

Government of Nepal
Ministry of Health and Population
Department of Health Services
Logistics Management Division

National Consensus Quantification of Essential Drugs, Vaccines and Program Commodities (Family Planning, MNCH, Nutrition, HIV/AIDS, TB, and Leprosy)

WORKSHOP REPORT March 19-20, 2018

With support from



USAID GLOBAL HEALTH SUPPLY CHAIN PROGRAM

Procurement and Supply Management



Government of Nepal Ministry of Health of Population

DEPARTMENT OF HEALTH SERVICES

(Logistics Management Division)

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Pachali, Teku Kathmandu, Nepal May 15, 2018

Ref. No.: 1658 Director General, **DoHS**

Subject: Consensus Quantification Report for FY 2075/76 (2018/19)

On the subject, we are pleased to forward attached "Consensus Quantification Report for FY 2075/76 (2018/19)" based on the workshop held in March 18-19, 2018 at Godavari, Kathmandu. The report includes the annual national forecasted quantity, the actual quantity required and estimated budget to procure for FY 2075/76 for each items of the respective program divisions (FHD, CHD, PHCRD, EDCD and LCD) and centers (NCASC and NTC). This report is expected to serve the purpose of developing annual procurement plan (APP) by concerned program divisions and centers, provinces and local level governments.

Please advise LMD if there are any comments or suggestions on the report. The final report is available in the LMD website (http://dohslmd.gov.np/).

Sincerely,

Dr. Ramesh Kumar Kharel Director

CC:

Secretary of Health, MoHP

Chief Finance Controller, Finance Section, DoHS

Director, FHD

Director, CHD

Director, PHCRD

Director, EDCD

Director, MD

Director, LCD

Director, NCASC

Director, NTC

External Donor Partners

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ABBREVIATIONS

AIDS Acquired Immuno-Deficiency Syndrome

ARV Antiretroviral

AWPB Annual Work-Plan and Budget

CHD Child Health Division

CPR Contraceptive Prevalence Rate

CRS Catholic Relief Services

DDA Department of Drug Administration
DMPA Depo-Medroxyprogesterone Acetate

DG Director General

DOHS Department of Health Services

EDCD Epidemiology and Disease Control Division

EDP External Development Partner

EPI Expanded Programme on Immunization

FHD Family Health Division
FHI Family Health International

FP Family Planning

FPAN Family Planning Association Nepal

FY Fiscal Year

GFATM The Global Fund to Fight AIDS, Tuberculosis and Malaria
GHSC-PSM Global Health Supply Chain-Procurement Supply Management

GoN Government of Nepal

H4L Health for Life
HCV Hepatitis C virus

HIV Human Immuno-Deficiency Virus

HMIS Health Management Information System

ICB International Competitive Bidding

IMNCI Integrated Management of Neonatal and Childhood Illness

IUDIntrauterine DeviceLCDLeprosy Control DivisionLMDLogistics Management Division

LMIS Logistics Management Information System

MD Management Division

MNCH Maternal, Neonatal and Child Health
MoHP Ministry of Health and Population

NCASC National Centre for AIDS and STD Control

NCB National Competitive Bidding
NCD Non-Communicable Disease
NGO Non-Government Organization
NEML National Essential Medicine List
NTC National Tuberculosis Centre
ORS Oral Rehydration Solution

PHCRD Primary Health Care Revitalization Division

RH Reproductive Health
RHD Regional Health Director
RMS Regional Medical Store
SC Save the Children

UNFPA United Nations Population Fund

UNICEF United Nations Children's Education Fund

USAID United States Agency for International Development

WHO World Health Organization

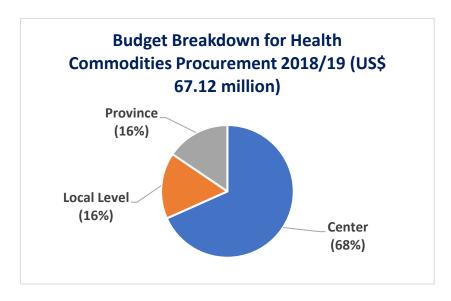
EXECUTIVE SUMMARY

Commodity security is essential for the effective delivery of quality health services. The consensus forecasting of health commodities began in Nepal's public health system with the forecasting of family planning commodities in 1999 under the leadership of the Logistics Management Division (LMD) of the Department of Health Services (DoHS). As the importance and usefulness of this type of exercise became apparent, it was extended to include essential drugs, vaccines and other program commodities. USAID Nepal, through its implementing partners including the Global Health Supply Chain Program-Procurement and Supply Management (GHSC-PSM) project, provides financial and technical support to LMD to strengthen supply chain management and health commodity security in the country.

The workshop for forecasting health commodity needs for fiscal year 2075/76 (mid-July 2018 to mid-July 2019) year was held by LMD on 19–20 March 2018 with participation from DoHS's divisions and centers and major stakeholders with technical support from GHSC-PSM. The main purpose was to estimate the quantity needed for each 'program' for the next fiscal year to help each division and center plan and allocate a budget for the procurement of needed commodities. The forecasting was based on scientific data, including demographic data, consumption patterns, epidemic patterns, morbidity issues and special programmatic considerations. The central level MoHP significantly increased its share of funding of commodities which is encouraging to have this increase in financial commitment for procurement.

The workshop successfully addressed several issues concerning the forecasting of health commodities. The workshop also considered other factors that affect forecasting such non-prescription drugs, replacing drugs (e.g. formulation, strength, etc.), fast-moving drugs, the revision of the National Essential Medicine List and duplication between different divisions.

The total forecast budget for all the programs was forecast at US \$67.12 million for FY 2018/19 (2075/76) with the central level holding 68%, provinces 16% and local governments 16% of the total budget.



I. INTRODUCTION

On 19–20 March 2018, the Logistics Management Division (LMD) of Nepal's Department of Health Services (DoHS) held a workshop in collaboration with the program divisions, centers and programs listed in Box I to forecast and quantify their health commodity needs for the coming fiscal year (Nepali fiscal year 2075/76 [2018/19]). The workshop was run with technical assistance and financial support from the Global Health Supply Chain Program-Procurement and Supply Management (GHSC-PSM) project. It was attended by representatives of the MoHP, DoHS, external development partners (EDPs) and the entities listed in Box I.

Box 1: Divisions, centers, social marketing company and programs involved in 2018/19 consensus forecasting exercise

- Child Health Division (CHD)
 - Expanded Programme on Immunization (EPI)
 - Nutrition
 - Integrated Management of Neonatal and Childhood Illness (IMNCI)
- Epidemiology and Disease Control Division EDCD
- Family Health Division (FHD)
 - Nepal CRS Company
- Leprosy Control Division (LCD)
- National Centre for AIDS and STD Control (NCASC)
- National Tuberculosis Centre (NTC)
- Primary Health Care Revitalization Division (PHCRD)

This type of forecasting exercise was first carried out by LMD and DoHS for family planning commodities in 1999. The exercise was extended to cover other health commodities in subsequent years.

This forecasting and quantification exercise is crucial to identify the needs and funding requirements for health commodities. It provides an excellent platform for MoHP and EDPs to discuss funding requirements and to identify shortfalls to facilitate their resolution on time. It also provides an opportunity for interactions between the main stakeholders (the public health system, EDPs, NGOs and social marketing companies) to improve supply chain management and improve health commodity security. It also serves as the main basis for DoHS's program divisions and centers to plan their health commodity budgets in their annual work plans. For LMD, it forms the basis for health commodity procurement planning and delivery schedules. The decisions made at these workshops are based on a consensus which has improved the public-sector procurement system and the government's commitment for the delivery of adequate health commodities to strengthen essential health care services.

The specific objectives of the workshop were as follows:

- To estimate the future commodity needs based on data in the Logistics Management Information System (LMIS) and Health Management Information System (HMIS) and demographic and program considerations, in-country stocks, and supplies in the pipeline.
- To identify funding needs and budget allocations to procure the commodities needed by the three tiers of government central, provincial and local government.
- To provide data on specific commodity requirements to coordinate procurement and shipment delivery schedules.
- To ensure citizens' rights and the government's commitment to universal health coverage for its citizens as per the National Health Policy and the Constitution of Nepal (2015).
- To introduce the draft quantification guidebook (contents outline) for national, provincial and local governments.

2. PREPARATORY ACTIVITIES

The forecasting and quantification exercise had the six steps shown in Figure I. LMD led the preparatory activities with technical assistance from GHSC-PSM with the main objective of designing the workshop in such a way that concerned divisions and centers would bear accountability for their forecasts.



Figure 1: The six steps of the quantification of health commodities, 2075/76

Step I: Formation of Quantification Sub-Committee

The first step for facilitating the workshop, was the formation of a quantification sub-committee under the chairmanship of the LMD director in Dec 8, 2017.

¹ The four types of local government are rural municipalities, municipalities, and sub and metropolitan cities.

The sub-committee had the following responsibilities:

- To plan and ensure that forecasting exercises were conducted in each division and center to result
 in the consolidated quantification of all commodities in a timely way in alignment with MoHP's
 budget allocation process in the format developed by the sub-committee.
- To determine the process and forecasting methodologies to be adopted.
- To organize a consensus forecasting workshop to present and validate the quantification of all commodities.
- Based on feedback at the workshop, to make any necessary changes in the quantification, to finalize the quantification, and to include them in supply planning.
- To submit the quantification to MoHP's budget allocation process and confirm that the needed commodities are included in the budget.
- To conduct quarterly reviews of quantification and supply planning.

Under the aegis of this sub-committee, the practice is that all the divisions, centers and programs prepare for the consensus workshop by sitting together two or three months beforehand to estimate their commodity needs for the coming year that will be reflected in their annual work plans and budgets (AWPBs). The overall process is mapped out in steps 2 and 3.

Step 2: Quantification Sub-Committee meeting to develop forecasting methodologies

A quantification sub-committee meeting was held Jan 9, 2018 to discuss and agree on the timeframe of the workshop including deadlines, methodologies (criteria, formats), and data sources (e.g. consumption, morbidity, demographic, services utilization) to improve forecasting validity and references were discussed and agree don (see Annex 2).

The LMIS unit, HMIS unit, LMD storekeepers, and related divisions and centers subsequently met to gather resources such as consumption data, demographic data, morbidity data, shipment status, and stock status. With technical assistance from GHSC-PSM, LMD supported the individual divisions, centers and programs listed in Box I above to forecast their health commodity needs for 2018/19. Separate dates were set for each division, center and program to develop their forecasts (Step 3).

Step 3: Pre-forecasting meetings with division directors and program focal persons

LMD, GHSC-PSM staff, and program focal persons participated in pre-forecasting meetings with relevant divisions and centers based on program needs, morbidity data and LMIS dispensing data. All relevant divisions and center presented the forecasted quantity and quantity required to procure in the pre-forecasting meetings. They conducted separate meetings with divisional directors and program focal persons for discussion on existing data for forecasts.

Step 4: Dry run of the national quantification

The data from the pre-forecasting meetings were analyzed and then each division, center and program conducted a dry run presentation of their data on 15 February 2018. Then, final drafts were prepared for the national consensus quantification workshop.

Step 5: The consensus workshop

The workshop was conducted on 19–20 March 2018. There were total seventy-one participants attended the meeting (see Annex 3). The workshop was coordinated by Sachita Joshi, Drug Administrator, LMD.



Monica Villanueva/USAID and Dr. Ramesh Kumar Kharel, Director/LMD discussing on various SCM activities

Step 6: Quantification finalized with cost estimates, report prepared and guidebook to be developed

Step 6 was based around the preparation of the final workshop report. The quantification guidebook is in the process of development and will be completed in month of April 2018.



The quantification workshop at Hotel View Bhrikuti, Lalitpur

3. THE BASIS OF FORECASTS

The forecasting exercise being reported on here used historical consumption data, morbidity, demographic data and program considerations to project and predict future need. The presenting entities prepared their forecasts based on data from the health management information system (HMIS), the logistics management information system (LMIS), demographic health surveys, census data, and policy documents.

The forecasts were based on the following criteria and assumptions:

- **Consumption data:** Consumption data provides the actual number of commodities consumed within a specified period especially in mature stable programs that have had an uninterrupted supply of commodities and refers to the past three years' trend made with out-of-stock commodities.
- **Demographic data**: Data on population growth and trends, geographical distribution, age, gender is used to identify how much of the total population is affected by specific diseases. This data is also used to estimate the change in population growth over time to forecast health commodity needs.
- Morbidity data: The analysis of demographic data and morbidity data will provide the best estimate
 for health commodity forecasts. This estimates the need for specific medicines based on the expected
 number of attendance, incidence and prevalence of diseases or health conditions in the population.
 However, the data on patient attendance was incomplete, and the percentage of prescribers following
 Standard Treatment Guideline is difficult to obtain, and only a limited number of health problems are
 addressed; so, estimates needed to be adjusted to cover other health problem.
- Program considerations: Future program coverage needs to be estimated to forecast the future
 demand for commodities. Programs such as non-communicable diseases, mental health and family
 planning programs have special considerations such as unmet needs, contraceptive prevalence rate,
 infertility, spousal separation and method mix. These factors need taking into account for forecasting
 commodity quantities.

4. BASIS OF DETERMINING REQUIRED QUANTITIES

The following criteria and assumptions need to be accounted for when determining the required quantities to procure:

- Current national stock levels The current national level of stocks of drugs and medicines were taken into considerations while finalizing the procurement quantities. The workshop used the first quarter LMIS data for FY 2074/75 (2017/18) to identify the national current level stock status.
- Commodities in the pipeline The pipeline is the entire chain of storage facilities and transportation links through which supplies move from manufacturer to customer. The quantification exercise considered the amount of commodities in the pipeline and shipment schedules.
- **National consensus forecasted quantity** Forecasted quantities provided the estimated annual requirement, which were considered for determining average monthly consumption.
- National maximum and minimum levels An inventory control method was used that required each health facility to set maximum and minimum desired stock levels for each item to ensure that quantities fell within the established range. This range depends on available storage facility, transportation facility, and weather condition, and geographical accessibility. The quantification is based on making stocks up to the desired maximum at the national level, which includes procurement lead time and safety stock. The lead time is the time between the date a product is ordered and the date it is received and becomes available for use. Lead times vary depending on the system, time of deliveries, availability and reliability of transport, geographical accessibility and weather. There is normally about 90 days' lead time for national competitive bidding and 180 days for international competitive bidding commodities. The exercise also accounted for procurement lead times. Safety stocks are the amount of stock kept in reserve in case if an item is unavailable from suppliers or if demand suddenly increases. Safety stocks were also considered in the quantification exercise.

5. TECHNICAL SESSIONS

Workshop Proceedings

The workshop was graced by Dr. Pushpa Chaudhary, Health Secretary, Ministry of Health. Dr. Ramesh Kharel, LMD Director, welcomed all participants and gave a brief presentation on the history of the quantification exercise explained the concept quantification and its processes. He also provided glimpses of the soonto-be published new forecasting and quantification guidebook. guidebook covers the background and purpose of forecasting and various aspects of quantification. He explained who the guidebook is for and how it should be used.

The workshop's master of ceremony Gagan Singh Bista of LMD then invited Bhogendra Raj Dotel, Director of PHCRD, to explain how the quantification exercise had come to the final presentation stage at the workshop. Mr. Dotel explained the processes undertaken by divisions and centers (see Figure 1). He added that this year, the process started in December 2017 by forming a new sub-committee forecasting developing its terms of reference. He explained how the sub-committee had been orientated on its ToR and



Dr. Pushpa Chaudhary, Secretary of Health and Mr. Chuda Mani Bhandari, Deputy DG/DoHS among others at the workshop



Mr. Bhogendra Raj Dotel, Director PHCRD and Co-chair Forecasting Sub-committee working on his presentation

responsibilities in January 2018. He shared how it had taken a lot of hard work for all concerned to arrive at the consensus on the modality of the quantification and the data sources to be used.

The participants were shown when the pre-forecasting exercises had been carried out (see Figure 1). Mr. Dotel emphasized the need to monitor the commodity pipeline closely to decide which level of on-hand stocks the government should maintain before accepting new shipments.

Presentations Summary

The detailed individual forecasts, quantifications and estimated costs are given in Annex I.

The EPI vaccine program had the highest share of budget (29%) in health commodities, followed by essential drugs (27%), Epidemiology (15%) and FP+MNCH (9%) (Figure 2).

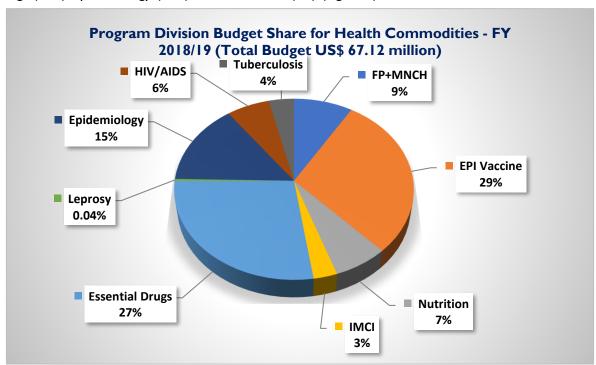


Figure 2: Share of the total forecast budget by the involved divisions, centers and programs

The donor partners (The Global Fund to Fight AIDS, Tuberculosis and Malaria [GFATM] and UNICEF/Global Alliance for Vaccines and Immunization [GAVI]) support the procurement of health commodities for the EPI vaccines, leprosy, HIV/AIDS, tuberculosis, and malaria (epidemiology) programs. These donors contribute about 32% of these program's health commodity funding (Figure 3).

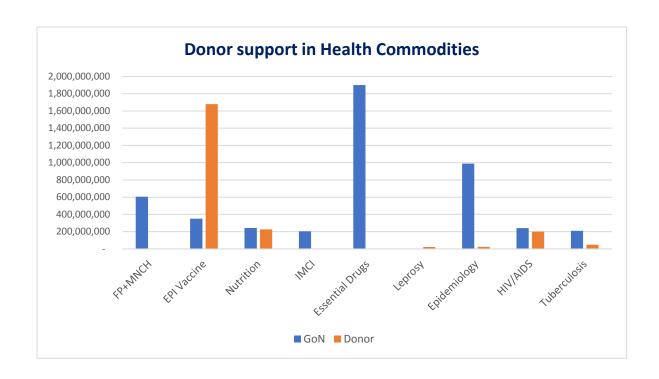


Figure 3:Donor support for health commodities of different programs, 2018/19

USAID supports the social marketing of contraceptives in Nepal through the Nepal CRS Company. Of CRS's annual budget of US\$ 1.78 million budget, KfW supports 42% of costs, USAID 34% of costs while CRS meets the remaining 24% from its own resources (Figure 4).

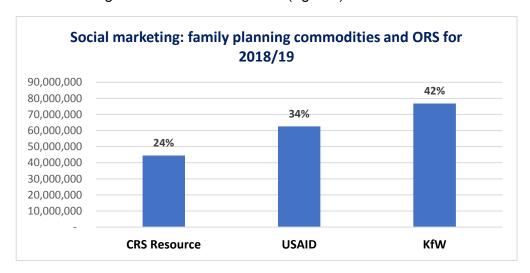


Figure 4: Share of planned funding of CRS family planning, emergency contraception and ORS by EDPs and from own resources, 2018/19

6. NEXT STEPS

At the mid-point of the workshop, Mr. Chuda Mani Bhandari, Deputy Director General, DoHS shared his view that all future health commodity planning needed to take account of the three tiers of the new structure of government. He said that a large proportion of budgets should now be handed over to provincial governments as the ministry would be working on the procurement strategy for which he asked for support from partners. He also reiterated the need to identify commodities that can be procured locally. His suggestion was to add a column in the presentation tables to justify increases or decreases in the quantities of commodities.

He emphasized the point that participating divisions, centers and programs should take the quantification exercise more seriously as some directors were absent. Referring to the large size of the forecasting subcommittee (it has 21 members and representatives from EDPs), he advised that a smaller committee with 7 members including partners, would be more effective and asked EDPs to support his recommendation.

Figure 5 illustrates the Deputy DG's presentation on the next steps needed following the consensus workshop. It was presented by LMD's Director in the closing session to show the post workshop activities to be accomplished by divisions, centers and forecasting sub-committees in March and April 2018.

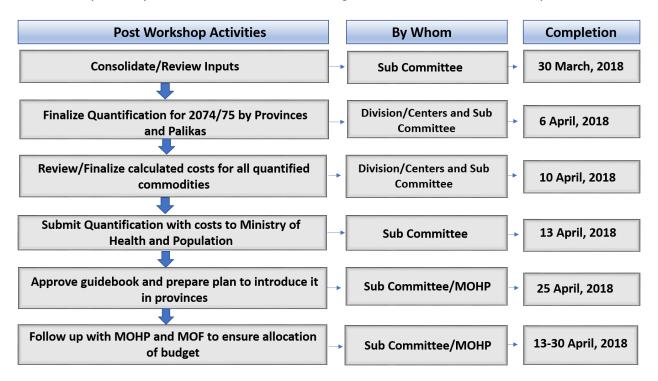


Figure 5: Next steps after the consensus quantification workshop

Remarks by Secretary of Health

The event was attended by Dr. Pushpa Chaudhary, Secretary, Ministry of Health, who expressed her appreciation of the workshop. She said that the presentations had been interesting and reiterated the health minister's request not to just have a shopping list but rather to generate lists of only essential commodities. She elaborated the need to reduce the number of commodities to be procured at central level with the rest procured at provincial and local levels. She also mentioned that MoHP is working with development partners to develop and finalize a 'Procurement and Supply Chain Directive' for the federal context within a month's time.



Secretary of Health, MoHP delivering her remarks

Remarks by USAID

USAID's Supply Chain Management Advisor Umesh Gupta made the following observation:

- NTC had been included in the quantification exercise for the first time.
- As the source of data for forecasting was an issue, once introduced, the new eLMIS platform will
 provide real-time data that will provide a better source of information for forecasting and quantification
 in the future.
- Annual work planning and budgeting should reflect the outcomes of the quantification and forecasting exercise.
- He recommended supporting a local government to become a model for other local governments to follow on health commodity procurement.

Remarks by USAID funded GHSC-PSM

GHSC-PSM country director, Shyam Lama thanked everyone for participating in the workshop. He said that there is a need to reflect on the identified quantification needs in actual budgets to ensure on time procurement. He stressed the need to strengthen the supply chain given the large proposed increases in many commodities (in some cases two to three-fold increases for bulky commodities). Adequate resources need to be committed to strengthen the supply chain in proportion to needs. He called for carefully examining the handling capacity of the already overburdened and resource-constrained warehousing, distribution and transportation systems. He said that this is even more critical as the capacity issue now applies across 7 provinces and 753 local governments. Thus, more creative, effective and efficient options and solutions like outsourcing, the use of third party logistics and direct delivery to health facilities from procurement sources need to be brought into use to ensure the uninterrupted supply of health commodities over the 'last mile'. He expressed GHSC-PSM's commitment to work closely with all stakeholders to strengthen the supply chain.

Closing remarks by LMD Director

Dr. Ramesh Kumar Kharel, LMD Director, thanked everyone for their participation. He said that the quantification exercise will be the basis for sourcing health commodities and the development of the consolidated annual procurement plan (CAPP). He added that the quantification exercise is a prerequisite to ensure the uninterrupted supply of commodities to clients at service delivery points. He stressed that the upcoming priorities are the amount of budget allocated for FY 2018/19 and the introduction of the national guidebook on quantification and forecasting. He also said that building the capacity of provincial and local government on procurement and supply chain management must be an important future focus.

All participants emphasized the importance of MoHP allocating adequate budget as per the quantification numbers. This will be a critical step to ensure the uninterrupted supply of drugs and other commodities to health facilities. Therefore, the sub-committee



Dr. Ramesh Kumar Kharel, Director, LMD, Chairperson, Forecasting Subcommittee delivering his closing remarks

needs to follow up on the activities and accomplish them in time as articulated in Figure 5.

7. CHALLENGES

Despite making strides in the quantification exercise, some challenges related to various aspects of supply chain functions linger and most challenges highlighted in in previous quantification exercises continue:

- Inconsistent and inaccurate reporting through the LMIS by some health facilities. This negatively
 impacts the reporting rate of the LMIS system.
- The late submission of quarterly LMIS reports to LMD.
- The lack of a system for consistent supportive supervision, mentorship, and follow-up at health facilities for data accuracy and the timely submission of reports.
- The gaps in the data used to inform the quantification of commodities. This challenge runs across all data sets including LMIS, HMIS, and population data. These gaps include information on facilities not reporting LMIS and HMIS data (number and weighting), data on days out of stock at the facility level, wastage rates, and especially the reporting of vaccines and other maternal and child health and essential drugs commodities
- The disconnect between the availability of health commodities and health logistics issues during
 the monitoring and evaluation of program interventions, which adversely affect programs' futures,
 scale up and new strategies.
- The lack of a robust system for tracking commodities across all in-country supply chain systems and the lack of analysis of available supply chain data in a continuous and timely manner.

- Even though the quantification process has become more coordinated, there is still poor use of the results of the quantification exercise as, for example, not all quantified quantities and budgets are reflected in actual program budgets.
- Quantification, if not done properly and not connected to budget allocation, will impact programs
 negatively and result in stock outs of commodities. It seems to be a continuing challenge to put
 all heads together in important meetings such as quantification. Knowing the gravity of the
 quantification, it can only achieve its objectives if all directors participate actively in the
 preparatory exercises and consensus workshops.
- Finally, it remains a challenge to ensure that adequate budget is allocated as per the quantification. It is the subcommittee that needs to pursue this issue with MoHP.

8. RECOMMENDATIONS

The following recommendations are made to address the above challenges

- Improve the LMIS reporting rate and the timeliness, accuracy and completeness of LMIS reporting (improved eLMIS is in process of roll-out in parts of Provinces 6 and 7).
- Strengthen coordination between partners, especially on the supply and distribution of health commodities.
- Improve and strengthen quantification data collection and reporting mechanisms.
- Establish a small quantification sub-committee to collect, review and validate data continually and regularly.
- Strengthen continuous supportive supervision, mentorship and follow-up system at health facilities so that accurate and complete reports and orders are submitted in a timely manner to the Central Medical Store.
- Use the guidebook to inform and orientate responsible personnel in provincial governments about health commodity forecasting and quantification.
- The Forecasting Sub-committee to follow up with MoHP on allocating budgets in line with the quantification figures.
- Use quantification reports to develop procurement plans.

Annex I: Health Commodity Forecasts and Quantities Required in FY 2075/76 (2018/19)

Each division, center, company and program presented made the following presentations at the workshop of the quantities of commodities they needed for the coming year and associated budgets.

Family Health Division

Family Planning and Safe Motherhood Commodities for FY 2075/76 (2018/19)

Dr. Bikash Devkota, Director, FHD presented the forecast of family planning and safe motherhood commodities required by the public sector at national scale for FY 2075/76. The budgeted amount for the previous year (2017/18, 2074/75) had been NPR 48.45 million while its proposed budget for 2018/19 was NPR 61.73 million. He said that the forecasting was based on population data including on women of reproductive age, percentage of women aged 14-49 currently married, and other determinants such as annual dispensing and consumption (LMIS/HMIS), CPR trend, method mix trend, consideration of voluntary surgical contraception (VSC), national plans, possible scale up programs and targets, FPCIP, satellite clinics, VSC +, family planning program integration with other services, consideration of programmatic experiences, multi-year procurement, existing service and outlet expansion, availability of 5 family planning methods in all health facilities, increased trained human resources, the number of birthing centers, number of expected pregnancies, increment of institutional delivery including the federal structure of Nepal of fertility such as the long term total fertility rate target. The CRS's requirement for FY 2075/76 were included in FHD's quantification.

SN	Commodities	Unit	Strength	Annual forecasted	Total quantity to procure	Unit cost (NPR)	Total cost (NPR)	Funding source	Remarks
I	Condoms	Piece		38,639,251	38,639,251	3.00	115,917,753	GoN	Considering LMIS data
2	Injectable disposable syringe	Vial		1,693,097	1,693,097	86.00	145,606,342	GoN	Considering HMIS Data
3	Pills	Cycle		1,939,284	1,939,284	30.00	58,178,520	GoN	Considering HMIS Data
4	IUCD	Set		42,258	42,258	38.00	1,605,804	GoN	Considering HMIS Data
5	2 rod 5 years effective Implant	Set		118,296	118,296	950.00	112,381,200	GoN	Considering HMIS Data
6	NSV Kit set	Set		385	385	5,000.00	1,925,000	GoN	5 set per district
7	Minilap Kit set	Set		539	539	11,000.00	5,929,000	GoN	7 set per district
8	Cautery Set	Set		40	40	10,800.00	432,000	GoN	Selected district
9	IUCD insertion and removal kit	Set		4,315	4,315	2,535.00	10,938,525	GoN	5 set per local level and hospital (753+110)

SN	Commodities	Unit	Strength	Annual forecasted	Total quantity to procure	Unit cost (NPR)	Total cost (NPR)	Funding source	Remarks
10	Implant insertion and removal kit	Set		4,315	4,315	2,500.00	10,787,500	GoN	5 set per local level and hospital (753+110)
Sub-t	otal in NPR						463,701,644		
Safe	Motherhood								
I	Oxytocin Inj. (1 ml 5 unit)	Amp.	I ml 5 unit	668,720	668,720	15.00	10,030,800	GoN	Considering HMIS Data
2	Mag. Sulfate (MgSo4)	Amp.		105,429	105,429	11.00	1,159,723	GoN	Considering HMIS Data
3	AD Syringe 10 ml for MgSo4	Pc.		14,094	14,094	15.00	211,410	GoN	Considering HMIS Data
4	AD Syringe 20 ml for MgSo4	Pc.		4,698	4,698	25.00	117,450	GoN	Considering HMIS Data
5	Calcium Gluconate	Amp.		4,698	4,698	6.00	28,190	GoN	Considering HMIS Data
6	Vitamin K	Amp.		313,219	313,219	17.00	5,324,723	GoN	
7	Navi Malham	Tube.		668,000	668,000	11.00	7,348,000	GoN	
8	Misoprostol 200 mcg/3 tab per strip	Tab	200 mcg	789,129	789,129	10.00	7,891,290	GoN	Need 3 tabs per strip & forecasting based on home delivery and considering increasing trend of institutional deliveries
9	Portable ultrasound machines	Set		10	10	1,270,608.00	12,706,080	GoN	3 machines in 3 new districts
10	MVA Kit	Set		1,000	1,000	1,100.00	1,100,000	GoN	CEONC, BEONC, BC site
11	Uterine Balloon Temponade Kit	Pic		10,000	10,000	500.00	5,000,000	GoN	10 per birthing center (for 1,000 out of 1,800 birthing centers)
12	Thermocoagulation Machine	Set		100	100	300,000.00	30,000,000	GoN	Each in PHC and All Hospital
13	Suction Machine	Set		100	100	100,000.00	10,000,000	GoN	Birthing center of below districts
14	Radiant Warmer	Set		200	200	250,000.00	50,000,000	GoN	Birthing center of cold places
Sub-t	total in NPR						140,917,666		
Gra	nd Total in NPR						604,619,310		

Nepal CRS Company Health Commodities for FY 2075/76 (2018/19)

SN	Commodities	Unit	Strength	Annual forecast	Average monthly consumption	Maximum stock level	Total quantity to procure	Unit cost (NPR)	Total cost (NPR)	Remarks
I	Dhaal Deluxe (Condom)	Pcs.	I unit	8,000,000	666,667	12 months	4,200,000	3.18	13,356,000	USAID donated Product
2	Panther (Condom)	Pcs.	l unit	4,000,000	333,333	12 months	6,000,000	2.23	13,380,000	
3	D'zire (Condom)	Pcs.	I unit	2,000,000	166,667	12 months	3,000,000	2.35	7,050,000	
4	Nilocon White(OCP)	Tab	28 tabs	1,100,000	91,667	12 months	1,200,000	20.00	24,000,000	
5	Sunaulo Gulaf (OCP)	Tab	28 tabs	600,000	50,000	12 months	800,000	7.37	5,896,000	KFW donated product
6	Sangini (DEPO) Injection	Vial	I- vial	850,000	70,833	12 months	505,200	90.50	45,720,600	USAID donated product
7	e-con (ECPO)	Tab	I tab	600,000	50,000	12 months	700,000	8.37	5,859,000	KFW donated product
8	Navajeevan (ORS)	Sachet	I sachet	3,600,000	300,000	12 months	11,500,000	5.65	64,975,000	KFW donated product
9	IUD	Pcs.	I pcs	1,500	125	12 months	3,000	991.89	2,975,670	USAID donated product
10	Jadelle	Pcs.	l pcs	1,200	100	12 months	4,000 120.90		483,600	USAID donated product
	CRS total:	4	44,430,000	KfW total:	76,767,000	USAID total	62,535,870			

Child Health Division

Expanded Programme on Immunization (EPI)

KB Chand presented the forecast of vaccines and syringes based on target population, number of doses, EPI sessions and program considering the wastage multiplication factor. He told how the program planned to procure new types of vaccines (FIPV and Rota) in 2018/19. The EPI quantification covered 15 commodities with a proposed budget of NPR 2,029 million for 2018/19, which was the highest proposed budget of the exercise.

S N	Item uni t			Target		207	75-76(201	8-19)	2076-77	(2019-20)	2076-77	(2019-20)	Qty. to procure		ed budget urce	Rem arks
			FY 75 - 76	FY 76- 77	FY 77- 78	Forecast	Unit cost (NPR)	Total cost (NPR)	Forecas t	Total cost (NPR)	Forecast	Total cost (NPR)	2075/76	GoN	GAVI	
I	BCG vaccine 20 dose	vial	16,669	16,669	16,669	200,028	171.60	34,324,805	200,028	188.76	37,757,285	200,028	200,028	34,324,805	-	
2	Rec Syr 2 ml					222,031	5.20	1,154,562	222,031	1,154,562	222,031	1,154,562	222,031	1,154,562	-	
3	AD Syr 0.05 ml		623,394	635,862	648,579	691,967	5.20	3,598,230	705,807	4,037,214	719,923	4,529,754	691,967	3,598,230	-	
4	DPT+HEPB+H ib 10 dose vail	vial	623,394	635,862	648,579	220,681	780.00	172,131,551	225,095	193,131,601	229,597	216,693,656	220,681	-	172,131,551	
5	DPT+HEPB+H ib 10 dose vail					26,400	780.00	20,592,000	26,400	20,592,000	26,400	20,592,000	26,400	20,592,000	-	Co- fin.
6	AD Syr 0.5 ml		623,394	635,862	648,579	2,075,902	4.16	8,635,752	2,117,420	9,689,314	2,159,768	10,871,411	2,075,902	-	8,635,752	
7	JE vaccine 5 dose vail	vial	623,394	635,862	648,579	249,358	358.80	89,469,507	254,345	100,384,787	259,432	112,631,731	249,358	89,469,507	-	
8	Rec Syr 5 ml					276,787	4.16	1,151,434	282,323	1,291,909	287,969	1,449,521	276,787	1,151,434	-	
9	AD Syr 0.5 ml		623,394	635,862	648,579	691,967	5.20	3,598,230	705,807	3,229,771	719,923	3,623,804	691,967	3,598,230	-	
10	MR vaccine 10 dose vail (1st dose)	vial	623,394	635,862	648,579	103,483	728.00	75,335,918	105,553	84,526,900	107,664	94,839,182	103,483	75,335,918	-	
11	MR vaccine 10 dose vail (2nd dose)	vial	619,197	631,581	644,213	102,787	728.00	74,828,719	104,842	83,957,823	106,939	94,200,677	79,287	-	57,720,719	
12	MR vaccine 10 dose vail (M)	vial				23,500	728.00	17,108,000	23,500	17,108,000	23,500	17,108,000	23,500	17,108,000	-	
13	Rec Syr 5 ml	рс		-	-	228,960	5.20	1,190,591	233,539	1,335,843	238,210	1,498,816	228,960	1,190,591	-	
14	AD Syr 0.5 ml	рс	623,394	635,862	648,579	1,383,935	5.20	7,196,460	1,411,613	8,074,428	1,439,846	9,059,509	1,383,935	-	7,196,460	
15	bop 10 dose vail	vial	623,394	635,862	648,579	220,681	208.00	45,901,747	225,095	51,501,760	229,597	57,784,975	220,681	45,901,747	-	
16	Td vaccine 10 dose vail	vial	758,652	773,825	789,302	179,042	104.00	18,620,355	182,623	20,892,038	186,275	23,440,867	179,042	18,620,355	-	

S N	Item	uni t		Target		207	75-76(201	8-19)	2076-77	7(2019-20)	2076-77	(2019-20)	Qty. to procure	_	ed budget urce	Rem arks
			FY 75 - 76	FY 76- 77	FY 77- 78	Forecast	Unit cost (NPR)	Total cost (NPR)	Forecas t	Total cost (NPR)	Forecast	Total cost (NPR)	2075/76	GoN	GAVI	
17	AD Syr 0.5 ml	рс	758,652	773,825	789,302	1,684,207	5.20	8,757,879	1,717,892	9,826,340	1,752,249	11,025,153	1,684,207	8,757,879	-	
18	PCV10-4 dose vial	vial	623,394	635,862	648,579	490,923	1144.00	561,615,655	500,741	630,132,764	510,756	707,008,962	490,923	-	561,615,655	
19	PCV10-4 dose vial	vial				26,000	1144.00	29,744,000	26,000	29,744,000	26,000	29,744,000	26,000	29,744,000	ı	
20	AD Syr 0.5 ml	рс	623,394	635,862	648,579	2,075,902	5.20	10,794,691	2,117,420	12,111,643	2,159,768	13,589,263	2,075,902	-	10,794,691	
21	fIPV	vial	623,394	635,862	648,579	261,825	312.00	81,689,550	267,062	91,655,675	272,403	102,837,667	261,825	-	81,689,550	
22	fIPV	vial	1,238,394			260,063	312.00	81,139,575	-	-	-	-	260,063	-	81,139,575	Catc h up
23	AD Syr 0.1 ml	рс	623,394	635,862	648,579	691,967	5.20	3,598,230	705,807	4,037,214	719,923	4,529,754	691,967	-	3,598,230	
24	AD Syr 0.1 ml	рс	1,238,394			1,374,617	5.20	7,148,010	-	-	-	-	1,374,617	-	7,148,010	
25	Rota		623,394	635,862	648,579	1,309,127	520.00	680,746,248	1,335,310	763,797,290	1,362,016	856,980,560	1,309,127	-	680,746,248	
26	Rec Syr 2 ml			-		222,031	5.20	1,154,562	222,031	1,270,018	222,031	1,397,020	222,031	-	ı	
27	AD Syr 0.05 ml			-		691,967	6.24	4,317,876	705,807	4,844,657	719,923	5,435,705	691,967	-	ı	
28	Rec. Syringe 5 ml for MR & JE					478,317	5.20	2,487,251	515,862	2,950,729	526,179	3,310,718	478,317	-	-	
29	AD syringe 0.5ml for MR, DPT-Hep B- Hib, JE, Td, PCV & IPV					7,911,914	5.82	46,078,984	8,775,958	56,222,300	8,951,478	63,081,421	7,911,914	-	-	
30	AD Syr 0.1 ml						0.00	-		-		-		-	-	
31	Safety Box		_			113,708	57.20	6,504,106	102,197	6,430,209	104,196	7,211,621	113,708	-	6,504,106	
Gra	and Total in NPR													350,547,257	1,678,920,54	

Routine vaccine costs including IPV catch up campaign for 2075-76 (2018-19):

• GoN in NPR (@110) NPR

NPR 350,547,257

• GAVI in NPR (@110)

NPR 1,678,920,547

• Grand Total in NPR (@104)

NPR 2,029,467,804

Nutrition

Ms. Basundhara Sharma presented the forecasting and quantities required to procure the eight commodities needed by the nutrition program in FY 2018/19. The forecasting was based on target population considering stock on-hand data retrieved on 13 March 2018 from the online IMS. The nutrition program proposed a budget of NPR 469 million for FY 2018/19.

	Commodities	Unit	Strength	Annual forecast	Total quantity to procure	Unit cost (NPR)	Total cost (NPR)	Funding source	Remarks
ı	Ferrous Sulphate (60 mg)+ Folic Acid (400 mcg)	Tablets	(60 mg) + (400 mcg)	207,760,379	160,000,000	0.75	119,680,000	Gon	Pregnant women, lactating women and adolescent girls
2	Retinol (Vitamin A) 200,000 I.U	Capsule	200,000 I.U	8,000,000	4,000,000	3.3	13,200,000	GoN	6 -59 months children and Lactating women
3	Albendazole	Tablets	400 mg	16,427,395	16,427,395	2.167	35,598,165	GoN+WHO	12 -59 months children, school children and Pregnant women
4	RUTF	Sachet	92 gm	2,803,611	2,803,611	31.889	89,404,351	GoN+UNICEF	SAM (6- 59months) children
5	MNP	Sachet	Igm	85,623,000	85,623,000	1.628	139,394,244	GoN+UNICEF	6-23 months children
6	Fortified flour (Super Cereal)	Bag	3 kg	1,412,772	700,000	100	70,000,000	GoN	Pregnant women, lactating women and 6-23 months children
7	F-100 (Formula milk)	Sachet	II4 gm	20,680	22,748	44.528	1,012,923	GoN+UNICEF	NRH Admitted children
8	F-75 (formula milk)	Sachet	102.5 gm	14,476	15,924	56.02	892,088	GoN+UNICEF	NRH Admitted children
G	rand total in NPR						469,181,771		

Integrated Management of Neonatal and Childhood Illness (IMNCI)

Deepak Jha, Sr. PHO, IMNCI, CHD presented the estimated quantity of medicines and health commodities needed by the IMNCI program. He said that the forecasting was done on the basis of dispensed commodities, morbidity and the IMNCI treatment protocol. The antibiotics amoxycillin, ampicillin, ciprofloxacin and gentamycin are for respiratory tract infection (ARI). ARI is categorized in two groups, one is LBI (localized bacterial infections) and another is PSBI (possible severe bacterial infections). ORS and zinc are for treating diarrhea. The suction bags and masks are for managing asphyxia.

The IMNCI quantification exercise covered 15 commodities and had the second smallest proposed budget for 2018/19 (NPR 204 million). Its budget was spread across the three levels of government with local governments getting the biggest share (52%), the provincial level 27% and the center 21%, with an overall increase of 40% on the previous year. Mr. Jha explained the need to support provincial and local governments to carry out procurement and to build their capacity on this subject.

S N	Commodities	Unit	Strength	Procur ement level	Forecasted quantity 2075/76	Total quantity to procure	Unit cost (NPR)	Total cost (NPR)	Funding source	Remarks
I	Amoxicillin	Tab	125 mg DT		2,000,000	2,000,000	1.00	2,000,000	GoN	
2	Amoxycillin drop	Drop			772,000	772,000	40.00	30,880,000	GoN	Forecast based on morbidity
3	Amoxicillin	Tab	250 mg DT		20,000,000	20,000,000	2.00	40,000,000	GoN	Forecast based on dispensed
4	Inj Gentamycin	lnj.			222,916	222,916	20.00	4,458,322	GoN	Forecast based on morbidity
5	Inj Ampicillin	lnj.	500mg/2ml		225,000	225,000	20.00	4,500,000	GoN	Forecast based on morbidity
6	Paracetamol	Susp	125 mg/5 ml		625,849	625,849	30.00	18,775,481	GoN	Forecast based on morbidity
7	Ciprofloxacin	Tablet	250 mg		377,181	377,181	1.00	377,181	GoN	Forecast based on morbidity
8	ORS	Pkts	WHO formula- Sachet/Ltr.		3,900,000	3,900,000	9.00	35,100,000	GoN	Forecast based on morbidity
9	Zinc Tab 20 mg	Tab	20 mg		12,000,000	12,000,000	3.00	36,000,000	GoN	Forecast based on dispensed
10	Penguin suction	Pcs			5,000	5,000	3,000.00	15,000,000	GoN	
П	Bag and mask	Pcs			5,000	5,000	1,800.00	9,000,000	GoN	
12	Thermometer	Pcs			5,000	5,000	500.00	2,500,000	GoN	

S N	Commodities	Unit	Strength	Procur ement level	Forecasted quantity 2075/76	Total quantity to procure	Unit cost (NPR)	Total cost (NPR)	Funding source	Remarks
	digital									
13	ARITimer	Pcs			15,000	15,000	100.00	1,500,000	GoN	
14	Insulin syringe	Pcs			743,054	743,054	5.00	3,715,270	GoN	
15	Ampicillin syringe	Pcs			247,685	247,685	1.20	297,222	GoN	
Gr	and Total in NPR	204,103,476								

Primary Health Care Revitalization Division (PHCRD)

Bhogendra Raj Dotel, Director, PHCRD, presented the estimated quantity and cost of items included in the National List of Essential drugs. The forecasting criteria were: annual consumption data (LMIS), consumption data with stockout adjustment, morbidity pattern (HMIS), Standard Treatment Guideline and population growth. He mentioned that PHCRD in DoHS is responsible for essential drugs for district hospitals, primary health care centers (PHCC), and health posts. The new federal structure warrants the allocation of financial resources to local governments and provinces. The lack of data is a big challenge to allocate financial resources to each local government to purchase the essential medicines and drugs. A comparison among the consumption data from health facilities as well as morbidity data based on the outpatients classified based on the clinical diagnosis. Forecast data for last fiscal year was also compared with the consumption data and estimated drugs and other commodities based on the morbidity data based on HMIS, NDHS 2016 and other study. Drugs which stocked out the last year were also looked at to arrive at a forecast which would be near to real needs. Based on the available data a national forecast of the essential drugs needed for all three levels (hospitals, PHCCs and health posts) was made. The following data mainly served as the basis for forecasting:

- Health facility level consumption data of past three years
- Reported morbidity from HMIS
- Forecasted based on morbidity for mental health and NCDs
- Stock out status of commodities (added)
- Stock on hand of medicines to February 2018.
- Review of pipeline 2018 commodities in the pipeline for medicines procured by central level.

Note that the quantification was done for 15 months, which includes 3 months stock for lead time; and the possible expiry dates were also considered (minimum 18 months shelf life).

The HMIS outpatient data that was used to forecast certain drugs is not reliable because the reported morbidity data from health facilities is far from complete both in terms of missing reports from health facilities and missing monthly reports. In the absence of reliable morbidity data, comparatively the consumption data provides a more reliable basis along with the stock out percentages. In forecasting the 'stock out percentage' of some drugs served as the basis of forecasting and in some drugs 'dispensed' (consumption) data were used. An addition of 10% are added to ensure adequate drug are available round the year. The remark column flags whether the 'FY 2074/75 forecast' or 'stock out data' or 'morbidity data' or 'consumption data' was used. Mr. Dotel informed that expert advice like consumer choice, replacing drugs and less prescribing was considered in the forecasting. Although, the estimated budget is NPR 952,379,434 as per central procurement unit costs the proposed budget allocated will be around NPR 1,900,000,000 assuming that unit costs will be higher at provincial and local government levels.

S N	Medicines	Unit	Strength	Annual forecasted	Total quantity to procure	Unit cost (NPR)	Total cost (NPR)	Funding sources	Remarks
I	Lignocaine,	Injection, 30 ml	1% with adrenaline	7,920	9,900	33.40	330,646	GoN	
2	Lignocaine,	Injection, 30 ml	1% without adrenaline	ı	_	30.20	-	GoN	
3	Lignocaine,	Injection 30ml	2% without adrenaline	61,782	77,227	32.60	2,517,917	GoN	Morbidity based on falls, injuries, fractures and road traffic accident per case 2 ml estimated total cases 84,553.
4	Paracetamol	Injection 2ml, ampoule	I50 mg/ml	12,725	15,906	12.42	197,549	GoN	Highest consumption year of HFs in reviewing last 3 years
5	Paracetamol	Tablet	500 mg	72,206,683	54,155,012	0.55	29,785,257	GoN	Morbidity based on viral influenza, headache, typhoid, PUO and others
6	Paracetamol	Sus. 60 ml,phial	125 mg/5 ml	613,364	408,909	17.41	7,119,112	GoN	
7	Aspirin	Tablet	75 mg	662,475	828,094	0.50	414,047	GoN	Based on last year forecast (estimated quantities for 30 PEN districts)
8	Aspirin	Tablet	150 mg	381,150	476,438	0.83	395,443	GoN	Based on last year forecast (estimated quantities for 30 PEN districts)
9	Aspirin	Tablet	300 mg	122,101	152,627	0.97	147,285	GoN	Highest consumption year of HFs in reviewing last 3 years
10	Ibuprofen	Tablet	400 mg	9,598,330	8,798,469	0.99	8,710,485	GoN	
П	Diclofenac	Injection, 3ml	25 mg/ml,	37,152	43,344	6.28	272,199	GoN	
12	Pheniramine	Injection 2ml	22.75 mg / ml	48,751	60,939	4.59	279,711	GoN	
13	Cetirizine HCI	tabs	10 mg,	23,336,885	29,171,106	1.04	30,337,951	GoN	Highest HF Consumption of cetirizine + chlorpheniramine 4 mg Tab of last year. (23,336,885)
14	Metronidazole	Infusion	500 mg /100 ml	21,826	25,464	16.43	418,372	GoN	Highest consumption year of HFs in reviewing last 2 years

S N	Medicines	Unit	Strength	Annual forecasted	Total quantity to procure	Unit cost (NPR)	Total cost (NPR)	Funding sources	Remarks
15	Metronidazole	Tablet	400 mg	15,775,208	14,460,608	1.21	17,497,335	GoN	
16	Metronidazole	Suspensi on 60 ml	200 mg / 5 ml	658,403	823,004	23.34	19,208,903	GoN	
17	Tinidazole	Tablet	500 mg	1,636,404	2,045,505	2.44	4,991,032	GoN	Morbidity Based on AGE
18	Amoxicillin	Tablet	125 mg DT	8,520,602	_	1.09	-	GoN	
19	Amoxicillin	Tablet	250 mg DT	24,767,668	14,447,806	2.45	35,397,126	GoN	
20	Amoxicillin	Capsule	500 mg	14,566,663	3,352,775	3.53	47,135,294	GoN	
21	Gentamycin	Injection ,2ml vial	40 mg/ml	382,085	_	12.09	-	GoN	Highest HF Consumption of last 3 years (CHD)
22	Ciprofloxacin	Eye/ear Drop, 5ml	0.3% w/v	1,052,202	1,315,252	13.01	17,111,433	GoN	Morbidity based on Conjunctivitis, Eye trauma
23	Ciprofloxacin	Tablet	250 mg	6,733,153	7,294,249	2.2	16,047,348	GoN	
24	Ciprofloxacin	Tablet	500 mg	13,100,452	16,375,565	3.69	60,425,835	GoN	
25	Chloramphenicol	applicap,	1%,	648,854	811,067	1.39	1,123,328	GoN	
26	Chloramphenicol	Caps	250 mg	27,005	33,756	4.37	147,515	GoN	Lowest HF Consumption of last 3 years (Consumption pattern is in decreasing trend.)
27	Chloramphenicol	Caps	500 mg	105,220	122,757	6.26	768,457	GoN	Highest consumption year of HFs in reviewing last 2 years
28	Ceftriaxone	Injection	l g	127,050	148225	32.4	4,802,490	GoN	Based on last year forecast.
29	Sulfamethoxazole + Trimethoprim	Tablet	400+80 mg	11,821,278	10,836,172	1.58	17,121,152	GoN	
30	Sulfamethoxazole + Trimethoprim	Tablet	800+160 mg	3,264,543	4,080,679	2.34	9,548,788	GoN	
31	Doxycycline	Capsule	100 mg	3,869,120	4,836,400	1.59	7,689,876	GoN	
32	Azithromycin	Tabs	250 mg	510,498	467,957	8.7	4,071,224	GoN	
33	Azithromycin	Tabs	500 mg	288,756	288,756	12.28	3,545,920	GoN	
34	Cloxacillin	Syrup	125 mg/5ml	99,000	123,750	2.73	337,838	GoN	Based on last year forecast.
35	Cloxacillin	caps	250 mg	703,791	879,739	4.13	3,633,321	GoN	

S N	Medicines	Unit	Strength	Annual forecasted	Total quantity to procure	Unit cost (NPR)	Total cost (NPR)	Funding sources	Remarks
36	Cloxacillin	caps	500 mg	392,810	392,810	67.5	26,514,673	GoN	
37	Fluconazole	Capsule	150 mg/tab	223,226	130,215	9.69	1,261,784	GoN	
38	Acyclovir	Tablet	200 mg	10,582	6,173	6.08	37,531	GoN	Highest consumption year of HFs in reviewing last 2 years
39	Acyclovir	Cream	5% W/W	1,242	1,552	51.3	79,637	GoN	Highest consumption year of HFs in reviewing last 2 years
40	Ferrous Sulphate	Tablet	60 mg elemental Iron	3,694,853	4,618,566	1.452 5	6,708,467	GoN	Highest consumption year of HFs in reviewing last 2 years
41	Folic acid	Tablet	5 mg	426,556	533,195	1.21	645,166	GoN	Highest consumption year of HFs in reviewing last 2 years
42	Compound solution of Sodium lactate	Infusion, 500 ml	Ringer's Lactate	273,462	250,674	36.95	9,262,396	GoN	
43	Sodium chloride	Infusion, 500 ml	Normal Saline	85,829	107,286	33.6	3,604,819	GoN	
44	Dextrose Solution	Infusion,	5% w/v 500 ml	51,841	64801.3286	36.89	2,390,521	GoN	Highest consumption year of HFs in reviewing last 3 years
45	Hydrochlorothiazide	Tablet	25 mg	181,500	226,875	7.2	1,633,500	GoN	Based on last year forecast (estimated quantities for 30 PEN districts based on morbidity)
46	Atenolol	Tablet	50 mg	11,000,000	9,166,667	1.89	17,325,000	GoN	Based on last year forecast (estimated quantities for 30 PEN districts based on morbidity) Morbidity based on Hypertension (Cardiovascular, PIH)
47	Albendazole	Tablet	400 mg	17,105,425	19,956,330	3.83	76,432,743	GoN	
48	Calamine lotion	Lotion, 30 ml	15 % w/v	223,932	279,915	34.5	9,657,055	GoN	
49	Aluminum Hydroxide +Magnesium Hydroxide	Tablet	250 mg +250 mg.	11,893,964	14,867,455	1.07	15,908,177	GoN	
50	Povidone lodine	Liquid, 500 ml	5% w/v	94,044	117,555	120.2 4	14,134,800	GoN	

S N	Medicines	Unit	Strength	Annual forecasted	Total quantity to procure	Unit cost (NPR)	Total cost (NPR)	Funding sources	Remarks
51	Ranitidine,	Injection, 2 ml	25 mg/ml	33,065	41,331	4.65	192,188	GoN	
52	Ranitidine,	Tablet	150 mg	16,622,578	20,778,223	0.85	17,661,490	GoN	
53	Atropine	Injection	0.6 mg/ml	15,712	19,640	5.95	116,860	GoN	Highest consumption year of HFs in reviewing last 3 years
54	Hyoscine butylbromide	Injection	20 mg/ml	88,638	110,798	22.22	2,461,923	GoN	
55	Hyoscine butylbromide	Tablet	10 mg	2,525,325	3,156,656	7.68	24,243,118	GoN	
56	Hyoscine butylbromide	Tablet	20 mg	426,084	355,070	15.15	5,379,316	GoN	
57	ORS Power	Sachet/ Ltr.	WHO formula	6,040,530	5,033,775	6.03	30,353,663	GoN	
58	Clove oil	Phial	5 ml	147,408	184,260	26.2	4,827,607	GoN	
59	Metoclorpropamide	Tablet	10 mg	457,956	572,445	1.67	955,983	GoN	
60	Metoclorpropamide	Injection 2ml	5 mg/ml	80,349	100,436	9.73	977,240	GoN	
61	Promethazine Hydrochloride	Tablet	25 mg	14,148	16,506	1.38	22,778	GoN	
62	Charcoal activated	Sachet	10 gm/ sachet	10,541	13,177	45	592,948	GoN	Highest consumption year of HFs in reviewing last 3 years
63	Benzoic acid + Salicylic acid	Ointmen t, tube, 30 g	6 % + 3% w/w	283,778	354,723	30.89	10,957,393	GoN	
64	Frusemide	Tablet	40 mg	2,144,160	2,680,200	0.66	1,768,932	GoN	Highest consumption year of HFs in reviewing last 3 years
65	Frusemide	Injection 2 ml	I0 mg/ml	28,607	35,758	4.45	159,124	GoN	Highest consumption year of HFs in reviewing last 3 years
66	Amlodipine	Tablet	5 mg	22,094,304	25,776,688	1.45	37,376,198	GoN	Based on last year forecast (estimated quantities for 30 PEN districts based on morbidity)
67	Dexamethasone	Injection 2 ml	4 mg /ml	40,775	50,969	9.53	485,730	GoN	Highest consumption year of HFs in reviewing last 3 years

S N	Medicines	Unit	Strength	Annual forecasted	Total quantity to procure	Unit cost (NPR)	Total cost (NPR)	Funding sources	Remarks		
68	Salbutamol	Tablet	4 mg	12,123,249	11,112,978	0.55	6,112,138	GoN			
69	Prednisolone	Tablet	10 mg	97,691	122,113	2.52	307,725	GoN	Based on last year forecast		
70	Pralidoxime Sodium	Injection	500 mg	990	1,238	227.5	281,531	GoN	Hospital and PHC= 3 per facilities		
71	Phenobarbitone	Tablet	30 mg	1,429,581	1,786,976	2.5	4,467,440	GoN	Based on last year forecast		
72	Chlorpromazine	Tablet	100 mg	704,000	821,333	1.195	981,493	GoN	Based on morbidity (According to TPO and CMC Report)		
73	Amitriptyline	Tablet	10 mg	132,000	77,000	0.86	66,220	GoN	Based on morbidity (According to TPO and CMC Report)		
74	Amitriptyline	Tablet	25 mg	107,360	62,627	1.3	81,415	GoN	Based on morbidity (According to TPO and CMC Report)		
75	Hydrocortisone	Powder for Injection	100 mg / vial with WFI	165,000	123,750	47.7	5,902,875	GoN	Based on last year forecast		
76	Metformin	Tablet	500 mg	754,408	943,005	0.73	688,394	GoN	Morbidity based on Diabetes		
77	Adrenaline	Injection	0.7361111	115,500	144,375	9	1299375	GoN	Based on last year forecast		
78	Digoxin	Tablet	0.25 mg	4,006	4,673	1.85	8,646	GoN	Highest consumption year of HFs in reviewing last 3 years		
79	Silver Sulphadiazine	Cream, 25 g	I % w/w	208,356	190,993	37.43	7,148,857	GoN			
80	Clotrimazole	Skin Cream, 25 g	I % w/w,	369,772	338,958	28.41	9,629,790	GoN			
81	Clotrimazole	Pessary tab	100 mg	538,423	448,686	20.27	9,094,868	GoN	Based on last year forecast		
82	Diazepam	lnj	5 mg per 2 ml	66,000	82,500	26.81	2,211,825	GoN	Hospital and PHC= 200 per facilities		
83	Gentian violet	1% Sol.	I0 ml	309,266	386,583	15.12	5,845,130	GoN			
84	Allopurinol	Tablet	100 mg	2,650	3,092	1.85	5,719	GoN	Highest consumption year of HFs in reviewing last 2 years		
85	Allopurinol	Tablet	300 mg	80,438	100,547	7.51	755,111	GoN	Based on last year forecast		
86	Tetracycline	Capsule	250 mg	5,626,279	7,032,849	1.69	11,885,514	GoN	Highest consumption year of HFs in reviewing last 3 years		

S	Medicines	Unit	Strength	Annual forecasted	Total quantity to procure	Unit cost (NPR)	Total cost (NPR)	Funding sources	Remarks	
87	Tetracycline	Capsule	500 mg	309,878	387,347	5.27	2,041,319	GoN	Highest consumption year of HFs in reviewing last 3 years	
88	Carbamazepine	Tablet	200 mg	1,079,232	1,349,040	1.73	2,333,839	GoN	Based on last year forecast	
89	Carbamazepine	Tablet	400 mg	269,808	314,776	3.36	1,057,647	GoN	Based on last year forecast	
90	Acetazolamide	Tablet	250 mg	9,990	11,655	5.41	63,052	GoN		
91	Oxymetazoline	nasal drop	0.05%, 5ml	11,990	13,988	52.92	740,263	GoN	Highest consumption year of HFs in reviewing last 2 years	
92	Levothyroxine	Tablet	25 mcg	2,059,494	2,402,743	1.584	3,805,945	GoN	Based on last year forecast	
93	Levothyroxine	Tablet	50 mcg	2,059,494	1,716,245	2.124	3,645,305	GoN	Based on last year forecast	
Sub	Sub-Total in NPR							GoN		
Free	Free essential drugs for NCD and mental health									
94	Enalapril	Tablet	2.5 mg	9,000,000	9,750,000	0.96	19,110,001	GoN	Based on morbidity	
95	Enalapril	Tablet	5 mg	15,000,000	16,250,000	1.56	25,350,000	GoN	Based on morbidity	
96	Atorvastatin	Tablet	10 mg	18,000,000	19,500,000	4.27	83,265,000	GoN	Based on morbidity	
97	Risperidone	Tablet	I mg	800,000	866,667	1.55	1,343,333	GoN	Based on morbidity (According to TPO and CMC Report)	
98	Risperidone	Tablet	2 mg	972,000	1,053,000	2.45	2,579,850	GoN	Based on morbidity (According to TPO and CMC Report)	
99	Fluoxetine	Capsule	10 mg	780,000	845,000	1.8	1,521,000	GoN	Based on morbidity (According to TPO and CMC Report)	
100	Fluoxetine	Capsule	20 mg	1,400,000	1,516,667	2.26	3,427,667	GoN	Based on morbidity (According to TPO and CMC Report)	
101	Valporic Acid	Tablet	200 mg	700,000	758,333	4.24	3,215,333	GoN	Based on morbidity (According to TPO and CMC Report)	
102	Valporic Acid	Tablet	300 mg	810,000	877,500	5.93	5,203,575	GoN	Based on morbidity (According to TPO and CMC Report)	
103	Trihexyphenidyl	Tablet	2 mg	490,000	530,833	2.45	1,300,542	GoN	Based on morbidity (According to TPO and CMC Report)	
104	Thymine	Tablet	100 mg	100,000	108,333	2.59	280,583	GoN	Based on morbidity (According to TPO and CMC Report)	

S N	Medicines	Unit	Strength	Annual forecasted	Total quantity to procure	Unit cost (NPR)	Total cost (NPR)	Funding sources	Remarks
105	Diazepam	Tablet	2 mg	100,000	108,333	1.66	179,833	GoN	Based on morbidity
106	Diazepam	Tablet	5 mg	100,000	108,333	3.61	391,083	GoN	Based on morbidity
107	Metformin	Tablet	850 mg	6,000,000	6,500,000	2.8	18,086,250	GoN	Based on morbidity
108	Hydrochlorothiazide	Tablet	6.25 mg	18,000,000	19,500,000	1.59	31,005,000	GoN	Based on morbidity
Sub	Sub-Total in NPR							GoN	
Grand Total in NPR							952,379,434	GoN	
Unit	cost is based on central	level procur	ement.						

This cost could go up to NPR 1,900,000,000 assuming higher unit cost of commodities procured at provincial and local government levels. PHCRD has presented budget allocation at central, provincial and local government levels totaling NPR 1,900,000,000.

PHCRD has initiated the forecasting of essential drugs for procurement by local governments. Sagar Dahal, Sr. PHA, PHCRD presented the quantities required at the local level based on best available data from the following three cases at provincial, local government and health facility levels.

Province I District: Bhojpur Sample Data Palika Level

Row Labels	Required Qty Tab. Ciprofloxacin Hydrochloride 500 mg	Unit Cost	Total Cost	Required Qty ORS Powder Packet	Unit Cost	Total Cost	Required Qty.Tab Ranitidine 150 mg	Unit Cost	Total Cost
Bhojpur									
Aamchok Rural Municipal	18,293	13.01	237,992	3,059	6.03	18,446	8,162	0.85	6,938
Arun Rural Municipal	25,124	13.01	326,863	5,401	6.03	32,568	11,110	0.85	9,444
Bhojpur Municipality	14,694	13.01	191,166	4,920	6.03	29,669	12,441	0.85	10,575
HatuwaGadhi Rural Municipal	8,470	13.01	110,195	2,684	6.03	16,185	4,290	0.85	3,647
PauwaDungama Rural Municipal	16,522	13.01	214,951	4,005	6.03	24,151	8,305	0.85	7,059
Ram Prasad Rai Rural Municipal	10,340	13.01	134,523	3,823	6.03	23,050	11,330	0.85	9,631
Salpasilichho Rural Municipal	12,804	13.01	166,580	4,219	6.03	25,438	11,132	0.85	9,462
Shadananda Municipality	17,468	13.01	227,259	4,584	6.03	27,640	18,700	0.85	15,895
Tyamke Maiyum Rural Municipal	16,728	13.01	217,627	4,943	6.03	29,809	15,587	0.85	13,249
Bhojpur Total	140,443	13.01	1,827,157	37,638	6.03	226,955	101,057	0.85	85,898

Province I Sample Data Palika Level

Row Labels	Ciprofloxacin Hydrochloride 500 mg Tablet	Unit Cost	Total Cost	Oral Rehydration Salt Powder Packet	Unit Cost	Total Cost	Ranitidine 150 mg Tablet	Unit Cost	Total Cost
Pradesh No. I									
Bhojpur	140,443	3.69	518,232.83	37,638	6.03	226,954.73	101,057	0.85	85,898.45
Dhankuta	247,067	3.69	911,675.75	96,583	6.03	582,397.30	476,064	0.85	404,653.98
llam	258,431	3.69	953,609.28	112,408	6.03	677,819.64	612,443	0.85	520,576.21
Jhapa	307,736	3.69	1,135,545.84	136,367	6.03	822,293.01	281,413	0.85	239,201.05
Khotang	153,821	3.69	567,598.38	56,385	6.03	340,000.95	200,464	0.85	170,394.40
Morang	1,524,149	3.69	5,624,109.81	606,217	6.03	3,655,486.10	7,159,139	0.85	6,085,267.98
Okhaldhunga	133,144	3.69	491,301.36	229,591	6.03	1,384,433.13	263,738	0.85	224,177.47
Panchthar	359,931	3.69	1,328,145.39	90,195	6.03	543,872.84	665,462	0.85	565,642.28
Sankhuwasabha	76,091	3.69	280,777.27	32,408	6.03	195,421.45	150,436	0.85	127,870.60
Solukhumbu	77,220	3.69	284,941.80	29,663	6.03	178,865.48	132,627	0.85	112,732.95
Sunsari	245,025	3.69	904,142.25	148,324	6.03	894,393.72	302,797	0.85	257,377.45
Taplejung	141,030	3.69	520,400.33	44,879	6.03	270,619.77	207,065	0.85	176,005.34
Tehrathum	78,546	3.69	289,832.90	26,277	6.03	158,449.10	70,252	0.85	59,713.78
Udayapur	84,827	3.69	313,009.79	45,351	6.03	273,465.32	111,584	0.85	94,846.40
Pradesh No. 1 Total	3,827,459	3.69	14,123,322.97	1,692,284	6.03	10,204,472.52	10,734,539	0.85	9,124,358.32

Province I District: Bhojpur Municipality: Aamchok Rural Municipality

Sample Data Palika Level

Row Labels	Ciprofloxacin Hydrochloride 500 mg Tablet	Unit Cost	Total Cost	Oral Rehydration Salt Powder Packet	Unit Cost		Ranitidine 150 mg Tablet	Unit Cost	Total Cost
Province No. I									
Bhojpur									
Aamchok Rural Municipality									
Dewantar Health Post	1,705	13.01	22,182	656	6.03	3,953	770	0.85	655
Dummana Health Post	2,024	13.01	26,332	501	6.03	3,018	627	0.85	533
Pangcha Health Post	8,580	13.01	111,626	385	6.03	2,322	2,805	0.85	2,384
Pawala Health Post	1,815	13.01	23,613	803	6.03	4,842	1,650	0.85	1,403
Thidingkha Health Post	3,410	13.01	44,364	660	6.03	3,980	1,760	0.85	1,496
Yeu Health Post	759	13.01	9,875	55	6.03	332	550	0.85	468
Aamchok Rural Municipality Total	18,293	13.01	237,992	3,059	6.03	18,446	8,162	0.85	6,938

Leprosy Control Division (LCD)

Mahesh Puri, TLO, LCD presented the forecast quantity of leprosy drugs. He mentioned that the goal of Nepal's Leprosy Control Programme is to reduce the burden of leprosy and break the channel of transmission from person to person and eliminate leprosy with a prevalence of below I per 10,000 population in each district level by 2020.

The multi drug therapy (MDT) drugs are manufactured in combination.

The following are the drug regimen for multibacillary (MB) leprosy for adults and children:

- a. MB Adult (12 months treatment):
 - Once a month Rifampicin BP 300 mg (2 Caps)
 - O Clofazimine BP 100 mg (3 Caps)
 - o Dapsone BP 100mg (1 Tab)
 - Day 2 28 Clofazimine BP 50 mg (1 Caps)
 - Dapsone BP 100mg (1 Tab)
- b. MB Children (12 months treatment):
 - Once a month Rifampicin BP 450(150,300) mg (2 Caps)
 - O Clofazimine BP 50 mg (3 Caps)
 - o Dapsone BP 50 mg (1 Tab)
 - Day 2 28 Clofazimine BP 50 mg (1 Caps) alternative days
 - Dapsone BP 50mg (I Tab)

The following are the drug regimen for paucibacillary (PB) leprosy for adults and children;

- c. PB Adult (treatment of 6 months)
 - Once a month Rifampicin BP 300 mg (2 Caps)
 - Dapsone BP 100mg (1 Tab)
 - Day 2 28 Dapsone BP 100mg (1 Tab)
- d. PB Children (treatment for 6 months)
 - Once a month Rifampicin BP 450 (300,150) mg (2 Caps)
 - Dapsone BP 50mg (1 Tab)
 - Day 2 28 Dapsone BP 50mg (1 Tab)

The forecast of leprosy drugs is based on the number of cases by Leprosy type (MB and PB) categorized by adult and children. The MB and PB MDT regimen for adult and children are specified by dose and duration and this along with the buffer percentage provides the total drug requirement for a year. The Leprosy Control Division had the smallest proposed budget (NPR 0.31 million) for its three commodities. A further five commodities are provided free of cost by the healthcare company NOVARTIS.

SN	Medicines	Unit	Strength	Annual forecasted	Total quantity to procure	Unit cost (NPR)	Total cost (NPR)	Funding	Remarks
ı	MB Combi Adult	Strip		56,909	56,909	244.40	13,908,511	NOVARTIS	Based on cases including cases from India as well with 20% buffer
2	MB Combi Child	Strip		3,499	3,499	159.12	556,793	NOVARTIS	Based on the cases with 20% buffer
3	PB Combi Adult	Strip		17,734	17,734	96.72	1,715,194	NOVARTIS	Based on cases including cases from India as well with 20% buffer
4	PB Combi Child	Strip		1,670	1,670	102.96	171,984	NOVARTIS	Based on cases including cases from India as well with 20% buffer
5	Clofazimine I 00mg- For Lepra reaction	Caps		120,000	120,000	52.00	6,240,000	NOVARTIS	Based on cases with 20% buffer
	Sub-Total in NPR						22,592,482		
6	Prednisolone	Tabs.	5mg 10x25	850,752	850,752			GoN	Based on morbidity and local purchase (RMS)
7	Rifampicin	Caps	150mg	11,000	11,000			GoN	Based on morbidity and local purchase (RMS)
8	Rifampicin	Caps	300mg	16,500	16,500		2,500,000	GoN	Based on morbidity and local purchase (RMS)
9	Rifampicin	Caps	450 mg	16,500	16,500			GoN	Based on morbidity and local purchase (RMS)
10	Rifampicin	Caps	600mg	44,000	44,000			GoN	Based on morbidity and local purchase (RMS)
11	Thalidomide	Tabs.	100mg	6,000	6,000	100.00	600,000	GoN	Based on morbidity
	Sub-total in NPR						3,100,000		
	Grand total in NPR						25,692,482		

Epidemiology and Disease Control Division (EDCD)

Tilak Poudel, PHO, presented the forecast quantity and quantity require to procure of anti-malarial drugs. He mentioned that the drugs for malaria uses two approaches for forecasting. The first approach uses morbidity (malaria by type of strain; e.g., Pf, Pv, and PSC, and profile of patients by age categorized into infants, children, adolescents and adults. The second approach is the allocative approach where each health facility is allocated a minimum of one dose of one regimen of medicine by estimated malaria by type (P. vivax, P. falciparum and PSC).

S N	Commodity	Unit	Annual forecasted	Pack size	Total quantity to procure	Cost per pack (NPR)	Total cost (NPR)	Funding source	Remarks
1	Artemether injection (80 mg/ampoule)	80mg/ml - Ampoule - 3 * Iml	1,771	3	591	209.24	123,663	GFATM	
2	Artesunate 100 mg Suppositories, pack of 2	100mg - Stip – 2	3,926	1	3,713	69.96	259,761	GFATM	
3	Artesunate injection (60 mg/vial)	60mg - Vial- I +diluent	3,124	_	2,292	153.70	352,280	GFATM	
4	Chloroquine 150 mg	150mg - Tablet - Blister of 100	258,995	100	1,732	381.60	660,931	GFATM	
5	Chloroquine 150 mg (Private)	150mg - Tablet - Blister of 100	28,600	100	286	381.60	109,138	GFATM	
6	Coartem 12	20mg+120mg - 12 - Blister-12	4,467	I	4,208	58.19	244,880	GFATM	Quantification
7	Coartem 12 (Private)	20mg+120mg - 12 - Blister-12	572	1	572	58.19	33,287	GFATM	based on prepositioning
8	Coartem 18	20mg+120mg - 18 - Blister-18	5,052	I	4,801	51.94	249,364	GFATM	at different sites
9	Coartem 18 (Private)	20mg+120mg - 18 - Blister-18	572	I	572	51.94	29,710	GFATM	
10	Coartem 24	20mg+120mg - 24 - Blister-24	5,481	Ι	5,167	61.48	317,667	GFATM	
П	Coartem 24 (Private)	20mg+120mg - 24 - Blister-24	572	Ι	572	61.48	35,167	GFATM	
12	Coartem 6	20mg+120mg - 6 - Blister-6	4,467	I	4,220	33.28	140,458	GFATM	
13	Coartem 6 (Private)	20mg+120mg - 6 - Blister-6	572	1	572	33.28	19,038	GFATM	
14	G6PD test kits		272		272	8,925.62	2,427,770	EDCD	

S N	Commodity	Unit	Annual forecasted	Pack size	Total quantity to procure	Cost per pack (NPR)	Total cost (NPR)	Funding source	Remarks
15	Primaquine 7.5 mg	7.5mg (as base) (equivalentto I 3.2 mg) - Blister-I 00	725,186	100	4,472	508.80	2,275,354	GFATM	
16	Primaquine 7.5 mg (Private)	7.5mg (as base) (equivalent to I 3.2mg) - Blister-100	80,080	100	801	508.80	407,549	GFATM	
17	Quinine 300 mg	300mg - Blister- 100	34,835	100	NA	858.60		GFATM	
18	Quinine injection (600 mg/ampoule)	300mg/ml - Ampoule - 10 * 2ml	3,425	10	107	318.00	34,026	GFATM	
19	Rapid Diagnostic Test (For testing both Pf & Pv)	RDT test kits (25 strip/pack)	382,609	25	14,614	1,139.50	16,652,653	GFATM & EDCD	
Sub-1	total in NPR						24,372,697		
20	Lyposomal Amphotericine-B	Vial	3,000	-	3,000	1,695.00	5,085,000	GoN	
21	Spraying Pump	Pcs	300	Standard size	300	26,666.67	8,000,000	GoN	
22	RRT Deployment Kit		-	_	-	_	4,000,000	GoN	
23	Water Quality Test Machine		-	-	_	_	20,420,000	GoN	
24	Diphetheria Antitoxin, Rabies Immunoglobin		-	_	_	_	450,000,000	GoN	
25	rk-39, other test kit	Pcs	_	_	_	_	10,000,000	GoN	
26	Kala-azar Medicine		_	_	_	_	10,000,000	GoN	
27	Vector Control Program (Fogging Machine: Pyrethroids/Organophosp horus)	Drum	-	20kg	-	-	3,000,000	GoN	
28	Vector Control Program (Insecticide)		_	_	_	_	15,000,000	GoN	
29	Vector Control Program (Insecticide: Long-lasting Insecticide treated Net)	pcs	-	Adult size	-	_	121,866,000	GoN	

S N	Commodity	Unit	Annual forecasted	Pack size	Total quantity to procure	Cost per pack (NPR)	Total cost (NPR)	Funding source	Remarks
30	Filariasis Elimination Program (DEC)	Tabs	_	100mg	-	-	225,000,000	GoN	
31	Rabies Vaccine Tissue Culture	Dose	_	ı	1	ı	82,000,000	GoN	
32	Polyvalent Anti-Snake Venom	Vial	_	_	_	-	25,000,000	GoN	
Sub 7	Total in NPR						979,371,000		
Out	Break Management								
33	ORS	Pkt	80,000		80,000	6.55	524,000	GoN	
34	Paracetamol	Tab	100,000	500mg	100,000	0.52	52,000	GoN	
35	Cotrim	Tab	100,000	960mg	100,000	2.14	214,000	GoN	
36	Ofloxacin	Tab	20,000	200 mg	20,000	3.80	76,000	GoN	
37	Norfloxacin	Tab	_	400 mg	_	-	-	GoN	
38	Ciprofloxacin	Tab	_	500 mg	30,000	4.65	139,500	GoN	
39	Ciprofloxacin	Tab	50,000	250 mg	50,000	2.97	148,500	GoN	
40	Metronidazole	Tab	50,000	400mg	50,000	1.00	50,000	GoN	
41	Tinidazole	Tab	50,000	500 mg	50,000	3.10	155,000	GoN	
42	Omeprazole	Tab	20,000	20 mg	20,000	2.40	48,000	GoN	
43	Nimesulide	Tab	_	100 mg	_	_	_	GoN	
44	Cetrizine Hydrochloride	Tab	50,000	I0 mg	50,000	1.30	65,000	GoN	
45	cefixime	Tab	35,000	200 mg	35,000	20.00	700,000	GoN	
46	Azithromycin	Tab	5,000	500 mg	5,000	10.95	54,750	GoN	
47	Azithromycin	Tab	_	250 mg	_	_	_	GoN	
48	Azithromycin	Sus	1,000	200mg/5 ml	1,000	95.00	95,000	GoN	
49	Metoclopramide Hydrochloride	Tab	50,000	I0 mg	50,000	1.20	60,000	GoN	
50	Hyosine butyle Bromide	Tab	20,000	I0 mg	20,000	17.00	340,000	GoN	
51	Erythromycin DT	Tab	_	125 mg	_	-	_	GoN	
52	Doxycycline	Capsule	50,000	100 mg	50,000	2.65	132,500	GoN	

S N	Commodity	Unit	Annual forecasted	Pack size	Total quantity to procure	Cost per pack (NPR)	Total cost (NPR)	Funding source	Remarks
53	Amoxicillin	Capsule	50,000	500 mg	50,000	5.00	250,000	GoN	
54	Amoxicillin	Tab	20,000	125 mg DT	20,000	3.30	66,000	GoN	
55	Amoxicillin	Tab	50,000	250 mg DT	50,000	2.00	100,000	GoN	
56	Amoxycillin + Cloxacillin	Capsule	_	500 mg	_	_	_	GoN	
57	Ampilin + cloxacillin	Tab	-	125 mg	_	_	-	GoN	
58	Paracetamol Syrup (60 ml)	Bottle	5,000	125mg/5 ml	5,000	20.00	100,000	GoN	
59	Metronidazole (60 ml)	Bottle	4,000	200mg/5 ml	4,000	29.00	116,000	GoN	
60	Ciprofloxacin Hydrochloride eye /ear drop	Vial	20,000	2ml	20,000	12.00	240,000	GoN	
61	Clotrimazole ointment 1% W/W	Tube	1,000	I5 gm	1,000	45.00	45,000	GoN	
62	Povidone Iodine Ointment 5%	Tube	3,000	I5 gm	3,000	30.00	90,000	GoN	
63	Diclofenac gel 1%W/W	Tube	_	30 gm	_	-	_	GoN	
64	Povidone Iodine Solution 5% W/W	Bottle	200	100 ml	200	160.00	32,000	GoN	
65	Mosquito Repellent	Tube	-	30gm	_	_	_	GoN	
66	Ringer Lactate Solution	Bottle	2,000	500 ml	2,000	29.00	58,000	GoN	
67	Inj 5% Dextrose	Bottle	2,000	500 ml	2,000	29.00	58,000	GoN	
68	Inj DNS	Bottle	2,000	500 ml	2,000	29.00	58,000	GoN	
69	Manitol 10%	Bottle	_	500ml	-	ı	ı	GoN	
70	Inj Metronidazole	Bottle	1,000	500 mg/100 ml	1,000	16.80	16,800	GoN	
71	Inj Gentamycin	Vial	-	40mg/ml, 2ml	-	-	-	GoN	

S N	Commodity	Unit	Annual forecasted	Pack size	Total quantity to procure	Cost per pack (NPR)	Total cost (NPR)	Funding source	Remarks
72	Inj Dexamethsone 2ml	Vial	_	-	_	_	_	GoN	
73	Inj Ampcillin 250 mg + Cloxacillin 250 mg	Vial	_	-	-	_	1	GoN	
74	Inj Ceftriaxone	Vial	2,000	I gm	2,000	65.00	130,000	GoN	
75	Inj Ciprofloxacin	Bottle	-	2mg /ml, I 00ml	-	_	1	GoN	
76	Inj Chlorpheniramine Maleate 2mlk	Ampule	1,000		1,000	24.50	24,500	GoN	
77	Diclofenac Sodium 25mg/ml 3ml	Ampule	1,000		1,000	6.20	6,200	GoN	
78	Inj Hyoscine butyle bromide 20mg/ml, Iml	Ampule	1,000		1,000	2.40	2,400	GoN	
79	Inj Metoclopramide Hydrochloride 5mg/2ml	Ampule	2,000		2,000	11.00	22,000	GoN	
80	Inj Hydrocortisone Sodium Succeinate 100 mg	Vial	_		_	_	_	GoN	
81	Inj Ampcillin 500 mg	Vial	_		_	_	-	GoN	
82	IV Set	Piece	2,000		2,000	21.00	42,000	GoN	
83	Disposable syringe 3ml	Piece	_		_	_	Ι	GoN	
84	Disposable syringes 5ml	Piece	_		_	_	-	GoN	
85	Examination Surgical Gloves	Pair	5,000		5,000	17.00	85,000	GoN	
86	Sterile Surgical Gloves		5,000		5,000	29.00	145,000	GoN	
87	Adhesive tape 7.5cm X 5meter	Roll	-		-	_	1	GoN	
88	IV Cannula 18G		2,000		2,000	34.00	68,000	GoN	
89	IV Canula 20G		2,000		2,000	34.00	68,000	GoN	
90	IV Canula 22G		_		_	_	_	GoN	
91	IV Canula 24G		_		_	_	_	GoN	
92	Cotton Bandage 4"		1,000		1,000	11.50	11,500	GoN	
93	Cotton Bandage 6"	Piece	1,000		1,000	12.50	12,500	GoN	
94	Gauze Rolls 3mX10cm	Roll	1,000		1,000	11.50	11,500	GoN	

s N	Commodity	Unit	Annual forecasted	Pack size	Total quantity to procure	Cost per pack (NPR)	Total cost (NPR)	Funding source	Remarks
95	0.72% Chlorine Solution 240 ml non-transparent plastic bottle	Bottle	-		-	-	-	GoN	
96	0.5% Chorine Solution 60 ml non-transparent plastic bottle		1		_	_	1	GoN	
Sub T	Total in NPR						4,712,650		
Alloc	cated budget for outbreak mar	nagement for FY 207	10,000,000						
Grai	nd Total in NPR	1,013,743,697							

National Centre for AIDS and STD Control (NCASC)

Dr. Satchit Neupane, SCM Coordinator, NCASC presented forecast of HIV and AIDS commodities. He shared that following things are consider while forecasting:

- The regimen of ART drugs categorized by adults and children
- The regimen of ART drugs categorized by line of treatment for adults and children
- The proportion of adults and children in each line and treatment regimen
- The addition of new positive cases each month,
- The dose per day for each regimen categorized by adult and children and line of treatment
- Lab reagents based on number of tests per year for old and new clients
- HR commodities based on target determined after size estimation.

The forecasts of antiretroviral medicines, rapid diagnostic test kits, harm reduction commodities (syringes & alcohol swabs), opioid substitution therapy commodities, and lab reagents were based on morbidity.

The forecasts of hepatitis C, condom and lubricants is based on target populations.

The forecasts of sexually transmitted infection and opportunistic infection medicines were based on consumption.

SN	Commodities	Unit	Strength	Forecasted quantity 2075/76	Total quantity to procure	Unit cost (NPR)	Total cost (NPR)	Funding source	Remarks
ARV	Medicine								
I	Abacavir 300 mg	Tab	300 mg Tab	28,794	24,887	27.34	680,421		
2	Abacavir/Lamivudine (60 mg/30 mg)	Tab	60/30 mg Tab	887,808	399,521	10.56	4,220,362		
3	Abacavir/Lamivudine (600 mg/300 mg)	Tab	600/300 mg Tab	81,582	0	63.38		50% of	
4	Atazanavir/Ritonavir (300 mg/100 mg)	Tab	300/100 mg Tab	77,469	27,087	74.57	2,019,773	cost will be funded	
5	Darunavir 600 mg	Tab	600 mg Tab	13,711	8,560	186.42	1,595,712	by GoN	
6	Dolutegravir 50 mg	Tab	50 mg Tab	21,253	14,132	0.12	1,728	and 50% by GFATM	
7	Efavirenz 200 mg	Tab	200 mg Tab	508,004	260,538	15.41	4,014,980		
8	Efavirenz 600 mg	Tab	600 mg Tab	1,006,274	379,120	15.66	5,936,606		
9	Emtricitabine/Tenofovir (200 mg/300	Tab	200/300 mg	81,943	64,293	26.10	1,677,922		

SN	Commodities	Unit	Strength	Forecasted quantity 2075/76	Total quantity to procure	Unit cost (NPR)	Total cost (NPR)	Funding source	Remarks
	mg)		Tab						
10	Lamivudine 150 mg	Tab	150 mg Tab	20,567	15,152	5.59	84,737		
П	Lopinavir/Ritonavir (100 mg/25 mg)	Tab	100/25 mg Tab	131,629	0	14.76	-		
12	Lopinavir/Ritonavir (200 mg/50 mg)	Bott	200/50 mg Tab	951,618	291,467	22.88	6,668,588		
13	Nevirapine 10 mg/mL (100 mL/bottle)	Tab	10mg/ml Bott	465	22	193.87	4,192		
14	Nevirapine 200 mg	Tab	200 mg Tab	2,090,976	1,165,589	5.47	6,373,662		
15	Nevirapine 50 mg	Tab	50 mg Tab	315,360	256,454	6.21	1,593,566		
16	Raltegravir 400 mg	Tab	400 mg tab	9,598		124.28			
17	Ritonavir 100 mg	Tab	100 mg tab	13,711	10,780	17.03	183,542		
18	Tenofovir 300 mg	Tab	300 mg Tab	8,912	6,192	17.40	107,729		
19	Tenofovir/Lamivudine (300 mg/300 mg)	Tab	300/300 mg Tab	1,267,748	562,208	20.63	11,598,359		
20	Tenofovir/Lamivudine/Efavirenz (300 mg/300 mg/600 mg)	Tab	300/300/600 mg Tab	4,002,333	1,381,335	34.55	47,723,783		
21	Zidovudine 300 mg	Tab	300 mg Tab	-	0	0.09	-		
22	Zidovudine/Lamivudine (300 mg/150 mg)	Tab	300/150 mg Tab	1,990,883	668,976	15.91	10,641,720		
23	Zidovudine/Lamivudine (60 mg/30 mg)	Tab	60/30 mg Tab	647,860	549,911	4.72	2,596,973		
24	Zidovudine/Lamivudine/Nevirapine (300 mg/150 mg/200 mg)	Tab	300/150/200 mg Tab	5,723,103	2,139,238	18.02	38,549,448		
25	Zidovudine/Lamivudine/Nevirapine (60 mg/30 mg/50 mg)	Tab	60/30/50 mg Tab	1,340,281	1,101,460	8.35	9,198,755		
26	Zidovudine 50mg/5ml (100ml/bottle)	Bott	50mg/5ml Bott	465	32	178.96	5,749		
Total	cost of ARV Drugs (In NPR)						155,478,309		
	Medicine								
27	Acyclovir 200 mg	Tab	200 mg tab	160,238	28,738	3.56	102,342	100%	

SN	Commodities	Unit	Strength	Forecasted quantity 2075/76	Total quantity to procure	Unit cost (NPR)	Total cost (NPR)	Funding source	Remarks
28	Adrenaline 1:1000 inj	Amp	I mL/ vial	231	181	71.88	13,029	GoN	
29	Azithromycin 500 mg	Tab	500 mg tab	176,013	106,893	23.86	2,550,593		
30	Benzathine penicillin inj 2.4 mlU	Vial	1.2 mIU/ vial	1,859		15.66			
31	Cefixime 200 mg	Tab	200 mg tab	261,553	195,123	18.37	3,585,025		
32	Ceftriaxone inj 250 mg	Vial	250 mg inj	5,538	2,768	24.31	67,274		
33	Chlorpheniramine 10 mg inj	Amp	10 mg/ vial	150	30	3.00	90		
34	Clotrimazole 100 mg	Tab	100 mg vag tab	74,295	40,797	25.35	1,034,307		
35	Doxycycline 100 mg	Tab	100 mg cap	147,438	98,038	2.03	199,132		
36	Fluconazole 150 mg	Сар	150 mg tab	48,488	27,788	10.41	289,253		
37	Hydrocortisone 100 mg inj	Vial	100 mg/ vial	63		42.00			
38	Metronidazole 400 mg	Tab	400 mg tab	1,041,125	583,925	2.00	1,167,850		
39	Paracetamol 500 mg	Tab	500 mg tab	110,463	70,123	0.58	40,893		
40	Podophyllin (10-25%)	Bott	10 mL/ bottle	60		210.00			
41	Tinidazole 500 mg	Tab	500 mg tab	148,117		4.49			
Total	cost of STI Medicine (In NPR)						9,049,788		
OIM	1edicine								
42	Acyclovir 50mg/ml inj.	Vial	50 mg/ml inj	175		387.74			
43	Acyclovir ointment 5% w/w (5 g/ tube)	Tube	5% w/w (5gm tube)	1,764	1,523	143.17	218,068		
44	Albendazole 400 mg tab	Tab	400 mg tab	29,142	19,302	3.15	60,800		
45	Albendazole 400 mg/ 10mL susp	Bott	400 mg/10 ml	49		43.89			
46	Amoxicillin 500 mg cap	Tab	500 mg tab	39,056	31,726	2.44	77,311	100 % GoN	
47	Amoxicillin dry syrup 125mg/mL (90 mL/ bottle)	Bott	125mg/ml	3,000	600	90.00	54,000	GOIN	
48	Amphotericin B 50 mg/ amp	Vial	50 mg/amp	393		1,136.39			
49	Bisacodyl 5 mg tab	Tab	5 mg tab	450		89.26			
50	Ceftriaxone Inj 1000 mg	Vial	Igm/vial	840		35.94			

SN	Commodities	Unit	Strength	Forecasted quantity 2075/76	Total quantity to procure	Unit cost (NPR)	Total cost (NPR)	Funding source	Remarks
51	Cetirizine HCl 10 mg tab	tab	10 mg tab	31,382	6,276	1.74	10,920		
52	Ciprofloxacin 500 mg tab/ cap	Tab	500 mg tab	35,917	24,217	5.04	122,068		
53	Clotrimazole 1% w/v mouth paint (15 mL/ bottle)	Bott	I% w/v (I5ml/Bott)	1,002		0.02			
54	Clotrimazole 1% w/w cream (15gm/tube)	Tube	1% w/w (15 gm tube)	7,066	2,130	0.23	494		
55	Cloxacillin 500 mg cap	Сар	500 mg Cap	1,875		5.25			
56	Cotrimoxazole 960 mg tab	tab	960 mg tab	2,408,683	832,583	3.28	2,731,635		
57	Cotrimoxazole 240 mg/ 5 mL suspension (60 mL/ bottle)	Bott	240mg/5ml	8,766	437	37.28	16,302		
58	Cotrimoxazole inj	Amp	480mg/5ml	409	269	100.52	27,013		
59	Dapsone 100 mg tab	Tab	100 mg tab	570		3.09			
60	Ferrous sulphate 200mg with folic acid tab/cap	Tab	200 mg	398,750	320,950	41.65	13,368,436		
61	Gamabenzene Hexachloride 1% lotion (100 mL/ bottle)	Bott	1% lotion	1,096	1,096	77.91	85,376		
62	Ganciclovir 500 mg Inj	Vial	500 mg/vial	45		5,106.30			
63	Hyoscine 10 mg tab	Tab	10 mg Tab	11,875	2,875	16.91	48,602		
64	Ibuprofen 400 mg tab	Tab	400 mg tab	20,604	4,121	2.00	8,242		
65	Isoniazid 100 mg tab	Tab	100 mg Tab	16,550		1.73			
66	Isoniazid 300 mg tab	Tab	300 mg Tab	386,983		3.04			
67	Metoclopramide 10 mg tab	Tab	10 mg tab	28,029	24,053	3.00	72,160		
68	Metronidazole powder 200 mg/ 5 mL (60 mL/ bottle)	Bott	200 mg/5 ml	323	68	107.19	7,235		
69	Omeprazole 20 mg cap	Сар	20 mg Cap	40,600		1.61	-		
70	Oral rehydration salt	Sat		24,476	14,976	8.11	121,499		
71	Paracetamol oral solution 120mg/ 5mL (60 mL/ bottle)	Bott	120 mg/5 ml	2,379	2,379	0.33	792		
72	Pyridoxine 25 mg tab	Tab	25 mg Tab	398,750		1.34			

SN	Commodities	Unit	Strength	Forecasted quantity 2075/76	Total quantity to procure	Unit cost (NPR)	Total cost (NPR)	Funding source	Remarks
73	Ranitidine 150 mg tab	Tab	150 mg Tab	29,875	10,602	2.06	21,872		
74	Rifabutin 300 mg tab	Tab	300 mg Tab	120		149.13			
75	Valganciclovir 450 mg tab	Tab	450 mg Tab	2,117	1,731	660.81	1,143,635		
76	Vit B complex tab/ cap	Tab		187,975	16,025	2.86	45,885		
77	Flucytocin 150 mg	Сар	150 mg Cap	2,250		210.00	-		
Total	cost of OI Medicine (In NPR)						18,242,348		
Lab	Items								
78	FACS Calibrate Beads	pack	Test	428		1,610.63			
79	Tritest Reagent for CD 3/4/45 with TruCount tubes	pack	Test	10,695		1,133.41			
80	FACS Count	pack	Test	8,021	3,140	1,312.37	4,120,727		
81	FACS Count Control Kits	pack	Test	321		1,640.46			
82	BD FACS Presto Cartridge (REF-655495) {Including (a) BD FACS Presto Finger Stick Sample Collection Kits REF-657682 and (b) BD FACS Presto Cartridge Kit REF-657681}	pack	Test	2,567	543	1,761.25	956,161		
83	Thermal Paper for Presto	pack	Test	15		477.22			
84	Cleaning Solution, 250 ml	pack	Test	7		8.45		GF	
85	Count Check Beads green -dry, 100 Tests	pack	Test	1,875	842	116.86	98,357		
86	Decontamination Solution, 250 ml	pack	250 ml	15		3,947.54			
87	Hypochlorite Solution, 250 ml	pack	251 ml	7		1,263.15			
88	Partec CD4 easy count kit -dry (100 tests)	pack	Test	2,567		354.64			
89	Pipette Tips, 2-200 μl (1000 pcs.)	pack	2-200µl	2,464		3.49			
90	Pipette Tips, 50-1000µl (1000 pcs.)	pack	50-1000µl	1,283		9.72			
91	Sample tubes 3.5 ml, 500 pcs.	pack	Tube	6,417	492	3.81	1,875		
92	Sheath fluid, 5 liters (with tap)	pack	Litter	13		2,368.22			

SN	Commodities	Unit	Strength	Forecasted quantity 2075/76	Total quantity to procure	Unit cost (NPR)	Total cost (NPR)	Funding source	Remarks
93	Thermo printer paper, 5 rolls for PARTEC	pack	pcs	13		343.60			
94	Cartridges for PIMA POC CD4 machine	pack	Test	2,567		894.80			
95	Finger Stick Sample	pack	pcs	2,567		149.13			
96	Pima Bead Standards (shelf life will be 6 months from date of opening	pack	pcs	4,500	1,259	74.57	93,854		
97	Thermal Paper for PIMA POC	pack	pcs	26		477.22	-		
98	Auto-pipette tip, DNA/RNAse free, sterile with filter (10-100 microL),	pack	pcs	2,826		11.24			
99	Auto-pipette tip, DNA/RNAse free, sterile with filter (20-200 microL), a pack of 960	pack	pcs	2,826		9.08			
100	Auto-pipette tip, DNA/RNAse free, sterile with filter (500-1000 microL), a pack of 960	pack	pcs	11,303	1,833	10.13	18,572		
101	Cobas AmpliPrep K-Tube	pack	pcs	4,521		12.18			
102	Cobas AmpliPrepCobas Taqman HIV-I Wash Reagent 5.1 lit	pack	Litter	184	91	3,333.11	301,827		
103	FACS Clean Solution	pack	Litter	10		6,710.96			
104	FACS Flow Solution (FACS sheath Fluid)	pack	Litter	26		7,218.01			
105	FACS Lysing Solution	pack	I00ml	5		36,090.07			
106	FACS Rinse Solution	pack	Litter	10		6,710.96			
107	Falcon Tube	pack	Tube	856		107.34			
108	Micro pipette tips (Filter 100µl, PCR Clean/Sterile)	pack	pcs	61,603		24.05			
109	Sodium Hypochlorite Solution	pack	1000ml	21		991.73			
110	Thermal Paper	pack	pcs	107		1,324.59			
111	Vacutainer (K3E 7.5 % 0.072 ml) 3 ml	Tube	3ml	68,130		11.27			
112	Vacutainer Needle 21g 1/2""	pcs	21g 1/2"	68,130	24,511	11.61	284,645		

SN	Commodities	Unit	Strength	Forecasted quantity 2075/76	Total quantity to procure	Unit cost (NPR)	Total cost (NPR)	Funding source	Remarks
113	Antigen Latex Agglutination Test	pack	Test	94		328.84			
114	DBS card (EID card)	pack	pcs	16,500	16,611	679.76	11,291,791		
115	DBS cards	pack	pcs	34,009		341.96			
116	Silica gel	pack	pcs	42,511		30.57			
117	Whatman S&S #903 Dry Rack	pack	pcs	38		574.01			
118	Zip lock bags (larger) 9" X 7"	pcs	9"x7"	8,502	8,082	5.97	48,210		
119	Zip lock bags (Small) 6" X 5"	pcs	6"x5"	34,009		8.95			
120	Capillary tube	pack	pcs	1,126,850	571,428	17.90	10,226,224		
121	Chase buffer	pack	2.5ml/bottle	11,265	3,703	1,081.21	4,003,182		
122	Determine HIV-1/2 kit	pack	Test	339,474		119.31			
123	Lancet	pack	pcs	1,126,845	1,105,403	11.93	13,188,115		
124	Stat Pack cassette	pack	Test	6,789		231.16	-		
125	Unigold HIV-1/2 kit	pack	Test	6,789	5,334	238.61	1,272,873		
126	Cobas AmpliPrepCobas Taqman HIV-I Qual Test V2.0***	pack	Test	2,160	1,530	1,718.01	2,628,550		
127	Cobas Specimen Pre-extraction reagent 78ml V2.0***	pack	78ml	8	2	51,540.19	121,488		
128	RPR test kits (150 tests/ kit) with RPR control	pack	Test	63,652		28.19	-		
129	TPPA kits (a pack of 100 tests)	pack	Test	11,250		53.69	-		
130	Artus HIV-I RG RT-PCR kit, a pack of 24, QIAGEN	pack	Test	2,848	744	4,608.19	3,427,068		
131	QIAmp Viral RNA Mini kit, a pack of 50	pack	Test	4,747		1,084.19	-		
132	Cobas AmpliPrep K-tip 1.2mm	pack	1.2mm	22,042	11,008	22.34	245,894		
133	Cobas AmpliPrep sample input tube (S-tube)	pack	pcs	18,368	10,628	54.83	582,696		
134	Cobas AmpliPrep sample processing unit (SPU)	pack	pcs	18,368	11,780	56.65	667,389		

SN	Commodities	Unit	Strength	Forecasted quantity 2075/76	Total quantity to procure	Unit cost (NPR)	Total cost (NPR)	Funding source	Remarks
135	Cobas AmpliPrep/Cobas Taqman wash reagent 5.1 L	pack	Litter	184	91	3,333.11	301,827		
136	Cobas AmpliPrep/Taqman HIV-1 Test v2.0	pack	Test	17,633	8,085	1,279.31	10,343,463		
137	Cobas AmpliPrep K-Tube	pack	pcs	29,389		12.18			
138	Cobas Taqman HIV-1 Test v2.0 (manual extraction) **	pack	Test	2,713		3,860.42			
139	High Pure System Viral Nucleic acid Kit	pack	Test	2,374		523.86			
140	VL testing though Gen Xpert	pack			1,424	2,535.25	3,610,757		
141	SD HIV/Syphilis Duo test kit	pack			61,365	157.00	9,634,305		
Total	cost of Lab Items (In NPR)						77,469,851		
HR C	Commodities								
142	Condoms	Pec	pcs	28,389,768	19,968,404	2.59	51,700,312	GoN	
143	Lubricants	Pec	sachet	2,718,979	1,224,442	2.54	3,104,269		
144	Gloves	Pair	Pair	198,453	163,228	16.40	2,677,682		
145	Syringes, I mL	Pec	Iml	52,518		3.42			
146	Syringes, 2 mL	Pec	2ml	225		3.55		GF	
147	Syringes, 3 mL	Pec	3ml	756,832		3.39			
148	Syringes, 5 mL	Pec	5ml	1,715,200		3.49			
149	Alcohol swab	Pec	pcs	5,034,057		0.61			
Total	cost of HR Commodities (In NPR)						57,482,262		
OST	Commodities	T							T
150	Methadone 5 mg/ml	Bott	5 mg/ml (1000 ml)	1,255		3,298.81			
151	Buprenorphine 2 mg	Tab	2 mg Tab	156,761		50.28		GF	
152	Naloxone 0.4 mg/Amp	Amp	0.4 mg/Amp	53		38.22			
Total	cost of OST Commodities (In NPR)								
Heal	th equipment								

SN	Commodities	Unit	Strength	Forecasted quantity 2075/76	Total quantity to procure	Unit cost (NPR)	Total cost (NPR)	Funding source	Remarks
153	Viral load machine with reagent	pcs		5	3	25,000,000.00	75,000,000	GoN	
Total	Cost of VL Machine and Reagent (in NP	₹)					75,000,000		
HCV	Commodities								
154	Sofosbuvir 400 mg tablets				5,040	1,278.07	6,441,450		
155	Daclatasvir 60 mg tablets				4,032	414.59	1,671,620		
156	Daclatasvir 30 mg tablet				5,040	287.83	1,450,642		
157	Sofosbuvir 400mg/ Ledipasvir 90 mg tablets				5,040	1,703.09	8,583,589	GF	
158	Ribavirin 200 mg tablets				20,160	92.46	1,864,037		
159	Hepatitis Screening Test				161,550	119.65	19,329,458		
Total	cost of HCV Commodities						39,340,796		
Nutr	ition for children and pregnant won	nen							
160	Nutrition for children and pregnant women	pack	I kg/pack		48,000	185.00	8,880,000	GoN	
Total	Cost of Nutrition (In NPR)						8,880,000		
Gra	nd Total Cost of all commodities (In	NPR)					440,943,354		

National Tuberculosis Centre (NTC)

Rita Khatiwada, SO, NTC presented the forecast of NTC commodities. First line tuberculosis drugs are divided into three categories (Category-I, Childhood Regimen and Category-II).

- The treatment regimen for Category I in initial phase (2 months) is administered as FDC (Fixed dose Combination) of 4 drugs (Isoniazid- 75mg, Rifampicin- I50mg, Pyrazinamide- 400mg and Ethambutol- 275mg) followed by continuation phase of 4 Months with a FDC of 2 drugs (Isoniazid- 75mg and Rifampicin- I50mg).
- The childhood regimen is given in initial 3 FDC (Isoniazid- 50mg, Rifampicin- 75mg and Pyrazinamide- 150mg) for 2 months followed by continuation phase with 2 FDC (Isoniazid- 50mg and Rifampicin- 75mg) for 4 months.
- The Category II is given to the relapse patients.

In addition to the 4 FDC for 3 months of 3 FDC drugs for 5 months Injection Streptomycin - Igm is also given for 2 months to relapse patients. The FDC may increase adherence to the treatment and decrease the risk of threat of resistance to treatment.

The Tuberculosis drugs were forecasted for FLD (First Line Drugs) and SLD (Second Line Drugs) separately based on:

- Morbidity: No. of cases (under treatment and estimated) for Anti-TB drugs
- Consumption: Consumption of last few years and AMC (particularly for single drug formulations and consumables)
- Programmatic Target (Xpert Machine, microscope, cartridge etc.).

S N	Commodities	Unit	Strength	Forecasted quantity 2075/76	Total quantity to procure	Unit cost (NPR)	Total cost (NPR)	Funding source	Remarks
I	HRZE (Isoniazid Rifampicin+ Pyrazinamide+ Ethambutol)	Tablet	50/150/400/27 5 mg	16,968,180	3,143,616	6.37	20,025,021	GoN	
2	HRE (Isoniazid+Rifampicin+ Ethambutol)	Tablet	50/150/275 mg	3,965,687	215,712	5.11	1,101,329	GoN	
3	HR (Isoniazid+Rifampicin)	Tablet	50/150 mg	28,731,300	4,744,320	3.03	14,390,892	GoN	
4	HRZ Child (Isoniazid+Rifampicin+Pyrazinamide)	Tablet	50/75/150 mg	1,538,638	719,460	3.73	2,681,873	GF	
5	HR Child (Isoniazid+Rifampicin)	Tablet	50/75 mg	2,965,710	1,113,756	3.07	3,414,193	GF	
6	Isoniazid	Tablet	100 mg	1,061,349	270,300	1.18	320,170	GF	
7	Isoniazid	Tablet	300 mg	91,295	672	1.96	1,314	GF	
8	Ethambutol	Tablet	100 mg	1,538,677	719,500	4.07	2,927,286	GF	

S N	Commodities	Unit	Strength	Forecasted quantity 2075/76	Total quantity to procure	Unit cost (NPR)	Total cost (NPR)	Funding source	Remarks
9	Amoxicillin+Clavulanic Acid	Tablet	(875+125)1 g	250,968	-	-	-	GoN	
10	Ethambutol	Tablet	400 mg	329,066	-	-	-	-	
П	Pyrazinamide	Tablet	400 mg	2,513,748	1,056,384	2.42	2,558,273	GF/GoN	
12	Pyrazinamide	Tablet	500 mg	493,599	-	-	-	-	
13	Kanamycin	Ampule	l g	213,296	105,920	243.08	25,747,034	GF	
14	Capreomycin	Vial	l g	19,306	-	-	-	-	
15	Cyclomerize	Capsule	250 mg	958,582	209,600	29.66	6,217,574	GF/GoN	
16	Levofloxacin	Tablet	250 mg	761,514	35,200	2.87	101,154	GF/GoN	
17	Moxifloxacin	Tablet	400 mg	378,611	13,480	2.87	38,737	GF/GoN	
18	Ethionamide	Tablet	250 mg	1,879,117	687,700	8.00	5,503,732	GF/GoN	
19	Clofazimine	Tablet	250 mg	396,600	92,300	112.76	10,408,154	GF/GoN	
20	Linezolid	Tablet	600 mg	184,441	87,930	156.66	13,775,378	GF	
21	Bedaquiline	Tablet	100 mg	100,104	52,264	493.09	25,770,600	GoN	
22	Water for injection	Ampule	5 ml	176,000	-	-	-	-	
23	Syringe	Piece	5 ml	160,000	-	-	-	-	
24	Gene-xpert Cartridge	Piece	N/A	400,000	110,000	1,027.9 4	113,073,400	GF/GoN	
25	Rifampicin	Capsule	150 mg	1,642,475	-	-	-	-	
26	Rifampicin	Capsule	300 mg	1,111,921	-	-	-	-	
27	Pantoparazole	Tablet	40 mg	110,240	80,000	7.92	633,846	GoN	
28	Pyridoxine	Tablet	100 mg	16,968,180	200,000	3.40	679,800	GoN	
29	Sputum Container	Piece	35 ml	3,965,687	850,000	5.15	4,377,500	GoN	
30	Glass Slide	Piece	75*25*1.5 mm	28,731,300	850,000	1.39	1,178,558	GoN	
31	Falcon Tube	Piece	50 ml	1,538,638	110,000	39.62	4,357,692	GoN	
Gra	nd Total in NPR						259,283,510		

Annex 2: Quantification Sub-Committee meeting minutes, Jan 8, 2018



Meeting Note
Quantification Sub-Committee Meeting, Jan 2018

Quantification Sub-Committee Meeting Minute Jan 9, 2018

Logistics Management Division

Department of Health Services, Ministry of Health

Meeting attendees:

- I. Chuda Mani Bhandari, DDG, DoHS
- 2. Dr. Ramesh K. Kharel, Director, LMD
- 3. Bhogendra Raj Dotel, Director, PHCRD
- 4. Sagar Dahal, Sr. PHA, PHCRD
- 5. Parshu Ram Shrestha, Sr. PHA, CHD
- 6. Baburam Lamichhane, US, LMD
- 7. Sachita Joshi, Drug Administrator, LMD
- 8. Bade Babu Thapa, Sr. Pharmacist, LMD
- 9. Gagan Singh Bista, Sec. Officer, LMD
- 10. Ashok Shrestha, PHO, NCASC
- 11. Deepak Adhikari, PHO, LMD
- 12. Yogendra Panjiyar, PHO, PHCRD
- 13. Ashesh Regmi, PHO, FHD
- 14. Rita Khatiwada, SO, NTC
- 15. Kanak Raj Shrestha, PO, FHD
- 16. Shankar Pd. Kandel, PHI, LMD
- 17. Lalan Pd. Shah, PHI, LMD
- 18. Surya Khadka, ISO, CHD
- 19. Nawa Raj Khadka, Cold Chain Officer, CHD
- 20. Khagendra Raj Aryal, Account Officer, LMD

- 21. Tanka Prasad Poudyal, Account Officer, DOHS
- 22. Randhir Kumar Yadav, HA, LCD
- 23. Tek Raj Ojha, HA, CHD
- 24. Sumitra Thapa, Pharmacy officer, PHCRD
- 25. Dipak Sharma, System Administrator, LMD
- 26. Umesh K. Gupta, SCM Advisor, USAID
- 27. Shyam Lama, CD, GHSC-PSM
- 28. Balkrishna Khakurel, SCPGA, GHSC-PSM
- 29. Prakash Raj Pant, Sr. SCA, Jhpiego/PMI
- 30. Rabin Shrestha, Sr. Operation Manager
- 31. Manila Vaidya, QS, GHSC-PSM
- 32. Nirmal Dhakal, SCOS, GHSC-PSM
- Dr. Satchit Neupane, SCM Coordinator, NCASC/GF
- 34. Ajudey Shrestha, PSM Coordinator, NTC/SCI
- 35. Rajesh Joshi, Store Officer, NCASC
- 36. Hyon Pak, Technical Officer, WHO
- 37. Ram Dev Adhikari, LMIS Officer, Bileeta
- 38. Ajit Pradhan
- 39. Prahlad Dahal, Logistics Assist., WHO

I. Introduction

Logistics Management Division (LMD), begun the quantification sub-committee meeting with permission from the Deputy Director General and welcomed all attendees. Gagan Singh Bista/LMD shared the agendas of meeting and mentioned that the meeting was organized with support from the USAID GHSC-PSM Project. He mentioned that sub-committee was formed in the National Quarterly Pipeline Meeting held on Dec 8, 2017 including DoHS Divisions/Center and EDPs.

Dr. Ramesh Kharel, Director, LMD, welcomed the participants. He mentioned the supply chain is the critical component of the public health system. He shared the objectives of the meeting which are following:

- · Conduct division and center-wise quantification of health commodities
- · Hold a consensus forecasting workshop
- Produce draft consensus quantification report
- Draft guidebook on quantification methodology
- Determine budgetary requirement for procurement of health commodities for FY 75/76

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He pointed out that the forecasting of the health commodities plays a pivotal role to ensure uninterrupted availability at service delivery points (SDPs). Sachita Joshi/LMD highlighted on the composition and the responsibilities of sub-committee meeting to determine the quantity of health commodities required to procure for FY 2075/76 (2018/19).

Gagan Singh Bista/LMD shared the proposed time frame including deadline (Page 4,5); methodologies (criteria, formats); and data source and references. He shared that the format was developed for forecasting of the items from the divisions and centers. He said there will be multiple forecasts, based on different data/methodologies (e.g. consumption/ morbidity/ demographic/ services utilization) in order to improve forecasting validity. The choice of forecasting methodology can also depend on the purpose for which the quantification is being done such as program characteristics or plans, and the data available and agreed on as credible by the expert team. He also mentioned that the demand forecast doesn't automatically translate into procurement volume for which the current stock-on-hand and commodities in the pipeline need to be considered. He shared that some contextual factors that present quantification as a challenging task requires measures like considering use of long-term stock outs, expiry status, introduction of new products, scale-up, and emergency or crises events etc.

The meeting decided that the format developed for the forecasting and determining procurement volume will be circulated by LMD to all divisions and centers. And the preforecasting meetings will start from Feb 2, 2018 or as early if possible and completed by Feb 9, 2018 by all program divisions and centers. He shared the list of references materials that can be used for forecasting and determining the procurement quantity.

References materials required for forecasting and determining quantity to procure health commodities for FY 2075/76 include:

Required Materials	Responsibility
Recent pipeline report	Planning Section, LMD
Last year forecasting report	Planning Section, LMD
Annual report DOHS	Store Section, LMD
Standard treatment protocols	Respective Divisions and Centers
Free essential drugs for health institution	PHCRD
Estimated population (CBS)	Planning Section, LMD
Estimated annual dispense of commodities	LMIS Unit, LMD
New implemented program	Program divisions and center
LMIS forms	LMIS Unit, LMD
Contract status of Commodities and Drugs	Procurement and Contract Sections, LMD



Meeting Note Quantification Sub-Committee Meeting, Jan 2018

Required Materials	Responsibility
HMIS data of FY 73/74 and FY 74/75 (if possible palika level data): 1. Morbidity data — OPD and in-service 2. Estimated target population for FY 2016/17 and estimated population for FY 2016/17 3. Malaria raw data 4. HIV AIDS raw data 5. Leprosy raw data 6. FP raw data 7. SMP raw data 8. CBIMCI raw data 9. Nutrition raw data 10. EPI raw data 11. TB raw data 12. PHCORC raw data 13. FCHV raw data 14. National EPI and district EPI data	HMIS Section, MD

Bhogendra Raj Dotel, Director, PHCRD affirmed that forecasting needs to be done at the palika level to determine the actual figure. This facilitates distribution and other solutions to mitigate chronic stock out of health commodities at the health facilities.

Chuda Mani Bhandari, DDG, DoHS mentioned that better forecasting and supply planning should lead to a host of positive outcomes for the health supply chain including better availability and reduced stock-outs. He emphasized the following:

- Need to develop palika wise or province wise format
- Need to build the capacity of 4-5 people in each province on forecasting and quantification of health commodities
- Surgical items and supplies need to be considered in forecasting
- Need to consider stock-out status of health commodities while forecasting
- Program divisions and centers should mention from when the new program will be implemented in the remark column
- All divisions should be responsible to provide approved draft
- Procurement unit of LMD will provide the unit cost on request
- Prepare separate quantity to procure format to forecasting format
- Need to identify the items to be procured from center and provinces

Dr. Kharel stated that he was pleased with the discussions held in the meeting and members were asked to go for proactive approaches in implementing these decisions. He emphasized on the need to make demand forecasting more contextual to local level considering all available evidences like population factors, morbidity status and past consumption.

He thanked all present in the meeting and closed the sub-committee meeting.

Estimated Time frame including deadline for activities planned for quantification of health commodity for FY 75/76

December 2017

Week	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31
Starting	М	S	S	М	T	W	Т	F	S	S	М	Т	W	Т	щ	S	S	М	Т	W	Т	F	S	S	М	Т	W	Т	F	S	S
Formation of																															
Quantification																															
Sub-Committee																															

January 2018

W 1 C 4:	1	2	3	4	5	6	7	8	9	10	Ш	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31
Week Starting	М	Т	W	Т	F	S	S	М	Т	W	Т	F	S	S	М	Т	W	Т	F	S	S	М	Т	W	Т	F	S	S	М	Т	W
Conduct quantification																															
sub-committee meeting																															
to develop forecasting																															
methodologies																															
Meet with LMIS Unit,																															
HMIS Unit, LMD																															
Storekeepers, etc. to																															
gather resources such as																															
consumption data,																															
demographic data,																															
morbidity data, program																															
consideration, shipment																															
status and stock status																															
Letter to divisions and																															
centers for presentation																															
in provided format (pre-																															
forecasting meeting																															
dates)																															
TA to individual divisions																															
if require PHCRD, FHD,																															
EDCD, NCASC, CHD-																															
IMNCI, Nutrition,																															
Immunization for																															
forecasting of health																															
commodities																															

February 2018

Week Starting	- 1	2	3	4	5	6	7	8	9	10	Ш	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28
vveek Starting	М	Т	S	S	М	Т	W	Т	F	S	S	М	Т	W	_	F	S	S	М	Т	W	Т	F	S	S	М	Т	W
TA to individual divisions if require																												
PHCRD, FHD, EDCD, NCASC, CHD-																												
IMNCI, Nutrition, Immunization for																												
forecasting of health commodities																												
Pre-Forecasting Meetings with																												
Divisional Directors / program focal																												
person																												
PHCRD																												
FHD																												
EDCD																												
NCASC																												
CHD: IMNCI																												
CHD: Nutrition																												
CHD: Immunization																												
NTC																												
Analyze the data presented by																												
divisions and centers																												
Dry Run Forecasting Meeting																												
Preparation of National Consensus																												
Quantification Workshop																												
Deliver National Consensus																												
Quantification Workshop																												

March 2018

Week Starting	I	2	3	4	5	6	7	8	9	10	Ш	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31
Week Starting	Т	F	S	S	М	Т	W	Т	F	S	S	М	Т	W	Т	H	S	S	М	Т	W	Т	F	S	S	М	Т	8	Τ	W	F
Draft report																															
Verify report with divisions and centers																															
Finalize report																															

Annex 3: List of Participants

SN	Name	Designation	Organization
١.	Dr. Puspa Chaudhary	Secretary	МоНР
2.	Chuda Mani Bhandari	Acting Director General	DOHS
3.	Dr. Ramesh Kumar Kharel	Director	LMD
4.	Dr. Bikash Devkota	Director	MD
5.	Bhojendra Raj Dotel	Director	PHCRD
6.	Madhu Pokhrel	CFC	DOHS
7.	Mukti Khanal	Director	HMIS
8.	KB Chand	Sr. PHA	CHD
9.	Sagar Dahal	Sr. PHA	PHCRD
10.	Dilli Raman Adhikari	Sr. PHA	FHD
11.	Babu Ram Lamichhane	UC	LMD
12.	Sachita Joshi	Drug Administrator	LMD
13.	Dr. Rabindra Baskota	Consult. Dermatologist	LCD
14.	Dr. Samir K. Adhikari	Health Administrator	CHD
15.	Bade Babu Thapa	Sr. Pharmacy Officer	LMD
16.	Deepak Jha	Sr. PHO	CHD
17.	Basundhara Sharma	Sr. PHO	CHD
18.	Gagan Bista	SO	LMD
19.	Rita Khatiwada	SO	NTC
20.	Deepak Adhikari	PHO	LMD
21.	Mukesh Adhikari	PHO	LMD
22.	Ashesh Regmi	PHO	FHD
23.	Yogendra Panjiyar	PHO	PHCRD
24.	Tilak B Poudel	PHO	EDCD
25.	Om Khanal	PHO	FHD
26.	Mahesh Kumar Puri	TLO	LCD
27.	Lalan Pd. Shah	PHI	LMD
28.	Rana Bdr Gharti	PHI	LMD
29.	Shankar Pd Kandel	PHI	LMD
30.	Satyadeo Pd. Yadav	PHI	LMD
31.	Basanta Shrestha	PHI	CHD
32.	Shanti Ram Khatiwada	EPIO	LMD
33.	Rebati Thapa	HA	LMD
34.	Nawa Raj Khadka	CCO	CHD
35.	Surya Bdr Khadka	SO	PHCRD
36.	Sushil Nepal	Computer Officer	MD

SN	Name	Designation	Organization
37.	Kamal Pd. Bhattari	Sr. AHW	NTC
38.	Sumitra Thapa	Pharmacy Officer	PHCRD
39.	Anil Kafle	Pharmacy Officer	LMD
40.	Chandra Kanta Subedi	Data Analyst	LMD
41.	Ajudey Pr. Shrestha	PSM Coordinator	NTC
42.	Dr. Satchit Neupane	SCM Coordinator	NCASC
43.	Rajesh Joshi	PSM Officer	NCASC
44.	Kanak Raj Shrestha	PO	FHD
45.	Khagendra Adhikari	СО	LMD
46.	Monica Villanueva	MCHTL	USAID
47.	Umesh K. Gupta	SCM Advisor	USAID
48.	Shyam Lama	CD	GHSC-PSM
49.	Heem Shakya	HSS Director	GHSC-PSM
50.	Balkrishna Khakurel	SCPGA	GHSC-PSM
51.	Dr. Rahul Pradhan	NVO	IPD,WHO
52.	Ramesh K. Sharma	SPPA	NHSSP
53.	Prakash P Pant	Sr. SC Advisor	PMI/Jhpiego
54.	Rabin Shrestha	Sr. Operation Manager	SC
55.	Hasan K. Bajracharya	Sr. SCM Coordinator	SC
56.	Mahesh Pokhrel	FAM	GHSC-PSM
57.	Romi Gurung	Sr. M&E Specialist	GHSC-PSM
58.	Manila Vaidya	QS	GHSC-PSM
59.	Prabin Subba	SCS	GHSC-PSM
60.	Sarada Basnet	TS	GHSC-PSM
61.	Rojan Dahal	TS	GHSC-PSM
62.	Mahesh Yadav	DA	GHSC-PSM
63.	Nirmal Dhakal	SCOS	GHSC-PSM
64.	Naveen Paudyal	Nutrition Officer	UNICEF
65.	Pradeep Shrestha	Health Officer	UNICEF
66.	Beki Prasai	НО	UNICEF
67.	Ashmi Lama	Trainee	UNICEF
68.	Amit Dhungel	PO	UNFPA
69.	Sushma Shakya	Tech. Associate	WHO
70.	Raju Sapkota	Finance Officer	GHSC-PSM
71.	Ram Bdr. Praja	Admin. Assist.	GHSC-PSM



Procurement and Supply Management

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cation: Hotel View Bhrikuti, Godawari

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USAID Global Health Supply Chain Program Procurement and Supply Management

cation: Hotel View Bhrikuti, Godawari

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USAID Global Health Supply Chain Program Procurement and Supply Management

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USAID Global Health Supply Chain Program Procurement and Supply Management

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