

Strengthening the Supply Chain Governance Framework for Pharmaceuticals and Health Products in the Philippines

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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.

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ACRONYMS

3PL	third-party logistics
DOH	Department of Health
FDA	Food and Drug Administration
HPU	health program unit
HR	human resource
KPI	key performance indicator
LGU	local government unit
LMD	Logistics Management Division
LMIS	Logistics Management Information Systems
M&E	monitoring and evaluation
OAFP	Office of Administration, Finance, and Procurement
PD	Pharmaceutical Division
SCM	supply chain management
SCMD	Supply Chain Management Division
SCTWG	supply chain technical working group
SOP	standard operating procedure
STG	standard treatment guideline
TOR	terms of reference
TWG	technical working group

BACKGROUND

The Department of Health (DOH) is ultimately responsible and accountable for ensuring that Filipinos have access to quality health services. An effective supply chain is essential for DOH to ensure that lifesaving health products are available, accessible, and effectively used for clients. Key to building an effective and sustainable supply chain system is pairing a good supply chain governance framework with clear structure, roles, and responsibilities with accountability policy. In addition, investments in human resource (HR) and organizational capacity are required to effectively and efficiently manage supply chain management (SCM) systems. Recently, the DOH has shown its commitment by creating the Supply Chain Management Unit (SCMU) in March 2016 by Department Personnel Order (DPO) (No. 2016 0789), later amended in March 2017 (No. 2016 0789A). The SCMU was divided into the Core Operational Group (COG) and the Technical Working Group (TWG). According to the DPO, the COG will perform the operational functions of the SCMU while the TWG will convene every two weeks to discuss issues and concerns on the performance and duties of the SCMU as well as potential program and policy implications. The DPO also defines the different members of the COG and TWG. The overarching functions mandated by the order are to:

- 1) Provide guidelines and standard operating procedures (SOPs) to harmonize SCM activities of the national office, which is following the strategic plan of the TWG; this includes review of existing SOPs at the DOH which cover selection, forecasting and quantification, storage and inventory management, distribution, and monitoring and evaluation (M&E)
- 2) Manage the day-to-day activities of the SCMU, including regular coordination with all concerned DOH bureaus/regional offices/units specifically for:
 - a) Monitoring, processing, analyzing, and interpreting logistics data from various DOH bureaus/regional offices/units and generating regular reports for decision making on procurement, donations, deliveries, and stock status including inventories at different warehouses
 - b) Assessment of supply chain bottlenecks and providing feedback to the Advisory Group of DOH and the DOH Executive Committee
- 3) Perform other functions as instructed by the secretary of health

However, since the creation of the SCMU, there are governance challenges to effectively executing the above responsibilities. Some of the challenges identified are as follows:

- Inadequate clarity on detailed roles and responsibilities for all supply chain stakeholders within the DOH; lack of clear terms of reference (TOR)
- Weak coordination between all supply chain stakeholders and functions
- Existing organizational structure is not aligned with job descriptions for SCMU
- Inadequate HR and capacity for the SCMU

METHODOLOGY

Based on these challenges, SIAPS conducted a thorough desk review of previous assessments and DOH's various internal SCM policies. Next, SIAPS helped coordinate meetings with various DOH offices to identify and validate current experiences in SCM and to obtain recommendations to strengthen SCM governance of DOH.

The different offices consulted were the Office for Administration, Finance, and Procurement (OAFP); Office for Technical Services (OTS); and Office for Policy and Health Systems (OPHS). These offices are involved in the whole supply chain, which involves selection, procurement, distribution, and use. The more-specific offices (which fall under OAFP, OTS, and OPHS) involved during the consultations were:

- Administrative Service
- Procurement Service
- Logistics Management Division
- Finance and Management Service
- Health Program Units (i.e., National Tuberculosis Control Program, Family Health Office)
- Health Emergency Management Bureau
- Pharmaceutical Division

Both management and technical staff participated in these consultations; all inputs were gathered and used to create the governance framework and build recommendations for moving forward. Finally, with assistance from SIAPS, the DOH organized a consultation workshop with all stakeholders within DOH to present preliminary results. During the workshop, stakeholders provided their comments and inputs for the draft TOR of the governance framework. Key informants during the consultations and workshops are listed in annex A.

Based on the methodology described, the following roles and responsibilities are proposed for SCM governance and other supply chain stakeholders and functions.

TERMS OF REFERENCE

1. Supply Chain Management Division

The SCMD is the management structure responsible for overseeing all supply chain activities within the Philippines public health supply chain. Based on the recommendations from the consultations and interviews, the SCM governance structure should be promoted to a division, rather than a unit, the rationale being that a division in DOH is larger than a unit.

The SCMD strives to maximize performance based on the resources available by facilitating seamless linkages between organizations and functions within the supply chain. SCMD functions include increasing the visibility of data up and down the system, monitoring the performance of warehousing and distribution and third-party logistics (3PL), facilitating greater coordination between stakeholders within the DOH and external and ensuring alignment of demand with supply via evidence-based quantifications and the development of unified procurement plans. As a focal point for coordination, the SCMD is involved in virtually all supply chain activities and system strengthening interventions. It serves as the primary mechanism for institutionalizing good SCM practices and linking logistics activities throughout the supply chain. Specific responsibilities are listed in table 1.

Table 1. TOR for the SCMD

Roles	Responsibilities
Lead and operate the SCMD; coordinate various supply chain working groups; develop supply chain strategies, guidelines, and SOPs	<ul style="list-style-type: none"> • Lead the working organizational structure for SCMD considering roles, responsibilities, and level of efforts as approved by the DOH secretary of health and the Executive Committee • In coordination with the DOH Health Human Resources Development Bureau, manage job descriptions/TOR for all staff under the SCMD and ensure that they are followed • Lead and coordinate supply chain-related assessments, identify bottlenecks and possible interventions • Develop long- and short-term supply chain plans: supply chain master plan, strategic plan, annual work plan with detailed activities, deliverables, and performance measurement plans • Develop annual budget and submit to appropriate DOH office in a timely manner • Identify and mobilize resources • Develop guidelines, SOPs, and related supply chain procedures • Identify, prioritize, and request resources for system strengthening • Establish sub-TWGs, such as quantification TWG, Logistics Management Information Systems (LMIS) TWG, and others under the auspices of the bigger Supply Chain TWG (SCTWG) as needed • Build the capacity of various working groups, supply chain staff, and stakeholders on supply chain functions based on identified gaps • Coordinate all supply chain donors and implementing partners • Support flagship programs, such as medicine access programs in collaboration with the appropriate DOH units and aligned to the Philippine health agenda

Roles	Responsibilities
<p>Coordinate, oversee, and implement national-level quantification (forecasting and supply planning) functions</p>	<ul style="list-style-type: none"> • Assign dedicated quantification officers (focal persons) responsible for quantification of all health products • Initiate and facilitate annual quantification workshop including validation meeting involving all DOH programs and external supply chain stakeholders • Document all quantification and forecasting parameters and assumptions used • Harmonize the forecast of cross-cutting products, such as commonly used medicines and medical supplies, across all programs to the national requirements • Disseminate quantification results to various stakeholders and donors and secure funding for procurement of quantified products • Conduct budget gap analysis and advocate for more resources for products • Prepare and submit unified annual supply (procurement) plan of all health products to the Procurement Service. The supply plan needs to consist of at least product description/specification, unit of measurement, quantity required, delivery time, and estimated budget • Ensure that unit prices are according to the National Drug Price Reference • Conduct quarterly revision of supply plan considering available stock at all warehouses, expected shipments, consumption patterns at health-facility level, and available budget • Submit revised supply plan for all products to the Procurement Service according to agreed timeline • Develop, revise, and implement quantification SOPs • Introduce and implement innovative and user friendly quantification tools • Build the capacity of TWGs at all levels (central, regional, provincial, city, and municipal) on quantification processes and tools
<p>Design and implement adequate LMIS for all health products</p>	<ul style="list-style-type: none"> • Assign dedicated LMIS and data officers responsible for LMIS in the SCMD • Design or revise LMIS functions across the supply chain (define supply chain data requirements, processes, and tools) for all health products based on supply chain decisions • Develop training materials on LMIS and build the capacity of central and provincial (and facility as necessary) supply chain staff to ensure that they: <ul style="list-style-type: none"> ○ Understand their respective responsibilities related to the LMIS ○ Have the required skills/tools to fulfill their roles • Modernize LMIS by using evolving automated technologies that improve quality supply chain data availability, visibility, and use for evidence-based decision making at appropriate levels of the system • Develop or revise LMIS SOPs to reflect evolving technology with clear roles and responsibilities • Facilitate access to supply chain data at all levels of the supply chain for decision makers and stakeholders <ul style="list-style-type: none"> ○ Provide regular supply chain reports to stakeholders, including DOH Executive Committee, health program units (HPUs), provinces, local governments, health facilities, and donors • Ensure LMIS data collection and reporting tools are regularly updated and available at all levels for record keeping and reporting • Maintain automated LMIS, expanding and upgrading it as necessary:

Roles	Responsibilities
	<p>revise or standardize data and report requirements in collaboration with stakeholders and decision makers</p> <ul style="list-style-type: none"> • Conduct LMIS report review, validation and dissemination workshops, provide feedback and propose intervention in collaboration with stakeholders (DOH HPUs and external partners) • Review LMD, province and facility stock status data and sharing critical information for decision makers
Perform logistics management functions, including procurement, warehousing and distribution, and 3PL	<ul style="list-style-type: none"> • Assign/designate distribution officer • In collaboration with DOH programs and partners, define key tracer products that should always be available in the health system • Regularly monitor availability of defined key tracer products at facility level • Ensure regular linkages between SCMD, LMD, and Procurement Service to avoid stock-outs and overstock of products • Follow up and coordinate with provincial supply chain staff, LMD inventory management and delivery staff, and facilities to ensure timely reporting • Through distribution officers, receive, review, and approve province/region and health-facility orders in collaboration with appropriate DOH HPUs • Monitor quality of data through LMIS data quality audits and supportive supervision • Participate in the procurement TWG as member (user department)
Monitor performance of the national supply chain system	<ul style="list-style-type: none"> • Assign/designate supply chain M&E officer • Develop and implement performance measurements for all supply chain interventions • Coordinate and serve as secretariat for the SCTWG: draft meeting agenda, define timelines, venues; document minutes, disseminate results/deliberations • Facilitate regular coordination meetings between stakeholders including DOH programs, LMD, Pharmaceutical Division (PD), Procurement Services, implementing partners and donors • Share system performance updates with stakeholders • Provide regular reports to stakeholders on DOH supply chain • Develop M&E plan with key performance indicators (KPIs) to monitor performance of the national supply chain, including quantification, procurement, warehousing and distribution, 3PL, and LMIS • Regularly monitor implementation of supply chain strategic and annual work plans and communicate results to DOH Executive Committee and external stakeholders • Document supply chain successes and best practices, share in different forums
Develop supply chain HR capacity	<ul style="list-style-type: none"> • Conduct supply chain HR capacity assessment and identify needs • Facilitate HR and institutional capacity-building initiatives at central and peripheral levels

2. Offices Involved in the DOH Central-Level Supply Chain

Aside from the roles and responsibilities of the SCMD, other offices of DOH currently involved in supply chain activities also have their own specific roles and responsibilities to fulfill. The performance of each key stakeholder as well as coordination across the whole chain will be

critical to ensure a well-functioning supply chain able to provide quality and equitable access for all. The following are the current DOH offices involved in managing the supply chain and their recommended roles and responsibilities.

A. Logistics Management Division

The Logistics Management Division (LMD) is a point of receipt for all health products procured or donated to DOH. It has the responsibility of receiving, storing, and managing inventories and distributing to the lower-level supply chain system. Its current inventory-holding capacity (at a time) is an estimated value of 4 billion Philippine Pesos (Php). Distribution to the lower-level supply chain is based on the allocation plan developed by the HPUs of DOH. 3PL is contracted to repack and deliver products to the lower-level supply chain. Some of the challenges highlighted in the LMD are inadequate warehouse space, poor performance monitoring of 3PL, incomplete information to guide allocation and distribution of products to provinces and health facilities that resulted in rejection of deliveries, and weak communication and coordination between provinces and health facilities on delivery schedules. In addition, lack of clear roles and responsibilities and coordination in the supply chain puts pressure on LMD. For example, uncoordinated/unplanned delivery from suppliers (lack of ordering agreement) to LMD with different program products makes it difficult to optimize the use of limited warehouse space. Further, planning an integrated delivery schedule to provinces and health facilities becomes cumbersome due to weak coordination.

To ensure effectiveness, efficiency, and transparency through coordination, it is proposed that LMD be either managed by SCMD or closely coordinate with SCMD. This will help SCMD access stock information at LMD seamlessly and design and implement a min-max inventory control system for all health products. This also ensures coordinated procurement planning and receipt and delivery schedule with clear roles, responsibilities, and accountability. Specific responsibilities of LMD in ensuring effective and efficient supply chain system implementation are listed in table 2.

Table 2. Supply chain-related TOR: LMD

Roles	Responsibilities
Ensure good storage and inventory management practices	<ul style="list-style-type: none"> • Receive health products • Manage overall inventory of DOH (i.e., receiving, ABC categorization, pick and pack, monitor min-max stock-level policies, etc.) • Maintain product quality by following Good Storage Practices • Maintain and manage warehouses at the central level • Support operation of warehouses at the regional and peripheral levels • Maintain stock counts • Maintain expiry and batch tracking • Manage and implement warehouse information systems that account for all products at LMD locations • Generate periodic inventory report and communicate to SCMD LMIS officer • Manage, communicate, and dispose of obsolete inventory in accordance with Commission of Audit rules and procedures • Maintain optimal min-max inventory level, communicate to SCMD when stock levels fall below minimum

Roles	Responsibilities
Provide order management and distribution service	<ul style="list-style-type: none"> • Assemble products in warehouse per approved orders (picking and packing) submitted from SCMD • Plan distribution routes and schedules • Dispatch deliveries based on routes and delivery schedules • Maintain transport and/or other services where cost effective as necessary • Manage reverse logistics (return of products from peripheral levels to central level and redistribute between facilities) as necessary
Coordinate and monitor warehouse and distribution practices	<ul style="list-style-type: none"> • Report to SCMD • Coordinate with other involved offices to inform them of potential issues detected in warehouse operations (such as inadequate warehouse space prior to procurement, slow-moving products in the warehouse, near-expiring products) • Develop, maintain, and adhere to service-level agreements with 3PL; monitor performance of 3PL and communicate to SCMD • Meet KPIs and performance targets monitored by SCMD • Understand data requirements, including types and frequency required, and provide reports to meet these requirements • Demonstrate accountability for products managed up to delivery to regions/provinces/health facility

B. Procurement Services

The Procurement Service, under the Office of Administration, Finance, and Procurement (OAFP), is responsible for procurement of medicines and related medical products in the DOH. It receives an annual procurement plan from user departments to commence procurement processes. It consolidates all project procurement management plans and allocations for advertisement and posting using eProcurement. It conducts preprocurement conferences with end users to validate and agree on specifications, quantities, prices, and certificates of availability of funds; in addition, it conducts prebidding meetings with end users and bidders to clarify questions that may arise from potential bidders. The Procurement Service is managed by a director with 49 positions (11 of which are unfilled). A standard procurement process based on the Republic Act 9184 or the Government Procurement Reform Act is followed for all funding unless a special consideration is required. There are three main committees involved in procurement activities: Procurement TWG, Bid and Award Committee, and Procurement Coordinating Committee. The Procurement TWG is responsible for bid evaluation activities; the Bid and Award Committee is responsible for reviewing the bid evaluation report prepared by the Procurement TWG for checks and balances and forwarding it to the head of the procurement entity (secretary of health) for approval. The Procurement Committee is responsible for issues related to any procurement services and resolutions accordingly.

When executing its mandates, the Procurement Service faces the following challenges: lack of a consolidated procurement plan and allocation list from user departments; poor selection and quantification of health products (some of the products are rejected by the lower-level supply chain); inadequate market surveillance by end users; inadequate coordination with user departments during preprocurement and prebidding meetings; unavailability of user departments during bid evaluation meetings; delays in preparation of bid evaluation reports; and multiple approval and signature processes that lengthen the procurement process time. In light of these

challenges, it is proposed that one office (SCMD) be in charge of coordinating preparation and on-time submission of all procurement and allocation plans, revision, and consolidation of common products across all programs. Based on a coordinated procurement plan, Procurement Service will have to arrange order delivery management (e.g., staggered delivery) with suppliers to optimally utilize limited warehouse spaces at LMD. As long as Procurement Service remains under the OAFP, the following (table 3) are specific responsibilities in supporting effective and efficient supply chain system implementation.

Table 3. Supply chain-related TOR: Procurement Services

Roles	Responsibility
Ensure DOH Procurement Services complies with procurement law	<ul style="list-style-type: none"> • Ensure that user departments have access to procurement rules, regulations, and related guidelines and SOPs • Develop procurement process maps with timelines and share with user departments and relevant stakeholders • Review procurement documents and/or inspecting records as necessary to prevent intentional or unintentional evasion of procurement law
Ensure on-time implementation of procurement steps	<ul style="list-style-type: none"> • Receive annual supply plan with secured funding from user departments (annual supply plan comprises product specification/ description, quantity, estimated budget, and time of delivery) • Based on the annual supply plan received from SCMD, develop annual procurement plan; procurement plan comprises list of pharmaceuticals and quantities (with full specifications), anticipated procurement method(s), estimated time for completion of procurement cycle, schedule of procurement activities, delivery dates, indication of which items can be aggregated as a single package, estimate of the value of each package of pharmaceuticals required, available budget, and sources of funding • Conduct regular preprocurement and prebidding meetings; document minutes and share with members • Conduct market surveillance (intelligence) • Advertise procurements on time • Open and evaluate bids on time • Ensure on-time notification of winners • Develop procurement KPIs and monitor performance of procurement activities and suppliers
Ensure functioning of procurement information systems	<ul style="list-style-type: none"> • Develop/implement procurement information systems (using the existing eProcurement platform) • Define information and report requirements based on use cases • Update information related to procurement of pharmaceutical products • Share regular information/updates with SCMD and other user departments (information such as suppliers anticipated delivery dates, products, and their quantities)

C. Pharmaceutical Division

The PD, besides prescribed mandates, has two critical functions in supporting effective and efficient supply chain system implementation. The PD:

- 1) Serves as the essential medicines program implementation unit with responsibilities similar to the other DOH HPUs

- 2) Sets pharmaceutical service standards and oversees national pharmaceutical policy implementation

Both these functions are required to support effective supply systems. Pharmaceutical policies, such as essential medicine lists, national formularies, and standard treatment guidelines (STGs), promote rational use of medicines, containment of antimicrobial resistance, and efficient use of limited resources. They serve as the foundation upon which an effective and efficient supply chain is built. The PD works closely with the SCMD and programs to support appropriate pharmaceutical management throughout the supply chain and, through its oversight of public health pharmacists, it ensures that policies are implemented at the province and facility levels. Specific responsibilities of the PD in supporting the supply chain are listed in table 4.

Table 4. Supply chain-related TOR: PD

Roles	Responsibilities
Develop/revise/update pharmaceutical policies, strategies, and guidelines based on evidence-based best practices	<ul style="list-style-type: none"> • Develop and regularly update essential medicines list • Develop and regularly update STGs, particularly for essential medicines and nonprogrammatic diseases • Develop and regularly update national formulary • Establish and regularly update pharmaceutical donation guidelines • Coordinate with HPUs, clinicians, and implementing partners to gather input for policy development • Participate in the SCTWG and update members on activities and achievements on pharmaceuticals services and its impact on supply chain
Oversee implementation of pharmaceutical policies	<ul style="list-style-type: none"> • Publish and distribute policy revisions, strategies, and guidelines • Communicate policy revisions to regions, provinces, local government units (LGUs), and HPUs • Maintain and regularly publish product price list • Monitor implementation of policies and guidelines • Monitor oversight of regions, provinces, and LGUs through the provincial-hired pharmacists (i.e., inventory data, compliance with national formulary, compliance with reporting requirements)
Strengthen pharmacy capabilities	<ul style="list-style-type: none"> • Ensure that provincial pharmacists have access to tools and training required to fulfill their roles • Monitor performance of provincial pharmacists • Identify interventions to support improved performance of provincial pharmacists
Promote rational drug use and monitor medicines safety	<ul style="list-style-type: none"> • Monitor adherence to STGs • Work with programs and province public health pharmacists to identify and mitigate risks • Implement pharmacovigilance through active and passive adverse drug event monitoring in collaboration with regional, provincial, and hospital pharmacists

D. DOH HPUs

With the establishment of the SCMD, the supply chain-related roles of the individual HPUs should shift, but they still play a critical role in the successful implementation of supply chain systems. By defining program policies, developing treatment guidelines, selecting products on the basis of disease-specific treatment guidelines, and setting program targets, programs ensure

effective supply chain system implementation. Programs are also in the best position to identify and investigate discrepancies between program targets and actual services, the prevalence of specific diseases, adherence to treatment protocols, and identify and highlight the supply chain implications of program activities, such as program campaigns and introduction of new diagnostic tools and medicines.

Multiple health programs currently exist in the Philippine DOH under the Disease Prevention and Control Bureau. These health programs emphasize the priorities of DOH and include programs for control of communicable diseases, such as tuberculosis, HIV, and malaria as well as health programs for family planning and noncommunicable diseases. The health programs need to work closely with the SCMD to ensure that products critical to their programs are available when and where needed. Specific program responsibilities related to the supply chain are listed in table 5.

Table 5. Supply chain-related TOR: DOH HPUs

Roles	Responsibilities
Establish and update program guidelines based on evidence	<ul style="list-style-type: none"> • Review and update STGs, particularly for DOH health programs • Review product selection and specifications
Quantify annual program requirements	<ul style="list-style-type: none"> • Collaborate with SCMD and make available program targets, prevalence, and service-level data for quantification on time • Serve as a member of quantification TWG for the respective program • Provide and guide SCMD with program implementation information (i.e., program targets, advocacy campaigns, service-level data) critical in building the assumptions to perform the quantification activity • Conduct regular review of targets based on implementation results, communicate to SCMD for revision of the quantification • Participate in SCTWG representing respective program
Plan distribution	<ul style="list-style-type: none"> • Coordinate with SCMD in the planning of allocation to regions, provinces, and health facilities • Support the distribution plan of respective program products • Develop distribution plan for specific program products that are newly introduced or allocated to new facilities
Mobilize resources, ensure availability of respective program products, and monitor implementation	<ul style="list-style-type: none"> • Based on the result of quantification, secure funding for procurement of program products • Revise targets accordingly based on available resources • Ensure and report progress against program performance indicators • Advocate and communicate program needs • Maintain existing and develop new partnerships with stakeholders • Make required reports (that may affect product availability) available to SCMD and other stakeholders • Analyze and triangulate consumption and stock balances with patient data in coordination with SCMD • Monitor program implementation and service-delivery practices for compliance with treatment guidelines • Identify supply chain implications of program activities and policy changes (i.e., phasing out/ in of products or revision of treatment protocols) and communicate to SCMD • Participate in the procurement TWG during bid evaluation related to respective program product evaluation

Roles	Responsibilities
	<ul style="list-style-type: none"> • Monitor adherence to STGs particularly for DOH health programs • Work with provinces/regions/health facilities to identify and mitigate risks in the supply chain

E. Food and Drug Administration

The Philippine Food and Drug Administration (FDA) is the authority responsible for registering all medicines and health care products and ensuring quality of medicines manufactured or imported into the country. DOH offices involved in the supply chain confirmed that health commodities procured by DOH must be tested first for quality by FDA prior to distribution to access sites. Unfortunately, the long lead time it takes for FDA to release test results also contributes to the overall lead time to distribute commodities and to a longer retention time of a large volume of products in the warehouse, thereby consuming a large amount of available warehouse space. LMD and HPUs validate that a shorter lead time for testing will greatly benefit the capacity of DOH to provide and distribute these products effectively and efficiently. Specific responsibilities to ensure effective and efficient supply chain implementation are listed in table 6.

Table 6. Supply Chain Related TOR: FDA

Roles	Responsibilities
Implement the Republic Act No. 9711 or the Food and Drug Administration Act of 2009	<ul style="list-style-type: none"> • Set standards of quality, safety, and efficacy of medicines and health products • Conduct registration of medicines and health products under its jurisdiction in a timely manner • Establish and operate quality control laboratories to ensure safe, effective, and good quality medicines and health products for domestic and foreign markets • Conduct quality analytical test for products imported or produced in the country and issue certificate in a timely manner to expedite the procurement process or donation • Conduct post-marketing surveillance and quality spot checks of medicines and health products • Issue warnings and conduct recalls of products in accordance with regulations and communicate to SCMD and other supply chain stakeholders • Develop and update registry of medicines and health products registered and approved for marketing in the country • Monitor compliance of public and private institutions in the handling of medicines and health products to ensure the integrity of their quality throughout the supply chain

3. SCM of DOH from the Regional, Provincial, LGU, and Health-Facility Levels

To complete the management of the whole supply chain from the central level down to the health-facility level for the access of patients, involved units outside of the DOH also have their critical roles and responsibilities to fulfill. DOH regional and provincial offices, LGUs, and

health facilities should be able to manage their own specific supply-chain activities at the local level and provide information and feedback to the central level. The following are the units outside DOH and their recommended roles and responsibilities.

A. DOH Regional Offices

The DOH regional offices are the subnational-level organization of DOH mandated to implement laws, policies and programs, and strategies of the national DOH. The regional offices also perform coordination activities at the lower levels, including coordination with LGUs and health facilities. Further, DOH regional offices also perform M&E activities for the different programs of DOH and provide feedback and reports to the central level. DOH regional offices perform a significant role in the implementation and monitoring of SCM activities (table 7).

Table 7. Supply chain-related TOR: DOH regional offices

Roles	Responsibilities
Oversee SCM activities in the region	<ul style="list-style-type: none"> • Develop and implement long- and short-term supply chain strategies at the regional level aligned with the DOH central level and Philippine health agenda • Lead and implement SCM policies and activities at the regional level • Prepare and submit budget requirements for strengthening supply chain system at the regional level • Implement guidelines, SOPs, and related supply chain procedures at the regional level • Implement performance measurements for all supply chain interventions at the regional level • Provide regular reports to DOH central on DOH supply chain • Create and coordinate an SCM TWG at the regional level • Manage DOH regional warehouses
Manage and implement regional warehouse operations	<ul style="list-style-type: none"> • Receive health products at the regional level • Manage inventory and maintain batch tracking and stock count at the regional level • Manage and implement warehouse information systems that account for all products at the regional level • Manage, communicate, and dispose of obsolete inventory at the regional level • Maintain optimal min-max inventory level, communicate to SCMD when stock levels fall below minimum at the regional level • Generate periodic inventory and SCM reports and communicate to DOH LMD • Generate and provide other reports required by the SCMD at the central level
M&E	<ul style="list-style-type: none"> • Lead and implement M&E activities on SCM at the regional level (i.e., program implementation reviews) • Collect, review, and send reports on SCM from the lower levels to the DOH central office (i.e., inventory reports, consumption reports) • Monitor performance of lower levels on selected SCM KPIs (i.e., stock-out rates, wastage rates)

B. Province Units and LGUs

Philippines has decentralized government structure with power, responsibility, and resources devolved to local governments. This is also true in the country's health systems. Local governments have local insights into the unique context of each region in the country, which is significant in providing access to health services and commodities to their constituents. LGUs have the ultimate responsibility of ensuring that their respective populations have access to safe, quality, and affordable health products without interruption.

Having an effective supply chain system that guarantees the availability of essential medicines is critical to fulfilling the local government's mandate. By making available health resources and implementing supply chain initiatives, the provinces are the primary customers of SCMD and LMD.

Provinces and local governments assume responsibility for implementing supply chain initiatives and monitoring performance to ensure continuous availability of life-saving medicines and reduce wastage due to expiry and damage (table 8).

Table 8. Supply Chain Related TOR: Provinces and LGUs

Roles	Responsibilities
Oversee supply chain activities and implementation in their jurisdiction	<ul style="list-style-type: none"> • Monitor and support health facilities in the implementation of supply chain systems, such as LMIS • Ensure that health facilities understand their roles and responsibilities and have the skills to undertake their responsibilities (through training and supportive supervision) • Oversee local health budget for pharmaceuticals and medical products and strengthening SCM system at the local level • Monitor and ensure timeliness, completeness, and accuracy of stock information from health facilities • Support and strengthen recording and reporting at facility and province levels • Conduct annual quantification and communicate program product requirements to SCMD
Oversee pharmaceutical management	<ul style="list-style-type: none"> • Supervise health-facility pharmacists and dispensers • Ensure that health-facility pharmacists and dispensers understand their roles and have the skills to undertake their responsibilities (through training and job aids) • Communicate policy revisions to health-facility pharmacists and dispensers • Build the capacity of health facilities to manage and dispense medicines and record and report timely and accurate logistics information
Ensure product availability	<ul style="list-style-type: none"> • Review and monitor facility-level stock status report and requisitions • Calculate order quantities (if not calculated automatically), approve requisitions and orders coming from health facilities • Aggregate stock information submitted from health facilities with its own stock information to submit to SCMD (with reports and requisitions) • Monitor and analyze consumption trends and stock levels at province and health-facility levels • Initiate action to address stock imbalances (e.g., transfer stock between facilities or place emergency orders)

C. Health Facilities

The ultimate test of the performance of the supply chain system occurs at the health facilities. It is here that health services are provided to the population. It is here that the need for health products is vital for quality health services. It is also here that public opinion concerning the performance of the health care system is shaped.

In addition to the health facilities' important role in managing demand for medicines and health products, they also have a critical role in ensuring good storage and inventory management practices for all health commodities in their custody. This custody starts immediately upon receipt of products until they are dispensed to patients. They are also responsible for the implementation of good LMIS, such as keeping records and compiling and submitting stock reports to their respective provinces. The LMIS is the most effective tool for providing stock information to SCMD to guide resupply decisions and distribution planning to health facilities and to inform overall SCM decision making. The following are specific roles and responsibilities for effective and efficient implementation of the supply chain system (table 9).

Table 9. Supply chain-related TOR: health facilities

Roles	Responsibilities
Facilitate adherence to treatment and prescription policies	<ul style="list-style-type: none"> • Adhere to STGs and treatment protocols • Implement rational medicine use initiatives through active functioning of Pharmacy and Therapeutic Committees • Collaborate with provincial pharmacists to identify issues related to rational medicine use
Practice good storage and inventory management practices	<ul style="list-style-type: none"> • Receive, store, and manage inventories according to good inventory control practices • Implement min-max inventory policy, maintain optimal inventory level of products • Implement recommended storage and inventory practice policies from the central level
Implement LMIS	<ul style="list-style-type: none"> • Periodically update transaction records, such as dispensing and stock data • Consolidate stock data into a manual or electronic records regularly • Report consumption and stock status information in a timely manner to the province/region/SCMD as appropriate (report and requisition) • Monitor facility-level stock-status data for decision making • Order emergency resupply in near stock-out situations

REPORTING STRUCTURE OF SCMD

Vaccines and pharmaceutical products and technologies are one of the building blocks in the World Health Organization's (WHO) set of health system-strengthening blocks. Without products and technologies, it is impossible to implement various health programs that include disease prevention, control, and curative services. In addition, according to the WHO, the amount of expenditures involved for health products is estimated to be on average 20-30% of the health budget. This signifies the magnitude of resources involved in the supply chain system, which needs prior attention and to be managed effectively and efficiently. Therefore, based on the above two justifications, it is imperative to recognize the importance of establishing an empowered entity with clear roles, responsibilities, and accountability structure. The SCMD also needs to be fully equipped with capable HR and organizational capacity to effectively and efficiently operate the SCM of pharmaceuticals and medical supplies in the DOH.

In light of this and based on other countries' experiences, it is highly recommended that **SCMD ideally report to an office determined to have a role in health system strengthening across all health programs.**

Moving Forward to Implementing SCMD

The SCMD will require significant and sustained investment to fulfill its designated supply chain responsibilities and to have a lasting impact, such as significantly improved availability, reduced wastages, and improved overall supply chain system performance. The following two options with advantages and disadvantages are proposed for the organizational structure of SCMD.

Option 1: SCMD, including Warehouse and Distribution Operations

All supply chain activities should be brought under one umbrella—LMD would fall under SCMD and take the responsibility for the warehousing and distribution function. With this option, both logistics management functions and warehousing and distribution operations will be performed by the SCMD, aside from the other recommended functions: quantification and demand planning, LMIS, and M&E.

LMD is currently performing warehouse and distribution operations, therefore, option 1 will integrate LMD within this cluster to include logistics management functions. Precautions should be taken to ensure that LMD will have enough capacity and resources to perform warehouse and distribution operations as well as acting as the logistics management arm of SCMD.

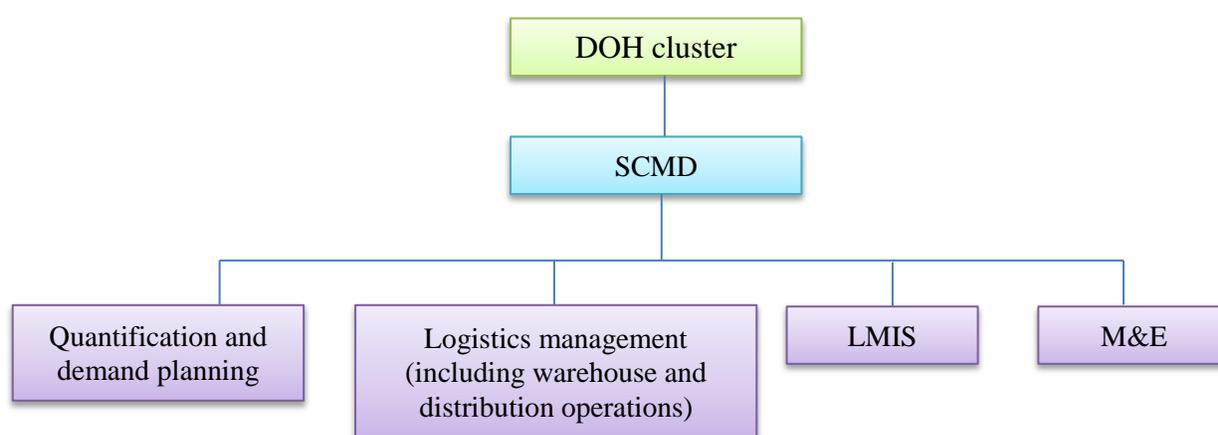


Figure 1. Structure in which logistics management of SCMD includes warehouse and distribution operations

Table 10 describes advantages and disadvantages of option 1.

Table 10. Advantages and disadvantages of option 1

Advantages	Disadvantages
<ul style="list-style-type: none"> • Brings major supply chain functions together under one umbrella for successful implementation of initiatives and coordination • Implements accountability policy for each function and monitors system implementation, e.g., easy access to central-level stock information, managing inventories, and implementing harmonized distribution plan • Seamless linkages of supply chain functions (for example, linkages between demand planning and procurement and warehouses) • Utilizes the existing supply chain workforce from different units until the structure is approved by the Department of Budget and Management 	<p>May create temporary resistance to change and confusion until things are clarified</p>

Option 2: SCMD without Warehouse and Distribution Operations

SCMD will focus on quantification and demand planning, LMIS, M&E, and logistics management. LMD remains to perform warehousing and distribution operations. Enough capacity and resources should be provided for both SCMD and LMD to perform their functions.

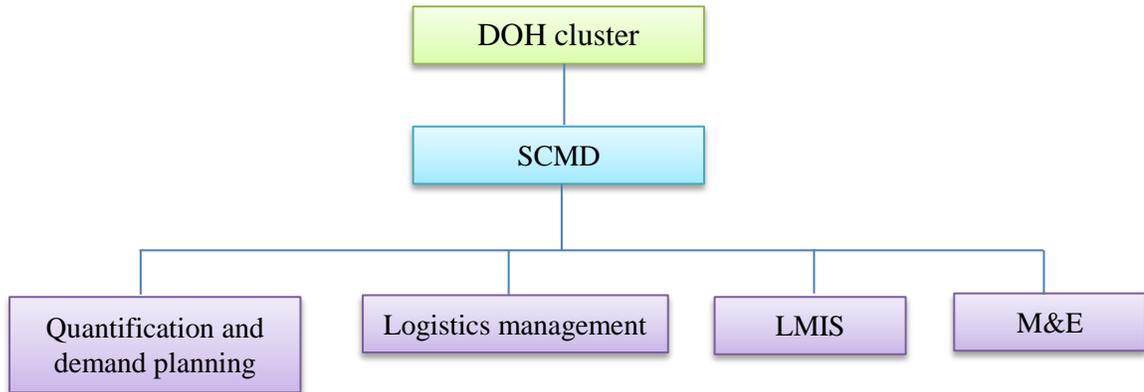


Figure 2. Structure in which logistics management of SCM does not include warehouse and distribution operations

Table 11 describes the advantages and disadvantages of option 2.

Table 11. Advantages and disadvantages of option 2

Advantages	Disadvantages
<ul style="list-style-type: none"> • Brings all forecasting and supply planning in one unit for proper coordination and efficiency • One unit responsible for the design and implementation of LMIS • Utilizes the existing supply chain workforce from different units until the structure is approved by the Department of Budget and Management • Utilizes existing warehouse and distribution operation functions of DOH 	<ul style="list-style-type: none"> • May create temporary resistance to change and confusion until things are clarified • Implement accountability policy only for limited system implementation (only quantification and LMIS)

How SCMD Will Interact with DOH Offices on SCM

To complete the whole picture of a well-functioning governance framework on SCM for DOH Philippines, the following is a sample diagram of how involved DOH offices in SCM will interact and interrelate with SCMD and other DOH offices specifically on supply chain functions based on the recommendations.

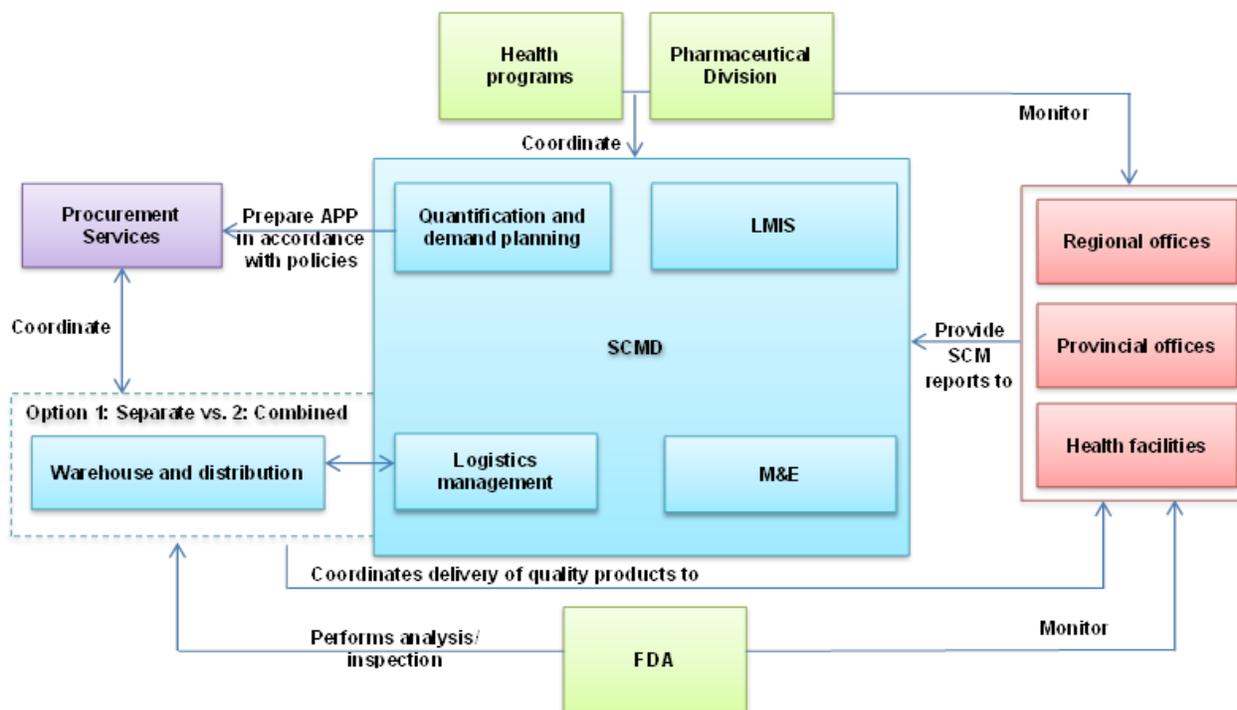


Figure 3. How SCMD interacts with involved offices on SCM (APP, annual procurement plan)

The established SCMD will manage all supply chain activities according to its roles and responsibilities. This division will coordinate with the different health programs in supply and distribution planning and with Procurement Services, following established guidelines and regulations. It shall manage and monitor the entire supply chain of DOH from the central to the facility level. Warehousing and distribution operations may continue through the current LMD or through the SCMD. The PD shall work closely with the SCMD to ensure that pharmaceutical policies, strategies, and guidelines are implemented according to the National Drug Policy. The SCMD will also work closely with the FDA to ensure that all medicines supplied in the country are quality, safe, and effective. This diagram does not consider augmentation and other related activities performed by the LGUs.

ACCOUNTABILITY POLICY

Accountability ensures that actions and decisions taken by responsible entities are subject to oversight so as to guarantee that government initiatives meet stated objectives and respond to the needs of the public (World Bank).

Roles and Responsibilities

Roles and responsibilities of different supply chain stakeholders in the DOH have been described earlier. Responsible and accountable supply chain stakeholders/entities in DOH are expected to fulfill defined roles and responsibilities and be accountable for functions and assets, which are crucial for continuing availability of safe, effective, and affordable medicines and medical supplies at health-service delivery points. These entities are expected to demonstrate public sector values and ethics, such as fairness, honesty, integrity, and fidelity to the public trust. Based on the recommended roles and responsibilities, performance of each entity at the different levels of the supply chain system should be regularly measured using KPIs.

Expected Performance

Performance expectations should be identified for all responsible and accountable entities within the procurement and supply management system. A system of M&E should be in place.

Reporting Requirements and Communication Mechanisms

All SCM stakeholders at different levels are expected to regularly report on their performance against relevant KPIs. These reports should be shared with DOH management and other supply chain stakeholders for performance evaluation and decision making. The mechanism of reporting will be based on other DOH program reporting mechanisms, but focus mainly on supply chain activities and related KPIs.

IMPLEMENTATION STRATEGY

The following are the recommended steps moving forward:

- Present to the DOH leadership and seek their approval of the supply chain governance framework; support this by issuing the necessary policies and guidance for all concerned
- Facilitate consultative workshops on roles, responsibilities, and TOR with all supply chain stakeholders
 - Determine if there are supply chain activities that the DOH would consider outsourcing to address immediate problems in supply chain or help in establishing a working SCMD
 - Identify potential sources of funding or resources that can possibly be mobilized from various offices for use in establishing and running the SCMD
- Continue discussions with health programs, supply officers, and other stakeholders at the central and regional levels
- Create a temporary commission or committee to operationalize SCMD
- Prepare and issue an administrative order
- Assign a director for SCMD
- Assign staff and start operating (develop and implement annual and strategic plans)
 - Short term: utilize the existing DOH staff currently performing SCM functions to fill important positions
 - Assess existing HR capacity to identify staff who can fill important positions
 - Medium to long term: quantify the level of effort required in each section of SCMD and develop an HR proposal with budget to be approved by the Department of Budget and Management
 - Execute activities according to strategic and annual work plan

CONCLUSION

Continuing discussions should be held to implement both the short-term recommendations as well as sustain the long-term initiative of establishing the governance structure. Leadership support and political will is most critical to ensure the success of this initiative. A policy supporting the recommended governance framework should be created and resources for operationalization should be provided. Once established and operational, DOH Philippines will be in a better position to manage the whole public health supply chain and to ensure access of all Filipinos to quality products and health services.

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ANNEX A. LIST OF KEY INFORMANTS

Name	Position	Unit
Achilles Gerard Bravo	Undersecretary of Health	DOH-OAFP
Ma. Carolina Taino	Assistant Secretary of Health	DOH-OAFP
Pedrito Tugano Junior	Executive Assistant	DOH-OAFP
Nemencia Angelio	Executive Assistance	DOH-OAFP
Angelina Del Mundo	Director	DOH-Administrative Service
Naomi Simon	Chief	DOH-Logistics Management Division
Jacquiline Hui	Pharmacist	DOH-LMD
John Paul Casihan	Supervisor	DOH-LMD
Ferdinand Dela Cruz		DOH-LMD
Dr. Irene Florentino-Farinas	OIC-Division Chief	DOH-Pharmaceutical Division
Sarah Millena	Pharmacist	DOH-PD
Jansen Lester Chan	Pharmacist	DOH-PD
Ma. Theresa Vera	Director	DOH-Procurement Service
Mina Marie Gaval		DOH-Procurement Service
Laureano Cruz	Director	DOH-Finance Service
Lorica Rabago		DOH-Finance Service
Victoria Atienzo		DOH-Finance Service
Edgardo Erce		DOH-Disease Prevention and Control Bureau
Marlene Galvan		DOH-DPCB
Jover Francisco		DOH-DPCB
Romeo Catbagan Jr.		DOH-DPCB
Maria Arlene Rivera		DOH-DPCB
Monaliza Pardo		DOH-Health Emergency Management Bureau
Krystelle Mabayos		DOH-HEMB