



# Development of Standard Operating Procedures to Strengthen Demand and Supply Planning of DOH Philippines

December 2017



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## **Development of Standard Operating Procedures to Strengthen Demand and Supply Planning of DOH Philippines**

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Isaac Ireneo B. Linatoc  
Cristan C. Agaceta

December 2017





This report is made possible by the generous support of the American people through the US Agency for International Development (USAID), under the terms of cooperative agreement number AID-OAA-A-11-00021. The contents are the responsibility of Management Sciences for Health and do not necessarily reflect the views of USAID or the United States Government.

## **About SIAPS**

The goal of the Systems for Improved Access to Pharmaceuticals and Services (SIAPS) Program is to ensure the availability of quality pharmaceutical products and effective pharmaceutical services to achieve desired health outcomes. Toward this end, the SIAPS result areas include improving governance, building capacity for pharmaceutical management and services, addressing information needed for decision-making in the pharmaceutical sector, strengthening financing strategies and mechanisms to improve access to medicines, and increasing quality pharmaceutical services.

## **Recommended Citation**

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Linatoc I, Agaceta C. 2017. *Development of Standard Operating Procedures to Strengthen Demand and Supply Planning of DOH Philippines*. Submitted to the US Agency for International Development by the Systems for Improved Access to Pharmaceuticals and Services (SIAPS) Program. Arlington, VA: Management Sciences for Health.

## **Key Words**

Demand and Supply Planning, Supply Chain Management, Quantification, Standards Operating Procedures, Distribution, and Logistics

Systems for Improved Access to Pharmaceuticals and Services  
Pharmaceuticals and Health Technologies Group  
Management Sciences for Health  
4301 North Fairfax Drive, Suite 400  
Arlington, VA 22203 USA  
Telephone: 703.524.6575  
Fax: 703.524.7898  
E-mail: [siaps@msh.org](mailto:siaps@msh.org)  
Website: [www.siapsprogram.org](http://www.siapsprogram.org)

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## ACRONYMS

3PL	third-party logistics
APP	annual procurement plan
DOH	Department of Health
FHO	Family Health Office
FP	family planning
ITIS	Integrated Tuberculosis Information System
LMD	Logistics Management Division
NOSIRS	National Online Stock Inventory Reporting System
NTP	National Tuberculosis Program
OAFP	Office for Administration, Finance and Procurement
OPHS	Office for Policy and Health Systems
OTS	Office for Technical Services
PD	Pharmaceutical Division
PMIS	pharmaceutical management information system
PPMP	project procurement management plan
PS	procurement service
SCM	supply chain management
SIAPS	Systems for Improved Access to Pharmaceuticals and Services
SOP	standard operating procedure
USAID	US Agency for International Development



## BACKGROUND

As the national policymaker and regulatory institution, the Department of Health (DOH) Philippines is the overall health authority. It comprises various bureaus and offices at the central level that focus on different technical areas as well as regional offices around the country that serve as lead implementing agencies.<sup>1</sup>

The DOH is the lead agency in the implementation of the Philippine's Health Agenda 2016–2022. The goals of the health agenda are to ensure the best health outcomes for all, without socioeconomic, ethnic, gender, or geographic disparities; promote health and deliver health care through means that respect, value, and empower clients and patients as they interact with the health system; and protect all families, especially the poor, marginalized, and vulnerable, against the high costs of health care.

The DOH and its offices are responsible for the procurement and management of medicine and health commodities in the Philippines. Currently, there are 19 health programs under the DOH, which are managed by the different health program managers. The 2017 procurement budget, including all categories of items, was PHP 16 billion.<sup>2</sup>

Multiple assessments have been conducted and technical assistance has been provided to strengthen the DOH's supply chain management (SCM). A previous assistance (Shiferaw, Linatoc, and Agaceta, 2017) focused on strengthening SCM governance and confirmed that many DOH offices are involved in various areas of the supply chain, including the Logistics Management Division (LMD)-Administrative Service; the Pharmaceutical Division (PD); and health programs under the Disease Prevention and Control Bureau, such as the Family Planning (FP) Program and the National Tuberculosis Program (NTP). Other technical assistance (Nfor, Agaceta, and Linatoc, 2017) focused on warehouse operations in the context of implementing a warehouse management system for the DOH. Both identified various gaps in SCM coordination, warehousing and distribution, and information management and confirmed the current gap in appropriate demand and supply planning at the central level. This assistance builds on the previously conducted activities with a focus on strengthening the demand and supply planning system for DOH pharmaceutical commodities.

Consultations with the various DOH offices confirmed the current gaps in effective demand and supply planning, including a lack of available data on consumption and inventory from the facility level; the absence of regular and established quantification and planning processes at the central level; different processes on data collection, consolidation, and analysis and different dataset formats for different health programs; delays in preparation of the allocation plan for distribution; and multiple SCM initiatives that are not harmonized and may be duplicative. Further, an ineffective demand and supply planning system at the central level contributes to problems down the supply chain, such as a higher risk of stock-outs and expiry of critical medicines.

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<sup>1</sup> Available at: [DOH.gov.ph/profile](http://DOH.gov.ph/profile)

<sup>2</sup> Department of Health, Philippines: Annual Procurement Plan FY2017

Currently, most DOH health programs prepare a project procurement management plan (PPMP), annual procurement plan (APP), and allocation list based on targets and population data. Using consumption data, which are more accurate for quantification, is not yet possible because of gaps in data collection, consolidation, and analysis.

A consumption-based approach is considered the most accurate method for quantification (MSH, 2012). If implemented, the DOH may be able to address challenges related to increased aging of commodities at their warehouses and to the supply and demand mismatch at service delivery points either by implementing adjustments in procurement or improving allocation and distribution planning. However, this approach is only viable if source data are complete, accurate, and properly adjusted for stock-out periods and anticipated changes in demand and use.

To address the identified issues in demand and supply planning, different DOH offices involved in SCM have started and continued with their own initiatives to strengthen data collection, reporting, and allocation of commodities. Health programs, such as FP and the NTP, have initiatives to monitor program implementation, such as program forms, guidelines, manuals, and specific tools such as the FP Hotline of the FP program and the Integrated Tuberculosis Information System (ITIS) of the NTP. The LMD initiated a roll-out of the improved version of the National Online Stock Inventory Reporting System (NOSIRS) to record and track inventory of commodities from the central warehouse to the peripheral levels. PD initiatives included having public health pharmacists visit facilities, monitoring DOH-procured medicines, and implementing a pharmaceutical management information system (PMIS). Two workshops held by the DOH with supported from the US Agency for International Development (USAID)-funded Systems for Improved Access to Pharmaceuticals and Services (SIAPS) program in August 2017 confirmed that because each office performs its own SCM activities in isolation, there are redundancies and duplication of effort that contribute to inefficiency for the whole system, and there is the potential to consolidate these efforts.

There is a need to strengthen the DOH's demand and supply planning to perform consumption-based quantification, especially for health commodities of the Family Health Office (FHO), NTP, and PD, which account for about 90% of total volume of products being managed by the LMD. The development of standard operating procedures (SOPs), following consensus building among concerned offices, is an effective start to harmonize and institutionalize initiatives related to supply planning activities of DOH.

## OBJECTIVES

In line with the objective of the DOH to strengthen SCM for pharmaceuticals and health commodities and ensure access for all Filipinos, this technical assistance aimed to support the DOH in strengthening demand and supply planning for pharmaceuticals. Specifically, the assistance aimed to:

- Facilitate consensus building to harmonize demand and supply planning activities of the DOH
- Initiate the development of selected SOPs on demand and supply planning at the central level
- Identify data sets and requirements for performing consumption-based quantification for selected commodities

## METHODOLOGY

SIAPS conducted a desk review of previous SCM assessments and internal DOH policies on demand and supply planning. Key informant interviews were conducted to further explore and validate SCM activities and challenges.

Three workshops were held to facilitate discussions during the technical assistance. At the first workshop, data collection and management concerns were reviewed. Current SCM activities of different programs and offices were consolidated during the second workshop. This also provided an opportunity to initiate consensus building and identify priority areas for improvement. The third workshop was conducted to formally document agreements on demand and supply planning and related activities. These were utilized in drafting the SOPs. Continuous coordination between workshops was instrumental in drafting the proposed SOPs, harmonizing data requirements, and formulating steps to move forward based on prior agreements.

The Office for Administration, Finance and Procurement (OAFP); Office for Technical Services (OTS); and Office for Policy and Health Systems (OPHS) were consulted. The programs and divisions under the OAFP, OTS, and OPHS that were involved included:

- FP Program
- Population Commission
- NTP
- PD
- LMD
- Regional Office 3 representatives

Most participants were technical staff and supply officers involved in managing the supply chain at the central level and public health pharmacists and supply officers from Regional Office 3. Key informants during the consultations are listed in annex D.

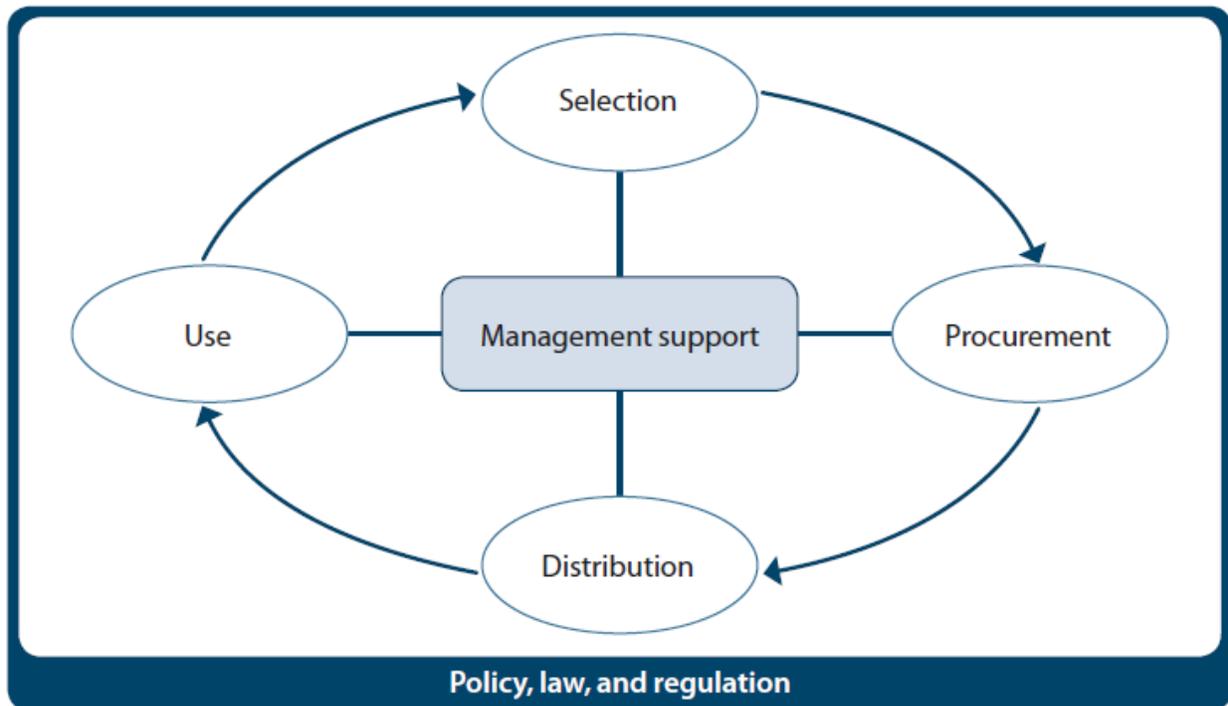
The previous assistance (Nfor, Agaceta, and Linatoc 2017) confirmed that FHO, NTP, and PD commodities represent the bulk of commodities managed by the LMD. Therefore, standardization and harmonization of the different processes were prioritized for the FP Program, NTP, and PD.

## RESULTS AND DISCUSSION

The results and discussion are presented in the following sections.

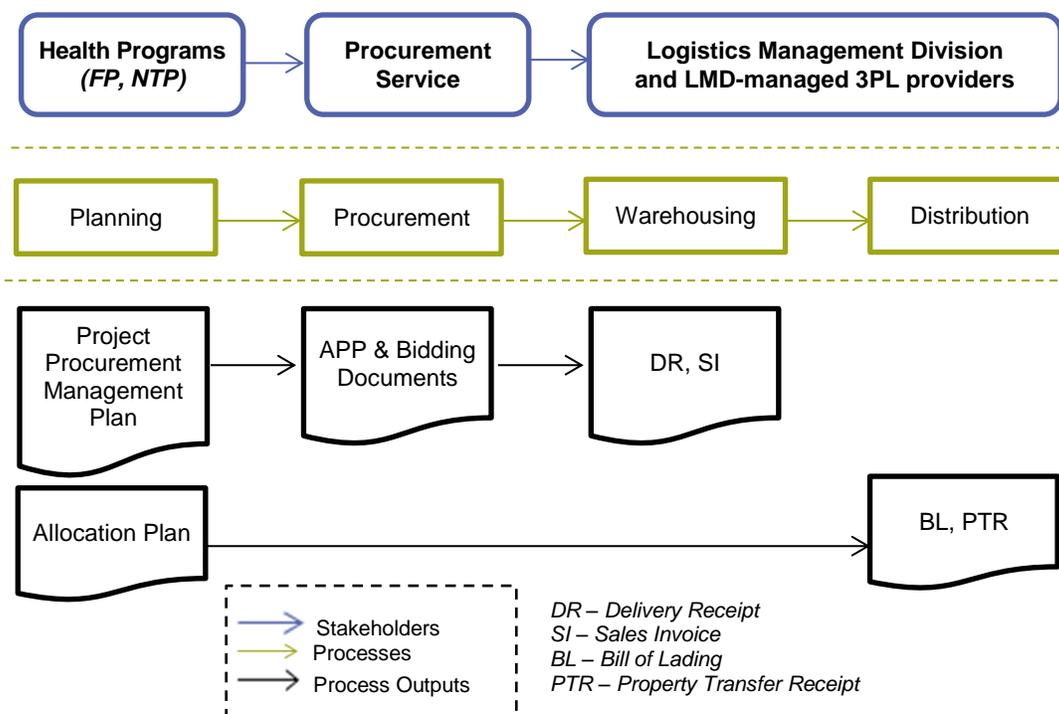
### Current Processes and Problems Encountered

Pharmaceutical management comprises selection, procurement, distribution, and use and requires overall management support and appropriate policies, laws, and regulations (MSH, 2012). Currently in the DOH, various offices are involved in the pharmaceutical management cycle. Health programs under the OTS focus on the selection, planning, and use component as well as program implementation. Procurement Service (PS), which is under the OAFP, focuses on facilitating the actual procurement process. The LMD, also under the OAFP, focuses on warehouse operations and distribution through third-party logistics (3PL) providers. The PD, which is under the OPHS, fulfills roles related to selection, planning, and use as well as in formulating various national policies on pharmaceuticals. Finally, the Food and Drug Administration under the Office of Health Regulation is the national authority on the regulation of pharmaceutical commodities in the country.



**Figure 1. Pharmaceutical management framework**

*Image From: Management Sciences for Health. MDS-3: Managing Access to Medicines and Health Technologies. Arlington, VA: Management Sciences for Health, 2012.*



**Figure 2. Process flow for DOH commodities at the central level**

Figure 2 shows the current process flow for DOH commodities at the central level, which covers the planning, procurement, warehousing, and distribution of commodities with corresponding monitoring activities.

### **Planning and Procurement**

The responsibility for demand and supply planning of DOH commodities lies with the respective DOH health programs (i.e., planning for FP commodities is with the FP Program and planning for TB commodities is with the NTP). A PPMP, which includes the distribution plan, is prepared based on the approved annual budget per program. The supplier’s schedule of delivery to the DOH central warehouse, which may be separated into multiple tranches for one year, and the allocation plans for the different regions are reflected in the distribution plan. According to the informants, these distribution plans are usually not reliable as they are submitted mainly for the purpose of complying with PS requirements. Instead, modified allocation plans, which reflect actual quantities to be distributed, are submitted to the LMD once commodities are available at the central warehouses.

All PPMPs from different DOH programs and offices are consolidated by PS into an APP before the procurement process goes forward. Currently, variances in the schedule of submission of PPMPs pose challenges in the preparation of the APP. As confirmed with key stakeholder interviews, health programs, particularly FP and the NTP, prepare PPMPs based on population data and previous procurement documents. Using consumption data is not yet possible because current data available from facilities are not reliable for many reasons, including access sites that do not report, report but not in a timely manner, or report but the reports are incomplete or of poor quality.

The following summarizes the process of allocation planning for the major health programs, which represent 90% of the health commodities handled by DOH:

- The allocation of FP commodities is based on the target number of patients or by requests from facilities. The target number of patients is based on a national target and is not necessarily disaggregated per facility. Facilities may send their requests through a format defined by the program or through the FP Hotline.
- For the allocation of NTP commodities, only second-line TB medicines are quantified based on consumption and by using QuanTB, an electronic forecasting and early warning tool developed by SIAPS with support from USAID. First-line TB medicines are allocated based on targets and on the number of patients enrolled in the ITIS and not necessarily on consumption. Similarly, the target number of patient is not necessarily disaggregated per facility.
- The allocation of PD commodities is based on the monthly consumption and stock on hand of the facilities. These data are now encoded through the PMIS, an electronic system developed by the PD.

Once the APP has been prepared and approved, PS will process it for procurement. Procurement is done annually, and currently there is no flexibility in making adjustments of the approved quantity to be procured mid-procurement; however, additional procurement is allowed through emergency procurements.

### ***Warehousing and Distribution***

Once procured, commodities are delivered to DOH-owned warehouses, which are managed by the LMD. Health programs then prepare the allocation plan to send to the LMD as its basis for distributing commodities to regional warehouses, provincial warehouses, and facilities throughout the year. Different programs may also have varied schedules for distribution (i.e., three times a year for FP and quarterly for NTP), and therefore varied submissions of allocation plans. The LMD is responsible for ensuring that these commodities are distributed through the contracted 3PL provider based on the allocation plan. The LMD is responsible for managing and monitoring warehouse and distribution operations, while health program coordinators monitor use and program outcomes.

The actual schedule of dispatches from central warehouses and the expected time of arrival at peripheral warehouses and health facilities are not known to program managers or facility staff as the communication roles, responsibilities, and mechanisms are unclear. Furthermore, processing time in preparing commodities for dispatch is also variable due to the need to repack some health commodities because of mismatch between allocated quantities and the original pack sizes; the need to revise allocation plans due to inconsistent information between product descriptions and actual products in inventory; nonstandard distribution plans (i.e., for the NTP, distribution is only up to the regional warehouse level, while for the FP Program and PD it is up to the facility level); and varied waiting time for releasing the results of FDA test analyses. The risk of releasing products without clearance from the FDA has been taken by some programs to expedite distribution.

## **Monitoring**

Health programs have coordinators to monitor stock levels of commodities at the facility level, along with other responsibilities. Regional and provincial warehouses have supply officers as counterparts of central warehouse personnel. At each facility, every program has paper- or electronic-based reporting mechanisms that are consolidated at the level of provincial coordinators for feedback to program managers at the central office. There is no clear coordination mechanism between supply officers and program coordinators at the regional and provincial levels. In addition, the FP Hotline is utilized to contact facilities for their requests to replenish FP commodities. The program has confirmed that not all facilities are able to send their requests either through the forms or the FP Hotline, which makes preparing allocation plans difficult and complicated.

The PD is able to collect data on monthly consumption and stock on hand at the facilities through monitoring visits conducted by public health pharmacists. Challenges with data integrity and IT infrastructure are currently being addressed by the PD. Public health pharmacists are also able to perform stock transfers between facilities they monitor, which allows them to address supply and demand concerns immediately. Informal requests from other program coordinators have also allowed these pharmacists to perform stock transfers for commodities of other health programs in some areas. However, public health pharmacists have no clear mandate at the facilities they monitor, which leads to variable monitoring performance in different areas.

## **Further Implications**

Using population data to prepare the PPMP and APP increases the risk of experiencing stock-outs or expiry in the supply chain. Ideally, health programs that have been consistently running for multiple years should move from planning based on population data to consumption-based planning. Unfortunately, as confirmed with the health programs, the current status and quality of data available from facilities that they receive from program initiatives is not sufficient and not reliable enough to be used effectively for consumption-based quantification.

Preparing an allocation list, PPMP, and APP based on actual facility consumption is not possible because of current issues in data collection, consolidation, analysis, and use. Inventory data are available at different points of the supply chain (i.e., health programs collect patient use data, the LMD collects warehouse data, and the PD collects inventory data) and are not consistently or systematically shared or used. In addition, data collected are not easily usable and sharable because of the different formats and definitions that various offices are using. Decisions at the central level to manage the DOH supply chain (i.e., preparing an allocation plan, finalizing distribution, making adjustments for various deliveries) should be based on evidence. The lack of data, data quality, and data synchronization are possible contributors to an inefficient mechanism in preparing the APP and allocation plans, which leads to stock-outs and expiry at the facility level as well as a high aging of stock at the warehouses level (Nfor, Agaceta, and Linatoc, 2017). There is a need to harmonize both the process of data collection, consolidation, and analysis and the datasets being collected in a format that can be conveniently analyzed at central-level offices for decision making.

Inconsistencies in the processes and scheduling of allocation planning of different programs place an unnecessary burden on the LMD when preparing delivery documents and increase the

turnaround time for processing documents at the central level, which prolongs the turnaround time for processing and releasing commodities at warehouses. The LMD may need up to six months to prepare and process allocation plans sent by health programs. Delays in receiving the allocation plans and sudden changes in sent allocations disrupt normal warehouse and distribution operations. This makes it more difficult for 3PL providers because distributions of different commodities are not harmonized and delivery vehicles and routes are not used efficiently.

There is no harmonization in the monitoring of the commodities flow from the central to the peripheral levels. No standard coordination mechanism on how offices will share information with one another has been established. Valuable information from different offices is currently collected through different monitoring activities that are not systematically shared or used for decision making at the central level.

Finally, as confirmed by all stakeholders, the lack of coordination and management is a critical and ongoing problem encountered across SCM. The lack of a governance unit on supply chain, which should be responsible and accountable for various functions of the supply chain, such as planning, logistics management, and monitoring and evaluation, contributes to the problems encountered, as confirmed by previous technical assistance (Shiferaw, Linatoc, and Agaceta, 2017). Also, the lack of SCM governance leads to different initiatives in each office. These initiatives can be beneficial but are not necessarily harmonized with one another and can lead to duplication of efforts. Strong SCM governance will be critical for sustaining, harmonizing, and maximizing the benefits of SCM initiatives.

### **Proposed Process and Selected SOPs**

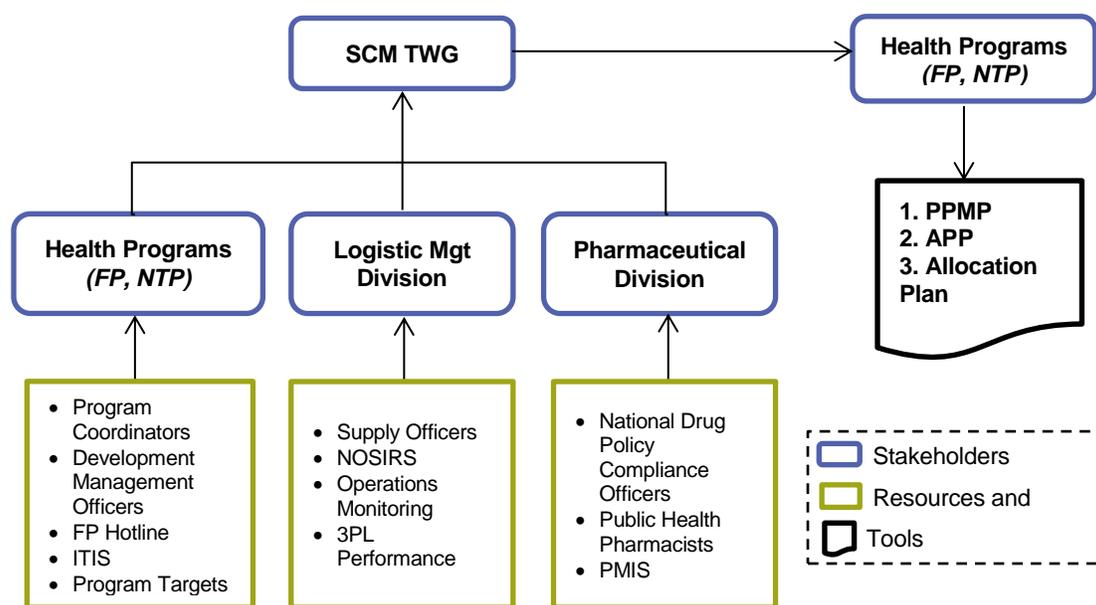
Considering the current processes discussed as well as the problems encountered, stakeholders agreed that using consumption data for planning has a huge potential for improving the supply chain, data collected at various points by different offices should be harmonized for use in decision making, streamlining processes during planning and distribution has significant potential for improving timelines and supply chain performance, coordination among all involved offices is critical, and an SCM unit will be significant in sustaining all major efforts in managing the DOH supply chain.

The following were agreed upon with stakeholders as the preliminary set of SOPs to be drafted to initiate consumption-based planning:

- Conducting facility monitoring visits
- Consolidation and feedback at the regional level
- Consolidation and initial analysis at the central level
- Conducting demand and supply planning meetings
- Data validation at the facility level

These five SOPs were chosen to initiate the streamlining process for the offices involved. Recommendations from stakeholders and consultation workshops were used to draft the proposed SOPs for demand and supply planning. Copies of the draft SOPs with details about the identified processes are shown in annex A. It is critical that stakeholders collaborate on the

recommendations to ensure that the process to be defined for demand and supply planning will enhance health programs (e.g., FP Program, NTP) while also considering the direction and initiatives of the LMD and PD and ensuring that all initiatives are aligned with the DOH and are harmonized to strengthening the supply chain.



**Figure 3. Information flow for DOH demand and supply planning**

Figure 3 shows the proposed information flow from different offices to strengthen demand and supply planning from the proposed SOPs.

Health programs, specifically the FP Program and the NTP, collect information from the peripheral levels through their program coordinators and development management officers. They also collect information through tools such as the FP Hotline and ITIS. The LMD collects data through its regional supply officers and by monitoring warehouse operations and 3PL provider performance. It also collects data through the implementation of NOSIRS. Finally, the PD collects data at the facility level through public health pharmacists who monitor and visit facilities monthly. The data are encoded and consolidated through the PMIS, and the national drug compliance policy officer forwards the data to the central level and provides feedback to FP coordinators, NTP coordinators, and the DOH regional office. The collection of inventory data as well as feedback from the PD to health programs and the LMD should be made formal through a policy memorandum. Recommendations on what data should be collected and the source of those data are provided in annex B.

All data collected at the central level should be shared, processed, and presented in a Demand and Supply Planning Technical Working Group, which will also conduct the quantification activity. Assumptions during quantification (i.e., consumption trends, wastage rate, program expansion, distribution lead times) will also be made by this TWG. Through this TWG, the analysis of data may proceed and should be documented and used as a basis to revise and finalize

the annual allocation plans of the FP Program and NTP. After an allocation plan is revised, it will be sent to the health program for final approval. After the allocation plan for the current fiscal year has been created, it can be used as the basis for budget requests and to create the APP for the next fiscal year; this should be approved and signed by the program manager before processing of procurement by PS.

### **Additional DOH SCM Initiatives**

Finally, SIAPS found that offices currently have different processes and initiatives to improve demand and supply planning. The table below summarizes the findings for major stakeholders involved in the consultations.

**Table 1. Summary of Initiatives for Demand and Supply Planning**

<b>Initiative</b>	<b>Family Planning Program</b>	<b>National Tuberculosis Program</b>	<b>Logistics Management Division</b>	<b>Pharmaceutical Division</b>
1. Data reporting and collection of inventory at facility level	FP Hotline Requisition form	Requisition form	N/A	Public health pharmacist monitoring
2. Presence of human resources at peripheral levels	FP coordinator Family health associates	NTP coordinator	Regional supply officer	National drug compliance policy officer  Public health pharmacist
3. Information management system	N/A	Integrated Tuberculosis Information System  Use of QuanTB for quantification of second-line medicines	National Online Stock Inventory Reporting System	Pharmaceutical management information system
4. Presence of supply chain working group	DOH SCM TWG RPRH TWG on logistics	DOH SCM TWG Drugs and Supply Management Sub-TWG	DOH SCM TWG	DOH SCM TWG

It is important to note some of these initiatives are being conducted by individual offices. These initiatives are important and valuable for each office, but they also present an opportunity for offices to work together. This should be explored to expand the benefit of individual efforts to the whole supply chain. These initiatives have the potential to be used for all DOH products at both the national and peripheral levels.

Recommendations on how to harmonize all efforts moving forward were documented. A summary of the agreements and recommendations is provided in annex C.

## MOVING FORWARD

To implement and adopt the proposed draft SOPs for DOH Philippines, the recommendations moving forward are:

- Present recommendations for implementing consumption-based method to DOH management as well as to the current DOH SCM TWG
- Finalize draft SOPs and issue the corresponding policy to officially adopt the procedures
- Implement draft SOPs to selected areas as a pilot and revise SOPs accordingly
- Facilitate continuous coordination meetings with the offices involved in SCM to implement the proposed SOPs
- Facilitate continuous coordination meetings to harmonize SCM initiatives
- Expand and create new SOPs to cover other processes in demand and supply planning for DOH SCM
- Initiate and expand SOPs to other DOH commodities
- Provide human resources and capacity building support to technical staff responsible for performing quantification and preparing the APP and allocation plan
- Establish a Demand and Supply Planning Technical Working Group that will be accountable and responsible for performing demand and supply planning functions through policy memoranda
- Initiate and support the creation of an SCM division that will lead and oversee demand and supply planning activities and ensure the effective and sustainable implementation of all initiatives

## CONCLUSION

Demand and supply planning for the DOH can be enhanced to help strengthen the entire DOH supply chain. Consumption-based quantification, as a basis for creating the APP and allocation plan, presents a significant opportunity for improving supply planning for health programs to address both stock-outs and expiry at the facility level and aging and overstocking at the warehouse level. To perform consumption-based quantification, the data being collected at various points of the supply chain as well as by different offices should be reviewed to ensure that the required data are available, harmonized, and utilized. Further, there is a need to look at the planning and procurement, warehousing and distribution, and monitoring processes. Harmonization of these processes through the initial SOPs will help streamline supply chain functions from planning to distribution and will benefit the FP Program, NTP, PD, LMD and all other DOH health programs.

While individual office initiatives are valuable, they also present an opportunity for synergizing the various initiatives to expand their benefits to all DOH health programs. Technical officers from the various offices recognize the potential and are willing to work with one another to expand the benefits.

Finally, it is critical for both demand and supply planning and SCM to create a strong governance unit by identifying one SCM office responsible and accountable for SCM initiatives and to ensure the continuous and sustainable implementation of these initiatives to strengthen the entire DOH supply chain.

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# ANNEXES

## Annex A. Proposed Draft Standard Operating Procedures

### SOP 1: CONDUCTING MONITORING VISITS FOR PUBLIC HEALTH PHARMACISTS

#### 1. PURPOSE:

- 1.1. To ensure the quality and timeliness of monitoring and data collection performed by the Public Health Pharmacists of the Pharmaceutical Division-Department of Health Philippines

#### 2. SCOPE:

- 2.1. This procedure encompasses all pharmaceutical monitoring activities performed by the public health pharmacists in each facility under his/her authority

#### 3. RESPONSIBILITY:

- 3.1. Provincial Public Health Pharmacists
- 3.2. For training and process management purposes:
  - 3.2.1. National Drug Policy Compliance Officers (NDPCO)
  - 3.2.2. Department of Health - Pharmaceutical Division
- 3.3. For information purposes:
  - 3.3.1. Provincial DOH Office (PDOHO)
  - 3.3.2. Regional Family Planning Coordinator (FP)
  - 3.3.3. Provincial Family Planning Coordinator (FP)
  - 3.3.4. National TB Program Coordinator (NTP)
  - 3.3.5. Development Management Officer (DMO)
  - 3.3.6. Regional Director
  - 3.3.7. Municipal Health Officer

#### 4. REFERENCES:

- 4.1. Department Memorandum No. 2017-0160: Submission of Utilization Report of Various Medicine Access Programs (MAPs)
- 4.2. Department Memorandum No. 2016-0222: Quarterly Pharmaceutical Supply Chain Management (SCM) Performance Monitoring Tool
- 4.3. Memo: Official List of Medicines to be monitored

#### 5. DEFINITION:

- 5.1. **Beginning Balance:** No. of starting stocks of a product recorded at the facility based on the previous remaining balance visit or based on the most recent conducted physical count.
- 5.2. **Delivery:** No. of stocks of a product delivered from the DOH central officer and received by the facility.
- 5.3. **Consumption:** No. of stocks of a product dispensed by the facility for consumption of patients.
- 5.4. **Stocks Received:** No. of stocks of a product received by a facility from another facility through stock transfers.
- 5.5. **Stocks Transferred:** No. of stocks of a product issued by a facility for the use of another facility or a more peripheral access site.
- 5.6. **Expired/losses/damages:** No. of stocks of a product lost due to expiry, loss or damage.
- 5.7. **PMIS:** Pharmacy Management Information System

#### 6. PROCEDURE:

##### 6.1. **Schedule and Frequency**

- 6.1.1. Monitoring visits and data collection should be conducted monthly.
- 6.1.2. Depending on the distance between facilities it may be possible to visit two (2) to three (3) facilities on the same day.
- 6.1.3. All monitoring reports and documentation should be submitted completely and encoded online through PMIS on or before the 10<sup>th</sup> day of the following month. To avoid delayed submission of reports, it is recommended to perform encoding right after the conducted monitoring visit.
- 6.1.4. Submit a copy of the prepared monthly itinerary to the NDPCOs and DMO at the start of the first week of the month.

##### 6.2. **Preparation and Coordinating the Facility Visit**

- 6.2.1. Contact the doctor or public health nurse of the facility at least three (3) days ahead to arrange a mutually convenient time for the visit when the doctor or public health nurse will be present.
- 6.2.2. Send an electronic mail (e-mail) to all stakeholders regarding the agreed upon monitoring schedule including details such as date of schedule, time and names of expected participants. Include in the CC of the email your respective NDPCO.
- 6.2.3. Secure a hardcopy of the monitoring form based on DM 2016-0283.
- 6.2.4. Log-in at the PDOHO before proceeding with the field monitoring visit.

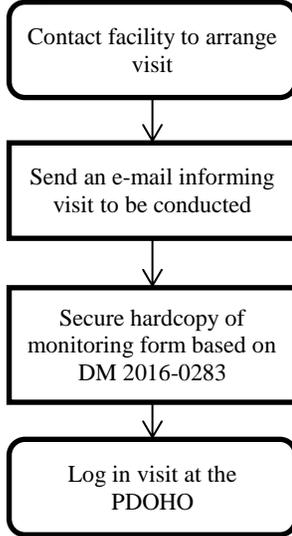
##### 6.3. **Perform Inspection and Monitoring of Pharmaceuticals**

- 6.3.1. Arrive at the facility and introduce yourself to staff. Make a courtesy call with the MHO as needed.
- 6.3.2. Log-in at the field monitoring visit logbook of the RHU.

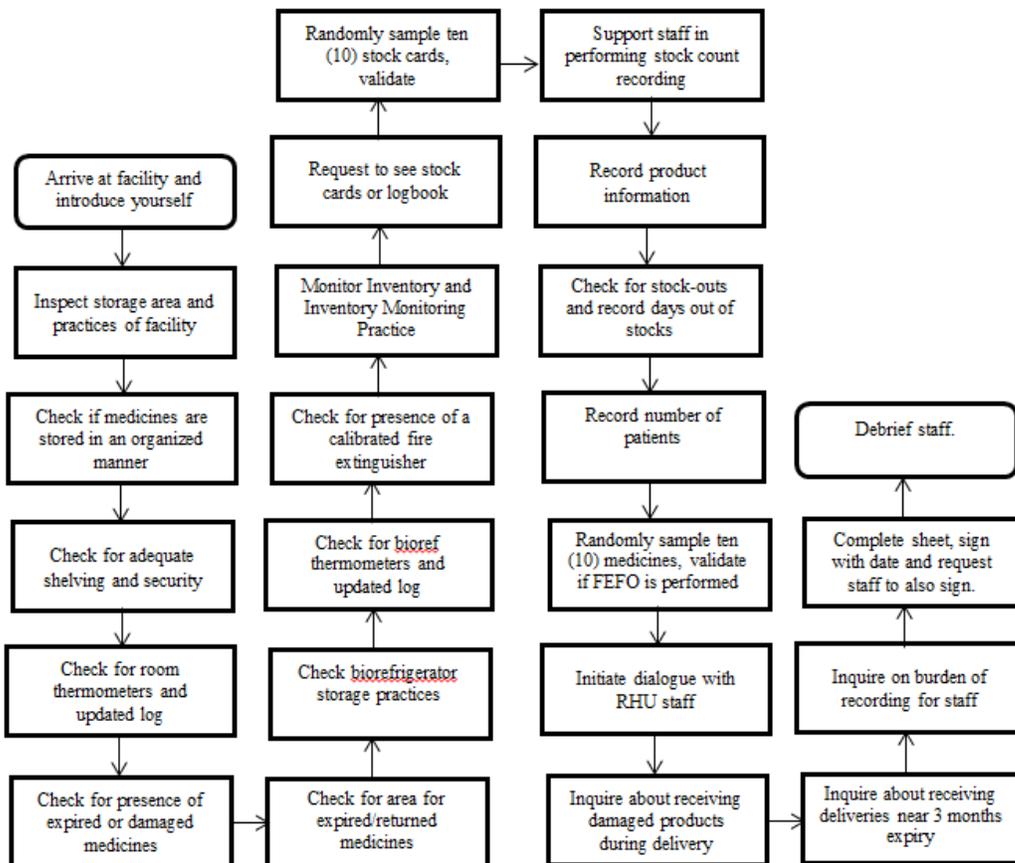
- 6.3.3. Inspect the storage area and practices of the facility:
    - 6.3.3.1. Check that medicines are stored in an organized manner: alphabetical order or based on use and/or therapeutic category. If necessary, ask staff to re-locate medicines under your supervision.
    - 6.3.3.2. Inspect the storage area for pharmaceuticals and confirm adequacy of shelving and security. Note unsatisfactory storage where assistance may be required.
    - 6.3.3.3. Check for the presence of functioning thermometers in the storage room and monitoring log is updated. Ask for the calibration certificate of the temperature monitoring device (*thermometers must be calibrated annually*).
    - 6.3.3.4. Check for presence of expired or damaged medicines in the shelves. Correct accordingly.
    - 6.3.3.5. Check if there is a designated area for expired/returned medicines and they are properly identified and separated from the usable stocks.
    - 6.3.3.6. Open the refrigerator where vaccines are stored and check that they are in the body of the refrigerator (not in the door) and that there are no food items in the refrigerator.
    - 6.3.3.7. Check that there is a thermometer in the refrigerator and an updated monitoring log. Ask for the calibration certificate of the temperature monitoring device (*thermometers must be calibrated annually*). Ask if the RHU has a contingency plan in case of power failures.
    - 6.3.3.8. Check for the presence of a fire extinguisher. Ask for the maintenance certificate of the fire extinguisher. (*Fire extinguishers must be maintained every six (6) months*).
  - 6.3.4. Monitor the inventory and inventory monitoring practices of the facility:
    - 6.3.4.1. Ask to see all stock cards or logbook used to record the drug inventory. Check if the form in DM 2017-0160 is used and updated.
    - 6.3.4.2. Take a random sample of ten (10) stock cards, perform a physical inventory count of these items and validate with the record stocks in the stock cards. Record discrepancies found. Correct the discrepancies accordingly: inform the person in charge for them to cross out the quantity and write down the correct quantity with signature.
    - 6.3.4.3. From the inspected stock cards, determine if the facility is able to appropriately use the stock cards and maintain inventory counts. If not, assist the clinic staff in accomplishing and recording the correct inventory in the inventory records by actually performing inventory count for the drugs included in the drug list.
    - 6.3.4.4. Record the following information for each of the product:
      - 6.3.4.4.1. Beginning balance
      - 6.3.4.4.2. Delivery
      - 6.3.4.4.3. Consumption
      - 6.3.4.4.4. Stocks transferred
      - 6.3.4.4.5. Stocks Received
      - 6.3.4.4.6. Expired/losses/damages.
    - 6.3.4.5. Check every stock card to determine if there have been any stock-outs since your last M & E visit. If so, for each medicine involved record the period that there was zero stock as days out of stocks.
    - 6.3.4.6. Request for the updated DM 2017-0160. If this is not updated, check the patient logbook. Record the number of patients served for the following:
      - 6.3.4.6.1. Maintenance Medicine Access Programs
      - 6.3.4.6.2. Family Planning Program
      - 6.3.4.6.3. National Tuberculosis Program
      - 6.3.4.6.4. HIV/AIDS Programs
    - 6.3.4.7. Randomly select ten (10) medicines and record the expiry date of those at the front and those at the back of the shelves or cabinet. Use this information to confirm whether FEFO is in operation.
    - 6.3.4.8. From the sample stock cards, calculate the average Lead Time (LT) for the last three orders which were placed. Record on the M & E record sheet.
  - 6.3.5. After the inspection initiate a dialogue with the doctor, nurse, midwife or the staff in charge of the medicines and commodities in the facility:
    - 6.3.5.1.1. Inquire if they have experienced receiving deliveries with damaged stocks or with discrepancies and recommend them to accomplish a discrepancy report form. Record this in the report.
    - 6.3.5.1.2. Inquire if they have experienced receiving deliveries containing medicines with less than three (3) months shelf life remaining. Record this in the report.
    - 6.3.5.1.3. Inquire if current record keeping activities are interfering with patient care activities. Make your own assessment of this answer by viewing the number of patients waiting and how busy the nurse appears to be. Record this in the report.
  - 6.3.6. Complete the M & E record sheet, sign and date it, then ask the doctor to sign complete with the current date.
  - 6.3.7. Debrief the clinic staff on your findings and thank them for their assistance.
- 6.4. Submission of Reports**
- 6.4.1. Gather together all M & E record sheets for the facilities you have visited.
  - 6.4.2. Submit the M & E record sheets to the pharmaceutical supply chain management division of the national pharmaceutical center (NPC).
  - 6.4.3. Encode the collected data online.

7. **PROCESS FLOW DIAGRAM:**

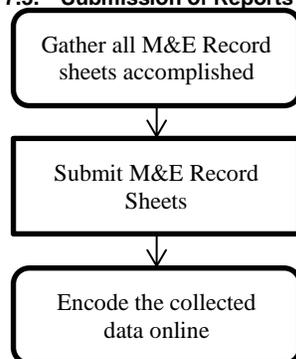
7.1. **Preparation and Coordinating the Facility Visit**



7.2. **Perform Inspection and Monitoring of Pharmaceuticals**



### 7.3. Submission of Reports



### 8. **RECORDS:**

8.1. None.

### 9. **ATTACHMENTS:**

- 9.1. DM 2016-0283 (Monitoring and Evaluation Form)
- 9.2. Discrepancy report form

## **SOP 2: CONSOLIDATION AND FEEDBACK AT THE REGIONAL LEVEL**

### 1. **PURPOSE:**

- 1.1. To ensure the quality and timeliness of consolidation and feedback of monitoring reports at the regional level of the Department of Health Philippines

### 2. **SCOPE:**

- 2.1. This procedure encompasses the consolidation and feedback performed by the National Drug Policy Compliance Officers for monitoring reports of each facility under his/her authority

### 3. **RESPONSIBILITY:**

- 3.1. National Drug Policy Compliance Officers (NDPCO)
- 3.2. For training and process management purposes:
  - 3.2.1. Department of Health - Pharmaceutical Division
- 3.3. For information purposes:
  - 3.3.1. Regional Family Planning Coordinator (FP)
  - 3.3.2. Provincial Family Planning Coordinator (FP)
  - 3.3.3. National TB Program Coordinator (NTP)
  - 3.3.4. Development Management Officer (DMO)
  - 3.3.5. Regional Director
  - 3.3.6. Provincial Health Officer

### 4. **REFERENCES:**

- 4.1. Department Memorandum No. 2017-0160: Submission of Utilization Report of Various Medicine Access Programs (MAPs)
- 4.2. Department Memorandum No. 2016-0222: Quarterly Pharmaceutical Supply Chain Management (SCM) Performance Monitoring Tool

### 5. **DEFINITION:**

- 5.1. **RHU:** Rural Health Units
- 5.2. **BHS:** Barangay Health Stations

### 6. **PROCEDURE:**

#### 6.1. **Schedule and Frequency**

- 6.1.1. All reports sent and encoded by Public Health Pharmacists (PHPs) for the month should have been reviewed by the NDPCOS until the 10<sup>th</sup> day of the following month.

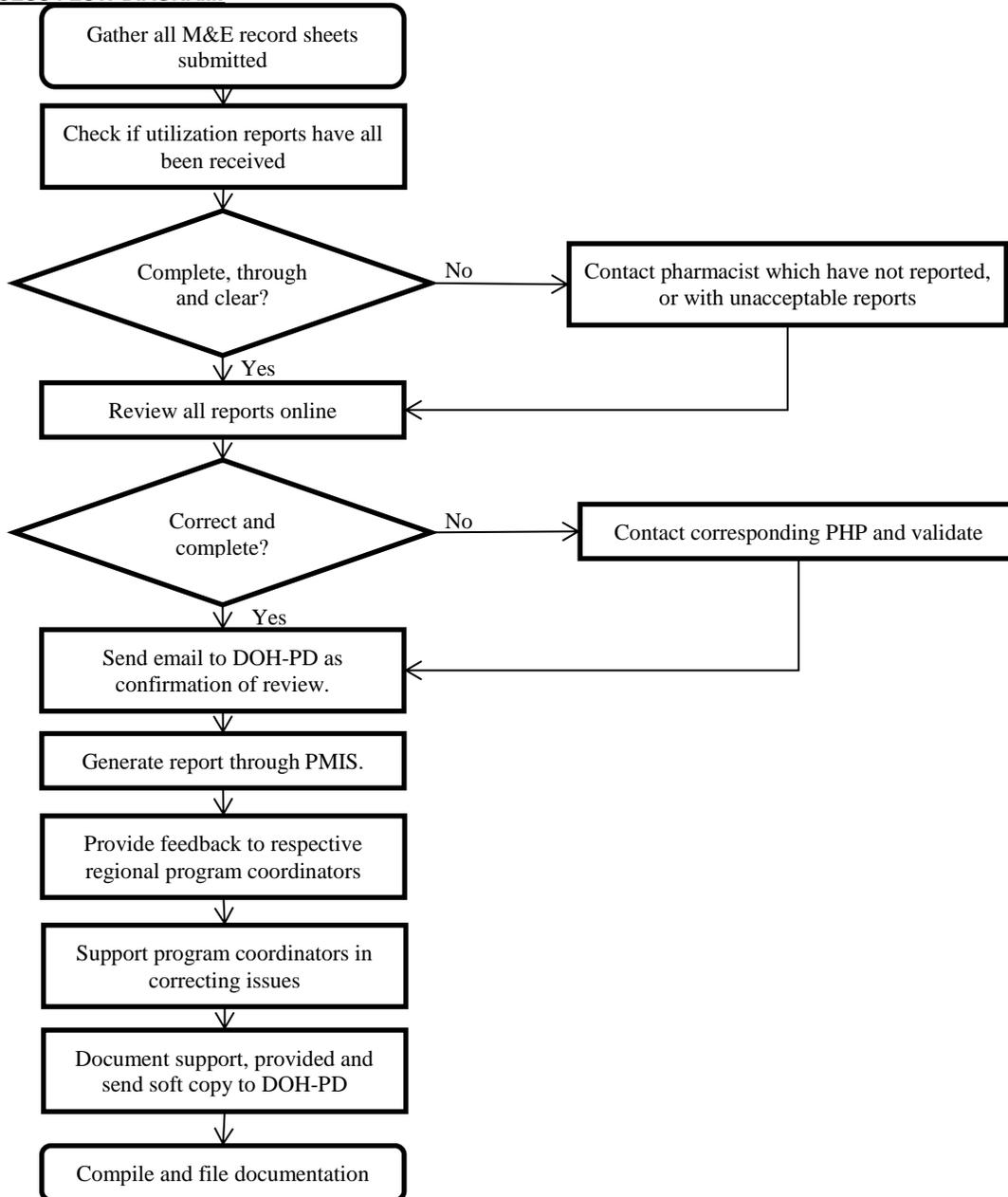
#### 6.2. **Perform Consolidation**

- 6.2.1. Gather together all M & E record sheets submitted.
- 6.2.2. Check that utilization reports have been received from every RHU, BHS and DOH hospital in your Province as scheduled.
- 6.2.3. Contact the assigned pharmacist for any facility that has not reported and remind them of the deadline.
- 6.2.4. Check each report for clarity, thoroughness and reasonable usage in the supply period.
- 6.2.5. Review all encoded reports online. If there any questionable data encoded found during the review, contact the corresponding PHPs and/or facility. Validate the questionable encoding and correct as necessary.
- 6.2.6. Send an email to DOH-PD as a confirmation that all encoded reports have been reviewed.

**6.3. Provide Feedback and File**

- 6.3.1. Generate report using the required format through PMIS at the regional level.
- 6.3.2. Provide feedback to the respective regional program coordinators (*i.e. FP, NTP etc.*) by sharing a copy of the report and generated findings.
- 6.3.3. Support program coordinators in correcting issues found by PHPs during monitoring (*i.e. initiating stock transfer by PHPs to correct stock-outs or near stock outs of medicines*). Provide recommendations to program coordinators as necessary.
- 6.3.4. Document support provided and corrective actions taken for health programs at the regional level and record.
- 6.3.5. Compile all documented support provided at the regional level and forward a soft copy to DOH-PD through email.
- 6.3.6. File all gathered record sheets as reference as well as a copy of the submitted report.

**7. PROCESS FLOW DIAGRAM:**



**8. RECORDS:**

8.1. None.

**9. ATTACHMENTS:**

9.1. DM 2016-0283 (Monitoring and Evaluation Form)

## SOP 3: PERFORMING CONSOLIDATION AND INITIAL ANALYSIS OF REPORTS AT THE CENTRAL LEVEL

### 1. **PURPOSE:**

- 1.1. To ensure the quality and timeliness of the consolidation and initial analysis of reports at the central level of the Department of Health Philippines.

### 2. **SCOPE:**

- 2.1. This procedure encompasses the consolidation and initial analysis performed by the Pharmaceutical Division at the central level.

### 3. **RESPONSIBILITY:**

- 3.1. Department of Health - Pharmaceutical Division  
3.2. For information purposes:  
3.2.1. Family Planning Program  
3.2.2. National Tuberculosis Program  
3.2.3. Logistics Management Division

### 4. **REFERENCES:**

- 4.1. None.

### 5. **DEFINITION:**

- 5.1. **PMIS:** Pharmacy Management Information System  
5.2. **Consumption Period:** Number of months covered for the monitoring period.  
5.3. **Total Consumption (C<sub>T</sub>) in Period:** Recorded total quantities of the drug consumed for the whole consumption period, in pieces and or in kits.  
5.4. **Average Monthly Consumption (AMC):** The average monthly consumption for the covered consumption period. This is computed using the formula:  
$$AMC = C_T / \text{consumption period (in months)}$$
  
5.5. **Days out of stock (D<sub>os</sub>):** Recorded number of days a product has experienced stock-out or zero (0) stock.  
5.6. **Adjusted Average Monthly Consumption (C<sub>A</sub>):** The average monthly consumption adjusted for the number of days out of stock. This is computed using the formula:  
$$C_A = C_T / [\text{consumption period (in months)} - (D_{os}/30.5)]$$
  
5.7. **Projected Average Monthly Consumption (C<sub>P</sub>):** The projected average monthly consumption computed from the adjusted average monthly consumption and set use adjustment (%). This is computed using the formula:  
$$C_P = C_T + (C_T * \% \text{ Use Adjustment}]$$
  
5.8. **% Use Adjustment:** Assumed use adjustment (in %) considering the current trends in consumption.  
5.9. **Stocks on Hand (S<sub>i</sub>), Facility Level:** Recorded current stock levels of a specific product at the facility level.  
5.10. **Stocks on Order (S<sub>o</sub>):** Stocks of products on order not yet received by the facility.  
5.11. **Quantity Needed as Safety Stocks (S<sub>s</sub>):** Quantity of stocks needed to replenish the required safety stock levels. This is computed using the formula:  
$$S_s = C_P * (\# \text{ of required months as safety stocks})$$
  
5.12. **Number of required months as safety stocks:** Predefined number of months which should be maintained as safety stocks.  
5.13. **Recommended Quantity to Order (Q<sub>o</sub>):** Recommended quantity to order based on consumption. This is computed using the formula:  
$$Q_o = [C_P * (\# \text{ of months as Lead Time})] + S_s - (S_i + S_o)$$
  
5.14. **Lead Time:** Predetermined # of months it will for the stocks to arrive at the facility once an order is placed.  
5.15. **Adjusted Quantity to Order (Q<sub>A</sub>):** Quantity to order adjusted for the set loss adjustment (%). This is computed using the formula:  
$$Q_A = Q_o + (Q_o * \% \text{ Loss Adjustment}]$$
  
5.16. **% Loss Adjustment:** Assumed loss adjustment (in %) considering the current trends of expiry and wastage experienced at the facilities.  
5.17. **Number of Patients, Facility Level:** Recorded # number of patients at the facility level.  
5.18. **% Occurrence of Stock-outs:** Proportion of product which experienced stock-out or zero (0) stock out of all the monitored stocks.  
5.19. **% Occurrence of Near-expiry:** Proportion of near-expiry products (less than 3 months of expiry) out of all the monitored stocks.  
5.20. **% Occurrence of expiry:** Proportion of expired products out of all the monitored stocks.  
5.21. **% Occurrence of damages and/or wastages:** Proportion damaged or wasted products out of all the monitored stocks.

### 6. **PROCEDURE:**

#### 6.1. **Schedule and Frequency**

- 6.1.1. Generation of a summary report as initial analysis of the consolidated monitoring reports should be performed:  
6.1.1.1. Monthly Report every 15<sup>th</sup> of the month  
6.1.1.2. Consolidated Quarterly Report every 15<sup>th</sup> day of the 1<sup>st</sup> month of the succeeding quarter

#### 6.2. **Consolidation and Generating Reports**

- 6.2.1. Review in the PMIS the status of submission and encoding of reports performed by the PHPs and NDPCOs.  
6.2.2. Check the validity and completeness of submitted and encoded reports.  
6.2.3. Contact NDPCOs who have not yet submitted any reports or who submitted incomplete reports.

6.2.4. Generate summary report in the required format through PMIS.

**6.3. Initial Analysis Through the System**

6.3.1. Through PMIS, the following information should be generated:

- 6.3.1.1. Consumption Period
- 6.3.1.2. Total Consumption (CT) in Period
- 6.3.1.3. Average Monthly Consumption (AMC)
- 6.3.1.4. Days out of stock ( $D_{os}$ )
- 6.3.1.5. Adjusted Average Monthly Consumption ( $C_A$ )
- 6.3.1.6. Projected Average Monthly Consumption ( $C_P$ )
- 6.3.1.7. % Use Adjustment
- 6.3.1.8. Stocks on Hand ( $S_i$ ), Facility Level
- 6.3.1.9. Stocks on Order ( $S_o$ )
- 6.3.1.10. Quantity Needed as Safety Stocks ( $S_s$ )
- 6.3.1.11. Number of required months as safety stocks
- 6.3.1.12. Recommended Quantity to Order ( $Q_o$ )
- 6.3.1.13. Lead Time
- 6.3.1.14. Adjusted Quantity to Order ( $Q_A$ )
- 6.3.1.15. % Loss Adjustment
- 6.3.1.16. Number of Patients, Facility Level
- 6.3.1.17. % Occurrence of Stock-outs
- 6.3.1.18. % Occurrence of Near-expiry
- 6.3.1.19. % Occurrence of expiry
- 6.3.1.20. % Occurrence of damages and/or wastages

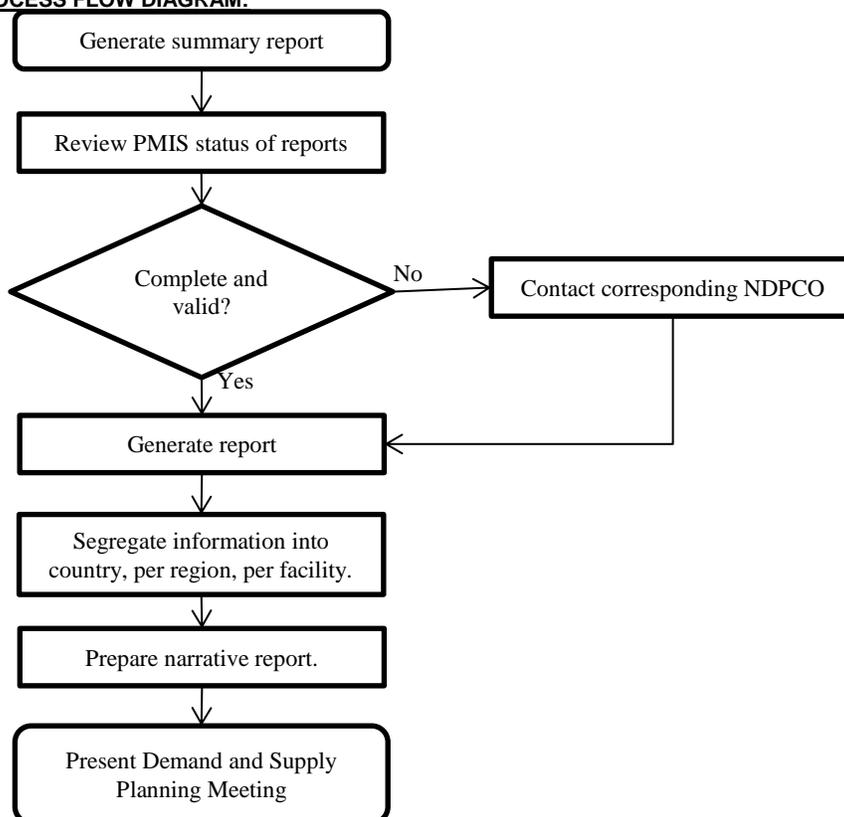
6.3.2. Information generated should be segregated into: Country-wide, per region, per province, per facility.

**6.4. Feedback**

6.4.1. Prepare a narrative report summarizing pertinent findings during monitoring with recommendations for health program managers and supply chain managers at the central level for approval and signature of PD Director.

6.4.2. Present findings to stakeholders in the Demand and Supply Planning Meeting.

**7. PROCESS FLOW DIAGRAM:**



**8. RECORDS:**

8.1. None.

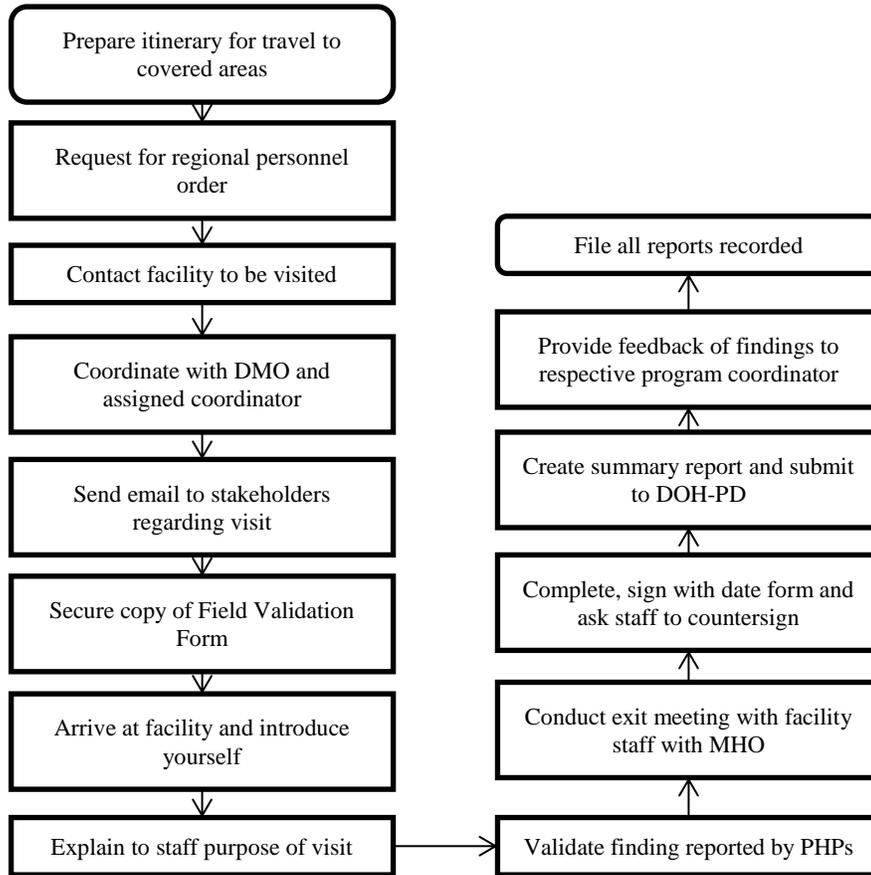
**9. ATTACHMENTS:**

9.1. DM 2016-0283 (Monitoring and Evaluation Form)

## **SOP 5: DATA VALIDATION OF THE NATIONAL DRUG POLICY COMPLIANCE OFFICERS**

1. **PURPOSE:**
  - 1.1. To ensure the quality of data from monitoring activities conducted.
2. **SCOPE:**
  - 2.1. This procedure encompasses the data validation performed by the National Drug Policy Officers of facilities under his/her authority.
3. **RESPONSIBILITY:**
  - 3.1. National Drug Policy Compliance Officers (NDPCO)
  - 3.2. For training and process management purposes:
    - 3.2.1. Department of Health - Pharmaceutical Division
  - 3.3. For information purposes:
    - 3.3.1. Regional Family Planning Coordinator (FP)
    - 3.3.2. Provincial Family Planning Coordinator (FP)
    - 3.3.3. National TB Program Coordinator (NTP)
    - 3.3.4. Development Management Officer (DMO)
    - 3.3.5. Regional Director
    - 3.3.6. Municipal Health Officer
4. **REFERENCES:**
  - 4.1. Department Memorandum No. 2017-0160: Submission of Utilization Report of Various Medicine Access Programs (MAPs)
  - 4.2. Department Memorandum No. 2016-0222: Quarterly Pharmaceutical Supply Chain Management (SCM) Performance Monitoring Tool
5. **DEFINITION:**
  - 5.1. None.
6. **PROCEDURE:**
  - 6.1. **Schedule and Frequency**
    - 6.1.1. The Data Validation activity should be conducted on monthly according to the required target per month.
  - 6.2. **Coordinating Visits to Stakeholders**
    - 6.2.1. Prepare itinerary of travel for areas to be covered.
    - 6.2.2. Request for Regional Personnel Order to be signed by the Division Chief and availability of vehicle to be reserved by transport of the Regional Office - Office Transport Section. If no available vehicle, van rental will be recommended (if applicable).
    - 6.2.3. Contact the doctor or public health nurse of the facility at least three (3) days ahead to arrange a mutually convenient time for the visit when the doctor or public health nurse will be present.
    - 6.2.4. Coordinate with the DMOs and assigned health program coordinator regarding the monitoring to be conducted. Coordinate with PHTL and DMOs assigned for the areas to be validated.
    - 6.2.5. Send an electronic mail (e-mail) to all stakeholders regarding the agreed upon validation schedule including details such as date of schedule, time and names of expected participants.
  - 6.3. **Perform Data Validation.**
    - 6.3.1. Ensure that you take with you the pharmaceutical supply chain Field Validation form.
    - 6.3.2. Arrive at the facility and introduce yourself to the staff.
    - 6.3.3. Explain that your visit is part of the pharmaceutical supply chain management review for the DOH as well as to gather feedback/comments/suggestions from the facility regarding their experience on the implementation of DOH programs.
    - 6.3.4. Validate the findings and progress of the PHPs Monitoring based on the DM 2016-0283 (Monitoring and Evaluation Form)
    - 6.3.5. Exit meeting with MHO/officer in charge on the field validation conducted and debrief them accordingly.
    - 6.3.6. Complete the Field Validation Form, sign and date it, then ask the doctor/OIC to sign and date as well.
  - 6.4. **Provide Feedback and File**
    - 6.4.1. Make a summary report of findings to be submitted to the Pharmaceutical Division electronically every 2<sup>nd</sup> week of the quarter. Summary reports will also be presented during the Regional Program Implementation Review.
    - 6.4.2. Provide feedback to the respective program coordinators (*i.e. FP, NTP etc.*) by sharing a copy of the report and generated findings.
    - 6.4.3. File all gathered record sheets as reference as well as a copy of the submitted report.

7. **PROCESS FLOW DIAGRAM:**



8. **RECORDS:**

8.1. None.

9. **ATTACHMENTS:**

- 9.1. DM 2016-0283 (Monitoring and Evaluation Form)
- 9.2. Data validation form.

## **Annex B. Proposed Data Sets and Data Source**

<b>Data Set</b>	<b>Data Source</b>
Identified medicines, with specifications	Health Programs (FP and NTP)
Use adjustment (%)	
Recommended Safety Stock Levels	
Target Patients based on Population Data	
Requisition Data, Facilities	
Requisition data	Health Programs (FP Hotline, IT IS, FHSIS)
Target Patients	
Current Patient Data	
Consumption Period (in months)	Pharmaceutical Division (Public Health
Loss adjustment (%)	Pharmacists, NDPCO)
Total Consumption, Facilities	
Stocks-on-hand, Facilities	
Days out of stocks	
Number of patients	
Lead Time (recommendatory)	LMD
Stocks-on-hand, Warehouses	
Stock-on-order (based on allocation to regions)	
Basic Unit	Procurement, Purchase Order
Pack Size	
Estimated price (per pack)	
Total estimated price per item	
Suggested quantities to order	Pharmaceutical Division (PMIS)
Adjusted order quantity	

## Annex C. Other Recommendations and Agreements

Recommendations	Offices Involved
Harmonize data being collected from various offices on supply chain and share data within different offices	FP, NTP, PD, LMD
For each offices to share the data collected for decision making at the central level recognizing the significance of each	FP, NTP, PD, LMD
Standardize reporting forms and reporting forms to promote information sharing	FP, NTP, PD, LMD
Standardize processes on how to collect SCM data, provide feedback at the regional level and analyze data at the central level	FP, NTP, PD, LMD
For the SCM TWG of DOH to continuously meet to discuss further on supply planning and management of DOH SCM	FP, NTP, PD, LMD
Establish a regular scheduled meeting of technical officers to build quantification assumptions, perform quantification and together build the allocation and distribution plan	FP, NTP, PD, LMD
To use current inventory data available to perform consumption based quantifications as a guide for finalizing the allocation and distribution plan and as approved by the health programs ( <i>i.e. compare and validate consumption data quantification with target patient cases, requests of facilities and original allocation plan of the programs</i> )	FP, NTP, PD, LMD
FP to utilize the inventory data collected by the PD through the PHPs and PMIS ( <i>i.e. consumption data including stock transfers, SOH</i> ) together with the FP hotline in building the allocation and distribution plan	FP, PD
PHPs experience by PD may provide insights to health programs as and help in forming the assumption during the quantification ( <i>i.e. use trends</i> )	FP, NTP, PD
FP to invite PD to join the meetings of the RPRH Technical Working Group on Logistics	FP, PD
Recommendation for PHPs to also perform inventory count not only for DOH procured medicines but also for LGU procured medicines to standardize data collection ( <i>FP Hotline is counting both DOH and procured</i> ) as well as being able to count for the augmentation performed by LGUs	PD
Formally allow PHPs to perform stock transfers, not only for PD commodities but for FP and NTP commodities as well, at the facility level to address stock outs or near stock outs during monitoring visit	FP, NTP, PD
NDPCOs to formally share inventory reports with the Health program coordinators at the regional level and assist coordinators in managing inventories at the regional and facility level	FP, NTP, PD
Harmonization of schedule of data collection at the facility level and feedback to the central level ( <i>currently every 10<sup>th</sup> of the next month for PHPs, and every 15<sup>th</sup> of the next month for NDPCO</i> )	PD
Harmonization of schedule of sending the allocation plan for distribution of LMD	FP, NTP, PD
Harmonization of schedule of distribution and deliveries by LMD	LMD
To ensure that storage space at the RHU level have enough capacity to store medicines delivered in a harmonized schedule	FP, NTP, PD, LMD
Emphasis on the need for a faster and more consistent quality testing schedule of commodities to harmonize the schedule	FDA
To include batch numbers and lot numbers encoding when stocks are received at the warehouse level by LMD	LMD, PD
To share batch numbers and lot numbers information for NOSIRS and PMIS	LMD, PD
To include patient data in PMIS from IT IS	NTP, PD, KMITS
For PMIS to also monitor not only commodities with zero stocks but also commodities near stock outs based on the required minimum stock levels	PD
To include FP and NTP commodities in the PMIS for inventory monitoring with the target start of 2018	FP, NTP, PD

<b>Recommendations</b>	<b>Offices Involved</b>
PMIS to provide FP and NTP program managers access to PMIS to view current data on inventory data as well as a dashboard for viewing results	FP, NTP, PD
To further define reporting formats for PMIS for use in generating allocation and distribution plan ( <i>reports can be generated in csv or xml formats</i> )	FP, NTP, PD, LMD
To also share needed resources with different offices to support various SCM initiatives ( <i>i.e. LMD for warehousing, PD for inventory monitoring</i> )	FP, NTP, PD, LMD
For the long term, there should be a plan for each system available (NOSIRS, IT IS, PMIS) to work with one another	FP, NTP, PD, LMD, KMITS

## Annex D. List of Consultations and Key Informants

### 1. -day Workshop (August 10,2017) – Discovery Suites Ortigas

Name	Position	Unit
Peter Emmans Palma	CPII	DOH-PD
Jansen Lester Chan	Pharmacist II	DOH-PD
John David Pulongbarit	Project Associate	DOH-NASPCP
Helen Jariel	Pharmacist	DOH-RO IV
Leala Buan	NDPCO	DOH-RO III
Donita Fe Tolentino	Pharmacist	DOH-RO III
John Christian Lara	Pharmacist	DOH-RO IV
Kevin Rosales	Pharmacist	DOH-RO IV
Isaac Linatoc	TA	MSH
Cristan Agaceta	TA	MSH
Katrina Gratuito	Senior Admin Asst	MSH
Jones Dizon	TA	MSH
Irene Farinas	OIC-Chief	DOH-PD
Lynette Arce	TA	MSH
Arthur Lagos	STA	MSH
Sarah Millena-Manga	Pharmacists III	DOH-PD
Michael Junsay	Pharmacist III	DOH-PD

### 2. 1-day Workshop (August 16,2017) – Bayleaf Hotel, Manila

Name	Position	Unit
Marlene Galvan	Nurse II	DPCB-IDO
Romeo Catbagan Jr	SHPO	DPCB-FHO
John David Pulongbarit	Project Associate	DOH-NASPCP
Paul Casihan	Admin Officer V	DOH-LMD
Ferdinand Dela Cruz	Admin Officer III	DOH-LMD
Emily Frances Lourdes	IT Officer	KMITS
Cherrie Esteban		KMITS
Russel Santos	ISA	KMITS
Irene Farinas	OIC-Chief	DOH-PD
Michael Junsay	Pharmacist III	DOH-PD
Sarah Millena-Manga	Pharmacist III	DOH-PD
Jansen Lester Chan	Pharmacist II	DOH-PD
Aris Posadas	ISA III	DOH-PD
Isaac Linatoc	TA	MSH
Mehmood Anwar	CD	MSH
Cristan Agaceta	TA	MSH
Katrina Gratuito	Senior Admin Asst	MSH
Jose Cortez		PITC Pharma
Joy Riel		PITC Pharma

3. 2-day Workshop (November 21-22, 2017) – Novotel Manila Araneta Center Cubao

<b>Name</b>	<b>Position</b>	<b>Unit</b>
Peter Emmans Palma	CPII	DOH-PD
Aris Posadas	ISA III	DOH-PD
Marissa Domingo	Pharmacist	DOH-RO III
Donita Tolentino	Pharmacist	DOH-RO III
Lolita Figuracion	AO V	DOH-RO III
Leala Buan	NDPCO	DOH-RO III
Elsie Cerveza	Assistant Program Manager	POPCOM
Frances Beltran	Research Fellow	DOH-HPDPB
Mary Joy Padilla	Research Fellow	DOH-HPDPB
Romeo Catbagan Jr	SHPO	DOH-DPCB
Jover Francisco	Project Coordinator	DOH-DPCB
Maria Arlene Rivera	HPO	DOH-FHO
Jansen Lester Chan	Pharmacist II	DOH-PD
Sarah Millena-Manga	Pharmacist III	DOH-PD
John Paul Casihan	AO V	DOH-LMD
Ferdinand Dela Cruz	AO III	DOH-LMD
Helen Hipolito	Project Management Specialist	USAID OH
Marichi De Sagun	Project Management Specialist	USAID OH
Isaac Linatoc	TA	MSH
Cristan Agaceta	TA	MSH
Kimmy Wee		MSH