

Procurement Quantity	Price	Procurement Quantity
50'000	49.8645	50'000
60'000	135.6250	30'000
60'000	88.9282	
60'000	99.75	

Item No.	Items of Drugs and Medical Consumable	Quant Drug Supp
40	Gention Violet Crystal 25g	80
41	Povidone Iodine 5% 450ml	80
Surgical and Miscellaneous		
42	Absorbent Cotton 400g	
43	Adhesive Tape 10cm x 5m	
44	Bandage 90cm x 18m	
45	Butterfly Needle 24G (Scalp vein set)	
46	Gauze 90cm x 18m	
47	3ml Disposal Syringe with 20G Needle	
48	IV Infusion Set with 21G Needles	
49	Surgical Gloves (Disposable)	



Essential Drug Procurement and Supply Management System in Nepal

Options for Improvement



Health Sector Support Programme (HSSP)
 Ministry of Health and Population (MoHP) - Nepal
 Deutsche Gesellschaft für Technische Zusammenarbeit (GTZ)



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The government of Nepal introduced the policy of free health care services along with the provision of essential drugs to enhance people's access to health care services. However, different studies have indicated that governmental supplies of essential drugs are not sufficient to meet the requirement of the local communities. Moreover, the frequency and rate of drug procurement and supply management at district level varies from one to another.

In this context, the drug procurement and supply management system has been intensively debated among policy makers with a special emphasis on the availability and the stock-situations of the drugs. The Ministry of Health and Population (MoHP) wants to stimulate debate and dialogue on this topic.

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Abbreviations

BHSP	Basic Health Services Programme
CDP	Community Drug Programme
CHD	Child Health Division
DDC	District Development Committee
DH	District Hospitals
DHO	District Health Office / Officer
DoHS	Department of Health Services
DPHO	District Public Health Office / Officer
ED	Essential Drugs
EHCS	Essential Health Care Services
EoS	Economies of Scale
FCHV	Female Community Health Volunteers
FHCP	Free Health Care Policy
FHCS	Free Health Care Services
FY	Fiscal Year
GMP	Good Manufacturing Practice
GoN	Government of Nepal
GTZ	Deutsche Gesellschaft für Technische Zusammenarbeit GmbH
HF	Health Facilities
HFMC	Health Facility Management Committee
HMIS	Health Management Information System
HP	Health Posts
IMEK	Initial Medical Equipment Kit
KfW	KfW Entwicklungsbank
LMD	Logistics Management Division
LMIS	Logistics Management Information System
MDG	Millennium Development Goals
MoF	Ministry of Finance
MoHP	Ministry of Health and Population
N/A	Not Applicable/Available
NDHS	Nepal Demographic and Health Survey
NFHP	Nepal Family Health Programme
NGO	Non Government Organisations
NHSP-IP	Nepal Health Sector Programme - Implementation Plan
NRS	Nepali Rupees
PHCC	Primary Health Care Centres
RUD	Rational Use of Drugs
RMS	Regional Medical Store
SBA	Skilled Birth Attendants
SHP	Sub-health Posts
SWAp	Sector Wide Approach
VDC	Village Development Committee
WHO	World Health Organization

Executive Summary

Introduction

Year round availability of quality essential drugs (ED) in the public health facilities is very important for the effective implementation of free health care policy. To make it happen, procurement of ED and its supply management system could be considered as one of the most important factors. It was argued that the ED procurement mechanism is not appropriate in Nepal. Moreover, it has been discussed that there should be proper mechanism of procurement and distribution of quality ED at different levels. With this rationale, the study was conducted to analyse the present ED procurement and supply management system in the governmental health system in Nepal and identify some options for its improvement.

Methodology and Findings

During the study period, five districts in mid-western and far-western regions were visited. Interviews and data analysis was carried out at the district level with DHOs, DPHOs, and other resource persons, at the level of primary health facilities with In-charges, and at the community level with patients (exit interviews)

and community members. Further, interviews were conducted in Kathmandu with officials of Logistics Management Division (LMD) and other resource persons. Finally, available reports and data on procurements of ED and its financial aspects were analysed.

In a first step, the study team analysed the distribution of tasks and responsibilities within the governmental ED procurement process. Responsibilities and functions assigned are being analysed for the following distinct phases of the ED procurement process: (1) Planning and Tendering, (2) Quality Assurance and Supply, (3) Distribution, and (4) Monitoring and Evaluation.

In a second step, an analysis of the budgetary provisions and the mode of procurement process were done for the fiscal year 2008/2009. Out of the total list of 57 items of ED and medical consumables applied by the LMD, only those items (49) which are going to be centrally procured are taken for analysis and comparison purpose. The total cost of the other 8 items entirely procured by the district is comparatively very small (NRS 3.4 million), and therefore, it does not affect the analysis.

While total costing of all required 49 ED items at central level procurement is NRS 584

million, the total budget provision is approximately NRS 816 million allowing for some price differences for district level procurements. Therefore, the budget should be adequate even if provisions for cost increases at district level procurement are made.

The findings in the districts show, however, that the district level procurement of ED results in a very considerable loss of efficiency. Districts presently procure ED at a cost ranging from 133 to 278 percent of the procurement cost of a comparable quantity of ED at central level (LMD purchasing prices). Although some districts manage to undercut the central procurement price level with contracts of 38, 46 and 56 percents of central level procurement cost, this situation is not stable and only depicts the completely mixed-up price finding mechanisms at district levels. The distortions in the price finding mechanisms become evident taking a closer look at the offers of the pharmaceutical companies, which include items priced at a unit price of 1 *Paisa* as well as items with grossly inflated unit price. The overall picture is a substantial loss in efficiency by decentralising the procurement responsibility to the district level.

Additionally, the districts are not in a position of implementing any kind of effective quality assurance mechanism. Further, their capacities of handling the rather demanding procurement of medication are stretched to the limit, if not overstretched.

The study team assumes a realistic loss of efficiency of 30 percent by decentralising the task to procure ED to the district due to economies of scale, and an additional loss of efficiency of 10 percent due to the additional cost of transporting the drugs to district level. Under these assumptions, different options of carrying the responsibility (1) for the procurement of ED and (2) of holding the budget for paying the ED are analysed. The analysis clearly shows that considerably higher quantities of ED can be procured with the same

budget available by shifting the responsibility of ED procurement towards the centre, and thus utilising economies of scale.

The study team further analysed the relative weight of the ED items within the respective budget at each level, i.e. national (including all levels), central and district. The result of this analysis is the finding that only relatively few drugs already constitute the bulk of the costs in the budgets of the respective levels.

The study found that one single drug (Amoxicillin tablet) constitutes almost 25 and 30 percents of the central and national procurement costs respectively. Similarly, the top 6 items consume 50 percent and 9 additional items consume a further 25 percent of both central and national procurement budget. This suggests that the procurement strategy should take account of this fact so that the maximum of drugs could be procured within the provisions of the budget. While at the district level, same single drug (Amoxicillin tablet) constitutes more than 40 percent of the district procurement cost. Similarly, only the top 3 items consume more than 50 percent of the district procurement budget and 7 additional items consume a further 25 percent of the district budget.

These findings show that substantial amount of money could be saved through utilising economies of scale at the centre by organising only a few decisive and important ED to central level procurement.

Another finding concerns the practice of the districts of awarding “single-contracts” to only one pharmaceutical company for the provision of all ED in the district. This practice invites the bidders to hand in offers to the districts where part of the drugs is offered practically for free, hoping to be compensated by other parts of the bid being grossly overpriced. Although some districts may strike a deal in exploiting such non-transparent price-finding practices, all in all the contracts tend to be

overpriced and the budgetary provisions of the district much too high for the respective quantities of ED.

Finally, following options for improving the efficiency of ED procurement have been analysed for contract approach and re-organising responsibilities among central and district level for ED budget and procurement.

Option 1: Reorienting the district procurement from a “single-contracts” to “split-contracts” approach.

Option 2: Re-organising responsibilities for budget and procurement as follows: (a) centre takes over procurement of selected important ED from the districts, (b) centre takes full procurement responsibilities while budget remains at the respective districts, and (c) district has full procurement and budget responsibility.

Recommendations

In the light of the analysis and considering all findings, the study team arrives at the following recommendations:

At the level of guiding principles:

- Free health services policy should be supported by a sound procurement and supply system to ensure round-the-year availability of ED.
- Department of Health Services may consider stepwise re-orientation of procurement activities to achieve desired efficiency and economies of scale without jeopardising the spirit of decentralisation.
- Centre may take over the responsibility of quality assurance of drugs.

At the level of implementation:

- There is a considerable scope for reducing the waste and achieving economies of scale at all levels of procurement by reorientation:

- At district level: Using “split-contracts” approach by selecting the cheapest items among all offers.
- At centre and district level: Re-directing budget and procurement responsibilities to the centre, at least for the main ED.
- Central bidding, and price negotiation and district budgeting and purchasing of the ED.
- Department of Health Services may prepare and implement a centralised quality assurance action plan for ED.
- In order to avoid inflated out-patient statistics, the subsidy of NRS 5 per out-patient visit may be replaced with a lump sum payment based on the catchment population (capitation fee). Such a predictable, untied fund will enhance the involvement and commitment of health facility management committees.

1 Introduction and Background



1.1 General Situation of the Health Sector in Nepal

Currently, Nepal is undergoing a period of great political and social change. Nepal is one of the poorest countries in the world. Annual gross domestic product per capita is below US\$ 400 and approximately 50 percent of its adult population is illiterate, with a share rising to over 70 percent among some ethnic groups. Improving health for Nepal's people is a major challenge.

Though the progress has been seen in main health indicators, Nepal is still at the lower end in comparison to other countries in Asia. Almost a quarter of the population lacks access to even the most basic health care services, and almost half of Nepalese children under five suffer from under-nutrition. Every hour, a woman in Nepal dies due to pregnancy and child-birth related complications, and only one in five births is attended by a Skilled Birth Attendants (SBA). The concern for the poor and marginalised people has been the priority of the government.

1.1.1 Socio-Demographic Information

Despite its topographical characteristic, Nepal has a relatively high population density of

approximately 159 per km². Nearly 40 percent of the population is below 15 years. The percentage of population having access to drinking water is 82.5 and approximately half of the households are having electricity.

The literacy rate, although substantially improved over the last decade, is one of the lowest in Asia (female 54% and male 78%). Over the last decades, the attendance at school has improved and reached 86.6 percent for primary

Table 1. Findings of Demographic and Health Survey, Nepal (2006)

Health Statistics	Indicators
Total population (2005) (in million)	25.9
Area (km ²)	147,181
Population density (per km ²)	159
GDP per capita (Intl \$) (WHO Report 2006)	1,277
Life expectancy at birth m/f (years)	63.3
Percentage literacy rate (women)	54.5
Percentage literacy rate (men)	78.7
Employment status: Percentage of women employed	71.1
Employment status: Percentage of man employed	86.7
Percentage population below poverty line (WHO Report 2006)	31
Percent of population with access to drinking water	82.5
Percentage of households having electricity	49.5
Percentage of households having mosquito nets	61
Primary school attendance ratio	86.6
Secondary school attendance ratio	46.7
Annual growth rate (1994 to 2004)	2.1
Total fertility rate	3.1
Under 5 mortality rate	61
Maternal mortality ratio per 100,000 live birth (2001)	281
Percentage of mothers receiving antenatal care from skilled birth attendants	44
Percentage of birth assisted at delivery by SBA	19
Percentage of women received post natal care	33

Source: Nepal in Figures 2006, NDHS 2006, WHO Report 2006

school and 46.7 percent for secondary school. The average life expectancy at birth is 63.3 years whereby the female life expectancy at birth is only slightly higher (63.7 years) compared to the male life expectancy. According to the latest Nepal Demographic and Health Survey (NDHS) 2006¹, the crude birth rate is 27.4 per 1,000 population and the fertility rate has dropped from 4.6 (1993-1995) to 3.1 (2003-2005). The percentage of population below poverty is 31 percent. The employment rate for women is 71.1 percent and for men 86 percent (Table 1).

1.1.2 Millennium Development Goals

The Government of Nepal (GoN) has endorsed the Millennium Declaration and is committed to MDG. In the following Table 2 selected indicators are provided indicating the baseline and target.

It is projected by international experts that Nepal will be one of the 7 developing countries to achieve MDG 4 – Reduction in Child Mortality.

Table 2. Selected MDG Indicators 2015

Indicator	1990	2006*	2015
Infant mortality rate	108	48	34
Under five years mortality rate	162	61	54
Percentage of one year old immunised against measles	42	85	90
Maternal mortality ratio	515	281	134
Percentage of deliveries attended by SBA	7	19	60

* Based on the Demographic and Health Survey 2006

1 Nepal Demographic and Health Survey 2006, Preliminary Report, Population Division MoHP
2 Three Year Health Plan 2007 to 2009, MoHP, July 2007

1.2 Objectives of the Health Policy in Nepal

In July 2007, the Ministry of Health and Population (MoHP) issued a 3-year health plan² which reflects the political commitment for health of the people at the highest level by declaring "Basic Health as Human Rights" in the Interim Constitution of Nepal, 2063 (2007) for the first time in the history of Nepal. The goal has been adjusted to the new commitment to bring about improvement in the health status of all the Nepalese population with provision of equal opportunity for quality health care services to all through an effective and equitable health system and thus develop healthy and capable human resources to support poverty alleviation and national development. The plan has defined the following 10 objectives which may in the short term also have consequences for the Basic Health Services Programme (BHSP):

1. To provide equal opportunity for health development to all with special emphasis to socially disadvantaged, poor, women, and disabled people as per the provision of "Basic Health as Human Rights" in the Interim Constitution of Nepal, 2063,
2. To strengthen ongoing high priority of Essential Health Care Services (EHCS) and achieve MDG in accordance with the principles of primary health care, equity and social justice,
3. To redesign health system to make it people oriented, efficient and effective through reform in institutional management and health professional education,
4. To ensure availability of good quality essential drugs (ED) to all at affordable price through pharmacy services,
5. To strengthen public private partnership,
6. To improve hospital services and referrals through integrated management of district health system,

7. To initiate important services such as urban health and health of elderly which are not currently included in EHCS,
8. To promote health research and health research systems,
9. To develop Ayurvedic and other alternative systems of medicine, and
10. To align population policies and progress with the goal of poverty eradication.

In line with the above stated objectives, the 3 year health plan has set following targets for 2009 (Table 3).

Related to the BHSP selected activities are highlighted as follows:

- Currently MoHP is reviewing necessary policies to operationalise the concept of providing free basic health services to all as per the provision in the Interim Constitu-

tion, 2007. The principles and procedures will be adjusted over the next few months. In addition, the ongoing free health care services (FHCS) targeted to poor, socially disadvantaged women and indigenous people will be further expanded and strengthened.

- The MoHP is planning to upgrade 1,000 Sub Health Posts (SHP) to Health Posts (HP), and new Primary Health Care Centre (PHCC) will be established in electoral constituencies which do not have such facilities.
- It is also planned to amend the National Drug Policy incorporating manufacturing, quality, price, availability and service standard of the drugs and strengthening the provision of importing drugs manufactured only from Good Manufacturing Practice (GMP) certified companies and formulating and implementing regulation for national manufacturers.

Table 3. Target of the 3-year Health Plan 2007-2009

S.N.	Health Indicators	Situation up to 2006	3-year Target
1	Access to essential health care services (%)	79**	90
2	Availability of essential drugs in health institution (%)	93**	95
3	Women making 4 antenatal care visit (%)	29*	40
4	15-49 age group women receiving TT injection	63*	75
5	Delivery from health worker (%)	19*	35
6	Current user of contraceptive (%)	44*	53
7	Use of condom (14-35 years) (%)	77*	85
8	Total fertility rate (15-49 year women) (%)	3.1*	3
9	Neonatal mortality rate (Per 1000 live birth)	33**	31
10	Infant mortality rate (Per 1000 live birth)	48*	44
11	Child mortality rate (Under-five) (per 1,000 live birth)	61*	55
12	Knowledge of women (15-49) on ways to avoid AIDS (%)	65*	75

**DoHS/MoHP, *NDHS. 2006

1.3 Recent Developments in Health Policy

1.3.1 The Community Drug Programme

Year round availability of ED in the primary health care outlets has been one of the major challenges for the efficient management of the primary health care delivery system in Nepal. To address this problem, in 1995 GoN decided to implement the Community Drug Programme (CDP) throughout the country in a phased manner. Since then, various activities have been initiated to implement CDP in various districts with the assistance of external development partners.

In its policy for drug financing scheme, the MoHP laid down the basic policy frameworks for the development of drug financing schemes in the country. The MoHP declared the CDP as national priority programme and committed to introduce CDP in additional 7 districts per year during the 10th five-year plan period (2002 to 2007). Similarly, CDP had been given due priority in the Nepal Health Sector Programme - Implementation Plan (NHSP-IP). Three outputs of NHSP-IP (1, 5 & 6) had clear reference to this programme and set following indicators:

- At least 10 percent health expenditure borne by local elected bodies, e.g., DDC, VDC, Municipalities, in public health facilities (HF) by FY 2006/2007,
- At least 5 percent of health expenditure borne by local community e.g. CDP, community health insurance (CHI), in public health facilities by FY 2006/2007,
- At least 60 percent of the target population access to affordable and quality care,
- At least 60 percent of HF provide minimum level of acceptable standard of quality EHCS,
- Implementation of drug financing schemes reaches in at least 50 percent districts by FY 2006/2007,

- Procurement decisions are made based on information generated by Logistics Management Information System (LMIS) by FY 2006/2007, and
- Stock-outs of EHCS health commodities fall to 65 percent by FY 2005/2006 and zero percent by 2009.

1.3.2 The Policy Objective of Free Health Care Services

The GoN has made a political commitment for improving the health of the people at the highest level by declaring "basic health as human right" in the Interim Constitution of Nepal 2063 (2007). In order to materialise the constitutional commitment, MoHP has initiated a policy of providing FHCS to its population in a phased manner. The first phase was to make universal FHCS available in all SHP and HP. Services including selected ED (22 for SHP and 32 for HP) will be made freely available round the year to all, irrespective of gender, caste and ethnicity and economic status. Primary Health Care Centre (PHCC) and District Hospitals (DH) with low Human Development Index (35 districts) will provide free out-patient, indoor and emergency services to the targeted group such as senior citizens, very poor and poor, Dalits, Female Community Health Volunteers (FCHV) and disabled people. The remaining 40 districts will provide free inpatient and emergency services to the same targeted groups. Additional budgetary provision has been made to meet annual requirement of drugs.

Health facilities will be given NRS 5 per patient examined to meet their administrative cost. To make it easier, all HF had already been provided with some money in advance. In order to be eligible for further funding, the HF were required to have updated bookkeeping and reporting in place. Furthermore, the costs of the additional drugs distributed from the facilities were reimbursed from the respective districts. Community drug programme (CDP)

facilities that had procured drugs from their own fund were also reimbursed in cash, whereas in non-CDP facilities dispensed drugs were replenished.

This policy shift in health service provision will take some time to redefine CDP in the changing context. Various meetings and discussions were held. The MoHP has realised that the scope of CDP was beyond user's fee approach. Community participation, ownership in health service management, improved working conditions and promotion of rational use of drugs (RUD) are integral parts of CDP. Therefore, the CDP shall be continued and be further promoted in such areas (even under free health care for all). Logistics Management Division, in collaboration with different stakeholders including members of FHCS monitoring committee, are working on making CDP compatible with Free Health Care Policy (FHCP). Once the procedural conflicts are identified and sorted out, CDP manuals/protocols will be revised accordingly.

Currently the principal policy intends to waive the registration fee and make all ED freely available at all levels of primary health facilities including DH. The government will compensate the registration fees and will pay NRS 5 per registered patient through the district authorities. The funds shall be used for maintaining the HF and other operational costs. The ED lists have been defined for different levels of primary health facilities and these drugs will be made available throughout the year free of charge. This applies to all HF up to the DH level. Sub health posts and HP will not be allowed to procure drugs not included in the ED lists as the defined list reflects the level of health services to be provided at these facilities. Primary health care centre and DH will have a procurement budget for additional drugs as long as a medical doctor is posted there. However, the drugs procured by PHCC and DH will not be charged for. Basically, all ED will be provided free within the district health system.

1.3.3 First Phase of Free Health Care Policy

In an initial step aiming at the improvement of access to health, a policy guideline described the provision of free services available in 25 bedded DH and PHCC for specific categories of the community which included poor, ultra poor, helpless, elderly, disabled, and FCHV. The type of free services for those specified target groups were emergency services and indoor services. The poor and ultra poor group would get free indoor and emergency health services in 25 bedded DH and PHCC. The poor and ultra poor patients had to purchase identity cards. The prices of these identity cards for ultra poor patients were NRS 100 and NRS 50 for poor patient. The GoN bore this fee. This identity card was valid only for one year from the date the card was endorsed. The poor and ultra poor were to fill free application forms as per format developed in the free health care guideline. The processes of the identification of the poor and ultra poor patients in two steps were described in the guideline.

First step:

- Identification of target group: poor, ultra poor, helpless, elderly, disabled, FCHV should request for free services by filling the form.
- The on-duty staff should recommend the identified target group or person and obtain final approval from the medical superintendent of the DH.
- In a CDP implemented district, if the patient has poor identity card that can be accepted for free policy, it will be valid until first step only.

Second step:

The identification of poor and ultra poor community was a complex process in which various sectors need to be involved. Therefore, local development sectors, political parties, other concerned offices, local administration, NGO, social service and ward level health workers and

FCHV including civil society are to be mobilised and the decision was to be made jointly in a coordinated manner. The main responsible stakeholder is to be VDC/ municipality. The team will identify various level of economic status of the community and provided certificate of eligibility for free health services, subsidised fee, partial fees or full payment of the health services. The main services included in the policy were emergency (e.g. blood tests, ED) and indoor services (e.g. diagnostic services).

1.3.4 Second Phase of Free Health Care Policy

The second phase of the policy was introduced on October 7, 2007 (2064/6/21) when the GoN declared EHCS free of charge to all at HP and SHP. The intention of the MoHP is to extend the FHCP to PHCC and DH. Consequently, this also influences the CDP which shifts to free availability of ED.

The challenges such a policy could be a rapid increase of demand for ED, a potential misuse of free drugs, and a lack of community involvement, again leading to less commitment from the community towards a sustainable system of providing ED to those most in need.

1.4 Rationale for the Study

The Second Long Term Health Plan (1997-2017) also aimed to provide essential health services at the district to 90 percent of the population within 30 minutes travel time and health financing through community (CDP) with respect to the supply of ED. For the effective implementation of FHCP, year round availability of drugs in the public HF is very important. The government generally provides an annual supply of drugs once in a year in July/August. A study showed that 40 percent of public HF clients had to obtain some or all needed drugs from private pharmacies by November. Although findings show that the

availability of ED is 82 percent in the CDP facilities while non-CDP facilities have only 65 percent but still CDP facilities fall short of the government mandate which state that at least 95 percent of “critical” life saving drugs must be available year round in CDP facilities.

Different studies have found that Governmental supplies of ED are not sufficient to meet requirement of the communities. The unavailability and stock-outs of the drug may be due to the factors associated with drug procurement and supply management system, budgetary provisions and prescribing tendency. In the existing system, most of the health institutions get nearly identical drugs regardless of local disease patterns, local service delivery capacity and size of catchment population resulting in wastage or lacking of medicine. The procurement capacity remains weak and the frequency and rate of drug procurement at HF varies from one to another. Local capacity for re-distribution of surplus drugs of health institutions appears to be sub-optimal.

A study by MEH consultants / Manfred Stoermer (2003) found that (i) existing user fees for drugs even within the state-run system are far too high at most facilities and (ii) organisational changes within the national and regional drug procurement system would result in substantial savings which could then allow to reduce the user-fees. There should be proper mechanism of procurement and distribution of quality ED at district level to make the FHCP really effective. Adequate drug supply is a major element of any strategy to improve access to health care. Discussion is ongoing among the policy makers regarding the suitable mechanism for drug procurement and supply management system but no specific study has yet been carried out to address the existing problems associated with drug procurement and supply management system. Given these circumstances, it is imperative to explore the existing ED procurement and supply management system and develop the options for its improvement.

2 Objectives and Methodology



2.1 Objectives and Scope of the Study

The general objective of the study was to analyse the present ED procurement and supply system in the governmental health system in Nepal and identify some options for improving the access of the population to ED within the framework of the free access to health care policy.

Specific objectives were:

- To analyse the procurement and supply management system for ED presently applied by the MoHP,
- To assess the present policy developments concerning ED availability with focus on primary level HF,
- To assess the effectiveness and efficiency of the present ED procurement system, and
- To formulate recommendations on possible improvements for increased availability of ED especially at primary level HF.

The following tasks were performed in order to achieve the aforementioned objectives:

- Analysis of tasks and responsibilities for the Governmental ED procurement system,
- Analysis of LMD data on ED procurement budget, planned quantities and unit costs at different levels for FY 2008/2009,
- Analysis of actual implementation of the procurement tasks at district level for FY 2007/2008 and 2008/2009,
- Analysis of ED availability under FHCP in primary level HF,
- Analysis of the patients' perceptions on access to ED under FHCP, and
- Formulate recommendations on possible improvements for increased availability of ED especially at primary level HF.
- Interviews with In-charges at 5 primary level health facilities, namely: Jamuni SHP, Mohamadpur SHP, Sanoshree HP, and Sorahawa PHCC in Bardiya district, 1 in Dadeldhura (Sahasralinga HP), 1 in Doti (Sanagaon HP) and 2 in Achham (Jaygadh HP and Janalikot SHP) districts, and
- Fifteen exit interviews with patients (7 males and 8 females), interviews at community level, at 9 primary level HF in Bardiya, Dadeldhura, Doti and Achham districts.

2.2 Methodology of the Study

The study was carried out between October 10 and December 05, 2008, and included two phases of field visits. The following methodology was applied:

- Review of relevant studies and documents,
- Analysis of ED budget and procurement planning,
- Discussions and interviews with officials of Department of Health Services (DoHS) (LMD, including procurement section, CDP; MD including free health service and social security section, and finance section),
- Field visit in Bardiya and Banke districts in mid-western region and Dadeldhura, Doti and Achham districts in far-western region,
- Interviews with DHO Bardiya district, DPHO and Regional Medical Store Banke district, DHO Dadeldhura district, DHO Doti district and DHO Achham district,

3 The Drug Procurement and Supply Management System



3.1 Analysis of National ED Requirement under Free Health Service Policy

In July 2008, LMD organised a workshop to define the need of ED to ensure that the free health policy can be implemented and the respective drugs are available at all primary health facilities. Although no Development Partners were invited, the procurement consultant for the KfW supported BHSP and staff of Nepal Family Health Programme did participate in this workshop. The workshop had the following agenda:

- Estimation of drug needs for the primary health facilities,
- Estimation of the annual drug budget and source of funding,
- Define procurement process (what will be procured centrally and what by the districts), and
- Principle of drug distribution based on the pull system.

3.2 Definition of the Essential Drug List for the Different Level of Primary Health Facilities

The workshop was very productive in identifying the desired minimum number of ED for supporting EHCS at the primary health facility level. For PHCC, a total of 51 items have been recommended, while 45 items have been recommended for HP. Of these, 9 (ED no. 40-47 and 55) are surgical and miscellaneous items. Six items have been added to the previously approved list of 32 whereas Charcoal and Promethazine have been deleted. Drug items have increased to 36. In the same way for SHP a total of 39 items have been recommended. Of these, 9 (ED no. 40-47 and 55) are surgical and miscellaneous items. Eight additional items (ED no. 8, 16, 21, 22, 24, 30, 34 & 35) have been added to the list. Drug items have been increased from 22 to 30. The summarised information is shown in Annex 1.

While overall drug items were identified, discussions were also held regarding the procurement strategy. It was felt that at present neither all procurement should be done centrally nor should it be completely decentralized to the districts. Therefore, in principle a split of 45 and 55 percents was proposed to be procured at the central and district level respectively. Additionally, drug items needed only at PHCC will not be procured centrally because of rather small volume. In the same way, because of district's inability to assure quality, certain drugs were to be procured at the central level only. This information is also shown in Annex 1.

Finally, a drug list comprising of 55 items of drugs and medical consumables was recommended. However, the actual number of drugs is only 51 as four drugs are repeated due to different doses form. Though it was agreed that allocation of drug quantities for the districts will be done based on population, morbidity,

and ecological area at present, such allocations were made only on the basis of population numbers. Two programme items have been added to the central procurement lists which comprise of zinc sulphate tablets and Co-trim paediatric tablets for the Child Health Division (CHD).

The total annual cost for the ED, including the ones for child health based on the centrally procured unit prices amounts to about NRS 587 million. The budget allocation for drugs for the FY 2008/2009 is approximately NRS 720 million which also includes drugs for the CHD. With the free EHCS being extended to the DH, MoHP is seeking additional NRS 900 million from Ministry of Finance (MoF). It is estimated that the central procurement for drugs will amount to approximately NRS 336 million. This amount will be funded by budget, SWAp funds and KfW. Approximately NRS 460 million will be transferred to the districts for local procurement of drugs which has been estimated to cost approximately NRS 250 million, if procured centrally. The tentative budget breakdown is shown in Annex 2.

The centrally procured drugs will be delivered as before to the Regional Medical Stores (RMS) and the RMS will distribute the defined quantities to the districts and the districts will be able to order additional drugs under the pull system, based on their needs. Similarly, the districts, based on the pull system, will distribute the respective quantities to the health facilities.

As the procurement cycle FY 2008/2009 will have a procurement volume of approximately EURO 3.0 to 3.5 million, LMD has the strong intention to attract international drug supply companies beyond India. With the mandatory requirement of WHO-based GMP certification, the price differences between local, Indian and international suppliers may not be significant to better participation of international suppliers/ companies in the bidding.

3.3 Responsibilities and Functions Assigned in the Procurement Process

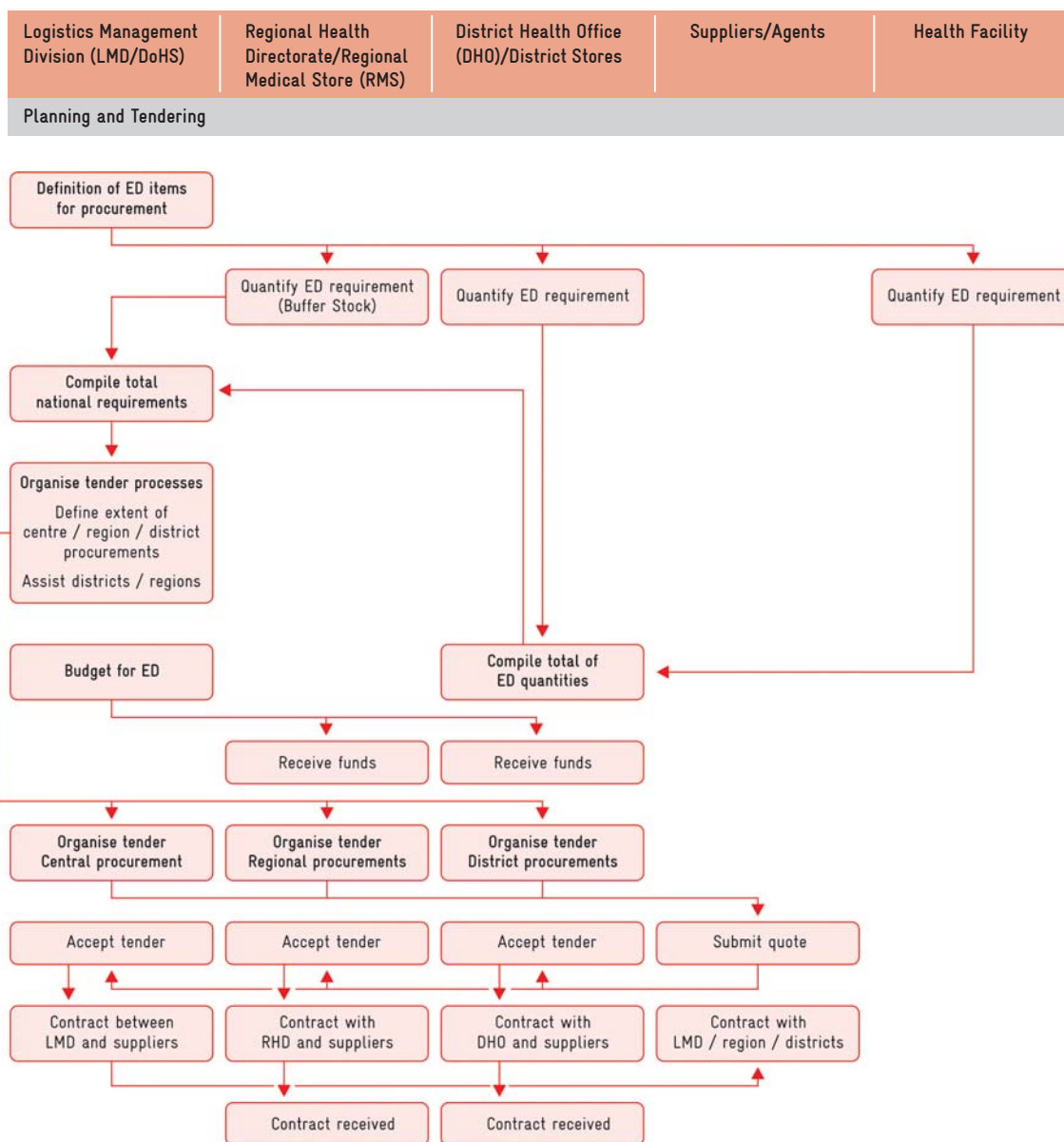
Below the division of tasks and responsibilities for the procurement and management of ED in the governmental health system in Nepal is shown. Responsibilities and functions assigned are being analysed for the following distinct phases of the ED procurement process:

1. Planning and Tendering
2. Quality Assurance and Supply
3. Distribution, and
4. Monitoring and Evaluation

3.3.1 Procurement Process: Planning and Tendering

The planning and tendering process is shown in Figure 1. It is very clear that the centre takes

Figure 1. Procurement Process: Planning and Tendering



the lead role in determining the types of drug items to be procured for each level of facility and policy level determination so as what should be procured centrally and what should be procured at the district level. A relatively smaller portion of the budget can be assigned at the regional levels as buffer to cope with unforeseen situations.

On the other hand, for establishing the quantities of drugs required, the national requirement will be ascertained through compilation of the requirement of individual HF at the district level, with further compilation of district requirements at the regional/national level.

The tendering processes are initiated at the central and district level according to the approved ED list and budget. After evaluation of tenders, respective supply contracts are established and a copy of the contract is sent to the respective stores receiving such goods.

3.3.2 Procurement Process: Quality Assurance and Supply

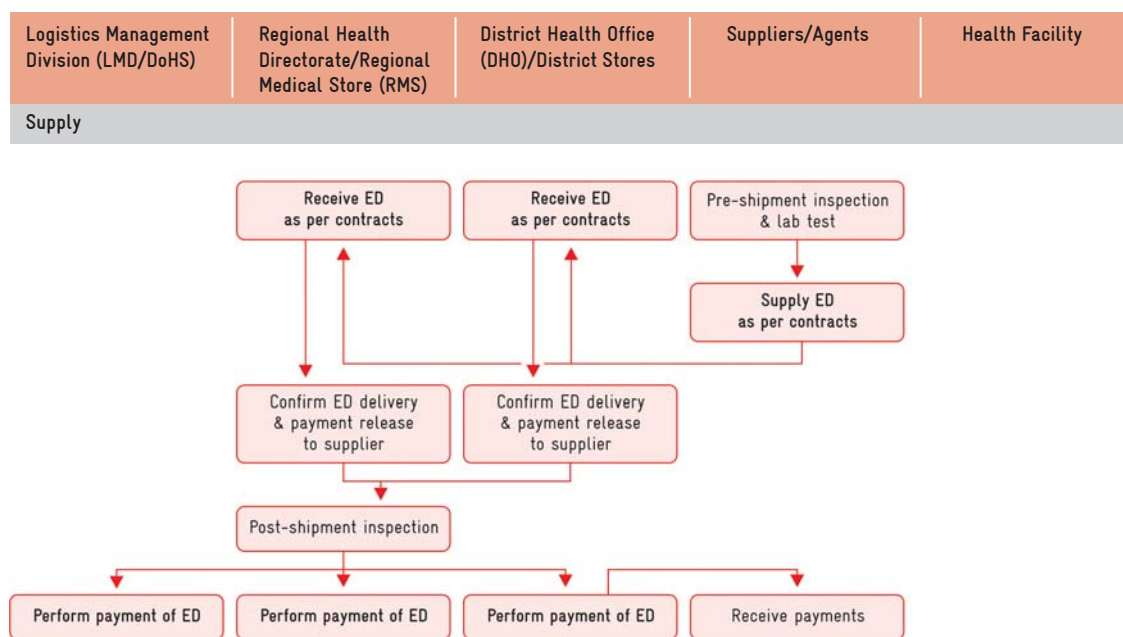
After establishment of supply contracts the manufacturing process is initiated by the

manufacturers and the respective quantities of drugs are readied for dispatch to stores. While quality assurance is a built-in part of the supply contracts in all central procurement of ED, no such arrangement is made in all regional and district procurements. This has often raised the issue regarding the quality of drugs procured at these levels.

In case of central procurement pre- and post-shipment inspections and random sampling and lab tests on drugs is routinely conducted. As part of the pre-shipment inspection, random samples from the readied supplies are collected and tested at an ISO certified laboratory. The dispatch order is issued by the inspection agent after receiving the positive test results from the laboratory.

Under the present arrangements, it is not possible to test samples from all batches of the drugs as the cost for lab testing become prohibitively high due to production of several drugs in large number of batches. At present, between 1 and 5 tests are carried out for all drugs depending on the total number of batches. It has been assumed that laboratory test on a limited number of randomly drawn

Figure 2. Procurement Process: Quality Assurance and Supply



samples would fulfil the quality assurance. However, the supply contract provides an additional safeguard for quality assurance, which requires samples from all batches to be tested in case any of the randomly drawn samples fails on laboratory test.

At present, none of the centrally procured drugs are directly supplied to the district stores. These are either supplied to the five regional medical stores, or central store or transit warehouse, depending upon the commodity type and source of supply. Similarly, all district procurements are supplied to the respective district stores.

Post-shipment inspection has also become a routine feature for all central procurements. All stores conduct routine post-shipment inspection on all health commodities received by them. Final payments under the contracts are settled only after conclusion of satisfactory post-shipment inspection and final acceptance of the commodities by the buyer. In case of district procurement, the goods are accepted after a physical count if the general appearance is found satisfactory. The process of quality assurance and supply is shown in Figure 2.

3.3.3 Procurement Process: Distribution

The distribution of commodity is done from all stores. Initially under pre-set quota system, the regional medical store was responsible for preparing kits for individual HF and its transportation to the respective district stores. The districts would then be responsible for onward distribution of such packages to the respective

facilities. Under the new system where replenishment of drugs is more or less ensured, the supply mechanism will be modified according to the need base. Under this system (pull), the HF will keep on receiving additional drugs from the district store to maintain a certain minimum stock level of drugs at all time. In the same way, the district stores will continue to maintain a minimum stock level of ED through its own procurement as well as further replenishment from the regional stores under pull system. This system, while ensuring the supply of needed commodities, drastically reduces the wastage of drugs due to oversupply. However, efficiency of this type of supply system will largely depend upon adequate availability of drugs at the stores and well working logistics system. The currently practiced distribution chain is shown in Figure 3.

3.3.4 Procurement Process: Monitoring and Evaluation

Monitoring and evaluation is important in any programme and it is even more so in the procurement process. Currently, there is an existing monitoring and evaluation system at all levels of hierarchy, but has not been effectively utilised to improve the procurement of ED. For example, review of the type of ED needed at the facility level should be the result of extensive monitoring and evaluation work carried out at the facility and district levels. Often absence of such activity results in uncoordinated procurement of ED in terms of types and quantities. The existing monitoring and evaluation process is shown in Figure 4.

Figure 3. Procurement Process: Distribution

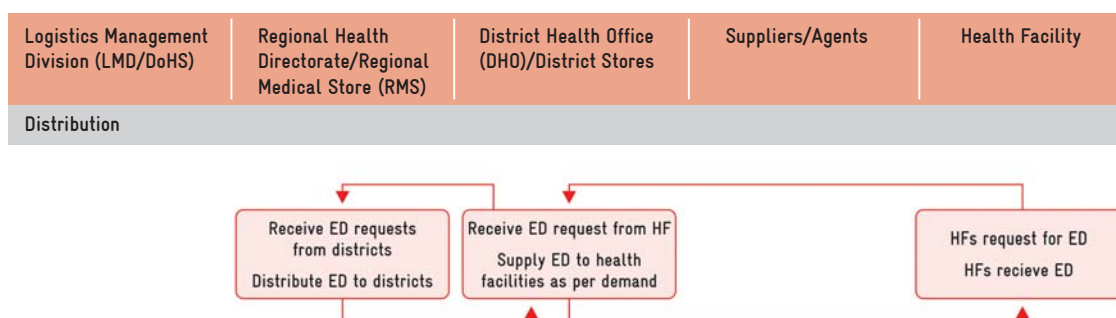
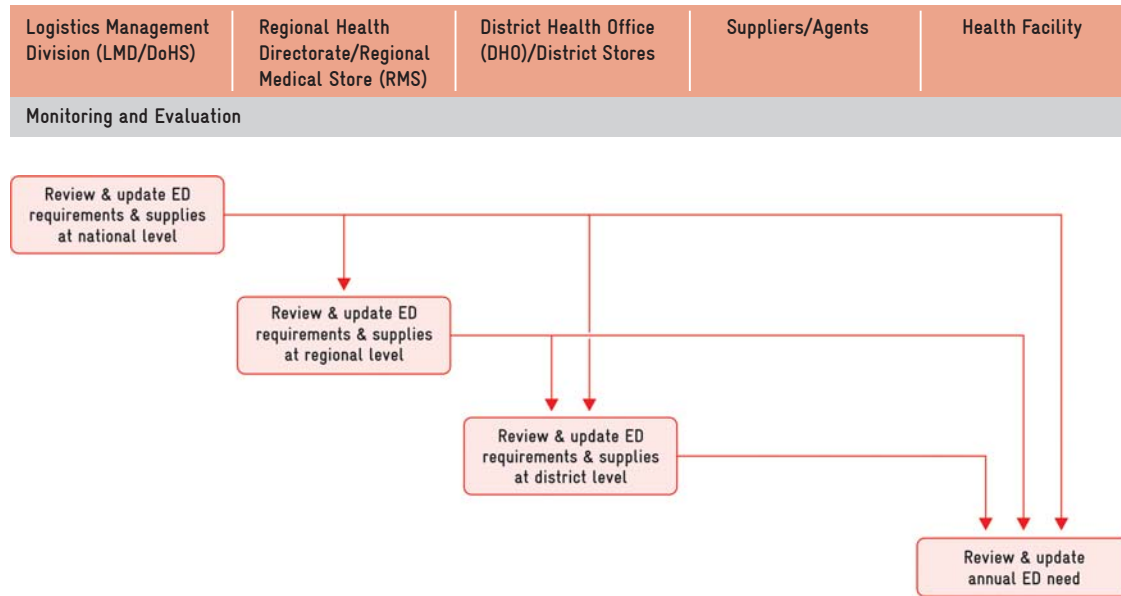


Figure 4. Procurement Process: Monitoring and Evaluation



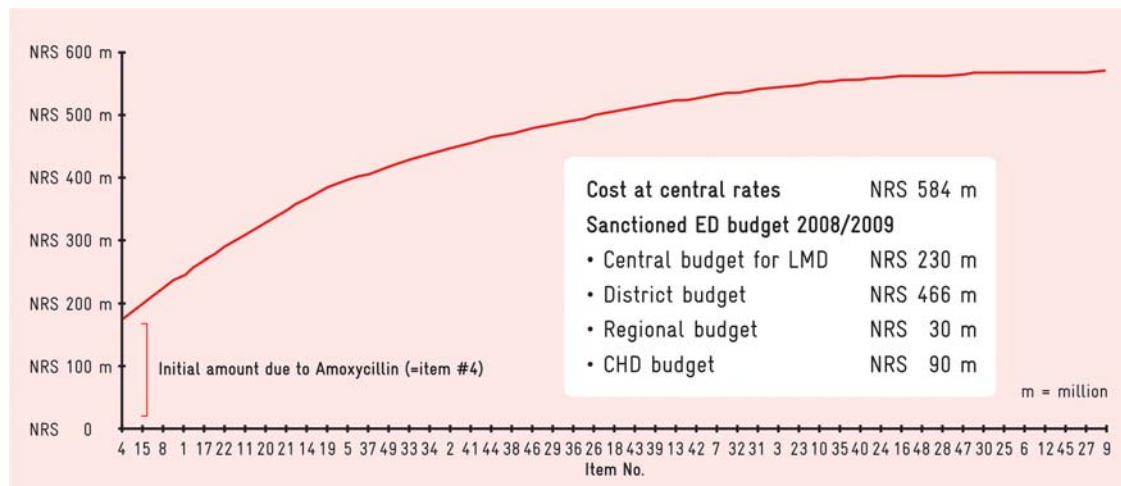
3.4 Analysis of Budget for ED Procurement

In this section, an analysis of the budgetary provisions (2008/2009) and of the mode of procurement process has been conducted. Figure 5 shows the currently available budget for ED procurement, including under CHD. Out of the total 57 items of drugs and medical consumables, only those items (49) which are

going to be centrally procured are taken for analysis and comparison purpose. Total cost of the other 8 items to be entirely procured by the district is comparatively very small (NRS 3.4 million), and therefore it does not affect the analysis.

It is very clear from the figure, while total costing of all required 49 drugs at central level procurement is NRS 584 million, the total budget provision is approximately NRS 816 million,

Figure 5. Cumulative Value of ED Items (cost estimates based on central procurement rates)



allowing for some price differences for district level procurements. Therefore, the budget should be adequate even if substantial provision for cost increases at district level procurement is made. Cumulative estimated cost of the total requirement of ED based on central procurement rates are shown in Figure 5.

Similarly, Figure 6 shows the budget estimates (NRS 337 m) for the centrally procured items

and budgetary provision (NRS 320 m) for the same. It is clear from the figures that the budget and cost estimates more or less match for the central procurement.

In the same way, Figure 7 shows the budget estimates for the items proposed to be procured by the districts and budgetary provision for the same. It is clear from the figure that the budgetary provisions are almost double (NRS 466 m)

Figure 6. Cumulative Value of ED Items to be Procured at Central Level by LMD (cost estimates based on central procurement rates)

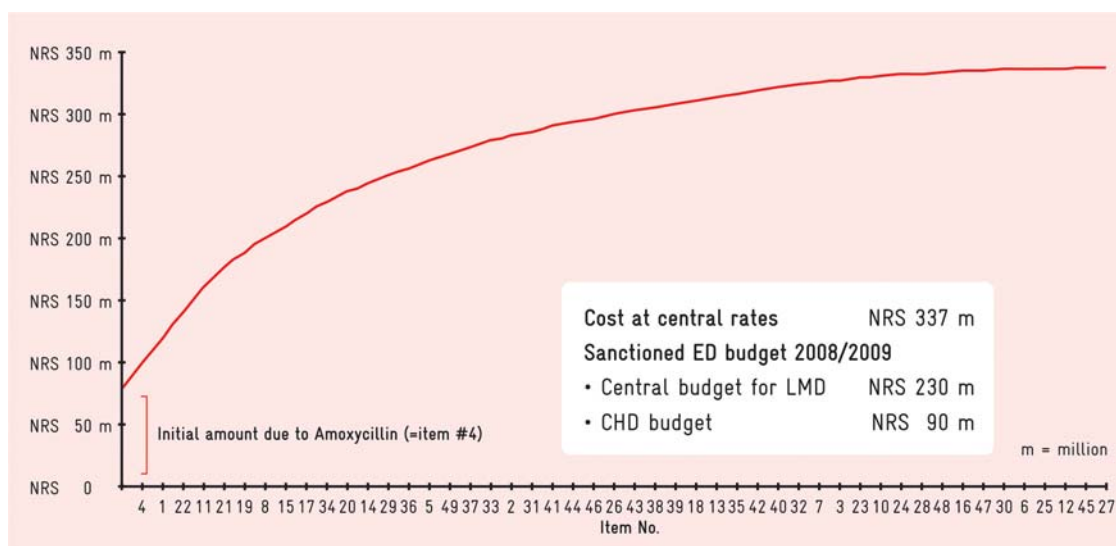
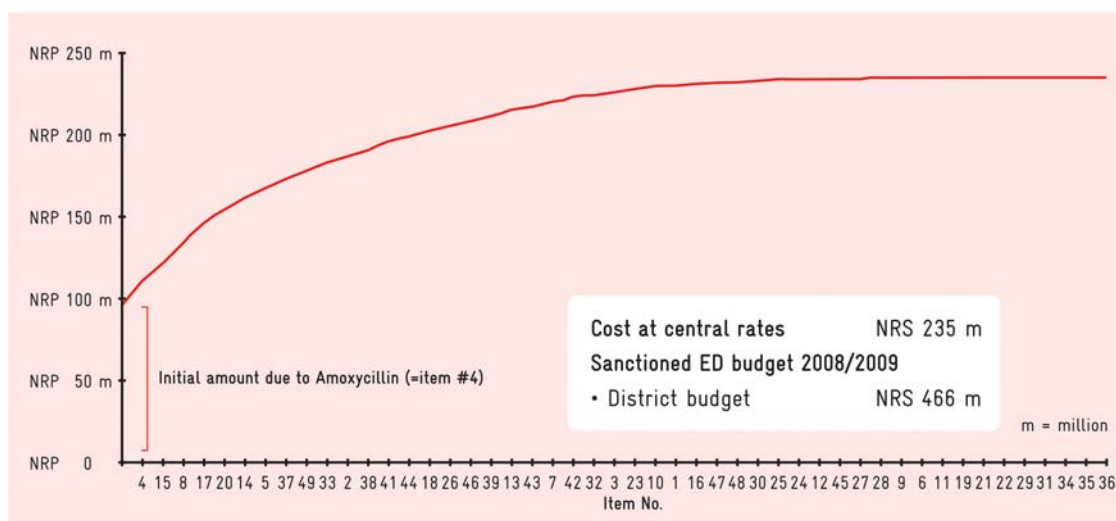


Figure 7. Cumulative Value of ED Items to be Procured at District Level (cost estimates based on central procurement rates)



of the cost estimates (NRS 235 m). This extra budgetary provision should theoretically more than enough to cover the high prices encountered at the districts due to loss of economies of scale (EoS) and supply to the remote district stores.

3.5 Implementation of the ED Procurement at Different Levels

Since the ED required at the primary HF level have been redefined and a tentative budgetary requirement is established, the following further analysis is done to determine the efficiency of procurement at various levels.

3.5.1 Essential Drugs in Cumulative Order of Percentage Cost Compared to Total Cost (national requirement)

Figure 8 shows the cumulative percentage cost of ED required at the national level. The figure

clearly indicates that one single drug (Amoxicillin tablet) constitutes almost 30 percent of the national procurement cost. Similarly, the top 6 items consume 50 percent of the national procurement budget, and 9 additional items consume a further 25 percent. This suggests that the procurement strategy should take account of this fact so that the maximum of drugs could be procured within the provisions of the budget.

3.5.2 ED in Cumulative Order of Percentage Cost Compared to Total Cost (central procurement only)

Figure 9 shows the cumulative percentage cost of ED required at the central procurement level. Here also, the figure clearly indicates that one single drug (Amoxicillin tablet) constitutes almost 25 percent of the central procurement cost. Similarly, while the top 6 items consume 50 percent of the central procurement budget, 9 additional items consume a further 25 percent.

Figure 8. Cumulative Percentages Cost of ED at National Level Determining Numbers of Drugs at 50 Percent and 75 Percent Levels

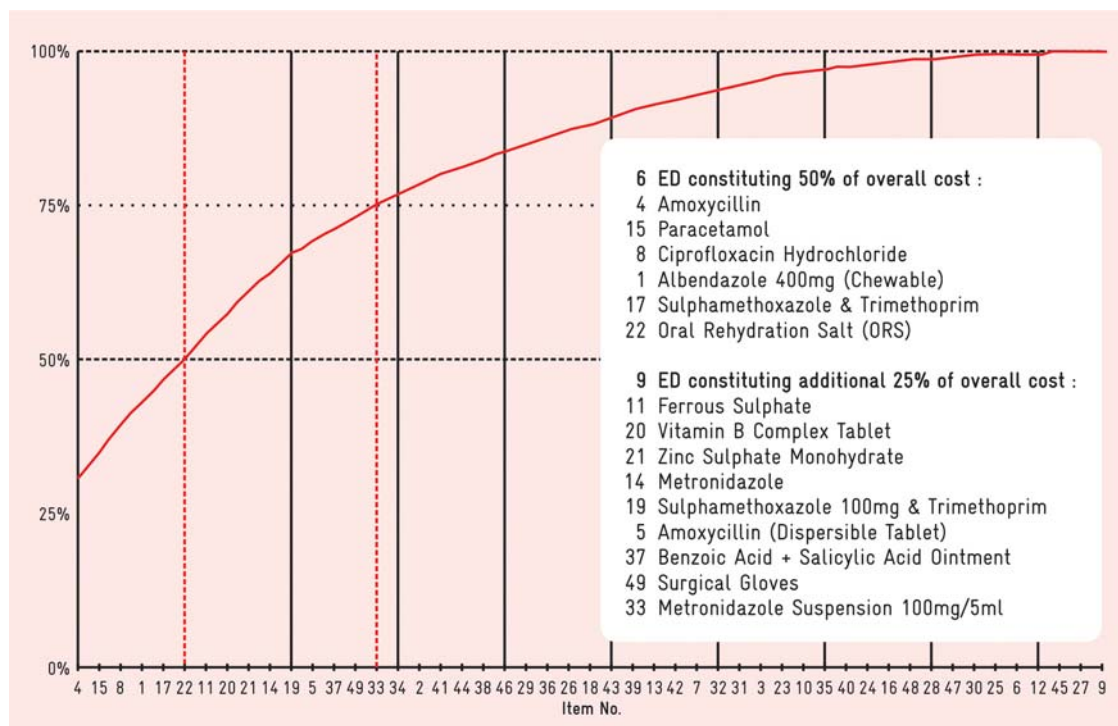


Figure 9. Cumulative Percentages of ED at Central Level Determining Numbers of Drugs at 50 Percent and 75 Percent Levels

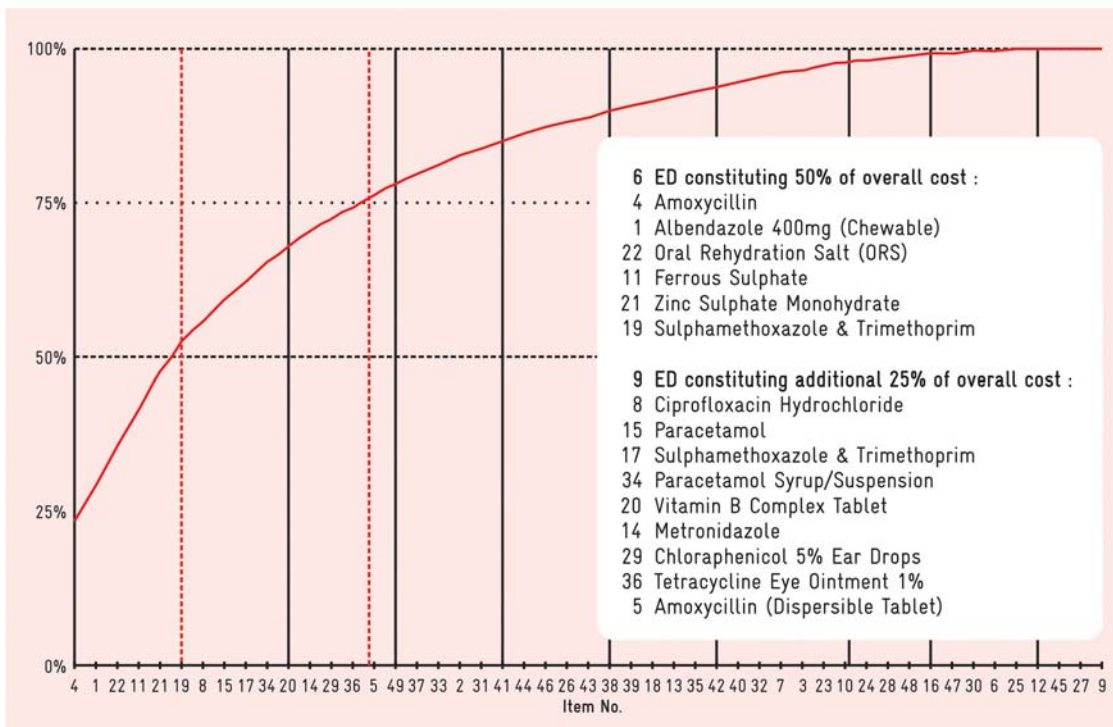
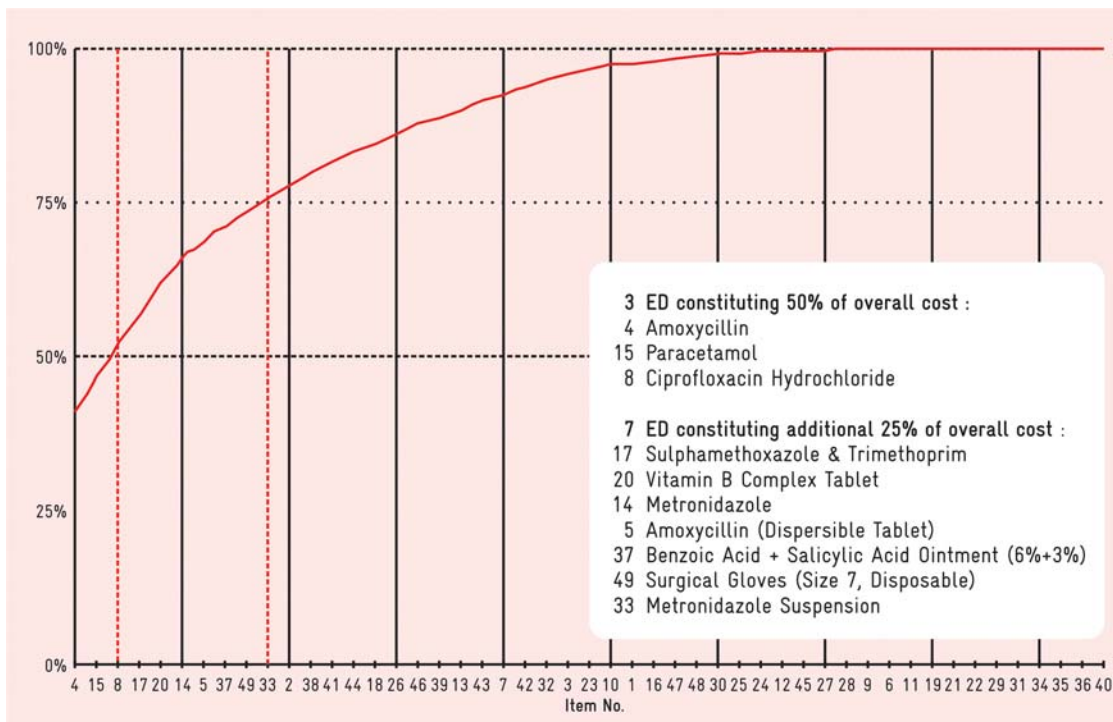


Figure 10. Cumulative Percentages of ED at District Level Determining Numbers of Drugs at 50 Percent and 75 Percent Levels



3.5.3 Essential Drugs in Cumulative Order of Cost Compared to Total Cost (district procurement only)

As presented for the total national and central procurements, Figure 10 shows the cumulative percentage cost of ED required at the district procurement level. Here also, the figure clearly indicates that the same single item of drug (Amoxicillin tablet) constitutes more than 40 percent of the district procurement cost. Similarly, only the top 3 items consume more than 50 percent of the district procurement budget and 7 additional items consume a further 25 percent.

3.5.4 Excess Cost Encountered with District Tendering Compared To Central Procurement

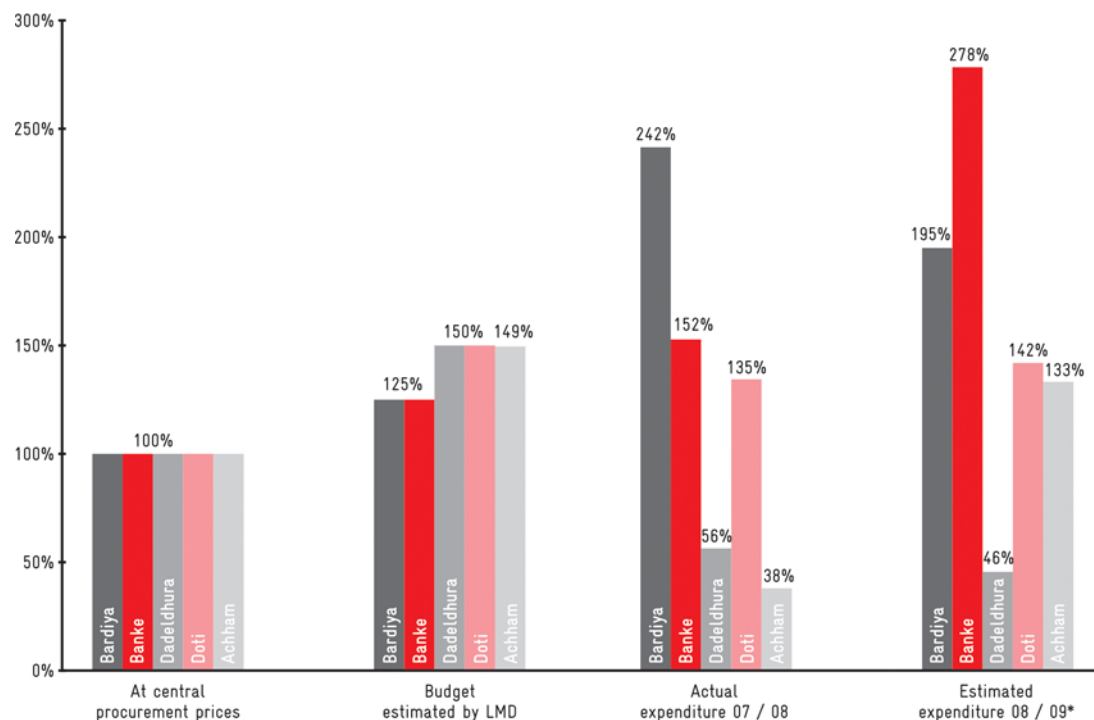
The analysis of the current budget provision under section 3.3 suggested that the budget provision at the district level is adequate even if the districts were procuring these drugs at 50

percent cost efficiency, which meant that with every Nepali rupee spent by the district, only half the quantity of drugs compared to central procurement will be procured (compare Figure 7). However, such extreme provisions were made for the remote and inaccessible district where loss of EoS and higher transportation cost would have resulted in high procurement costs.

Figure 11 below compares the procurement cost of ED of Bardiya and Banke districts in mid-western region and Dadeldhura, Doti and Achham in far-western region with the central procurement costs.

While a reasonable 25 percent mark up in cost is considered reasonable to account for the loss of EoS in the case of the mid-western region, a mark-up of 50 percent has been considered by LMD for the far-western region. The data collected in the field visits on the costs for procuring ED, however, depict a rather mixed picture which needs to be closely analysed (Figure 11).

Figure 11. Current Excess Costs of ED in Selected Districts



Source: LMD and district level data collected in the field visits

* The estimated expenditures for FY 2008/09 are based on budget allocations in the cases of Bardiya, Banke, Doti and Achham Districts, and on actual contract data in the case of Dadeldhura.

Figure 11 clearly shows the distortions of the ED procurement presently to be observed at district level. Bardiya and Banke districts procured their ED in FY 2007/2008 at a cost of 242 percent and 152 percent respectively as compared to the central procurement cost (LMD procurement). For the FY 2008/2009, cost levels of 195 percent and 278 percent are budgeted which clearly show the inefficiency and waste of resources presently taking place.

For the three districts in the far-western region, i.e. Dadeldhura, Doti and Achham, the picture looks slightly different. At the first glance, the cost levels realised for FY 2007/2008 look quite positive: 56 percent of the central procurement prices for Dadeldhura, 38 percent for Achham and 135 percent for Doti, which is still within a rather reasonable mark-up on the central procurement price. However, these figures disguise severe inefficiencies which characterise the ED procurement process in these districts as well. Another reason for the substantial differences in both estimated and actual values is, according to accountants in Dadeldhura and Achham, that price estimates at district level are faulty and biased because prices are collected from local retail shops and thus higher than prices through central procurement. The background interviews and data analysis during the field visit clearly led to the conclusion that the prices quoted in the offers of the suppliers were kept artificially low in a number of cases, as can be seen in ED items being offered for the unit price of 1 or 2 *Paisa*. This ridiculously low unit price then was countered by other items, with larger quantities to be supplied being offered for an overpriced value. The study team came to the conclusion that the pricing policies of the companies reflect their effort to secure future contracts with bigger profit margins through initially offering extremely low-priced items.³

This policy, however, seems not to have been an outright success for the pharmaceutical companies. While one company succeeded in winning all three contracts for the three districts in the far-western region for FY 2007/2008, this same company was not successful in winning the contract of the consecutive FY 2008/2009 of Dadeldhura district (the only district in our sample which already concluded the FY 2008/2009 tender with a contract). The fact that another company won the Dadeldhura contract, again with a cut-throat cost level (46% of central procurement costs), in the assessment of the study team shows the ongoing fierce competition, which in itself should have a positive effect on the overall budgetary and spending situation. However, it is doubtful whether in the medium term this positive effect can be maintained. The fact, however, that Dadeldhura prior to concluding this contract made a budget provision of 191 percent of the central procurement level clearly shows that the price finding mechanism at district level is completely distorted with abundant under and overpricing practices. The budget provisions of the other four districts for FY 2008/2009 confirm that picture of inefficient resource use with budgets ranging from 133 percent to 287 percent of the central procurement cost level. Such excessive mark-ups certainly raise questions about the efficiency of the procurement.

The study team further observed that the districts, especially in far-western region, have inadequate capacities in handling of simple procurement issues. No basic tender documents are available to them as a point of reference. A quality assurance capability is found to be inefficient. Poor management capability at the district has contributed more to the procurement inefficiency and higher drug prices than the remoteness of the district.

³ The study team was not in a position to establish whether or not these cost levels of 56 percent, 38 percent, 46 percent as compared to central procurement level are already "dumping"-prices, i.e. below own production costs of the companies.

3.6 Perceptions and Experiences at District, Health Facility and Community Level

Apart from analysing the contract and budget data, the study team conducted a number of interviews and discussed the issues of ED procurement and availability at different levels. These interviews provided valuable insights into the wishes and expectations of the various stakeholders, the difficulties they face, and the suggestions they have on how to improve the situation.

In the following, the perceptions and experiences are summarised for the various levels of stakeholders, i.e. the DHOs and DPHOs at district level, In-charges of primary level HF, and the patients/community members.

3.6.1 Perceptions and Experiences of DHOs and DPHOs

The DHOs and DPHOs expressed the following

perceptions, experiences and recommendations:

- Ensuring EoS and quality of procured drugs is difficult to attain at district level, as districts have limited access to quality testing laboratories and choices among the suppliers.
- Districts prefer the centre providing assistance in contract establishment through central tender, whereas the payment responsibilities should remain with the district. One of the DHO in the study district told that such a sharing of responsibilities will facilitate not only the bidding process but also relieve stress of the district health managers. Similarly, it tends to save the tendering cost of the districts.
- District capacity in procurement needs improvement. One of the finance assistants in districts complains that procurement budget and work is ever increasing whereas the capacity remains the same. Most of the finance persons working at district level are

Table 4. Summary of Perceptions at District, Health Facility, Community Level

For the district level managers the preference for central tendering, but district payment responsibilities is quite strong. One of the central concerns expressed was that the districts do not have means at their disposal for ensuring appropriate quality control. As procurement of drugs poses additional demands above the routine procurement of other items, the districts have inadequate necessary skills for covering the growing requirements. At district level, it seems to be difficult to attain EoS in drug procurement due to small quantities tendered and limited supplier competition. Improvements are not only required in the area of ED procurements but also in a number of other service areas (e.g. X-ray facilities).

Health facilities emphasise that the policy of free health care services is received very positively, but that the precondition for it to work is that the supply of ED needs to be sustainable. The outpatient number has considerably increased, especially along highways and public roads. The health facility in-charges are worried that unnecessary use of health services may be encouraged in the new setting, although they do not experience this so far. A major concern is the frequent stock-out of ED presently experienced, especially for antibiotics and paediatric products. The HF react to this situation with rationing of antibiotics, providing only a two-days dose and counting on patients not coming back for further doses. This situation of course potentially creates severe public health problems. The out-patient reports might be inflated due to the regulation of the Government paying NRS 5 per patient to the health facility.

The communities themselves report that their access to health services has improved. People do seek help earlier thanks to FHCS. However, problems occurred when certain drugs were not available, especially antibiotics. In hilly districts, access to HF is difficult and drugs might be bought privately because of large distances and the corresponding transaction costs.

not trained in the new procurement system. Furthermore, as drug procurement is more sensitive and specific than other regular procurements, they feel that they do not have sufficient competence to handle it properly.

- Availability of free ED at HF level has not been properly materialised yet. In most of the HF, the prescribed 32 and 22 items are not regularly available. The situation is more severe in the HF located in hilly districts where there is less monitoring from districts. There are no regular monthly meetings held at the district level, particularly in hilly areas. Although, monthly meetings are being held at Illaka level, discussion on availability of drugs is virtually absent. One of the DHOs said that he was responsible to ensure the availability of drugs at district level but he could not ensure the same throughout the districts. He further added that health facility in-charges should also bear the same level of responsibility to make drug available at their HF and should be monitored by the Health Facility Management Committee (HFMC).
- As the quality of drugs has become a growing concern of people, district managers suggested the enhancement of the capacity of Nepal Drug Limited, the government owned drug production unit.
- In the context of free health care services, all interviewed district managers agreed that patient flow has increased significantly both at the DH and peripheral HF and that patient expectations has also increased. To meet their expectations, the capacity of districts in related areas like laboratory, radiography etc needs to be strengthened in parallel. All of the district managers expressed the view that the FHCP does not only entail the availability of drugs; but rather it also relates to the availability of sufficient human resources, and associated services like lab and X-ray facilities.

3.6.2 Perception and Experiences of In-charges of Primary Level Health Facilities

The in-charges of primary level health facilities expressed the following perceptions, experiences and recommendations:

- In principle, health facility in-charges welcome the FHCP, provided it is sustainable (uninterrupted supply of good quality and sufficient ED, and long-term commitment). One of the respondents said, “It’s good to provide drugs free of charge because it’s very helpful for the poor and ultra poor people in the community who have to borrow even NRS 2 when it is needed; but I don’t know if it will be sustainable.”
- Out-patient numbers have increased substantially in almost all HF, particularly those located near the highway or public roads. The increases were reported to be from a previous range of about 8 patients per day to a new level of about 40 to 60 daily in SHP and HP. The health facility staffs felt that all persons visiting HF were not real patients. One of the respondents in Achham said, “For this HF because of being located near the market and road, patient load is very high. A daily number of 50-60 out-patients is normal nowadays.” He further added, “Sometimes non-poor, particularly teachers and students who know about common drugs, come and ask for some drugs”. In this context, introduction of nominal fees for registration, which was suggested by health facility staff and management committee members, seems worthy of consideration in order to prevent unnecessary utilisation of services.
- Many of the HF were experiencing frequent ED stock-outs particularly that of antibiotics and paediatrics formulation. To cope with the situation, they were instructed to ration the quantity of drugs in prescriptions (e.g. antibiotics given only for

2 days). If rationing of ED continues, and patients have to buy from private pharmacies, communities prefer continuation of CDP. Obtaining drugs through CDP at a subsidised cost was preferable to paying the full cost of the drugs at private pharmacies during stock-outs. Even with “free” provision of drugs the patients have to bear indirect costs like transportation, food/ lodging and lost working days.

- Some HF where CDP was implemented earlier were trying to fill gaps of ED provision with CDP funds, but feared that funds run out soon. The in-charges were not aware of any possibility of getting such expenditures refunded.
- The pull system was found to be prevalent in almost all of the HF. However, it was not working properly to ensure the authorised stock level (ASL) since there is scarcity of drugs in Terai districts and transportation problem in hilly districts. One of the HF in-charges in Achham district said that they knew about the ASL and Emergency Order Point (EOP) but were unable to maintain it as timely collection of drugs from district store was a problem. Similarly, another health facility in-charge from Bardiya said that the district store was not able to provide the drugs as per the demand of HF.
- After implementation of FHCS, on the one hand, patients frequently re-visit HF without out-patient tickets and, on the other hand, health workers themselves were taking it as added incentive to the HF as they get reimbursement of ticket fees from DHO/DPHO. Thus, the present practice of paying NRS 5 per patient to HF may form a hidden incentive and inflate out-patient reports.
- The perception of health facility staff on the quality or efficacy of the drugs that were provided from the health facility is an important factor in increasing numbers of

health facility users. One of the health facility In-charges in Doti district said, “After the implementation of FHCS, patient flow is increasing but drugs being ineffective, patients have to go ultimately to the private pharmacies to get relieve from illnesses.” A frequent monitoring from the districts and also orientation/training of health facility staff on rational use of drugs (RUD) seems imperative to ensure that drugs being used properly.

- The HFMCs were gradually losing their presence in the HF. The absence of a political body and dissolution of CDP from the HF were the major issues behind inactiveness of HFMC. The list extends to the lack of knowledge among the HFMC members about their roles in management of HF, particularly after implementation of free health services policy. One of the health facility in-charge said the HFMC members even refuse to attend the meeting saying “why meet when everything is free?”

3.6.3 Perceptions of Patients towards Free Health Care and Availability of ED

The patients and community members interviewed expressed the following perceptions, experiences and recommendations:

- The health seeking behaviour of community people was found to have increased substantially, particularly after implementation of FHCS. One of the respondents reported that “majority of us in the community started to attend the HF immediately as we get some illness since we do not have to pay any money even for drugs. In the past, we used to wait and see for 1-2 days when we got some illness because we could not get any medicine and even check-up without paying NRS 2 and thus, we tried to avoid going to the HF until we were really sick; but now, everybody comes at the first sign of illness. Why should we stay at home if medicines are free?”

- All of the patients interviewed in the PHCC were found to be satisfied with the quality of services being provided there. The patients said that they were happy even though they had to pay money for the services since they were getting subsidized medicines, and further they saved on travel and other costs, which exceeded the cost of drugs if they have to go either to Gulariya or Nepalgunj. Patients interviewed in the SHP and HP said that they were happy with the provision of free services in the HF. “Yes, for poor people like us who have to depend on daily wages, it’s good because we do not have to pay money which we can use to feed our children” said one of the respondents in Mohamandpur SHP. However, they had pointed out several issues raised recently in the HP and SHP with the provision of FHCS. The issues were about the unavailability of all other medicines except some tablets of Paracetamol and Contrim. One of the respondents; a bronchitis patient, in Sanoshree SHP said: “I get just some tablets of Paracetamol for free whatever the illness may be. For rest of the medicines I have to go to Gulariya or Nepalgunj which is very difficult for me.”
- A similar situation was observed in the hilly districts. One of the respondents in Achham told that it is very difficult for them to buy drugs from the private pharmacy because they have to go to district headquarter and incur costs for lost working days, food/lodging/transport costs for themselves and the person accompanying them.

factors remain. Patients mentioned that factors still remain in the HF such as distance to HF, unavailability of all drugs, even those which were available during implementation of CDP, and frequent follow up visits resulting from rationing in the prescription of drugs by the health workers and, finally services not being patient-friendly. The rationing as well as the irregularity in the prescription and dispensing of the drugs in HF was also observed during the field visit.

Access Barriers Mentioned by Patients

- Several issues were raised by the respondents regarding barriers to access health services. Although with the medical cost (registration charge and drug fees) one of the biggest causes for reduced access is solved to some extent by the FHCS, other

4

Options for Improvement of the ED Supply and Management System

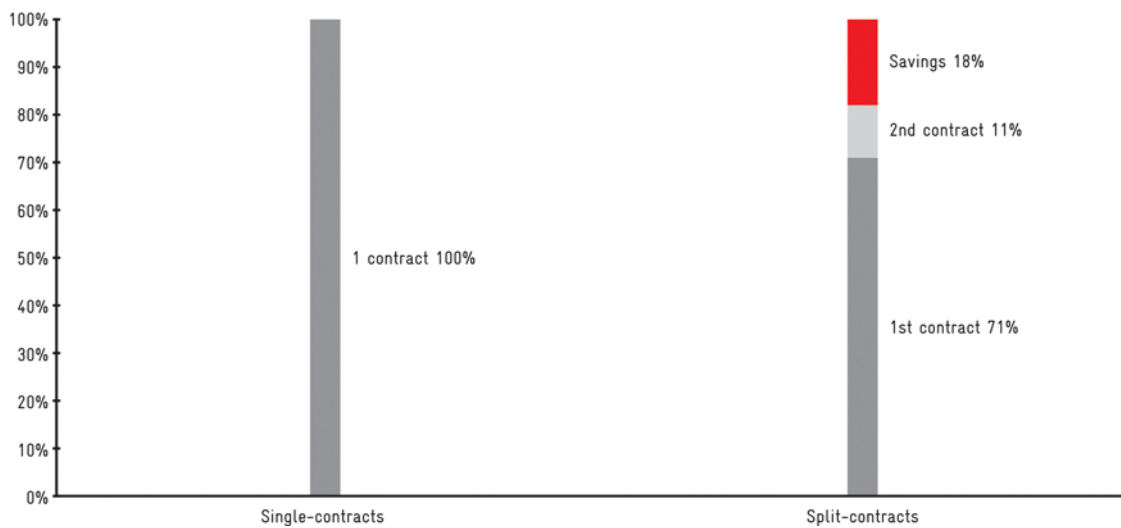


Considering the huge budget assigned for the procurement of ED and the equally unprecedented increase in drug demand from the primary HF to fulfil the GoN commitment for providing free basic health services to its population, it is important that various options available for procurement are considered before selecting and implementing one or more options. In the following subsections, a few extreme options are presented and the relative merits and demerits of these options are also discussed alongside. These options are presented and analysed on the basis of value for money, spirit of decentralisation, quality of goods and existing procurement capacity at various levels.

4.1 Options for Potential Savings by Reorienting the District Procurement from a “Single-contracts” to “Split-contracts” Approach

The current procurement results of Banke district were further analysed to see any possibility of increasing procurement efficiency. It was noted that the contract for over 50 items was made on the basis of the entire package (all or none). However, there were several items where a second

Figure 12. Savings due to a Change from “Single-contracts” to a “Split-contracts” Approach. A Case Study of Banke DPHO Procurement



bidder had quoted the lowest offer. If the evaluation had been done on the basis of lowest individual rates rather than on lowest package cost, the contract could have been split into 2 separate contracts with a saving of more than 18 percent (Figure 12). The “split-contracts” would thus result in having at least two separate contracts with suppliers, each consisting of the cheapest items offered. In this approach, it is impossible for the companies to maintain quotes with “symbolic” or dumping prices of, say, one *Paisa* unit price, as the supplier might be taken at their word and would have to supply these items at these ridiculously low rates, without being able to compensate the losses by overcharging on other items.

The nature of the bidding also suggested possible cartelising from the bidders with several instances of over-pricing and under-pricing of drug items. There were virtually no conditions of contract for the supply contract and the quality monitoring aspect was completely missing. Obviously, several basic attributes of procurement culture were not followed. Both districts had ignored the central circular to conduct procurement limited to the approved 57 items only. In the hilly districts visited during the second field visit phase, a

very similar picture emerged: Abundant under- and over-pricing of single drug item led to complete non-transparency of the price building mechanisms. Again, the introduction of a split-contract mechanism, awarding separate contracts to the bidders of the cheapest drug items, would be an easy and efficient mechanism for creating transparency and realising savings on ED procurement. With split-contracts being applied, the practice of pharmaceutical companies to offer drug items for a unit cost of one *Paisa* would immediately stop as they would no longer be able to compensate such “gifts” with over-priced sections of the offer.

4.2 Options for Potential Savings by Re-organising Responsibilities for Budget and Procurement

In this section, various options for re-organising responsibilities for budget and procurement are presented and compared with the present situation. The guiding principles, advantages and disadvantages attached to individual options are also presented along with the selected options.

4.2.1 Current Situation

In the current situation, the LMD / DoHS co-ordinates the quantities of ED to be procured at the central, region and district levels, and all three levels execute their respective procurements. Figure 13 shows the loss in efficiency for the ED procured by the districts. The estimated loss of efficiency is 10 percent for additional transport costs and 30 percent for higher prices paid by the districts due to lower quantities to be tendered (Economies of Scale). In the central procurement where the supplies are normally directed to 5 regional stores, the transportation costs by the suppliers was not perceived as additional costs, since all regional stores are located in Terai with good access. Moreover, the transportation cost was seen as a very small fraction of the commodity cost. Some costs would incur to transport ED from these stores to the respective district

stores. However, these costs would then be allocated under transportation costs and would not be included in the cost of drug procurement. In case of supply to the individual district stores, these costs will become apparent and will contribute directly to increased procurement costs. One could argue that inclusion of these transport costs in the drug procurement budget would not result in additional costs but would just make already existing costs transparent. The effect of including these transport costs into the ED procurement budget is highlighted in Figures 13 to 16.

The present budget allocations result in a loss of efficiency of an estimated NRS 46.6 million due to additional transport costs and NRS 139.8 million due to EoS, compared to a situation where all procurements would be done at central level.

Figure 13. Responsibilities for Budget and Procurement: Current Situation

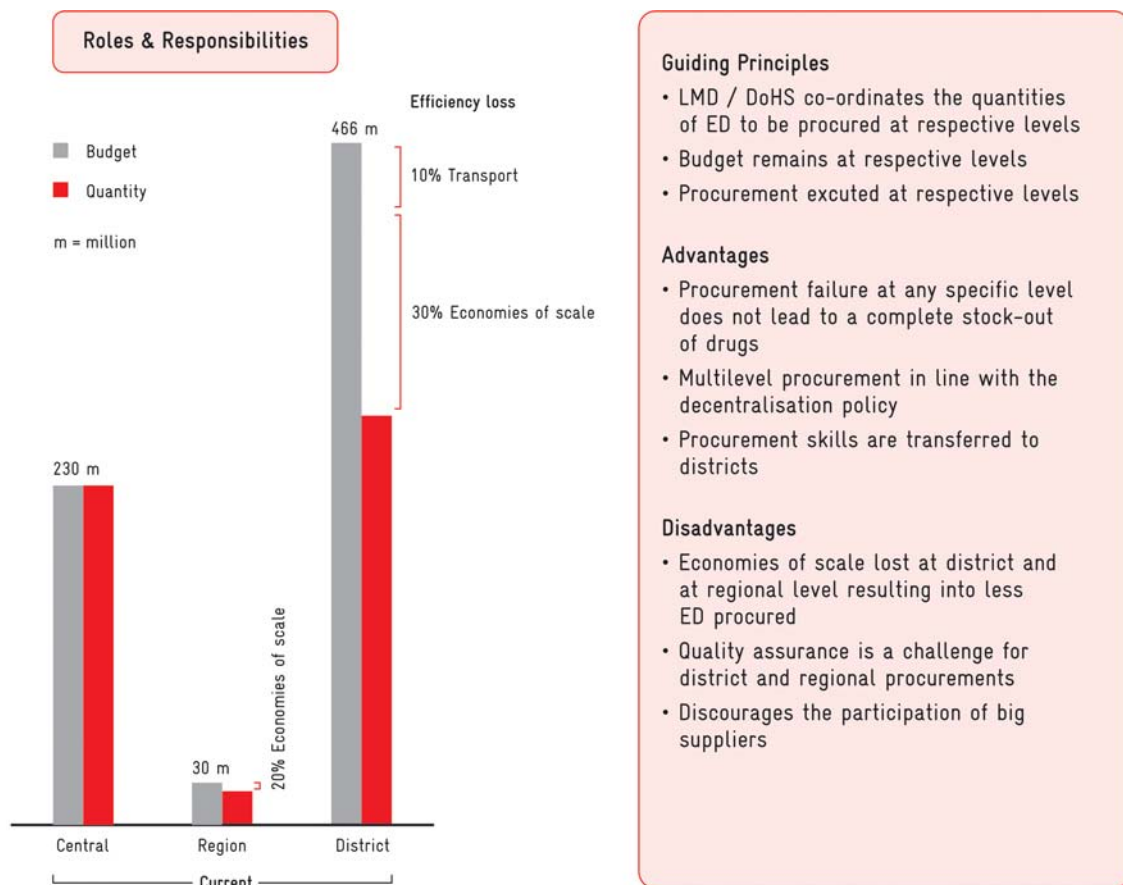
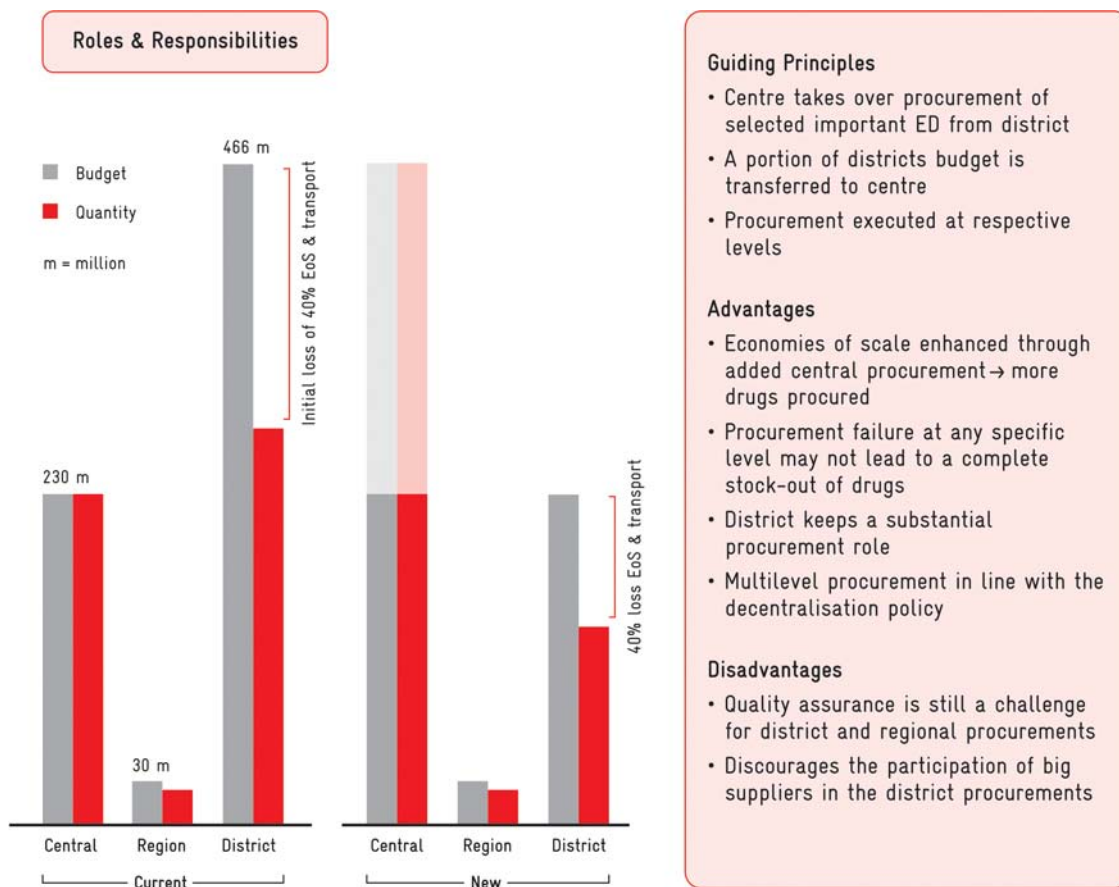


Figure 14. Option 1: Centre Takes Over Procurement of Selected ED from the Districts



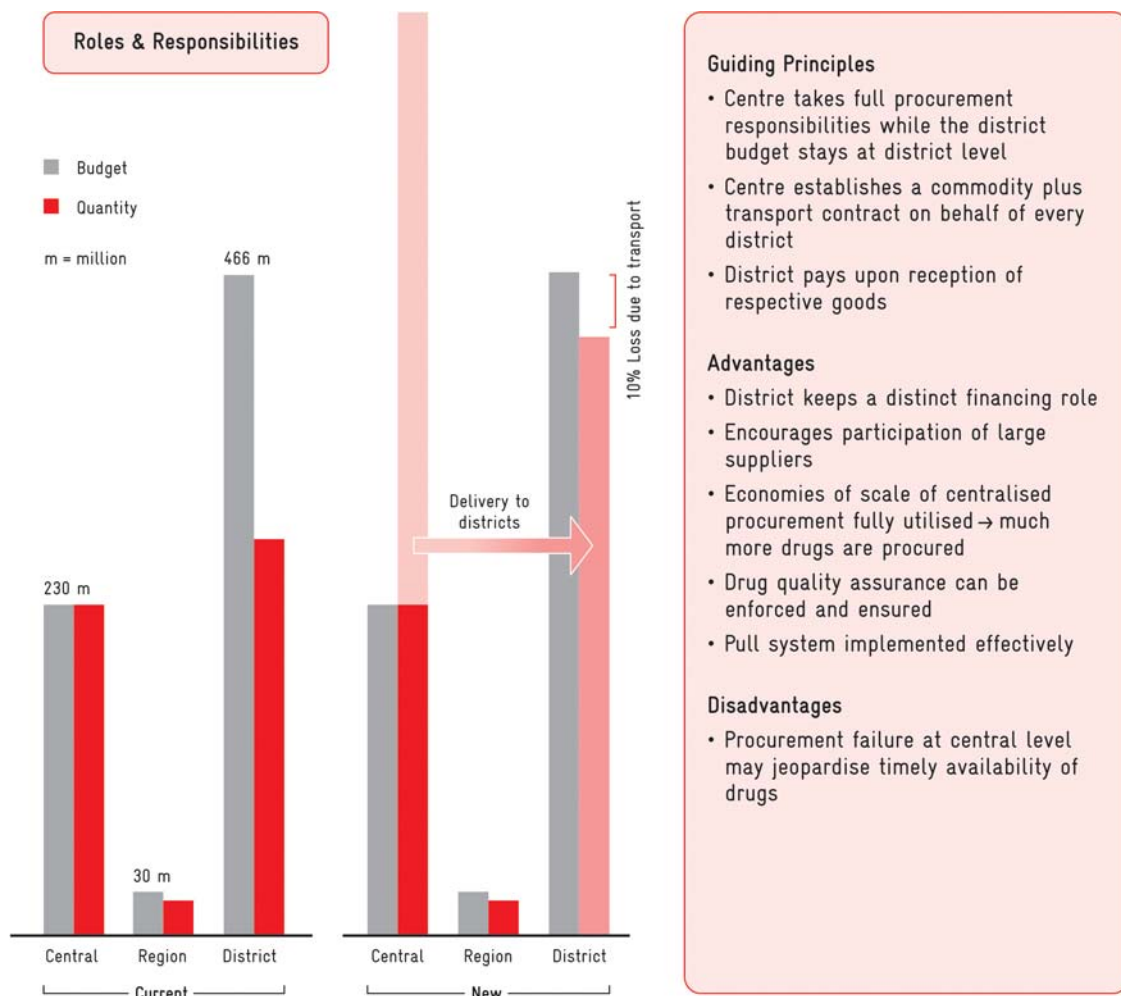
4.2.2 Option 1: Centre Takes Over Procurement of Selected ED from the Districts (50% of the district budget or 3 most important items)

Figure 14 shows the effect if the centre takes over the procurement of selected important ED from the districts. If 50 percent of the district budget, or, in other words, the procurement responsibility for the 3 major drug items, is transferred to the centre, the EoS are very substantially enhanced and considerably more ED may be procured. In this option, a loss of NRS 93.2 million due to EoS and transport has to be accepted, compared to the current situation.

4.2.3 Option 2: Centre Procures all ED while Budgets Remain at Respective Districts

Figure 15 shows the effect of re-organising the procurement responsibilities in a way that all ED are procured by the centre, while the districts remain with the budgets and pay upon receipt of the commodities. The graph clearly shows that the EoS in this option are fully utilised and the quantity of ED to be procured is maximised. However, in this model, the districts lose their own procurement capacities. This option would lead only to a total loss of approximately NRS 46 million due to transport costs. There is no other apparent loss in efficiency.

Figure 15. Option 2: Centre Procures All ED, Budgets Remain at Respective Districts

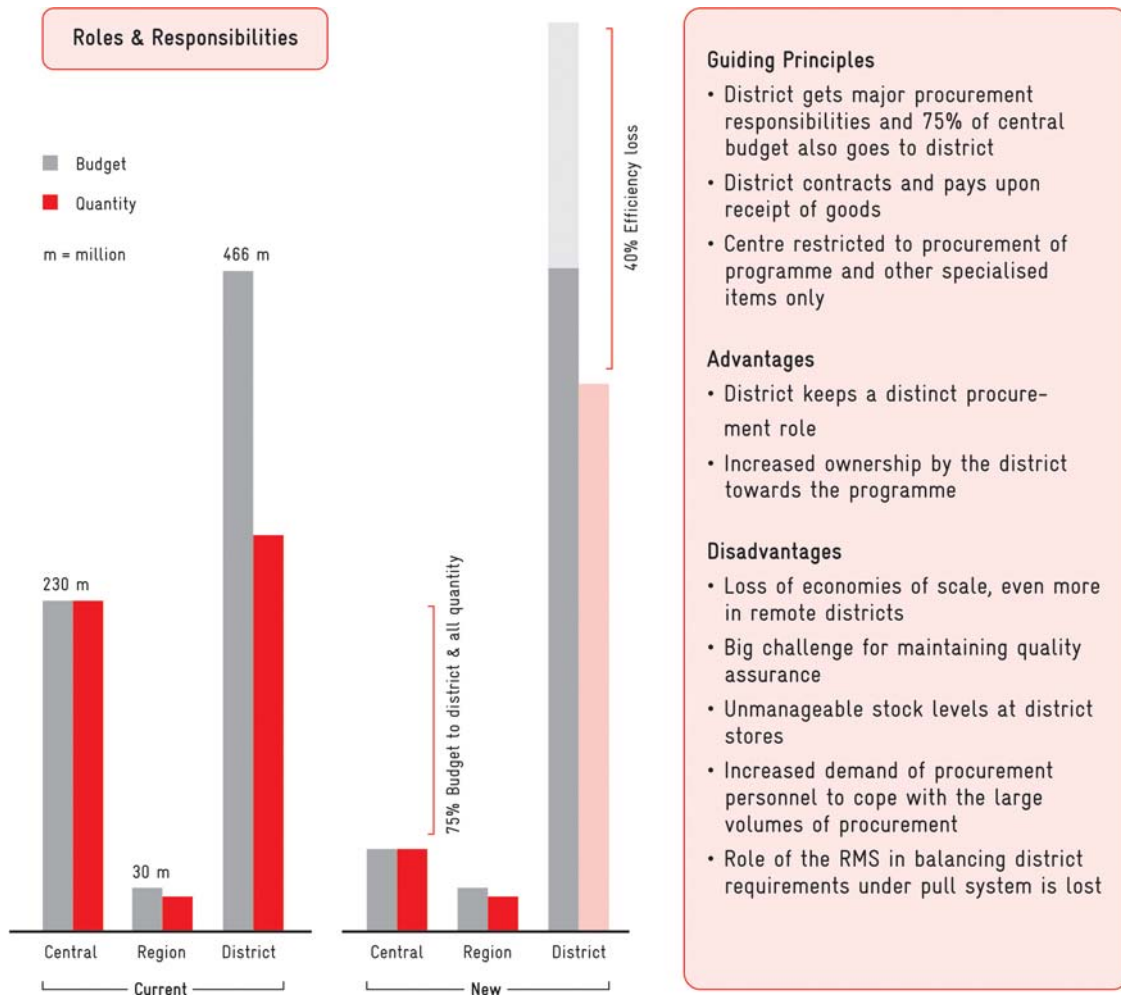


4.2.4 Option 3: District has Full Procurement and Budget Responsibility (75% of the central budget transferred to districts: central procurement limited to programme items)

The reverse situation is shown in Figure 16: In this option, the district has full procurement and budget responsibility. Seventy-five percent of the central budget is transferred to districts, and central procurement is limited to programme items. The graph illustrates the

resulting loss in EoS and consequently the reduced quantities of ED available in this system. Further, the quality assurance aspect in this model poses a very severe challenge to the districts, as they presently do not have any routine mechanisms for quality assurance in place. This option would lead to a total loss of NRS 255.4 million, out of which NRS 63.85 million would account for transport costs and NRS 191.55 million for losses due to EoS in comparison to the original procurement set-up.

Figure 16. Option 3: District has Full Procurement and Budget



Guiding Principles

- District gets major procurement responsibilities and 75% of central budget also goes to district
- District contracts and pays upon receipt of goods
- Centre restricted to procurement of programme and other specialised items only

Advantages

- District keeps a distinct procurement role
- Increased ownership by the district towards the programme

Disadvantages

- Loss of economies of scale, even more in remote districts
- Big challenge for maintaining quality assurance
- Unmanageable stock levels at district stores
- Increased demand of procurement personnel to cope with the large volumes of procurement
- Role of the RMS in balancing district requirements under pull system is lost

5 Recommendations



In the light of the analysis of the data and considering all findings, the study team arrives at the following recommendations:

5.1 At the Level of Guiding Principles

- Free health service policy should be supported by a sound procurement and supply system to ensure round-the-year availability of ED.
- Department of Health Services may consider stepwise re-orientation of procurement activities to achieve desired efficiency and EoS without jeopardising the spirit of decentralisation.
- Centre may take over the responsibility of quality assurance of drugs.

5.2 At the Level of Implementation

- There is a considerable scope for reducing the waste and achieving EoS at all levels of procurement by reorientation:

- At district level: Using “split-contracts” approach by selecting the cheapest items among all offers.
- At centre and district level: Re-directing budget and procurement responsibilities to the centre, at least for the main ED.
- Central bidding, and price negotiation and local purchasing of the ED.
- Department of Health Services may prepare and implement a centralised quality assurance action plan for ED.
- In order to avoid inflated out-patient statistics, the subsidy of NRS 5 per out-patient visit may be replaced with a lump sum payment based on the catchments population (capitation fee). Such a predictable, untied fund will enhance the involvement and commitment of HFMCs.
- Further data collection should be considered on the cost levels of ED contracts in the districts as compared to the central procurement.
- A study should be considered on the remaining access barriers through “indirect costs” (incl. “opportunity costs”) of accessing health services.
- Mechanisms should be explored through which districts can be supported in achieving the quality assurance of ED.
- Furthermore, there should be an assessment of the impact of requiring a GMP certification for potential suppliers, both on price and quality of drugs and services.

5.3 For Future Follow-up Activities

For following up the questions of improving the efficiency of ED procurement, the study team further proposes the following research issues for consideration:

- A study on the ED-prescribing behaviour of the health workers particularly after the implementation of FHCP should be conducted.
- A national level study should be conducted on pricing of all ED (at least for 32 items).
- Further investigations are required to determine the potential effects of fixing prices for ED by the government.
- A full scale study should be conducted to assess the cost implications of decentralisation of ED procurement at the district level. This is especially important in the wake of the MoHP policy of extending free health care services at the DH.

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Annex 1

List of Drugs Recommended for Procurement 2008/2009 by LMD

Item No.	Items of Drugs and Medical Consumable Suggested for Primary Health Facilities	Recommended for PHC	Recommended for HP		Recommended for SHP		Remarks
				S.No		S.No	

Tablets and Capsules

1	Albendazole 400mg (Chewable)	A	B	7	C	5	
2	Aluminium Hydroxide 250mg and Mg. Trisilicate or Mg. Hydroxide 250mg (Chewable) with or without Semithicone	A	B	19	C	14	
3	Aminophylline 100mg	A	B	28	C	21	
4	Amoxicillin 250mg	A	B	9	C	7	
5	Amoxicillin 125mg (Dispersible Tablet)	A	B	9	C	7	
6	Chloramphenicol 250mg	A					•
7	Chlorpheniramine Maleate 4mg	A	B	3	C	3	
8	Ciprofloxacin Hydrochloride 500mg	A	B	10	C	x	
9	Dexamethasone 500mcg	A	B	x			
10	Doxycycline 100mg	A	B	x			
11	Ferrous Sulphate 200mg with Folic Acid + 400mcg, Coated (Fe 60mg min)	A	B	12	C	9	
12	Frusemide 40mg	A	B	18			
13	Hyoscine Butylbromide 10mg	A	B	21	C	15	
14	Metronidazole 200mg	A	B	8	C	6	
15	Paracetamol 500mg	A	B	2	C	2	
16	Salbutamol 4mg	A	B	29	C	x	
17	Sulphamethoxazole 400mg & Trimethoprim 80mg	A	B	11	C	8	
18	Sulphamethoxazole 200mg & Trimethoprim 40mg (Dispersible Tablet)	A	B	11	C	8	
19	Vitamin B Complex Tablet	A	B	32	C	22	
20	Oral Rehydration Salt (ORS) 20.5mg	A	B	22	C	16	

Injections

21	Compound Sodium Lactate Solution 500 - 540ml (Ringer Lactate)	A	B	30	C	x	
22	Dextrose 5% with Sodium Chloride 0.9%, 500 - 540ml	A	B	x	C	x	
23	Lignocain 1%, 30ml	A	B	1	C	1	
24	Oxytocin 1ml, 5 IU/ml	A	B	x	C	x	
25	Pheniramine Maleate 2ml (22.75mg/ml)	A	B	4	C	4	
26	Sodium Chloride Solution 0.9%, 500 - 540ml	A	B	31	C		

Ointments, Liquids and Solutions

27	Chloramphenicol 5% Ear Drops, 5ml	A	B	25	C	18	•
28	Chloramphenicol 1% Eye Applicaps in blister pack	A		26	C	19	



Item No.	Items of Drugs and Medical Consumable Suggested for Primary Health Facilities	Recommended for PHC	Recommended for HP		Recommended for SHP		Remarks
				S.No		S.No	
29	Clove Oil 5ml	A	B	27	C	20	●
30	Gentamycin 0.3% Eye/Ear Drops 5ml	A	B	x	C	x	
31	Metronidazole Suspension 100mg/5ml, 60ml	A	B	8	C	6	
32	Paracetamol Syrup/Suspension 125mg/5ml, 30ml	A	B	2	C	2	●
33	Sulfacetamide Eye Drops 10% 5ml	A	B	24	C	17	●
34	Tetracycline Eye Ointment 1% 5gm	A	B	x	C	x	●

Preparation for External Application

35	Benzoic Acid + Salicylic Acid Ointment (6% + 3%) 30gm	A	B	13	C	x	
36	Calamine Lotion 15% 30ml	A	B	15	C	11	
37	Gamma Benzene Hexachloride Lotion 1% 60ml	A	B	16	C	12	
38	Gentian Violet Crystal 25g	A	B	14	C	10	●
39	Povidone Iodine 5% 450ml	A	B	17	C	13	

Surgical and Miscellaneous

40	Absorbent Cotton 400g	A	B	✓	C	✓	
41	Adhesive Tape 10cm x 5m	A	B	✓	C	✓	
42	Bandage 90cm x 18m	A	B	✓	C	✓	
43	Butterfly Needle 24G (Scalp vein set)	A	B	✓	C	✓	
44	Gauze 90cm x 18m	A	B	✓	C	✓	
45	3ml Disposal Syringe with 20G Needle	A	B	✓	C	✓	
46	IV Infusion Set with two 21G Needles	A	B	✓	C	✓	
47	Surgical Gloves (size 7, Disposable)	A	B	✓	C	✓	

Items to be Procured only at the District Level

48	Diazepam 2ml, 5mg/ml	A					▲
49	Atropine Sulphate 1ml (0.6mg/ml)	A	B	6			▲
50	Benzyl Penicillin 10 lac IU	A					▲
51	Dexamethasone Sodium Phosphate 1ml, 4mg/ml Amp.	A	B	23			▲
52	Frusemide 2ml, 10mg/ml	A					▲
53	Gentamycin Sulphate 2ml, 40mg/ml	A					▲
54	Adrenaline 1mg/ml, 1ml	A					▲
55	Spirit Rectified 450ml	A	B	✓	C	✓	▲

Notes:

- For PHCs, a total of 51 items have been recommended. Of these 9 (40-47 and 55) are surgical and miscellaneous items.
- For HPs, a total of 45 items have been recommended. Of these 9 (40-47 and 55) are surgical and miscellaneous items. Six items (9, 10, 22, 24, 30 & 34) have been added to the approved list whereas Charcoal and Promethazine has been deleted. Items increase to 36.
- For SHPs, a total of 39 items have been recommended. Of these 9 (40-47 and 55) are surgical and miscellaneous items. Eight additional items (8, 16, 21, 22, 24, 30, 34 & 35) have been added to the list. Drug items increased from 22 > 30.
- Items 4-5, 14-31, 15-32 & 17-18 are same drugs but vary in dozes form.
- x marked items are not in the original list but are recommended for inclusion.
- ✓ marked items are surgical and miscellaneous items and are not part of approved essential drug list.
- Central procurement only.
- ▲ District procurement only.

Annex 2

Total National Requirement and Central Procurement Package of Essential Drugs by LMD

Item No.	Items of Drugs and Medical Consumable	Quantity of Drug in a Supply Unit	Container for Drug	Total National Procurement Quantity	Unit Price (NRS)	Total Central Procurement Quantity
Tablets and Capsules						
1	Albendazole 400mg (Chewable)	TAB 1x10x10	Strip/Blister	16'400'000	2.0055	10'400'000
2	Aluminium Hydroxide 250mg and Mg. Trisilicate or Mg. Hydroxide 250mg (Chewable) with or without Semithicone	TAB 1x10x50	Strip/Blister	20'000'000	0.4641	10'000'000
3	Aminophylline 100mg	TAB 1x100x5	Bottle	10'000'000	0.3948	5'000'000
4	Amoxicillin 250mg	CAP/TAB1x10x1	Strip/Blister	100'000'000	1.7500	45'000'000
5	Amoxicillin 125mg (Dispersible Tablet)	TAB 1x10x10	Strip/Blister	10'000'000	1.2500	5'000'000
6	Chloramphenical 250mg	CAP 1x10x10	Strip/Blister	600'000	1.2285	600'000
7	Chlorpheniramine Maleate 4mg	TAB 1x10x50	Strip/LR Blister	25'000'000	0.1985	11'000'000
8	Ciprofloxacin Hydrochloride 500mg	TAB 1x10x10	Strip/LR Blister	10'000'000	2.4045	5'000'000
9	Dexamethasone 500mcg	TAB 1x10x5	Strip/Blister	1'000'000	0.3182	500'000
10	Doxycycline 100mg	TAB/CAP1x10x5	Strip/Blister	1'100'000	3.0000	500'000
11	Ferrous Sulphate 200mg with Folic Acid + 400mcg, Coated (Fe 60mg min)	TAB 1x10x50	Strip/Blister	80'000'000	0.2500	80'000'000
12	Frusemide 40mg	TAB 1x10x10	Strip/Blister	1'000'000	0.5213	500'000
13	Hyoscine Butylbromide 10mg	TAB 1x10x5	Strip/Blister	2'500'000	2.3100	1'200'000
14	Metronidazole 200mg	TAB 1x10x50	Strip/Blister	50'000'000	0.3570	22'500'000
15	Paracetamol 500mg	TAB 1x10x50	Strip/Blister	100'000'000	0.2561	45'000'000
16	Salbutamol 4mg	TAB 1x10x10	Strip/Blister	5'000'000	0.3339	2'500'000
17	Sulphamethoxazole 400mg & Trimethoprim 80mg	TAB 1x10x50	Strip/Blister	35'000'000	0.6279	16'000'000
18	Sulphamethoxazole 200mg & Trimethoprim 40mg (Dispersible Tablet)	TAB 1x10x50	Strip/Blister	10'000'000	0.6258	4'500'000
19	Sulphamethoxazole 100mg & Trimethoprim 20mg (Dispersible Tablet)	TAB 1x10x50	Strip/Blister	40'000'000	0.4000	40'000'000



Item No.	Items of Drugs and Medical Consumable	Quantity of Drug in a Supply Unit	Container for Drug	Total National Procurement Quantity	Unit Price (NRS)	Total Central Procurement Quantity
20	Vitamin B Complex Tablet	TAB 1x10x50	Strip/Blister	100'000'000	0.2000	45'000'000
21	Zinc Sulphate Monohydrate 54.90mg tablet equivalent to 20mg elemental Zinc (Dispersible Tablet)	TAB 1x10x50	Strip/Blister	13'150'000	1.5000	13'150'000
22	Oral Rehydration Salt (ORS) 20.5mg	Sachet 1x100	Al Foiled Sachet	5'000'000	4.1500	5'000'000

Injections

23	Compound Sodium Lactate Solution 500 - 540ml (Ringer Lactate)	BOT 1x10	ffs/bfs Plastic Bottle	100'000	39.2000	50'000
24	Dextrose 5% with Sodium Chloride 0.9%, 500-540ml	BOT 1x10	ffs/bfs Plastic Bottle	70'000	36.5750	40'000
25	Lignocain 1%, 30ml	VIAL 1x5	Glass/P. Vial	80'000	12.6000	40'000
26	Oxytocin 1ml, 5 IU/ml	AMP 1x5	Glass Ampoule	170'000	38.2200	80'000
27	Pheniramine Maleate 2ml (22.75mg/ml)	AMP 1x5	Glass Ampoule	81'000	4.6200	40'000
28	Sodium Chloride Solution 0.9%, 500 - 540ml	BOT 1x10	ffs/bfs Plastic Bottle	70'000	35.7000	40'000
29	Chloramphenicol 5% Ear Drops, 5ml	VIAL 1x10	Glass/Plastic Vial	400'000	16.5900	400'000
30	Chloramphenicol 1% Eye Applicaps in blister pack	CAP 1x10x10	Blister Pack	2'000'000	0.7500	1'000'000
31	Clove Oil 5ml	VIAL 1x10	Glass Vial	400'000	10.4475	400'000
32	Gentamycin 0.3% Eye/ Ear Drops 5ml	VIAL 1x10	Glass/Plastic Vial	400'000	11.7600	200'000
33	Metronidazole Suspension 100mg/ 5ml, 60ml	BOT 1x10	Plastic Bottle	1'000'000	10.9200	500'000
34	Paracetamol Syrup/ Suspension 125mg/5ml, 30ml	BOT 1x10	Plastic Bottle	1'000'000	10.0000	1'000'000
35	Sulfacetamide Eye Drops 10% 5ml	VIAL 1x20	Glass/Plastic Vial	150'000	18.1650	150'000
36	Tetracycline Eye Ointment 1% 5gm	TUBE 1x10	Aluminium Tube	400'000	16.5900	400'000

Preparation for External Application

37	Benzoic Acid + Salicylic Acid Ointment (6% + 3%) 30gm	TUBE/JAR 1x10	Tube/Glass/ Plastic Jar	250'000	46.2000	120'000
38	Calamine Lotion 15% 30ml	BOT 1x10	LR Plastic Bottle	250'000	29.0500	100'000
39	Gamma Benzene Hexachloride Lotion 1% 60ml	BOT 1x10	Plastic Bottle	250'000	23.5200	120'000



Item No.	Items of Drugs and Medical Consumable	Quantity of Drug in a Supply Unit	Container for Drug	Total National Procurement Quantity	Unit Price (NRS)	Total Central Procurement Quantity
40	Gention Violet Crystal 25g	BOT 1x5	Glass/Plastic Bottle	50'000	49.8645	50'000
41	Povidone Iodine 5% 450ml	BOT 1x4	LR Plastic Bottle	60'000	135.6250	30'000

Surgical and Miscellaneous

42	Absorbent Cotton 400g	ROLL 1x1	Sealed P. Pack	60'000	88.9282	30'000
43	Adhesive Tape 10cm x 5m	ROLL 1x1	Tin/Plastic Roll	60'000	99.7500	30'000
44	Bandage 90cm x 18m	THAN 1x1	Sealed P. Pack	60'000	134.4000	30'000
45	Butterfly Needle 24G (Scalp vein set)	Piece 1x4	Sealed Polythene Pack	23'000	20.0000	12'000
46	Gauze 90cm x 18m	THAN 1x1	Sealed P. Pack	60'000	114.4500	30'000
47	3ml Disposal Syringe with 20G Needle	Piece 1x50	Ribbon Packed	516'000	3.0730	250'000
48	IV Infusion Set with two 21G Needles	Set 1x10	Sealed Polythene Pack	115'000	14.1905	60'000
49	Surgical Gloves (size 7, Disposable)	Pairs 1x20	Sealed Polythene Pack	1'150'000	10.0000	600'000

Total cost for Central Procurement 336'988'156.40

Items to be Procured only at the District Level

50	Diazepam 2ml, 5mg/ml	AMP 1x10	Glass Ampoule	35'000	13.0000	
51	Atropine Sulphate 1ml (0.6mg/ml)	AMP 1x10	Glass Ampoule	30'000	4.2000	
52	Benzyl Penicillin 10 lac IU	VIAL 1x10	Glass Vial	22'000	12.3800	
53	Dexamethasone Sodium Phosphate 1ml, 4mg/ml Amp.	AMP 1x10	Glass Ampoule	50'000	10.40000	
54	Frusamide 2ml, 10mg/ml	AMP 1x10	Glass Ampoule	20'000	4.7500	
55	Gentamycin Sulphate 2ml, 40mg/ml	VIAL 1x10	Glass Vial	25'000	7.9000	
56	Adrenaline 1mg/ml, 1ml	VIAL 1x10	Glass Vial	30'000	5.0000	
57	Spirit Rectified 450ml	BOT 1x6	Plastic Bottle	25'000	65.4900	

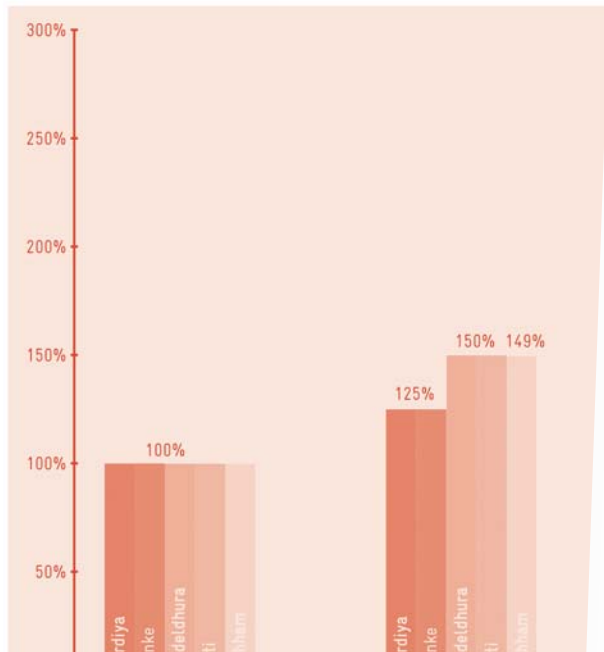
Total Estimated Procurement Cost of Essential Drugs Required for all

Primary Health Facilities 587'477'618.66 3'453'110

Total Procurement Cost of all districts for SHP, HP and PHC (excluding transport cost) 250'489'462.26

Notes:

- Items 50-56 used by PHC only.
- Item 57, Spirit used by all facilities.
- All items 50-57 to be procured by respective districts only.
- Procurement quantities of item Nos 11, 19, 21 and 22 for Child Health Division covers national requirement.
- Procurement of the items 6, 29, 31, 35, 36 and 40 done by LMD covers national requirement. Procurement of these items by districts is not envisaged.



Item No.	Description	Supply Unit	Material	Quantity
40	Gention Violet Crystal 25g	BOT 1x5	Glass/Plastic Bottle	50'00
41	Povidone Iodine 5% 450ml	BOT 1x4	LR Plastic Bottle	60'00
Surgical and Miscellaneous				
42	Absorbent Cotton 400g	ROLL 1x1	S. P. Pack	60'00
43	Adhesive Tape 10cm x 5m	ROLL 1x1	Tin/Plastic Roll	60'00
44	Bandage 90cm x 18m	THAN 1x1	S. P. Pack	
45	Butterfly Needle 24G (Scalp vein set)	Piece 1x4	S. Polythene Pack	
46	Gauze 90cm x 18m	THAN 1x1	S. P. Pack	
47	3ml Disposal Syringe with 20G Needle	Piece 1x50	Ribbon Packed	
48	IV Infusion Set with two 21G Needles	Set 1x10	S. Polythene Pack	
49	Surgical Gloves (size 7, Disposable)	Pairs 1x20	S. Polythene Pack	
Total cost for				
Items to be Procured only at the District Level				
50	Diazepam 2ml, 5mg/ml	AMP 1x10	Glass Amp.	
51	Atropine Sulphate 1ml (0.6mg/ml)	AMP 1x10	Glass Ampoule	30'00
52	Benzyl Penicillin 10 lac IU	VIAL 1x10	Glass Vial	22'00
53	Dexamethasone Sodium Phosphate 1ml, 4mg/ml Amp.	AMP 1x10	Glass Ampoule	50'00
54	Fruzemide 2ml, 10mg/ml	AMP 1x10	Glass Ampoule	20'000
55	Gentamycin Sulphate 2ml, 40mg/ml	VIAL 1x10	Glass Vial	25'000
56	Adralin 1mg/ml, 1ml	VIAL 1x10	Glass Vial	30'000
57	Spirit Rectified 450ml	BOT 1x5		

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