Discussion Paper
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Strengthening Medicines Management in LGUs

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This paper discusses the status of medicines management in selected Philippine municipalities. It identifies practices and local operations related to drug management cycle such as forecasting, procurement, storage, and disposal. It also proposes ways local government units (LGUs) and the Department of Health (DOH) can improve access to essential medicines in primary care facilities.

This paper proposes the following interventions to address the policy, operational and strategic challenges in managing medicines supply:

- Establish drug and therapeutics committees with proper authority;
- Develop local policies on medicines procurement, donations, and disposal;
- Provide medicines storage facility with identified area, sufficient space, temperature and humidity controls, shelves and pallets; and
- Perform regular medicines inventory with records updated and stored properly.

These strategies were identified during a workshop on pharmaceutical supply chain management (SCM) attended by mayors, municipal health officers, procurement officers, and members of the municipal Bids and Awards Committee.

Background

Access to healthcare, including essential medicines, is a fundamental human right. Realization of this right involves the government's primary responsibility to ensure access to medicines and partnership with the private sector (Management Sciences for Health, 2012). Specific interventions to improve access to medicines is vital to strengthen health systems, hence, proper SCM is required. Medicines management or pharmaceutical SCM is the entire process of how medicines are selected, procured, delivered, prescribed, administered, and reviewed to optimize its contribution to desired outcomes of patient care *(see Figure 1 on page 2)*. In the Philippines, medicines management occurs at all levels of the government. The country has complex medicine SCM (Salenga et al., 2013), given the devolved setup of health system paired with limited resources and capacity of LGUs, medicines SCM remains a challenge and has

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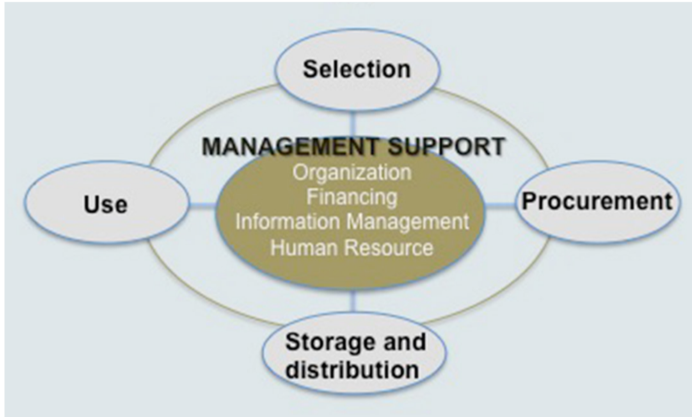
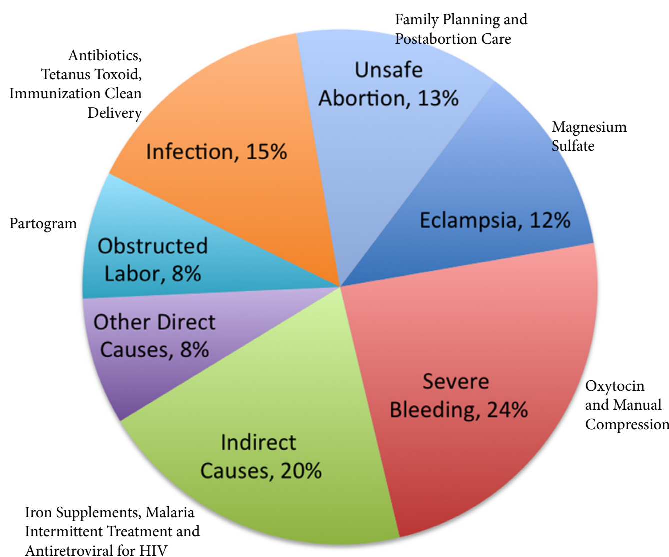
led to either overstock or undersupply of essential medicines. Problems related to medicines management in a decentralized system are amplified when there are lack of local management capacity and trained staff, and inadequate financial resources (Management Sciences for Health, 2012).

Figure 1. The medicines management cycle



Source: Managing Access to Medicines and Health Technologies (2012)

Figure 2. Main causes of maternal deaths and corresponding evidence-based interventions



Source: Nour (2008). An Introduction to Maternal Mortality. Women's Health in the Developing World

Maternal mortality and access to essential medicines link

Some of the leading causes of maternal deaths like excessive bleeding after childbirth, high blood pressure during pregnancy, and infection can be prevented and significantly reduced with expanded availability of maternal health medicines and supportive policies and practices (UNFPA, 2012). Data suggest that if oxytocin were available to all women giving birth, 41 million postpartum hemorrhage cases can be prevented and 1.4 million lives saved in a 10-year period (USAID, Landscape Analysis: Postpartum Hemorrhage Solutions, unpublished data, 2012 cited in UNFPA, 2012).

Evidence-based interventions for reducing maternal mortality strategically target the main causes of death *(see Figure 2)*. The consensus among international organizations is that quality care requires services throughout a woman's reproductive life (Nour, 2008). Hence, access to quality services including essential medicines must be prioritized and given attention while fixing the whole health systems gaps.

Assessment of medicines management in local health facilities

While national policies on managing medicines are in place, implementing these in a decentralized health system is difficult. An assessment of baseline data shows that existing gaps at various stages of the medicines management cycle were apparent *(see Table 1 on page 3).* The assessment tool was based on the 2015 training manual on pharmaceutical SCM developed for the DOH through a World Health Organization (WHO)-supported technical assistance. The modules were piloted by Medicines Transparency Alliance (MeTA) Philippines to the Zuellig Family Foundation (ZFF) prototype municipalities. *As part of the follow-through

*Prototype municipalities include Looc and Magdiwang in Romblon; Dao, Capiz; Cervantes, Ilocos Sur; Tungawan, Zamboanga Sibugay; San Pablo, Zamboanga del Sur; Del Carmen, Surigao del Norte; North Upi and Datu Paglas in Maguindanao; and Sibutu, Tawi-Tawi.

activities of the “Leadership, Transparency, and Governance in Pharmaceutical Management” training, MeTA Philippines, in collaboration with ZFF and the PHAPCares Foundation, organized the “Workshop on Pharmaceutical Supply Chain Management for Local Government Facilities” on June 22 to 24, 2015 in Cebu. The activity was supported by the WHO and the DOH. The workshop provided an avenue for key stakeholders to validate the health issues and discuss their perspectives on the challenges surrounding access to essential medicines at the LGU level. The workshop also equipped the health leaders’ practical knowledge on how to manage their pharmaceuticals to ensure quality of medicines.

Table 1. Municipality’s supply chain management

Phases of Medicines Management	Key Indicators	Frequency (n=10*)	Percent (%)
Governance on medicines management	Establishment of Drugs and Therapeutics Committee (DTC) which governs the LGU pharmaceuticals-related activities	0	0
	Presence of policy that directs the Municipal Health Office to put into writing the protocols on medicines management	0	0
System for medicines selection and quantification	Procurement of medicines that are listed on the Philippine National Formulary manual	10	100
	Presence of licensed pharmacist or focal personnel trained on selection and quantification of medicines	0	0
	Conduct of evidence-based quantification of supply (e.g., use of either consumption or morbidity data)	5	50
Procurement and reception mechanism	Conduct of regular monitoring/reporting on procurement performance (supplier lead times, % of purchases made through bidding, planned versus actual purchases)	6	60
Storage and distribution capacity	Implementation of good storage practices**	4	40
	Conduct of regular inventory of medicines and other health products (electronic or manual methods) by Rural Health Units (RHUs)	6	60
Rational use of medicines	Presence of RHU protocols on dispensing of medicines	0	0
	Adoption of the Daily Drug Use Record/Drug Utilization Report (name of patient, name of medicine, duration of treatment, when to follow up)	7	70
	Presence of trained staff on drug counseling and dispensing	0	0
LGU system for pharmaceutical donations	Presence of guidelines on accepting foreign and local drug donations	0	0
	Integration of access to essential medicines during health emergencies and disasters to the municipal disaster plan	0	0
Disposal system of expired medicines	Presence of policy that outlines the protocol on disposal of unwanted and expired medicines	0	0
	Conduct of regular inventory/reporting of disposed medicines	4	40

*ZFF partner municipalities include Looc and Magdiwang in Romblon; Dao, Capiz; Cervantes, Ilocos Sur; Tungawan, Zamboanga Sibugay; San Pablo, Zamboanga del Sur; Del Carmen, Surigao del Norte; North Upi and Datu Paglas in Maguindanao; and Sibutu, Tawi-Tawi.
**Good storage practices should include ALL of the following: a. uncrowded space, b. adequate lighting, c. adequate ventilation, d. presence of room thermometer, e. cold chain for vaccines, f. presence of shelves and pallets.

Existing issues at various stages of the medicines management cycle were common among the pilot municipalities. Specifically, most had inadequate shelves, pallets, and racks for drug storage; hence, some of the medicines were stored along with other supplies. At the Rural Health Unit (RHU), all personnel were not trained on drug counseling and dispensing. Storage facilities were inadequate due to limited resources and capacity of health workers.

Medicines-related policies at the national level did not translate well to the LGU level. National guidelines for accepting donations and handling pharmaceutical wastes were not fully implemented in health facilities *(see Table 2)*. All municipalities had no established Drug and Therapeutics Committee (DTC) to guide the whole process of medicines management. Also, all had no policy, like executive order or municipal ordinance, that directs the Municipal Health Office to put into writing the protocols on LGU pharmaceutical SCM.

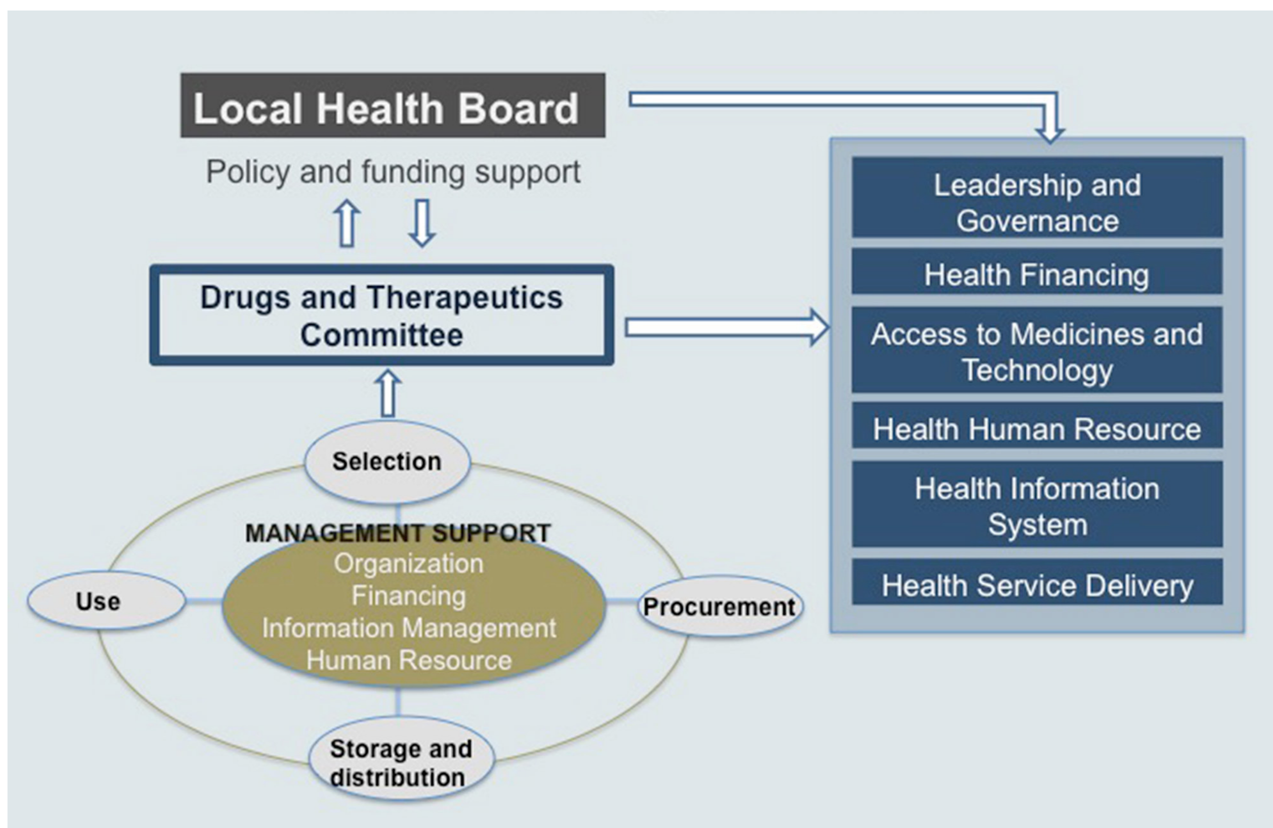
Table 2. Common issues on medicines management encountered by municipal government units

Phases of Medicines SCM	Issues Related to Medicines Management
Selection	-Approved budget for medicines is lower than the proposed budget based on consumption and morbidity -Lack of proper training of the concerned staff on pharma selection -Lack of governing body/therapeutics committee
Procurement	-No clear local policy on the procurement process -Lack of awareness on the list of qualified suppliers -No actual monitoring of LGU to the suppliers site -Lack of feedback from winning bidders
Storage and distribution	-No proper storage rooms or lack of shelves/pallets for the storage -Lack of system for inventory (no available software) -Lack of training among health workers -Improper maintenance of temperature of medicines from supplier -No access to storage room restriction
Rational use of medicine	-No proper area for dispensing -Public are not well-informed about adverse drug reactions (ADR) -Discrepancy in recording of dispensed meds -No counseling conducted during dispensing -Self-medication prior to consultation -Shortage of essential medicines in the facility
Medicines donations	-During emergency, medicines excessively donated to the LGU -Donated medicines with date near expiration -Lack of guidelines on accepting donations -There are drugs directly donated to Barangay Health Stations without coordination with LGU officials
Disposal	-Excess of medicines for disposal due to non-utilization -Personnel are not equipped to properly dispose expired medicines -No guidelines on disposing expired medicines

Key emerging lessons

Lesson #1: Institutionalize DTCs at different levels.
The strongest mandate a DTC can have is one issued by the national government. In other countries, patients can only get reimbursement for treatment from hospitals or health facilities that are accredited by the insurance companies. At the LGU level, a DTC will provide advice to the executive body for financial and policy support *(see Figure 3)*. Administrative or political support is very important, as otherwise a DTC may not be viable and may be unable to implement its decisions. Administrative support can provide the executive authority needed to gain policy support to institutionalize DTC activities and functions.

Figure 3. Role of Drugs and Therapeutics Committee in medicines management process



The first significant step is to organize the committee and select members based on their competence and roles relevant to making SCM work. Members should be selected with reference to their positions and responsibilities and they should have defined terms of reference. A dedicated and committed chairperson and secretary are critical to the success and efficiency of a DTC. In a local health facility like the RHU, a municipal health officer can be appointed as the chair and the community pharmacist as the secretary. In cases where no pharmacist, the public health nurse can be appointed as secretary. The nurse should undergo the Pharmacy Services National Certificate III by the Technical Education and Skills Development Authority (TESDA)-accredited center or at least an orientation on medicines management. The DOH may organize and facilitate a training activity for non-pharmacists handling medicines.

The committee secretary ensures implementation, follow-up, and feedback on the committee's decisions, preparation of meeting agenda and background materials for consideration by the committee (Diza, n.d.). Other members may include:

- Development management officers of the DOH
- Midwife
- Bids and Awards Committee (BAC) representative
- Microbiologist or laboratory technologist
- Department of Environment and Natural Resources (DENR) representative
- Hospital pharmacist (hospital in the Inter-local Health Zone)
- Chief of hospital (hospital in the Inter-local Health Zone)

All DTC recommendations should be disseminated to RHU staff, Local Health Board (LHB) members, and other concerned parties. This can be included in the agenda of the LHB meetings. All DTC operating guidelines, policies, and decisions should be documented. Included are the agreed actions to be taken if the decisions, guidelines or policies are not followed. Members of the committee should be responsible for disseminating the resolutions of the DTC. All SCM indicators and related activities must be regularly reported to the DTC or LHB meeting, if necessary. For example, reports regarding clinical issues like ADR and problems with specific products—with suppliers identified—could be shared and discussed in this meeting. The supplier performance can be also measured from the reports emanating from the use of their supplied medicines in a particular health facility.

Lesson #2: Provide clear strategy to support LGUs in setting up a functional and effective medicines management.

Local support to medicines management would strengthen health systems and provide quality services to the community.

LGU medicines quantification and procurement mechanism

Limited financial resources, particularly in the rural municipalities, require efficient selection of medicines. The following are specific actions that can be undertaken by the LGU:

- Quantification of medicines must be evidence-based. This can be determined through list of morbidities/diseases or consumption methods. The Philippine National Formulary serves as the basis for selection of medicines in a government health facility.
- Evaluation of bids and awarding of contracts must have a clear, transparent and effective workflow (DOH-NCPAM, 2015). Bid prices from interested suppliers can be compared with and checked against the latest published Drug Price Reference Index (DPRI) available at the DOH website.
- LGU should have a well-documented and effective system of receiving procured medicines. For instance, upon delivery of supplies to the local health facility, these should be inspected and checked against the specifications listed in the purchase order (e.g., quantity, original containers, labels, expiry dates and physical conditions).
- Review if LGU performs regular monitoring and reporting of procurement performance. Use key indicators (e.g., supplier lead times, percentage of purchases made through bidding, planned versus actual purchases) and report performance indicators against targets.

LGU system for pharmaceutical donation

Due to the high risk of the Philippines to different forms of disaster, an efficient logistics management in emergencies is a vital disaster response tool that will help decrease both mortalities and morbidities

and prevent disabilities. It is important that local health facilities create specific and clear guidelines regarding medicines donations, taking into the consideration the policy of the DOH. DOH Administrative Order 2007-0017, or the "Guidelines on the Acceptance and Processing of Foreign and Local Donations during Emergency and Disaster Situations," provides a rational and systematic procedure for acceptance of donations. It states that acceptance of donations shall be based on the expressed need of the community. Inappropriate medicines donations create logistical problems because these must be sorted, stored, and distributed using limited resources. These problems necessitate the need for clear policies to guide both donors and recipients in maximizing the benefit of donated medicines.

LGU disposal mechanism of unwanted and expired medicines

Safe disposal of expired medicines is a necessary task because of the possible threat to the community's health and environment if improperly disposed e.g., water source contamination. Thus, the LGU should develop a policy on the appropriate disposal of expired medicines. The LGU will be guided by the DOH and DENR joint policy on effective and proper handling, collection, transport, storage, and disposal of healthcare wastes (Administrative Order 02-2007). It is recommended that LGUs execute the following:

- Check how Municipal Health Office disposes unwanted and expired medicines.
- Determine if health personnel are trained on proper disposal of medicines.
- Recommend to the LHB to execute policy that supports the training of health personnel and ensures funding for the equipment and materials required in the proper disposal of expired and unwanted medicines.

Lesson #3: Adequate storage facility with identified area, sufficient space, temperature and humidity controls, shelves and pallets must be provided to ensure quality of medicines.

The primary distribution management goal is to maintain a constant supply of quality medicines in the health facilities while ensuring that resources are being used efficiently (DOH-NCPAM, 2015). Good medicine quality depends largely on proper storage and distribution activities. Clear policies at the LGU level must be in place to protect the quality of medicines. Hence, people have access to quality health service. The local government should invest in adequate facilities and equipment. Quarantine area for expired and damaged products should be assigned to lessen chances of dispensing unwanted medicines and to facilitate disposal.

Lesson #4: Regular inventory of medicines and records keeping in storage areas must be performed.

Inventory and record keeping is a significant part of SCM cycle to ensure the good quantity and quality of medicines. An inventory software program is an efficient method for managing inventory. However, in the absence of electronic system, other means like the stock cards and inventory logbooks can be used.

Some recommendations

Evidence and experience suggest that local governments can benefit from better medicines management through the following recommendations:

Local Government Interventions	National Government Interventions through the Department of Health
1. Establish DTC to govern medicines-related activities and to institutionalize SCM at the LGU. At the LGU level, a DTC will provide advice to the executive body for financial and policy support. More importantly, a DTC must ensure that allotted budget to purchase medicines must address the needs of the community. Hence, evidence-based selection and quantification must be allowed.	**1. Institutionalize DTCs at different levels. The strongest mandate a DTC can have is one issued by the national government.** In other countries, patients can only get reimbursement for treatment from hospitals or health facilities accredited by insurance companies and such accreditation may require functioning DTCs (WHO, 2003). This option can be explored by the DOH and the Philippine Health Insurance Corp. (PhilHealth). Functional DTC and implemented local policies shall be included as requirements for the DOH certification and PhilHealth accreditation of health facilities. Furthermore, monitoring should be done in all regions and for which the DOH Pharma Division should be provided with a report of implementation (including the allotted budget by the LGUs on medicines).
2. Develop local policies on medicines procurement, pharmaceutical donations and disposal. Policy and financial support in the whole cycle of medicines management would ensure essential medicines are available, accessible and appropriate to the needs of the constituents.	**2. Provide clear strategy to support LGUs in setting up a functional and effective medicines management.** The national government, especially the DOH, may come up with a clear strategy on how they could reach out to local governments, civil society organizations, private sectors and other groups who are champions on SCM.
3. Invest in good quantity and quality of health workers in support of good medicines management in the local health facilities. There must be a focal trained person who oversees the whole process of medicines management. Section 31 of the newly passed Pharmacy Law (Republic Act 10918) requires government units, including local government, city, first- to third-class municipal health units, nongovernment organizations and/or associations involved in the procurement, distribution, dispensing and storage of pharmaceutical products to employ and retain professional services of a pharmacist. In addition, the DOH Administrative Order No. 34 and Food and Drug Administration Memorandum Circular No. 25 require trained pharmacy assistants (non-pharmacist handlers of medicines) to have certificate of training (pertaining to standardized training under TESDA Training Regulation for Pharmacy Services NC III).	**3. The DOH can complement the health workforce by deploying pharmacists in the geographically isolated and poor communities.** The Philippine Pharmacy Law states that a pharmacist can supervise a maximum of four establishments or health units in geographically isolated and disadvantaged areas, fourth-, fifth- and sixth-class municipalities. The Health Human Resource Development Bureau of the DOH can also recommend the appropriate number of health human resource to be involved in medicines management.

Local Government Interventions	National Government Interventions through the Department of Health
4. Provide adequate storage facility with identified area, sufficient space, temperature and humidity controls, shelves and pallets. The local government should invest in adequate facilities and equipment. Furthermore, good practices in storage and distribution must be observed in the local health facilities. In addition to having adequate space and proper storage practices, there is a need to specify an area for unwanted products, like expired and damaged pharmaceutical products, called quarantine area. Having this area would prevent accidental dispensing of these products and also help in disposal planning.	**4. Provide capability building and technical assistance to LGUs in setting up adequate storage facilities and related equipment with proper monitoring.** The DOH can mobilize schools/universities and medical professional societies like Philippine Pharmacists Association to provide capability training on SCM. Another option is to engage TESDA-accredited training and assessment centers in various parts of the country to provide pharmacy services NC III training for health workers involved in medicines management.
5. Perform regular inventory of medicines and maintain records in storage, and update regularly using inventory software program or stock cards, bin cards, or ledger. Inventory and record keeping is a significant part of SCM cycle to ensure the good quantity and quality of medicines in the health facilities.	**5. Invest in inventory software program and training of health personnel to track all the medicines distributed at different levels and have a real-time data on utilization.** This option can be explored since an inventory software program is considered as the most efficient method for controlling inventory management. The features and content of this inventory software should provide all relevant information and ensure two-way viewing of utilization and inventory status by decision-makers and facility personnel. The manual method should also contain the same features and content of the inventory software so it will be possible to collect the same information regardless of the method used.

List of acronyms

ADR Adverse drug reaction
BAC Bids and Awards Committee
DENR Department of Environment and Natural Resources
DOH Department of Health
DPRI Drug Price Reference Index
DTC Drugs and Therapeutics Committee
LGU Local government unit
LHB Local Health Board
MeTA Medicines Transparency Alliance Philippines
RHU Rural Health Unit
SCM Supply chain management
TESDA Technical Education and Skills Development Authority
UNFPA United Nations Population Fund
USAID United States Agency for International Development
WHO World Health Organization
ZFF Zuellig Family Foundation

References

Audit Commission (2011). A spoonful of sugar – medicines management in NHS hospitals. United Kingdom. Available from http://archive.audit-commission.gov.uk/auditcommission/ sitecollectiondocuments/AuditCommissionReports/National Studies/nrspoonfulsugar.pdf

Department of Health (DOH) (n.d). Administrative Order 2007-0017: Guidelines on the Acceptance and Processing of Foreign and Local Donations during Emergency and Disaster Situations.

Diza, C. (n.d.). The Therapeutics Committee Manual. Available from file:///C:/Users/zffkarenpc/Downloads/docslide.us_therapeutics-committee-manual.pdf

Department of Health (2015). Training Manual on Pharmaceutical Supply Chain Management for Local Government Health Facilities. Available from file:///C:/Users/zffkarenpc/Downloads/Participant's%20Manual.pdf

Management Sciences for Health (2012). Towards Sustainable Access to Medicines. {Online}. [Accessed 1 June 2017]. Available from: http://apps.who.int/medicinedocs/documents/s19578en/s19578en.pdf

Nour, N. (2008). An introduction to maternal mortality. Rev Obstetr Gynecol. 1:77–81. Available from https://www.ncbi.nlm.nih.gov/pmc/articles/PMC2505173/

Philippine Pharmacists Association (n.d.) TESDA training regulations on Pharmacy Services NC III. Available from http://wwwphilpharmacists.org/TR-Pharmacy%20Services%20NC%20III_edited%20version%20(1).pdf

Republic of the Philippines (n.d.). An Act Regulating and Modernizing the Practice of Pharmacy in the Philippines, Repealing for the Purpose Republic Act Numbered Five Thousand Nine Hundred Twenty-One (R.A. No. 5921), otherwise known as the Pharmacy Law. Available from http://www.officialgazette.gov.ph/downloads/2016/07jul/20160721-RA-10918-BSA.pdf

Salenga, et al. (2015). Medicines Management in the Philippine Public Sector during the response to Haiyan. World Health Organization, WPSAR Vol 6. Manila, Philippines. Available from https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4710069/pdf/WPSAR.2015.6.SUPPL1-082.pdf

UNFPA (2012). Medicines for Maternal Health. Available from http://www.unfpa.org/sites/default/files/pub-pdf/Key%20Data%20and%20Findings%20Maternal%20Health%20Medicines-FINAL.pdf

World Health Organization {WHO} (1999). Guidelines for Drug Donations. Available from http://www.who.int/hac/techguidance/guidelines_for_drug_donations.pdf

World Health Organization {WHO} (1999). Guidelines for Safe Disposal of Unwanted Pharmaceuticals in and After Emergencies (1999). Available from http://www.who.int/water_sanitation_health/medicalwaste/unwantpharm.pdf

World Health Organization (2003). The Drugs and Therapeutics Committee: Practical guide. Retrieved from http://apps.who.int/medicinedocs/en/d/Js4882e/

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