 days
  - c. Speed of response - Capability to handle unscheduled deliveries at required lead time + 50 percent

### C. Inventory Report and Tracking System

The Service Provider shall provide reports required by the Procuring Entity including the following:

1. The Service Provider shall provide reports required by the Procuring Entity including the following:
  - a. IRP Number and document date
  - b. Date and time IRP was received at the warehouse
  - c. IRP and Bill of Lading document number and date
  - d. Commodity quantity, volume weight, unit and total prices
  - e. Name of delivery contractor
  - f. Day & time delivery order transmitted to delivery contractor
  - g. Day & time delivery vehicle arrived at the Warehouse
  - h. Standard lead time to destination
  - i. Estimated date of arrival at destination
  - j. Name of carrier contracted by delivery contractor
2. Stock Movement Report – This report should be stored in database with the following information and
  - a. Beginning inventory
  - b. Receipts
  - c. Commodities available
  - d. Issues, returns, losses
  - e. Ending inventory
3. Physical Inventory Report – This report should be stored in database with the following information and 24/7 DOH access via the internet:

- a. Inventory per record
  - b. Inventory per physical count
  - c. Inventory difference
  - d. Issues, returns, losses, condemnation (due to expiry, damage)
  - e. Ending inventory
4. Stock Aging Report (by SKU: with expiry date & production lot) – This report should be stored in database with the following information and 24/7 DOH access via the internet:
    - a. Expiry date & days left from current date to expiry date
    - b. Quantity on hand
    - c. Unit and total price
    - d. Date and quantity of last receipt of SKU
    - e. Days without issuance
  5. Key Performance Index Report (Weekly, monthly, year to date) – This report should be stored in database with the following information and 24/7 DOH access via the internet:
    - a. Inventory accuracy
    - b. Stock availability index
    - c. Dispatch lead time conformance: Receipt of IRP to dispatch
    - d. DOH forecast accuracy
    - e. Penalties to date: Delayed report
    - f. Penalties to date: Inaccurate Report
  6. Regular Delivery Schedule and Update (Delivery schedule of MHOs and update (at start of contract and as necessary when updates are made)
    - a. Regular delivery schedules to destinations, and updates thereof, should be provided to the Central warehouse and warehouse contractor

#### D. Other Requirements

- The Service Provider shall only receive orders from the Procuring Entity.
- The Service Provider shall be responsible for losses or damages while the goods are in their possession and control.
- The Service Provider shall submit to DOH – Logistics Management Division (LMD) the signed hard copy of delivery documents (Invoice Receipt for Property and Bill of Lading) within 15 days from the date the Service Provider received the aforementioned document.
- The Service Provider shall allow the Procuring Entity to inspect all warehouses and records being used and maintained in its performance of duties and services described herein.

#### E. Contract Implementation, Review, and Penalties

- The Contract of services for the Central Office – DOH shall be for the period of one (1) year and extendable until such time a new service provider is awarded.
- Service Provider shall be evaluated every month based on the timeliness, availability of personnel and trucks as well as the overall performance. The Procuring Entity shall issue request for action (RFA) on whatever findings not in conformance with the terms of reference (TOR) under the contract for corrective measures. Any recurring deficiencies made by the Service Provider shall be subjected to termination of the contract.

- In case of termination of contract with the Service Provider, the Procuring Entity reserves the right to engage the next lowest calculated and responsive bidder at the price of their bid using this Terms of Reference. Contract cancellation shall be effective on the date that a new service provider will be ready to assume the responsibilities of the previous contractor.
- For dispatch delays, the Service Provider shall be charged with penalties except for force majeure. The penalty will be equivalent to 3 percent of the contracted delivery cost for a day of delay, 5 percent for delays of 2 to 3 days, 7 percent for delays of 4 to 5 days, and 10 percent for delays exceeding 5 days. If total dispatch delays to date exceed 25 percent, DOH shall have the option to rescind the contract and the Warehouse Contractor shall not be qualified to bid for a period of 1 year or more at the discretion of DOH.
- For report delays the Service Provider would be charged with PHP1,000.00 for every day of delay for each report expected from the service provider and every erroneous report submitted until the error is corrected.
- For commodities lost or damaged, the Service Provider would be charged with the actual acquisition cost plus 20 percent of the value of the commodities damaged.
- For delivery delays, the Service Provider shall be charged with penalties for delivery delays except for force majeure. The penalty will be equivalent to 3 percent of the contracted delivery cost for a day of delay, 5 percent for delays of 2 to 3 days, 7 percent for delays of 4 to 5 days, and 10 percent for delays exceeding 5 days.
  - a. If the goods have not been dispatched within 5 days, DOH will have the option to appoint another delivery contractor to deliver the goods to the assigned destination. Despite this, the contractor shall be billed for the actual billing of the contractor assigned by DOH in its place in addition to the penalties provided in item 1.
  - b. If total delayed shipments to date exceed 25 percent, DOH shall have the option to rescind the contract and Delivery Contractor shall not be qualified to bid for a period of 1 year or more at the discretion of DOH.

In line with the Department's culture of continuous improvement, the Department shall soon require its Service Providers for the Services described herein to have an ISO Certification. In the event that the winning bidder lacks the aforesaid Certification, the Service Provider shall submit a notarized documentation of procedure which is consistently followed in their organization.

- The Service Provider should update their procedures manual to comply with certain requirements stated in the following references, within two months from the date the Notice to Proceed has been issued:
  - a. DOH Warehouse Operations Manual
  - b. FDA Good Storage and Distribution Practice
- The Procuring Entity reserves the right to rescind the Contract should the Service Provider fail to comply with the said requirement. If the same service provider will participate in the next bidding, it shall be required to be ISO certified, if not, it will be disqualified to participate in next year's and future bids.
- Warehouse cost shall be fixed and shall be billed on a monthly basis. However, once a system has been established that will enable the Procuring Entity to determine actual volume/cbm utilization, a re-negotiation shall be made and warehouse cost will be based on actual volume/cbm utilized.

## TECHNICAL SPECIFICATIONS

The Service Provider shall have the following:

### General Specifications

3. Provide nationwide capabilities in the Distribution, Packaging and Warehousing Services.
4. Must have an experience of at least three (3) years in nationwide Distribution/Hauling/Packaging/Warehousing Services of Health Commodities including drugs, medicines, devices, supplies, equipment and other health program related items.
5. The Service Provider must have ISO Certification **OR** submit a **notarized documentation of procedure** on Distribution, Packaging and Warehousing and other activities relevant to the execution of the aforementioned services.
6. Must have an existing effective logistic system / distribution system capable of assuring timely and complete delivery of health commodities to the far-flung areas or as specified by the Department of Health (DOH).
7. Shall have good historical and current performance: List of clients retained for 3 years; list of clients lost and reason (contact details should be provided).
8. Shall have continuous improvement culture: Service Provider shall present 3-yr Key Performance Indicators (KPIs).

### Warehousing Specifications

9. Shall have **air-conditioned** warehouse space (**operating between 15C to 25C and humidity of 50-70 percent**) with at least **1000 sqm** area equipped with back-up power source and at least two (2) levels racking system solely for the storage of the temperature-controlled health commodities of the procuring entity. This warehouse shall have an industrial thermometer to measure the room temperature and hygrometer to measure the humidity of the warehouse and can store commodities according to the temperature requirement of the health commodities.
10. Shall have warehouse space with at least **2000 sqm area** equipped with back-up power source and at least two (2) levels racking system solely intended for the storage of the health commodities. This warehouse shall have an industrial thermometer to measure the room temperature.
11. Shall have at least 20 cubic meters 2-8 degree centigrade temperature cold chain facility or has a contract with cold storage plant for storage of vaccines, reagents and other temperature controlled drugs and medicines; must have back - up power source.
12. Shall provide a 24/7 functioning security CCTV camera in all the warehouses with data storage for at least 1 month.
13. All warehouses shall be manned 24/7 by security personnel.
14. Shall provide the Procuring Entity with contact details of existing offices/representatives/sub-contractors so that regional offices can contact them should the latter wish to engage their services.
15. Shall have experienced personnel and staff in handling, packaging, sorting and consolidating of Health and Health- related commodities of at least three (3) years.

### Distribution Specifications

16. Shall be equipped with 24/7 web-enabled tracking and reporting system:
  - a. The system can provide DOH 24/7 access to data, stock status information, delivery schedule and actual dispatch synchronized with transportation regular delivery route frequency, and Key Performance Index information
  - b. The system should provide at least daily updates
17. Must have delivery assets; vehicle listing by ownership, by type, by location required. Service Provider must have at least ten (10) functional trucks owned by the Service Provider and has an existing contract with the third-party trucking and hauling services<sup>16</sup>. Shall have risk coverage with insurance policy in effect including amount of coverage; Service Provider shall present insurance policy issued by a reputable insurance company.
  - a. Insurance should cover damages and/or losses due to acts of nature
  - b. The insurance shall cover all properties/commodities of the Procuring Entity stored in its warehouse and/or any of its representatives'/sub-contractors' warehouses as well those properties/commodities in transit.
  - c. Shall have Open Marine Insurance Policy.
  - d. DOH should be the beneficiary.

## C. Technical Advisory on SMS and Google Sheets

### **Technical Advisory to USAID on the Proposed Monitoring at Facility Level and Quick Feedback through SMS and Google Sheets**

UPecon-Health Policy Development

March 4, 2015

#### Background and Objectives

The HPDP proposes a simple system for monitoring and quick feedback on the stockouts<sup>1</sup> of FP and TB commodities using SMS<sup>2</sup> and a simple Excel-based spreadsheet using Google Sheet<sup>3</sup> for remaining FP and TB commodities at the facility level<sup>4</sup>.

The objective is to assist DOH in providing quick feedback on stockouts of FP and TB commodities and monitor remaining stocks of FP and TB commodities at the facility level (or in the case of TB, at PHOs/MHOs/CHOs). This proposed system is a stop gap measure while reforms in the DOH Logistics Management Information System are currently being done.

The HPDP shall work with USAID projects namely the regional FP/MNCHN projects (LuzonHealth, VisayasHealth, MindanaoHealth) and IMPACT in implementing this monitoring system in USAID project sites in Luzon, Visayas and Mindanao.

<sup>1</sup> Stockout = zero stocks as of the date of visit

<sup>2</sup> Short Messaging Service or more popularly known as "text message"

<sup>3</sup> Available for free at <https://www.google.com.ph/sheets/about/>

<sup>4</sup> Initially for FP; a similar spreadsheet is currently being developed for TB in collaboration with DOH and IMPACT.

### Preparatory Phase

The HPDP shall designate a point person and mobile number that can be used to receive SMS reports from regional FP/MNCHN projects and IMPACT.<sup>5</sup> HPDP shall also make available through Google Sheets a simple spreadsheet which regional FP/MNCHN projects and IMPACT can access and use to indicate the stock levels for different FP and TB commodities. HPDP shall coordinate the monitoring and feedback in collaboration with the regional FP/MNCHN projects and IMPACT.

Regional FP/MNCHN projects and IMPACT shall send HPDP the names, mobile numbers, and email addresses of their respective point persons. HPDP shall record the mobile numbers for easy recognition upon receipt of SMS. HPDP shall also share the Google Sheet monitoring form to the said email addresses. For control purposes, only the recognized email addresses shall be allowed to encode status updates to the shared Google Sheet.

### Monitoring of Stockouts and Quick Feedback via SMS

For FP commodities, monitoring of stockouts shall be done by regional FP/MNCHN projects during regular visits to facilities such as RHUs. For TB commodities, monitoring of stockouts shall be done by IMPACT during its regular visits to PHOs, CHOs or MHOs.<sup>6</sup> Reports on stockouts may also come from calls, emails or any similar communication from partners at the field or facilities.

As soon as there is information of stockout on any type of FP and TB commodity, regional FP/MNCHN projects and IMPACT shall send an SMS to HPDP specifying the province/municipality/city/facility name and the type of commodity with stockout. HPDP shall assume that the reported stockout is as of the date the SMS was sent. The quick feedback via SMS will only be used to immediately flag a stockout situation. If there are no stockouts, regional FP/MNCHN projects and IMPACT need not send any SMS.

The specific steps are as follows:

- a. Check for stockouts of FP and TB commodities;
- b. For each facility/RHU visited, point persons from regional FP/MNCHN projects shall check with the MHOs/CHOs if there are stockouts in FP commodities; point persons from IMPACT shall check with the PHOs/MHOs/CHOs if there are stockouts in TB commodities;
- c. If there are stockouts, regional MNCHN projects and IMPACT shall send SMS immediately (during the visit or as soon as information is received) to 09175759071 using the following format:  
For FP:
  - Province. Municipality/City. RHU name. Commodity type. Stockout
  - e.g., Cavite. Alfonso. Alfonso RHU. DMPA. StockoutFor TB:
  - Province/City/ municipality. Commodity type. Stockout
  - e.g., Cavite/Alfonso. Cat 1. Stockout
- d. HPDP shall assume that the reported stockout is as of the date the SMS was sent. If there are no stockouts, there is no need to send SMS

Within the same day the stockout report was received by HPDP via SMS, HPDP shall immediately acknowledge receipt of report via SMS, and relay the stockout situation to DOH Logistics Management Division (LMD) and FP and TB Program Managers via phone call. HPDP shall email the same information to LMD and program managers cc Undersecretary Nemesio Gako (Office for Administration, Finance and Procurement), Assistant Secretary Paulyñ Ubial (Office for Technical Services) and Director Angelina del Mundo (Administration and Finance<sup>7</sup>).

<sup>5</sup> Point person: Allan Millar; mobile number: 09175759071

<sup>6</sup> Unlike FP commodities, TB commodities are not being delivered directly to facilities but to DOH Regional Offices (ROs) and some to province

<sup>7</sup> The Logistics Management Division is under the Director for Administration and Finance.

The HPDP shall also recommend to DOH through Usec. Gako and Asec. Ubial that immediate action be done to address such reports on stockouts. An option is for DOH to immediately send to the facility experiencing stockout (or to the RO or PHO in the case of TB) at least 20 percent of the allocation for the next quarter's delivery. Because TB commodities are delivered to ROs and selected provinces, HPDP shall recommend to DOH that upon receipt of HPDP's feedback on stockouts, LMD shall immediately communicate with the TB coordinator at the RO for available stocks either at the RO (for PHO with stockouts) or PHO (for MHOs with stockouts) that may be provided to the area with reported stockout (or that may be picked up from the RO/PHO). This should be done before DOH Central Office decides to send additional TB drugs in response to reports on stockouts.

*Monitoring and Feedback via Google Sheets<sup>8</sup>*

The monitoring and quick feedback for stockouts via SMS shall be supplemented by a simple spreadsheet that records the current stock levels per type of commodity at facilities<sup>9</sup>. HPDP shall compare these stock levels with required buffer level per commodity item and indicate which commodities have stock levels experiencing stockouts, below the required buffer or more than the required buffer. Stock levels at the facility level shall be monitored regardless of source of commodities.

The specific steps are as follows:

- a. Point persons from regional FP/MNCHN projects shall secure data on remaining stocks per commodity type at the facility level
- b. Regional FP/MNCHN projects to access the Google Sheet (requires Gmail account) shared by HPDP<sup>10</sup>
- c. Using the template provided (please see sample below), click the pull down menu for region to select the region where the RHU is located, followed by selecting the province, municipality, RHU name, commodity type, and enter the remaining stocks

	A	B	C	D	E	F	G
1	REGION	PROVINCE	MUNICIPALITY/CITY	RHU NAME	Supplies	Remaining Stocks	Remarks (Stocks)
2	REGION IV-A (C)	CAVITE	ALFONSO	Alfonso RHU	Micrognon (cycles)	298	more than buffer
3	REGION IV-A (C)	CAVITE	ALFONSO	Alfonso RHU	Exluton (cycles)	124	less than buffer
4	REGION IV-A (C)	CAVITE	ALFONSO	Alfonso RHU	DMPA (vials) with s	0	stockout
5	REGION IV-A (C)	CAVITE	ALFONSO	Alfonso RHU	IUD (pieces)	32	less than buffer
6	REGION IV-A (C)	CAVITE	ALFONSO	Alfonso RHU	Subdermal implants	31	less than buffer
7	REGION IV-A (C)	CAVITE	ALFONSO	Alfonso RHU	SDM (cycle beads)	300	more than buffer
8	REGION IV-A (C)	CAVITE	ALFONSO	Alfonso RHU	STM (thermometer)	300	more than buffer
9	REGION IV-A (C)	CAVITE	ALFONSO	Alfonso RHU	CMM (chart)	200	more than buffer
10	REGION IV-A (C)	CAVITE	ALFONSO	Alfonso RHU	BBT (thermometers)	300	more than buffer

Based on the encoded entries, Google Sheets shall automatically indicate which commodities have stock levels experiencing stockouts, below the required buffer or more than the required buffer<sup>11</sup>. For the commodities that have stock levels below the required buffer, HPDP shall alert LMD and the FP program manager cc Undersecretary Gako, Assistant Secretary Ubial and Director del Mundo. For commodities that have stock levels greater than the required buffer. The HPDP shall analyze monthly or quarterly monitoring reports if this situation repeatedly persists. The quantities of the succeeding allocation for the facility may then be adjusted.

HPDP's feedback to the regional FP/MNCHN projects on the actions taken with respect to the reports sent via SMS and the updates through the shared Google Sheet shall be indicated in the shared Google Sheet for easy reference. HPDP shall also regularly consolidate reports per region to be provided to the different

<sup>8</sup> Initially for family planning commodities only. A similar version for TB commodities is being prepared in collaboration with DOH and IMPACT.

<sup>9</sup> Or Regional Offices and Provincial Health Offices in the case of TB commodities.

<sup>10</sup> The shared Google Sheet may be accessed at

<https://docs.google.com/spreadsheets/d/1d1t1A9x3KeKj5cwffEFFvcu8LtemY4kYOmRUOELcke/edit>

<sup>11</sup> Buffer is equal to 25 percent of most recent delivery for each commodity type

DOH Regional Offices. After three cycles or quarters, HPDP shall conduct an assessment and prepare documentation of the process highlighting any issues, challenges, and lessons.

## D. Family Planning Inventory and Order Forms

### FP Inventory and Order Form, Version 2.5.1 (front)

NAME OF RHU/CHO:																
DATES COVERED:																
DATE ACCOMPLISHED:																
Commodity	Stock Available/ Beginning Balance (RHU/ CHO+ BHS)	Quantity Received		Transfers (received from other RHU/ CHO)	Quantity dispensed to clients at C/MHO/ RHU/BHS				Losses	Transfers (issued to other RHU/ CHO)	Current stock/ Ending balance  B+C+D-E-F-G	Commodity requirements for next quarter			Request/ Order	Remarks
		CO	Others		Month 1	Month 2	Month 3	TOTAL				CR	NR	TOTAL		
											=E				NR+ CR	
COC (Cycle)																
POP (Cycle)																
DMPA (vial)																
IUD (pc)																
Implant (pc)																
Condom (pc)																
PREPARED BY:									DESIGNATION:							
CONTACT NUMBER:									EMAIL:							
APPROVED BY:									DATE:							

Source: FP and TB Commodity Monitoring (FP Logistics Hotline, June 2016)

### FP Inventory and Order Form, Version 2.5.1 (back)

FP INVENTORY AND ORDER FORM for RHUs/CHOs v2.5.1 (GENERAL INSTRUCTIONS)	
1. Indicate complete RHU name and number (i.e., Dasmariñas I)	
2. Express commodities in required units (i.e., in vials, cycles, etc.)	
3. Provide inventory data by commodity type, not by brand (i.e., Microgynon, Femme and all other COCs fall under the COC category)	
4. Provide all inventory data being asked for; indicate "0" if no commodity was received, dispensed, issued, transferred, lost; if no data or remarks, indicate "none"	
5. Provide total quarterly amount unless otherwise asked (for dispense and issuance, please also provide a monthly breakdown)	
6. Review data before submitting to <a href="mailto:fplogistics@doh.gov.ph">fplogistics@doh.gov.ph</a> cc <a href="mailto:allan.millar@gmail.com">allan.millar@gmail.com</a> and your FP coordinator at PHO	
7. For questions: Allan 0917-8591444 or 0929-2748340 (or via email <a href="mailto:allan.millar@gmail.com">allan.millar@gmail.com</a> )	
INFORMATION	DEFINITION
B. Stock Available/Beginning Balance	Total quantity of commodities available at the beginning of the quarter in the RHU/CHO and BHSs
C. Quantity received	Total quantity of commodities received from DOH Central Office (shipped via forwarder e.g., Ximex or AIR21) and from other sources (PHO, RO, LGU procurement)
D. Transfers received	Total quantity of commodities received from other SDPs (i.e., Cavite City receiving stocks from Noveleta RHU)
E. Quantity dispensed	Quantity of commodities dispensed to clients at the RHU/CHO including those at the BHS to be tallied monthly and quarterly
F. Losses	Total quantity of commodities removed from the inventory due to reasons other than consumption e.g., expiration, damages, theft, or those used for training/demonstration purposes
G. Transfers issued	Total quantity of commodities issued to other SDPs (i.e., Noveleta transferring its excess commodities to Cavite City)
H. Current stock or ending balance	Total quantity of usable commodities available at the end of the quarter i.e., obtained by using the formula: beginning balance plus quantity received plus transfers from another RHU/CHO less quantity dispensed less losses less transfer to another RHU/CHO i.e., I=B+C+D-E-F-G
I. Commodity requirements (TR) for the next quarter	Total commodity requirements for the next quarter where: CR=current commodity requirements which should be equal to the total dispensed for the current quarter (column E) and NR=new or additional commodity requirements for the next quarter including for poor clients who were forced to buy commodities due to stockout and expected additional commodity requirements for new acceptors i.e., TR=CR+NR
J. Request/Order	Total requirements less ending balance i.e., I-H
K. Remarks	Indicate any remarks for the commodity e.g., no trained provider, stocks lost due to pilferage, and expiration

Source: FP and TB Commodity Monitoring (FP Logistics Hotline, June 2016)

## Family Planning Inventory and Order Form (from June 2016 memorandum)

FAMILY PLANNING INVENTORY AND ORDER FORM																	
NAME OF FACILITY (RHU/MHC/CHO):							NAME OF PROVINCE:										
DATES COVERED (3 MONTHS):							REGION:										
DATE ACCOMPLISHED:																	
A Commodity	B Stock Available/ Beginning Balance	C Quantity Received		E Adjustments		G Total Available (B+C+D+E)-F	H Total Quantity Issued			K Total Issuance	L Stocks on Hand/ Ending Balance (G-K)	M Average Monthly Usage/ Issuance K ÷ 3	N Available Months of Supply (L ÷ M)	O Requirements		Q Remarks	
		DOH Central Office	Others	Addition (+)	Subtraction (-)		Month 1	Month 2	Month 3					Authorized Stock Level (6-N) (in months)	Quantity required (O x M)		
Pills (COC) (cycle)																	
Pills (POP) (cycle)																	
DMPA (vial)																	
IUD (pc)																	
Implant (pc)																	
Male condoms (pc)																	

Source: Memorandum on Submission of Accomplished Family Planning Commodity Inventory and Consumption Form (Department of Health, June 2016)

## E. Technical Advisory on the Creation of a Supply Chain Management Unit

### Technical Advisory on the Creation of a Supply Chain Management Unit in the Department of Health UPecon-Health Policy Development Program June 25, 2015

This technical advisory proposes the creation of a Supply Chain Management Unit (SCMU) that shall coordinate and manage the supply chain for centrally procured commodities of the Department of Health to ensure the availability of stocks across service delivery points. It shall be composed of an Operations Sub-Unit that shall focus on the orchestration of planning, procurement, and distribution, and of a Monitoring and Evaluation Sub-Unit that shall manage and oversee the timely collection of logistics data. The SCMU shall report to the Undersecretary for Administration, Finance and Procurement thru the Office of Administrative Service.

The proposal to establish a SCMU seeks to address the weaknesses of a fragmented supply chain. At present, no single person or unit is coordinating the entire supply chain of DOH: programs take charge of forecasting commodity requirements for procurement, the Bids and Awards Committee (BAC) conducts the procurement, the Logistics Management Division (LMD) handles warehousing and distribution and has limited communication with programs and regional offices. All these functions are also being executed without a functional information system.

As a result, forecasting, allocation and distribution in the absence of information on consumption and stock levels at service delivery points. Furthermore, central procurement is faced with delays such that turn around time could go as long as over 300 days. There is also a lack of supply chain management protocols especially for dissemination of allocation lists and delivery schedules, and in evaluating Third-Party Logistics Service Provider (3PL) performance to prevent delivery delays. Program offices prepare allocation lists for delivery to

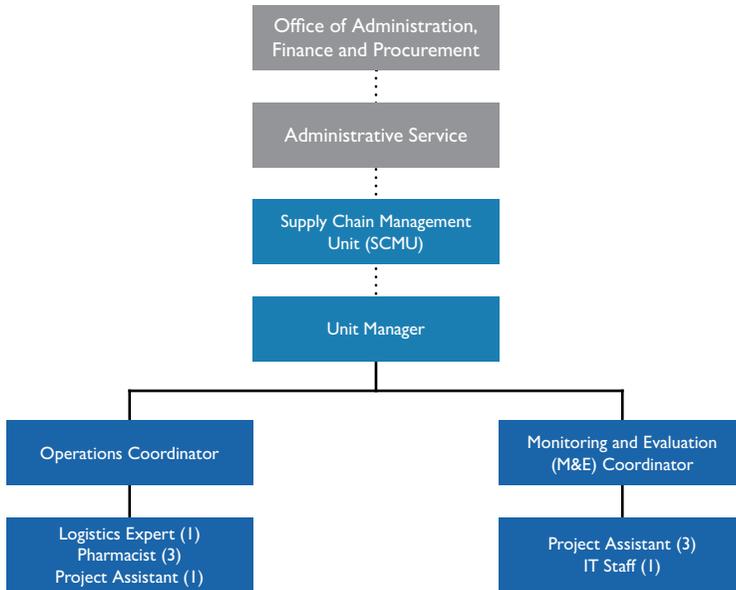
different destination (ROs, provinces, SDPs) at varying frequencies (quarterly, semi-annually, or as the need arises). This can be costly for DOH as deliveries can be initiated by different programs repeatedly for the same destination. In addition, while delivery lead times are specified in the 3PL contracts, other processes being done in-house by DOH are not subject to limits or lead times. For example, the preparation of draft Invoice Receipts of Property (IRPs)<sup>1</sup> can range from days to several months depending on the number of recipients.

*Proposed Organizational Structure*

The functions of the SCMU shall cover logistics data management, monitoring and evaluation, system design implementation and training, and coordination and collaboration with actors involved in supply chain management.

The Unit shall report to Usec. Nemesio Gako, (Usec. For Administration, Finance and Procurement), thru Dir. Angelina del Mundo of the Office of Administrative Service. It will be headed by a Unit Manager and will be composed of two sub-units – Operations Sub-Unit and Monitoring and Evaluation Sub-Unit – each sub-unit to be supervised by a Coordinator. The proposed SCMU shall work closely with the LMD, Program Offices and Procurement.

The **Operations Sub-Unit** shall be responsible for the orchestration of the planning, procurement, and distribution activities of the Department, thru close coordination with other bureaus and offices. It shall be composed of one (1) Logistics Expert, three (3) Pharmacists, and one (1) Project Assistant. The **Monitoring and Evaluation Sub-Unit (M&E)**, on the other hand, shall manage and oversee the timely collection of logistics data including consumption and inventory reports, for use in planning and estimation activities of Programs. It shall be composed of three (3) Project Assistants and one (1) IT personnel. The diagram below presents the proposed organizational structure for the SCMU.



<sup>1</sup> The Invoice Receipt of Property (IRP) is the document that the Logistics Management Division (LMD) sends to the 3PL indicating which commodities or combination of commodities are to be delivered for a recipient or destination. The 3PL is required to secure the signature of the recipient upon delivery on the IRP. The 3PL submits the signed IRP to LMD as proof of completed delivery which serves as basis for payment of services of the 3PL.

*Tasks and Responsibilities*

The SCMU Chief shall oversee the implementation of the Unit’s work plan and the supervision of staff including effective collection and use of logistics data, monitoring and evaluation, logistics design, as well as collaboration with programs and relevant units. The Sub-Unit Coordinators shall support the SCMU Chief in the conduct of these tasks and assume other roles and responsibilities as may be assigned. The table below presents the tasks and responsibilities of the proposed SCMU and personnel identified to carry out these tasks.

Proposed Task	Unit/Person Responsible
<b>I. Logistics Data Management</b>	<b>Monitoring and Evaluation Sub-Unit</b>
Communicating directly with facilities for receiving, reviewing, and approving reports and/or orders; following up on missing reports/orders; and generating feedback reports for the facilities	Project Assistants in coordination with program managers and ROs (thru DMOs and program coordinators)
Collection of consumption reports from facilities and other recipients	Project Assistants in coordination with program managers and ROs (thru DMOs and program coordinators)
Aggregating, analyzing, and interpreting logistics data to produce reports on logistics system performance, which are disseminated up and down the supply chain to all appropriate stakeholders	M&E Coordinator shall take the lead; Logistics Expert and Pharmacist to provide support
<b>II. Monitoring and Evaluation</b>	<b>Monitoring and Evaluation Sub-Unit</b>
Monitoring and preparing regular reports on the procurement, donation, deliveries including inventories at different warehouses	Project Assistants in coordination with program managers, LMD and ROs (thru DMOs and program coordinators)
Assessing stock status	Logistics Expert to take the lead, with support from Pharmacist in coordination with LMD
Coordinating and facilitating assessment of supply chain bottlenecks and providing feedback	M&E Coordinator
<b>III. System Design, Implementation, and Training</b>	<b>Operations Sub-Unit</b>
Facilitate the development, use and periodic review and revision of supply chain standard operating procedures, manuals and training curricula	Logistics Expert to take the lead, with support from Pharmacist
Ensuring appropriate staff are trained in logistics system procedures	Logistics Expert to take the lead, with support from Pharmacist
<b>IV. Coordination and Collaboration</b>	<b>Operations Sub-Unit</b>
Convening regularly scheduled coordination meetings with stakeholders involved in the management of the DOH supply chain including the TWG on Supply Chain Management	Operations Coordinator with support from Project Assistant

Coordinating with programs and relevant units for the: <ul style="list-style-type: none"> <li>• Conduct of annual quantification and quarterly quantification updates</li> <li>• Preparation of allocation list</li> <li>• Status of procurement, donation, deliveries including inventories at different warehouses</li> <li>• Engagement of third-party logistics provider consistent with DO 2014-0184 and its regular performance evaluation</li> </ul>	Operations Coordinator with support from Project Assistant
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Staffing Requirements

To fill the staffing requirements of the proposed SCMU, DOH shall deploy three (3) permanent DOH staff to be deployed full time as SCMU Unit Manager two Sub-Unit Coordinators. The staff to be deployed must be knowledgeable and have direct experience in planning, budgeting and procurement, and logistics process flow, preferably with SG 22-24 i.e., SG 24 for SCMU Manager and at least SG 22 for the two Sub-Unit Coordinators.

The other positions, on the other hand, shall be filled by nine (9) Job Orders, with the following salary grade (SG) and minimum academic/work requirements per position:

Position	Proposed Salary Grade	Proposed Minimum Requirements
<b>1 Logistics Expert</b>	SG 22 (PHP42,000/month)	<p><b>Education</b> University degree in Business Administration, Economics, Pharmacy, Engineering or related fields. A first level university degree with a relevant combination of academic qualifications and experience in areas such as transport or logistic operations/management, supply chain management, etc., may be accepted in lieu of the advanced university degree.</p> <p><b>Work Experience</b> At least 5 years of progressively responsible experience in logistics operations. Experience in health logistics is an asset.</p>
<b>3 Pharmacists</b>	SG 18 (PHP31,351/month)	<p><b>Education</b> University degree in Pharmacy, Industrial Pharmacy, other related fields.</p> <p><b>Work Experience</b> At least 2 years of progressively responsible experience in doing pharmacy work in clinical or pharmaceutical setting. Familiarity with DOH system processes (planning, procurement, etc.) is an advantage. Some knowledge of control and distribution of pharmaceuticals and pharmacy inventory control methods and procedures. Knowledgeable in MS Office (especially Excel) and inventory software.</p>

Position	Proposed Salary Grade	Proposed Minimum Requirements
<b>4 Project Assistants</b>	SG 15 (PHP24,187/month)	<p><b>Education</b> Graduate of any four-year course</p> <p><b>Work Experience</b> Knowledgeable in MS Office (especially Excel) and inventory software. Has accurate keyboard skills and proven ability to enter data at the required speed. Has knowledge of clerical and administrative</p>
<b>1 Information Technology staff</b>	SG 15 (PHP24,887/month)	<p><b>Education</b> Graduate of Information Technology (IT), Computer Engineering, other related fields.</p> <p><b>Work Experience</b> Knowledgeable in troubleshooting and maintenance of computers and software systems. Has experience designing simple database and inventory programs. Has knowledge of clerical and administrative procedures.</p>

Once constituted, the SCMU shall prepare its work plan for DOH that shall contain, among others, its proposed activities and targets to improve the planning, management, distribution, tracking and feedback of supply chain management within the short term (immediate next steps) until 2015, for 2016, and beyond 2016, within two week upon its official inception. The SCMU shall also assist the LMD in providing secretariat support to the TWG on Supply Chain Management.

The Administrative Service Office shall provide the SCMU the necessary office and equipment, and other support needed while the newly constituted Unit is building its capacities. The same shall conduct the screening and hiring of personnel and ensure that the Unit is adequately staffed with the right personnel to carry out the tasks described in this proposal.

As an immediate next step, we recommend that DOH Administrative Service Office prepare the necessary issuance, deploy the permanent personnel necessary for the posts, and hire the required contractual personnel (JOs).



This technical report discusses the products and accomplishments of the Support to Capacity Building and Knowledge Management (SCBKM) of the Health Policy Development Program (HPDP). The SCBKM provides assistance to the Department of Health (DOH) in managing interventions designed to build up and sustain capacity to manage information, scale up reform implementation, and address future strategic policy issues of the health sector. At the outset, the HPDP SCBKM has been tasked to produce six main knowledge products, including the establishment of an institutional platform for the *Kalusugan Pangkalahatan/Universal Health Care (KP/UHC)* and the development of a short course on procurement planning and contracts management.

HPDP is a five-year United States Agency for International Development (USAID) health policy project (Cooperative Agreement No. AID-492-A-12-00016) implemented by the UPecon Foundation, Inc. It supports the DOH-led policy formulation process for scaling up Universal Health Care.

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