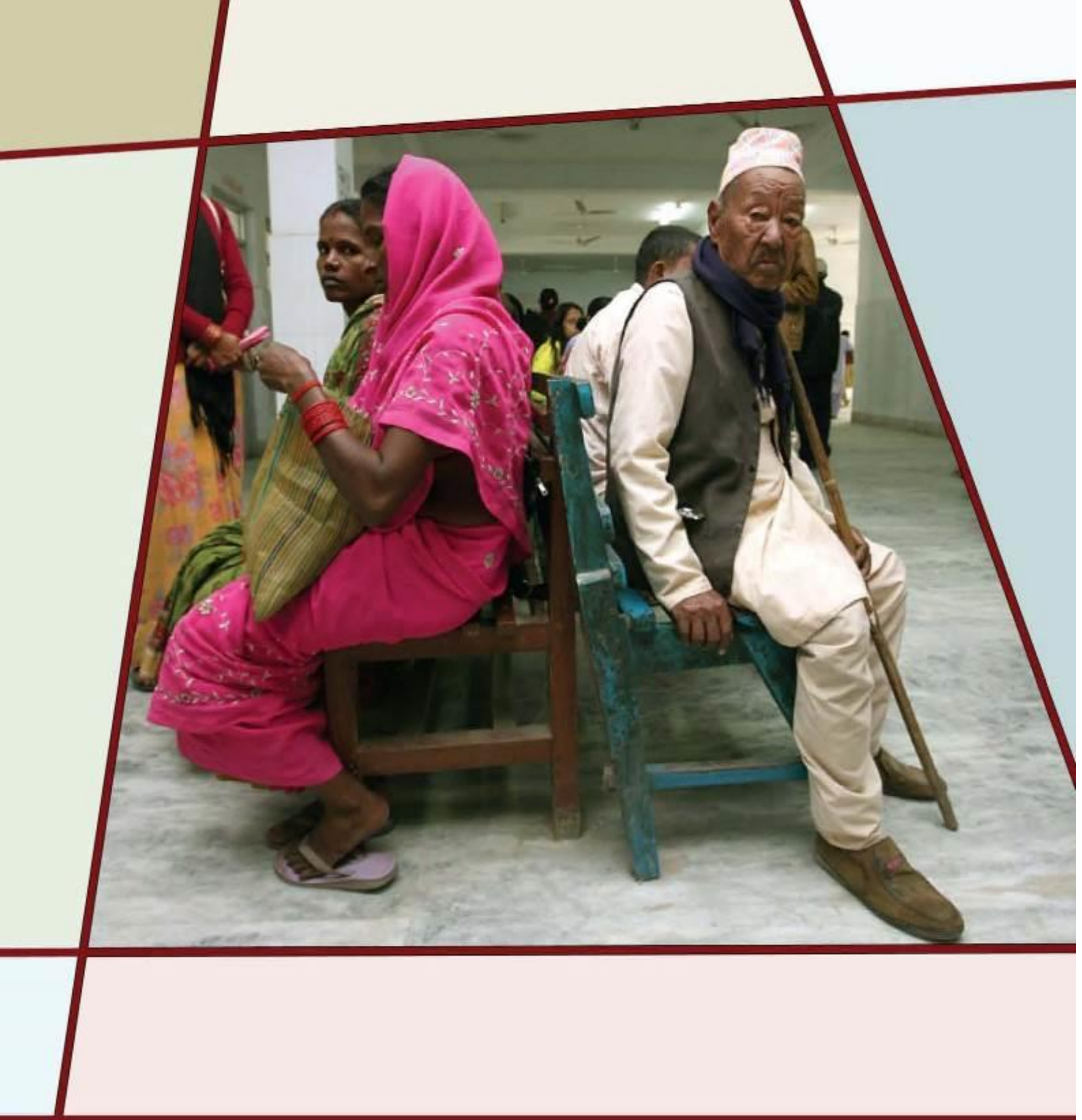

Service Tracking Survey

2011

Nepal Health Sector Programme II

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FOREWORD

The Service Tracking Survey 2011 (STS 2011) was implemented by the Ministry of Health and Population (MoHP) with technical assistance from Nepal Health Sector Support Programme (NHSSP). It was designed to collect information to monitor indicators in the NHSP II logical framework; identify inputs for the national Health Financing Strategy; and monitor the implementation of the Aama Programme and free health care. It also assessed the financial management capacity of health facilities and collected information on functionality, client experience and quality of care.

The design and implementation of STS 2011 was overseen by a technical working committee (TWC) with representatives from government, external development partners and NHSSP advisors. The survey was designed to provide national level estimates of key indicators that can be monitored over time.

The districts were selected randomly, with one from each of 13 sub-regions, ensuring that all regions and topographical zones are represented in the survey. All hospitals within the 13 selected districts were selected, along with a sample of PHCCs, HPs and SHPs.

I believe that this study has provided crucial information to help monitor the progress of NHSP II.

I would like to thank all those who contributed to the successful completion of the STS 2011.

Dr Praveen Mishra
Secretary
Ministry of Health and Population

CONTENTS

LIST OF TABLES

LIST OF FIGURES

LIST OF BOXES

ACRONYMS AND ABBREVIATIONS

24/7	available 24 hours a day, 7 days a week
AA	anaesthetist assistant
AHW	auxiliary health worker
ANC	antenatal care
ANM	auxiliary nurse midwife
ARV	antiretroviral
AWPB	annual work plan and budget
BEONC	basic emergency obstetric and neonatal care
CEONC	comprehensive emergency obstetric and neonatal care
D(P)HO	district (public) health office
DDC	district development committee
DFID	Department for International Development
DoHS	Department of Health Services
DOTS	*directly observed treatment short* course
EHCS	essential health care services
ENC	essential newborn care
FCHV	female community health volunteer
FEFO	first expired, first out
FHD	Family Health Division (MoHP)
FY	fiscal year
GAAP	Governance and Accountability Action Plan
GESI	gender equality and social inclusion
GiZ	Deutsche Gesellschaft für Internationale Zusammenarbeit, GmbH (German Society for International Cooperation, Ltd., formerly GTZ)
GoN	Government of Nepal
HA	health assistant
HDC	hospital development committee
HDI	Human Development Index
HFMC	health facility management committee
HIV	h*uman immunodeficiency virus*
HMIS	Health Management Information System
HP	health post
HR	human resources
HSRSP	Health Sector Reform Support Programme
HuRIC	Human Resource Information Centre
I&D set	incision and drainage set
INGO	international non-government organisation
IUCD	intrauterine contraceptive device
M&E	monitoring and evaluation

MCHW	maternal and child health worker
MDGP	doctor of medicine, general practitioner
MIS	management information system
MoHP	Ministry of Health and Population
MTCT	mother to child transmission
n	sample size
NDHS	Nepal Demographic and Health Survey
NHSP 1	First Nepal Health Sector Programme (2004–2010)
NHSP 2	Second Nepal Health Sector Programme (2010–2015)
NHSSP	Nepal Health Sector Support Programme
no.	number
NPR	Nepali rupees
O/G	obstetrician-gynaecologist
OC	outcome
OP	output
OPD	outpatient department
ORS	oral rehydration solution
PHCC	primary health care centre
PLHIV	people living with HIV
PMTCT	prevention of mother to child transmission
RTI	reproductive tract infection
SAHW	*senior auxiliary health worker*
SBA	skilled birth attendant
SDIP	Safe Delivery Incentive Programme
SHP	sub-health post
SLC	school leaving certificate
SSMP	Support to the Safe Motherhood Programme
STI	sexually transmitted infection
STS	Service Tracking Survey
TB	tuberculosis
USAID	United States Agency for International Development
VDC	village development committee
VHW	village health workers
WHO	World Health Organisation

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EXECUTIVE SUMMARY

A. INTRODUCTION

The second Nepal Health Sector Programme (NHSP 2) provides an overall framework for the development of Nepal's health sector between 2010 and 2015. It focuses on increasing access to and the utilisation of health care services, and aims to address disparities between different income, gender, caste, ethnic and other groups. The three objectives of NHSP 2 are:

- to increase access to and utilisation of quality essential health care services;
- to reduce cultural and economic barriers to accessing health care services and harmful cultural practices in partnership with non-state actors; and
- to improve the health system to achieve universal coverage of essential health services.

NHSP 2 requires information beyond that collected on a routine basis in order to monitor progress on the above three objectives. A Service Tracking Survey (STS) was carried out by the Ministry of Health and Population (MoHP) and the Nepal Health Sector Support Programme (NHSSP) in 2011 to collect additional facility-based information.

B. METHODOLOGY

The following factors were considered while designing the sampling strategy of the STS: the data should be nationally representative; key indicators need to be monitored over time; districts need to be randomly selected for each survey while representing all regions and topographical zones; and all hospitals within the selected districts should be included, along with a proportion of lower level public health facilities.

The STS 2011 randomly selected one district from each of 13 sub-regions. A total of 169 health facilities were assessed across the 13 selected districts covering all the public hospitals and a sample of primary health care centres (PHCCs) (76%), health posts (41%) and sub-health posts (SHPs) (15%). In addition, exit interviews were conducted with 1,017 clients: 820 outpatients and 197 women who had recently delivered or experienced obstetric complications.

C. KEY FINDINGS

The key findings are presented here according to the five objectives of STS 2011.

OBJECTIVE 1: To provide information for monitoring relevant indicators in NHSP 2's logical framework and Governance and Accountability Action Plan (GAAP)

NHSP 2 logical framework

In 2011, following consultations within MoHP, it was agreed that the indicators of NHSP 2's results framework would be revised in what is now called the logical framework. The findings of STS 2011 have been compared with the original targets for 2011, which were not revised and are due to be reviewed in late 2012.

There has been mixed progress towards reaching these targets. The targets have been achieved for three of the indicators and there was good progress against an additional two indicators for which no

targets were set for 2011. The 2011 targets were not achieved for six of the indicators and there was poor progress for two indicators for which no targets were set for 2011.

Achieved target	Good progress – no 2011 target	Not achieved target	Poor progress – no 2011 target
• % of health facilities that have undertaken social audits as per MoHP guideline in the last fiscal year; • % of clients satisfied with their health care at hospitals, PHCCs, health posts and SHPs (age, sex and caste/ethnicity); • % of health posts that are birthing centres providing deliveries 24/7.	• % of health facilities with at least three females and at least two Dalit and Janajati members in health facility management committees (HFMCs) and hospital development committees (HDC) • % of safe abortion sites with post abortion long acting family planning services.	• % of sanctioned posts that are filled — doctors at district hospitals • % of sanctioned posts that are filled - doctors at PHCCs; • % of sanctioned posts that are filled - nurses at district hospitals • % of sanctioned posts that are filled - nurses at PHCCs; • % of PHCCs that provide all basic emergency obstetric and neonatal care (BEONC) signal functions 24/7; • % of health posts providing condoms, pills, injectables, intrauterine contraceptive devices (IUCD) and implants.	• % of hospitals that have at least 1 obstetrician-gynaecologist or MDGP (specialist general practitioner), 5 trained nurses, and 1 anaesthetist or anaesthetist assistant; • % of districts that have at least one facility providing all comprehensive emergency obstetric and neonatal care (CEONC) signal functions 24/7.

Governance and accountability

- Nearly one third (27%) of the facilities had undertaken a social audit in the current or last fiscal year. Hospitals were less likely to have, but most of those that did undertake one had produced a report that was present in their facilities. All Hospitals, 82% of PHCCs, 53% of HPs and 60% of SHPs that conducted social audits in the previous year, reported that they had incorporated the recommended actions into their annual work plan and budgets (AWPB).
- Most health posts (96%) had a citizen's charter, followed by hospitals (87%), SHPs (77%) and PHCCs (71%). Nearly four out of five hospitals (79%) had placed the citizen's charter outside their building in a visible place, while less than a quarter of SHPs (23%) had done so. Of those with a charter, most included information on free drugs, outpatient services and the Aama Programme (if they were implementing the latter).
- Hospital development committees (HDCs) had been established in all hospitals and health facility management committees (HFMCs) in all lower level facilities, except for one SHP. Most of these committees were reportedly active and over three-quarters had oriented all their members on their roles and responsibilities. The most common activity by HFMCs and HDCs was infrastructure development and maintenance, and half of the HFMCs and HDCs had recruited health workers.

- However, many HDCs and HFMCs were not holding meetings on a monthly basis while just under half of facilities reported that the female members and members from disadvantaged groups were always active in committee meetings, with a lesser number reporting that these members always participated in decision-making.

OBJECTIVE 2: To provide inputs for the National Health Financing Strategy

- MoHP was the main financier of health facilities at all levels except for the higher level hospitals.
- All facilities, except for district hospitals, derived a significant proportion of their income from sources not included in the MoHP's annual work plan and budget. This means that facilities do not report to the government on a significant part of their revenue and expenditure. This could have far-reaching consequences for the way in which the health system is managed towards outputs and outcomes, given the government does not know what these funds are spent on and the extent to which their allocation contributes to achieving health sector goals.
- Nearly a quarter of the facilities (20%) reported they had not received their allocated budget from MoHP, while a higher proportion (31%) reported not knowing whether they had received their allocated budgets.
- Facilities received most of their budgets in the last trimester. This pattern complicates facility cash management and helps explain why budgets are often under-spent.
- Staff salaries were the major expenditure category from funds received from MoHP for all levels of facility. This was more so for hospitals (47% of total expenditure) than for lower level facilities where salaries accounted for about a third of expenditure from MoHP funds.

OBJECTIVE 3: To monitor the implementation of the Aama Programme

- Twelve per cent of facilities that should have been implementing the Aama Programme were not.
- Maternity clients were relatively well aware of the Aama Programme: 78% were aware that delivery care should be free and 81% knew about the transport incentive. The main sources of information were friends, neighbours and female community health volunteers.
- Despite these high levels of awareness only 61% of clients had received the transport incentive they were entitled to and half of clients (50%) had received free delivery care.
- There was confusion amongst some clients in regards to the amount they expected to receive and more than one in three women had been asked to show their antenatal care cards to obtain the Aama transport incentive, which is not a requirement as per the Aama guidelines. Both of these factors may be a result of confusion with the separate antenatal care incentive programme. These results highlight that not all facilities comply with the Aama policies, and that different schemes with different rules may hinder compliance.
- Not all health facilities had registered the names of the clients provided with benefits, and not all women had been asked to fill in a form as per the Aama guidelines.

OBJECTIVE 4: To monitor the implementation of free health care, including the financial management capacity of health facilities

Free care

- Ninety two per cent of outpatients at district hospitals, PHCCS, health posts and SHPs were aware that health care should be free.

- Despite the high levels of awareness about free care more than one tenth of clients (11%) had paid for health care. The most common reason for payment was that it had been a precondition for receiving services.
- The number of clients receiving free essential health care services had markedly increased over the three years prior to the STS for all levels of facility. The rate of increase differed by the level of facility with the largest increases at hospitals and PHCCs.

Financial management

- Most facilities (94%) had a bank account, but only 85% of mountain facilities had one.
- All the hospitals reported having prepared a financial report for the previous fiscal year.
- Although three-quarters of hospitals had carried out an internal audit and a final audit in the previous fiscal year, most of the lower level facilities had not. Of those that had conducted a final audit, nearly one-third had been advised to carry out their financial audits in a more timely way.

OBJECTIVE 5: To provide regular information on the functioning (readiness to provide services), client experiences and quality of priority health services

Human resources

- Staff at most facilities (>80%) felt that the number of sanctioned staff was inadequate, especially for maternity services. The official number of sanctioned posts did not always match the actual number. Four key reasons were identified for this: some facilities were being upgraded but the number of sanctioned posts had not yet changed; some existing staff had been promoted into positions not officially sanctioned by that facility; some positions had become defunct but the staff could remain in post until they chose to leave; and some differences reflected the different needs between topographical zones.
- At the four higher level hospitals there was no type of cadre for which all posts had been filled. This was largely due to Hetauda hospital only being upgraded to a regional level hospital recently and many of the posts had yet to be filled.
- At district hospitals 81% of the sanctioned posts were filled, but less than two thirds of medical officer and health assistant posts were filled. At PHCCs most auxiliary health worker (AHW) and auxiliary nurse midwife (ANM) posts were filled and three-quarters of laboratory assistants, many staff nurse, medical officer and health assistant posts remained unfilled. At health posts most AHW and ANM posts were filled, but only 47% of sanctioned health assistant posts were filled. Overall just over three-quarters of the sanctioned posts at SHPs were filled, including most AHW posts; but only 78% of maternal and child health worker (MCHW) and 61% of village health workers (VHW) posts were filled.
- The highest proportions of contract staff was found for medical officers at hospitals and staff nurses at higher level hospitals. HFMCs and HDCs have been responsible for recruiting relatively high proportions of ANMs at the higher level hospitals, AHWs and ANMs at district hospitals, and AHWs and AHWs at health posts.
- The shortage of formal anaesthetic and obstetric skills is affecting the provision of caesarean sections. Over half of the hospitals (56%) were unable to provide caesarean sections: 13% had an obstetrician but no anaesthetist and 44% had neither an obstetrician nor anaesthetist.

Drug supply and storage

- Across the 169 facilities, all types of essential drugs were procured from both central and local sources. At hospitals most were procured from central sources, while below hospital most came from local sources.
- Only half of the health facilities stored at least some of their drugs in a locked cabinet. However, most facilities stored their drugs in cool and dry locations (87%).
- Most hospitals had access to at least two refrigerators, and nearly three-quarters had access to at least one refrigerator 24 hours a day. However, a quarter of PHCCs, over a half of health posts and over three-quarters of SHPs had no access to a refrigerator. Not all of those without constant access to a refrigerator used ice boxes.
- Many of the health facilities stored drugs ordered by expiry date; however, nearly one-fifth of hospitals (19%) did not. Less than a half of the facilities (46%) had undertaken a review of their drugs in the previous fiscal year.
- A quarter of hospital outpatients and 41% of hospital maternity clients paid for essential drugs that should have been provided free of charge. Maternity clients were more likely to have paid than outpatients, and hospital clients were more likely to have paid than those at lower level facilities. Of those who paid for drugs at hospitals, maternity clients paid an average of Nepali rupees (NPR) 1,892, while outpatients paid an average of NPR 250.

Quality of care

- All hospitals and most PHCCs and SHPs had running water with soap; but 18% of health posts did not. There was good availability of bins for biomedical waste disposal.
- Most birthing centres were providing routine deliveries (98%), with over three-quarters doing so 24 hours a day (77%). However, less than three-quarters of CEONC facilities (71%) provided all CEONC signal functions on a 24 hour basis and just 39% of districts had at least one facility providing all CEONC functions at all times. Less than half of all BEONC facilities provided all BEONC signal functions 24 hours a day. Just one-fifth of PHCCs provide all BEONC signal functions, with 18% providing all of these on a 24 hour basis (18%). The biggest gaps were seen for the provision of services to remove retained products and to provide assisted deliveries, blood transfusions and caesarean sections.
- All selected hospitals and 68% of the PHCCs were officially classified as safe abortion sites. Post abortion care was available at most safe abortion sites (80%), two-thirds provided first trimester abortion care (66%) and over a quarter (26%) provided second trimester abortions. There was good provision of short term hormonal, short-term non-hormonal, long term and permanent methods of family planning at all facility levels (as appropriate) and post-abortion family planning at safe abortion sites.
- One-third of clients thought that it was important to improve cleanliness in the facility. However, most clients were satisfied with the care they received with only 4% percent saying they were unsatisfied.

D. 2011 RESULTS AGAINST STS INDICATORS

Table 0.1 presents key indicators from the STS 2011 to reflect each of the key themes. The indicators that are included in the NHSP 2 logical framework are shaded in tan (darker) colour.

Table 0.1: Key indicators from the STS 2011

STS 2011 indicators	2011 results (%)	95% CI
FREE CARE		
% of outpatients aware of free care	92.1	83.1-96.6
% of Dalit and Janajati outpatients aware of free care	80.6	50.3-94.3
% of outpatients who paid for care under the free care policy	11.3	6.2-19.7
% of Dalit and Janajati outpatients who paid for care under the free care policy	5.5	2.4-12.4
AAMA PROGRAMME		
% of hospitals, PHCCs and health posts implementing Aama	88.0	77.2-94.1
% of maternity clients aware of transport incentive	81.4	54.3-94.2
% of Dalit and Janajati maternity clients aware of transport incentive	82.8	55.2-95.0
% of maternity clients aware of free delivery care	78.3	43.2-94.5
% of Dalit and Janajati maternity clients aware of free delivery care	83.1	47.6-96.4
% of maternity clients who paid for delivery care	50.3	25.2-75.2
% of Dalit and Janajati maternity clients who paid for delivery care	57.3	20.4-84.0
FINANCIAL MANANGEMENT		
% of facilities that spent all the money received	26.7	14.1-44.8
% of facilities with a bank account	94.6	74.4-99.1
% of facilities that disclosed their income and expenditure to the public	81.9	67.7-90.8
% of facilities that conducted an internal audit in the last fiscal year	12.7	7.4-21.1
% of facilities that conducted a final audit in the last fiscal year	15.3	9.6-23.5
GOVERNANCE AND ACCOUNTABILITY		
% of health facilities that undertook social audits in the current or last fiscal year*	27.4	17.4-40.4
% of facilities that conducted a social audit in the last fiscal year, made findings public and incorporated recommended actions in annual workplan and budget (AWPB)	22.0	15.0-31.0
% of facilities with a citizen's charter placed in a visible location and included information on free drugs, outpatient services and Aama (if Aama implementing facility)	58.4	43.8-71.8
% of facilities with a health management committee (health facility management committees [HFMCs] and hospital development committees [HDC]) meeting on a monthly basis	37.1	22.3-54.8
% of health facilities with at least three females and at least two Dalit and Janajati members in health facility management committees (HFMCs) and hospital development committees (HDC)*	46.0	36.5-55.8
% of facilities with an emergency contingency plan for women and children	29.4	16.7-46.4
HUMAN RESOURCES		
% of sanctioned posts that are filled:		

STS 2011 indicators	2011 results (%)	95% CI
• Doctors at district hospitals*	68.9	46.7-79.6
• Doctors at PHCCs*	50.0	35.1-64.9
• Nurses at district hospitals*	83.3	74.3-89.6
• Nurses at PHCCs*	73.8	60.5-83.8
% of hospitals that have at least 1 obstetrician-gynaecologist or Specialist General Practitioner (MDGP), 5 SBA (skilled birth attendant) trained nurses and 1 anaesthetist or anaesthetist assistant*	31.2	14.5-55.0
% of PHCCs with at least 1 medical officers, 1 health assistant/*senior auxiliary health worker* (SAHW), 1 staff nurse, 2 AHWs, 3 ANMs and 1 lab assistant in filled post	7.1	0.6-47.8
% of category A health posts with at least 1 health assistant/SAHW, 2 AHW and 1 ANM in filled post	53.3	19.2-84.6
% of category B health posts with at least 1 health assistant/SAHW, 1 AHW and 1 ANM in filled post	20.0	8.7-39.6
% of SHPs with at least 1 AHW, 1 MCHW and 1 VHW in post	50.0	37.8-62.2
DRUG SUPPLY AND STORAGE		
% of facilities with drugs stored in a cool and dry place	86.8	64.0-96.1
% of facilities with drugs stored as per first expired, first out (FEFO) principles	87.9	76.5-94.2
% of PHCCs with at least one fridge with guaranteed power 24/7	47.6	24.3-72.0
% of outpatients who paid for essential drugs	40.6	24.0-59.7
% of maternity clients who paid for any drugs	55.0	25.9-81.0
QUALITY OF CARE		
% of health facilities with running water and soap	88.0	78.6-93.6
% of facilities with comprehensive biomedical waste management in place (puncture proof bin for needles; bin for disposing of plastics; bin for disposing of blood/fluid stained items; pit for placenta/deep burial)	12.5	8.5-17.9
% of CEONC facilities providing all CEONC signal functions 24/7	71.4	26.4-94.6
% of district hospitals providing all CEONC signal functions 24/7	8.3	0.7-53.2
% of districts with at least one facility providing all CEONC signal functions 24/7*	38.5	21.5-58.8
% of BEONC facilities providing all BEONC signal functions 24/7	40.9	20.1-65.5
% of PHCCs that provide all BEONC signal functions 24/7*	21.1	8.1-45.7
% of health posts that are birthing centres providing deliveries 24/7*	79.2	51.6-93.1
% of safe abortion sites providing post-abortion care, and first trimester abortion	25.7	11.1-48.9
% of safe abortion sites with long acting family planning services*	91.4	77.8-97.0
% of district hospitals providing male and female permanent family planning services	33.3	9.6-70.2
% of health posts providing condoms, pills, injectables, IUCDs and implants*	13.3	5.8-27.9
% of outpatients who thought the facility was overcrowded	30.9	20.2-44.1

STS 2011 indicators	2011 results (%)	95% CI
% of maternity clients who thought maternity department was overcrowded	23.6	13.9-37.0
% of clients (maternity and outpatients) who thought the facility was clean/very clean	45.4	35.2-56.0
% of clients (maternity and outpatients) who thought the respect for their privacy was good/very good	54.1	37.2-70.0
% of clients (maternity and outpatients) satisfied with their health care*	95.8	91.5-98.0

Note: NHSP 2 logframe indicators are shaded in tan (darker) colour and marked with an asterisk (*).

1 INTRODUCTION

1.1 BACKGROUND

The second Nepal Health Sector Programme (NHSP 2) (MoHP 2010a) provides an overall framework for planning activities within Nepal's health sector for 2010–2015. NHSP 2 is focused on increasing access to and the utilisation of health care services, and aims to address disparities between different income, gender, caste, ethnic and other groups.

The three objectives of NHSP 2 are:

- Increase access to and utilisation of quality essential health care services (EHCS).
- Reduce cultural and economic barriers to accessing health care services and harmful cultural practices in partnership with non-state actors.
- Improve the health system to achieve universal coverage of essential health services.

NHSP 2 requires information to monitor progress on the above objectives. However, only some of this information is available from the government's routine data collection systems including the Health Management Information System (HMIS). Hence there is a need for additional data collection, including facility-based and household surveys. Service Tracking Surveys (STS) are therefore being carried out to gather additional facility-based information to monitor NHSP 2's objectives. These surveys are designed to inform health-related programmes at health facility and community levels.

The STS 2011 evolved from previous health facility-based surveys. During the latter part of the first Nepal Health Sector Programme (NHSP 1, 2004–2009) a health facility survey was conducted three times per year by the Ministry of Health and Population (MoHP) with support from the Health Sector Reform Support Programme (HSRSP) to monitor free health care. These surveys were undertaken in one district in each of 13 sub-regions (see Table 2.1 for these sub-regions). All hospitals within the selected districts were surveyed along with 44% of primary health care centres (PHCCs), 39% of health posts (HPs) and 15% of sub-health posts (SHPs). The survey instruments included a facility tool with questions on the amount of funding received and used for free care; the supply, consumption, and replenishment of drugs; services provided; referrals; facility monitoring; human resources; the management of facilities and the quality of care. It also included exit interviews with clients to collect information on client experiences and characteristics, such as caste and ethnicity.

The Family Health Division (FHD) of MoHP, with the Support to the Safe Motherhood Programme (SSMP) also undertook facility surveys in 2009 and 2010 to monitor the achievements of the Aama Programme. This programme **provides incentives for mothers to give birth in health facilities**. The instruments used were similar to those used in the HSRSP study although they went into more detail on quarterly cash flows and services provided.

Given the overlap in previous years in monitoring free care provision and the Aama Programme, from 2011 only one survey is being carried out — an annual STS to that monitors both free care and the Aama Programme.

1.2 SURVEY OBJECTIVES

The objectives of these STSs are as follows:

- Provide information for monitoring identified indicators in the NHSP 2 logical framework and GAAP (Governance and Accountability Action Plan).
- Provide inputs for the new National Health Financing Strategy (which is currently under development).
- Monitor the implementation of the Aama Programme.
- Monitor the implementation of free health care, including the financial management capacity of health facilities.
- Provide information on the functionality (readiness to provide services), client experiences and quality of care.

In addition, these surveys aim to provide a detailed accounting of the flow of services and finance, adherence to annual work plans and budget (AWPB) processes and the availability of human resources.

1.3 TECHNICAL WORKING COMMITTEE

THE STS 2011 was designed and implemented under the guidance of a technical working committee of government, external development partners and Nepal Health Sector Support Programme (NHSSP) advisors (see Annex 1.1 for members).

1.4 STRUCTURE OF REPORT

This report has 11 chapters and several annexes. The first part (Chapters 1–3) explains the objectives, the study methodology and the background characteristics of the 169 health facilities and the 1,017 client respondents covered by the study. Chapters 4 to 10 give the detailed study findings across seven specified areas linked to monitoring the implementation of NHSP 2. Key STS indicators are presented at the start of each chapter to summarise the current situation. STS is the source of information for a number of NHSP 2 logical framework indicators and the final chapter (Chapter 11) presents the achievements of these indicators against the targets.

2 METHODOLOGY

The following factors were considered while designing the sampling strategy for the Service Tracking Survey 2011 (STS 2011):

- the data needs to be nationally representative (but will not provide district level estimates);
- the key indicators need to be monitored over time;
- the districts will be randomly selected for each survey; but all regions and topographic zones will be represented in all surveys; and
- all hospitals within the selected districts will be included, along with a proportion of primary health care centres (PHCCs), health posts and sub-health posts (SHPs).

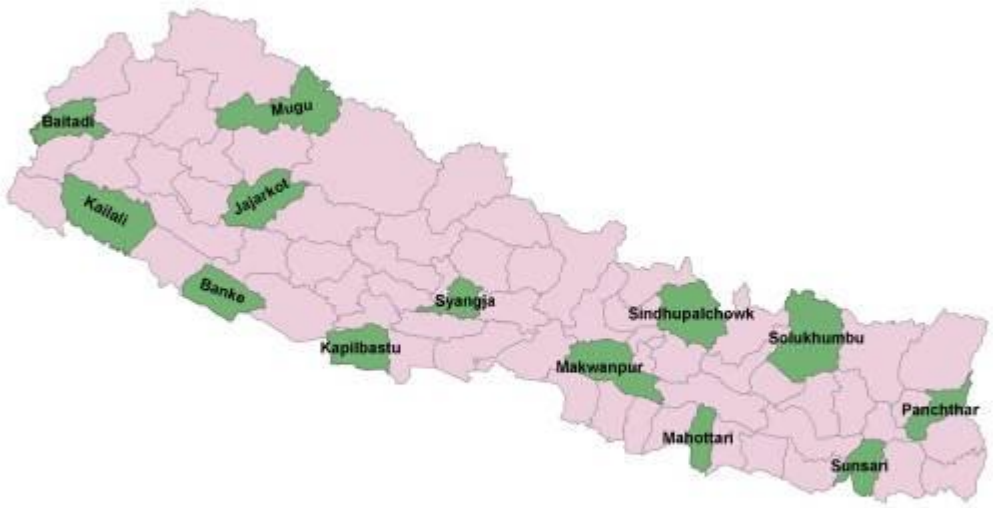
2.1 SAMPLING STRATEGY

District selection — The cluster design for the periodic Nepal Demographic and Health Surveys (NDHS) stratifies Nepal into three topographic zones (mountain, hill and Tarai), five development regions and subsequently into 13 sub-regions. Due to their relatively small populations the mountain districts in the Western, Mid-Western and Far-Western development regions are combined into one sub-region. The same 13 sub-regional domains were used in the facility surveys conducted by the Ministry of Health and Population (MoHP)/Health Sector Reform Support Programme (HSRSP) in 2009 and 2010. The STS 2011 took a similar cluster approach to sampling (Table 2.1) by randomly selecting one district from each of the 13 sub-regions (see Figure 2.1 and the districts in bold in Table 2.1). The advantages of using this approach are that it is nationally representative and data can potentially be compared with NDHS data and earlier surveys undertaken by MoHP/HSRSP.

Table 2.1: Districts within the 13 sub-regions (STS 2011 districts are given in bold)

Sub-region (13)	Districts (75)
Eastern mountain (3)	Taplejung, Sankhuwasabha, **Solukhumbu**
Central mountain (3)	Dolakha, Rasuwa, **Sindhupalchowk**
Far-/Mid-/Western mountain (10)	Bajhang, Bajura, Darchula, Dolpa, Humla, Jumla, Kalikot, Manang, **Mugu**, Mustang
Eastern hill (8)	Bhojpur, Dhankuta, Ilam, Khotang, Okhaldhunga, **Panchthar**, Terhathum, Udayapur
Central hill (9)	Bhaktapur, Dhading, Kavrepalanchowk, Kathmandu, Lalitpur, **Makawanpur**, Nuwakot, Ramechhap, Sindhuli
Western hill (11)	Arghakhanchi, Baglung, Gorkha, Gulmi, Kaski, Lamjung, Myagdi, Palpa, Parbat, **Syangja**, Tanahun
Mid-western hill (7)	Dailekh, **Jajarkot**, Pyuthan, Rolpa, Rukum, Salyan, Surkhet
Far-western hill (4)	Achham, **Baitadi**, Doti, Dadeldhura
Eastern Tarai (5)	Jhapa, Morang, Saptari, Siraha, **Sunsari**
Central Tarai (7)	Bara, Chitwan, Dhanusha, **Mahottari**, Parsa, Rautahat, Sarlahi
Western Tarai (3)	**Kapilbastu**, Nawalparasi, Rupandehi
Mid-western Tarai (3)	Bardiya, **Banke**, Dang
Far-western Tarai (2)	**Kailali**, Kanchanpur

Figure 2.1: Map of Nepal showing location of STS 2011 districts



Health facility selection — The sampling approach used to select facilities was designed to produce nationally-representative but not district-level representative samples. Within the 13 selected districts a sampling frame was created including all public health facilities divided into hospitals, PHCCs, health posts and SHPs. The 'Sampling Manual for Facility Surveys' (MEASURE Evaluation 2001) was consulted to identify the number of facilities by type to be sampled. The total number of facilities selected (169) exceeded the number recommended in the manual (100). Higher-level facilities had a higher probability of being selected, with all public hospitals in selected districts included. The equal probability sampling method (EPSEM) was used to select a random sample of PHCCs, health posts and SHPs.

The number of facilities sampled (169) (see Table 2.2) was similar to previous HSRSP surveys[1].

- All 16 public **hospitals** in the study districts, including 12 district level hospitals and four higher level hospitals, were selected.
- Between one and five **PHCCs** were selected from each of the 13 districts. In districts with one or two PHCCs, all were selected; in districts with three PHCCs, two were selected; and in districts with four or more PHCCs, three were selected. This resulted in 28 (76%) of the 38 PHCCs in the 13 districts being selected.
- Forty-five of the 110 **health posts** across the 13 districts were selected, ranging from six to ten per district. This represented 40% of health posts across the selected districts.
- Eighty of the 536 **SHPs** were selected representing 15% of SHPs in the selected districts.

[1] The HSRSP surveys sampled all 15 hospitals (100%), 15 of the 34 PHCCs (44%), 47 of the 120 health posts (39%) and 91 of the 603 SHP (15%). 168 health facilities were sampled from a total of 772 health facilities.

Table 2.2: Number of facilities by type and district in total and included in STS 2011

District	Population (census 2011)	HDI* ranking (2004)	Hospital		PHCC		Health post		Sub-health post	
			No.	Sample	No.	Sample	No.	Sample	No.	Sample
Baitadi	252,116	63	1	1	2	2	10	4	55	8
Banke	493,017	29	1	1	3	2	9	4	35	5
Jajarkot	172,565	71	1	1	2	2	7	3	25	4
Kailali	770,279	46	2	2	5	3	7	3	31	5
Kapilbastu	570,612	47	2	2	3	2	7	3	66	10
Mahottari	646,405	59	1	1	3	2	6	2	67	10
Makawanpur	427,494	31	1	1	4	3	10	4	30	5
Mugu	55,311	75	1	1	1	1	8	3	16	2
Panchthar	198,362	24	1	1	2	2	10	4	29	4
Sindhupalchowk	289,455	54	1	1	3	2	10	4	65	10
Solukhumbu	106,772	30	1	1	2	2	9	4	23	3
Sunsari	751,125	16	2	2	5	3	7	3	40	6
Syangja	288,040	7	1	1	3	2	10	4	54	8
n (total facilities)	4,101,042		16	16 (100%)	38	28 (76%)	110	45 (41%)	536	80 (15%)

Note *: HDI = UNDP's Human Development Index (UNDP, 2004). These rankings, based on 2001 data, are the latest available district-wise HDI rankings.

Selection procedure for PHCCs, health posts and SHPs:

- *Step 1:* Within each district the PHCCs, health posts and SHPs were listed separately and arranged in serpentine order commencing at a corner of the sampling frame (for example, the northwest). Systematic equal probability sampling was used, which gave the same chance of selection to every facility within the district. Each facility within the district was numbered following the serpentine order.
- *Step 2:* The sample was selected based on the interval, I = N/n where N is the number of health facilities in the sampling frame of each district and n is the sample size. For example, four health posts were selected from among the ten health posts in Makawanpur district — I = 10/4 = 2.5 ≅ 3. A number between one and three was then selected randomly by lottery. If, for example, 2 was selected, then facility number 2 was selected.
- *Step 3:* The sample interval (3) was then added to the first randomly selected facility (2), i.e. 2 + 3 = 5, meaning that health post 5 was the second selected health post. The third and last health post to be selected was 5 plus the interval (which is 3), i.e. 5 + 3 = 8, leading to health post 8 being the third selected health post. Following this, the fourth and last selected health post would have been number 11; but given there are only 10 health posts in Makawanpur district, a systematic circular procedure indicated that the first health post on the list became the fourth selected health post.

- Steps 1 to 3 were repeated to select the other levels of facilities in the district and for the other twelve districts.

Client selection — Exit interviews were conducted with 820 outpatients and 197 women who had recently delivered or experienced complications post-delivery. The exit interviews were conducted with women who were discharged on the day of data collection. The interviewers aimed to interview all those who left the facility during the time they were conducting the exit interviews.

2.2 QUESTIONNAIRE DESIGN

Questionnaires developed in previous health facility-based surveys provided a basis for developing the data collection instruments for STS 2011. It was important to ensure that key variables captured in the earlier surveys were included in the revised instruments to ensure that progress with free care and the Aama Programme could be tracked.

The following three tools were designed to be administered at health facilities to collect information for the 2011 survey:

- a health facility questionnaire;
- exit interviews with outpatients; and
- exit interviews with women who had recently given birth at the facility or experienced maternal complications.

In designing these tools the team referred to other tools to enable comparison, consulted national and international experts and held review meetings with the STS 2011 technical working committee. The draft tools were also reviewed by external development partners.

Logical framework indicators — The revised logical framework (2012) of NHSP 2 calls for an STS to be carried out each year to collect information on the following indicators:

- Percentage of clients satisfied with their health care at hospitals, PHCCs, health posts and SHPs.
- Percentage of health facilities with at least three females and at least two Dalit and Janajati members in health facility management committees (HFMCs) and hospital development committees (HDC).
- Percentage of sanctioned posts that are filled - doctors at PHCCs.
- Percentage of sanctioned posts that are filled - doctors at district hospitals.
- Percentage of sanctioned posts that are filled – nurses at PHCCs.
- Percentage of sanctioned posts that are filled - nurses at district hospitals.
- Percentage of hospitals that have at least 1 obstetrician-gynaecologist or a specialist general practitioner (MDGP), 5 SBA (skilled birth attendant) trained nurses and 1 anaesthetist or anaesthetist assistant.
- Percentage of districts with at least one facility providing all comprehensive emergency obstetric and neonatal care (CEONC) signal functions 24/7.
- Percentage of PHCCs that provide all basic emergency obstetric and neonatal care (BEONC) signal functions.
- Percentage of health posts that are birthing centres providing deliveries 24/7.
- Percentage of safe abortion sites with post-abortion long-acting family planning services.

- Percentage of health posts providing condoms, pills, injectables, IUCDs and implants.
- Percentage of health facilities that have undertaken social audits as per Government of Nepal (GoN) guidelines in the last fiscal year.

Tracking resources and activities — The STS 2011 also tracked the financial and human resources of the health facilities (over Nepali fiscal year 2010/2011 [= mid-July 2010 to mid-July 2011]). The information collected was of the following four types:

- Release of funds covering the date and amount for drugs, free care, transport incentives, free delivery, training, utilities and other categories.
- Expenditure covering monthly spending by spending category/line item.
- Staffing — covering filled, deputed and contract (including HFMC and HDC) posts, by staff category (doctors, health assistants, nurses, auxiliary health workers (AHWs), maternal and child health workers (MCHWs), village health workers (VHWs) and laboratory assistants.
- Receipt of free care (including medicine) and incentive payments.

Service functionality — Information was collected on the readiness of the facilities to provide priority services; infrastructure; basic and comprehensive emergency obstetric and neonatal care (BEONC)/CEONC availability and functionality; and the membership and functionality of health facility management committees (HFMCs).

Translations — Back-to-back translations of the questionnaires (English–Nepali–English) were done to ensure the quality of the Nepali and English versions prior to pre-testing.

Pre-testing — In mid-August 2011 the questionnaires were pre-tested in Kavre and Sindhupalchowk districts to validate and finalise the order of questions, and identify any necessary changes. The facility questionnaire was pre-tested at all four levels of health facilities. Two women who had recently delivered or had maternal complications and five outpatients were interviewed at each facility. Five officials from MoHP joined the research team for this exercise. The questionnaire was further modified during the training of field coordinators and enumerators by taking their feedback into consideration.

2.3 SELECTION OF SUPERVISORS AND ENUMERATORS

Supervisors — One supervisor coordinated data collection in each district. The selection criteria for coordinators were:

- experience in supervising research activities, preferably related to health systems;
- experience in conducting facility-based surveys;
- good knowledge of the Government of Nepal's health system;
- good writing skills in English and Nepali;
- a paramedical background (health assistant, staff nurse) or bachelors degree in medicine, public health, nursing or social science;
- familiarity with local cultural and political situation; and
- ability to work as part of a team.

The final criterion was identity, which was considered to achieve a gender, caste and ethnic balance.

Enumerators — Fifty-five enumerators were selected for carrying out the STS 2011, with a further three enumerators trained as reserves to prevent any interruption to the work. Prospective local

enumerators from each district were identified with support from regional health directorates, international non-governmental organisations (INGOs) and non-governmental organisations (NGOs) with a presence in the field in the selected districts.

The criteria for the selection of enumerators were as follows:

- preferably female;
- local residents with familiarity of local language and geographical situation;
- educated to least school leaving certificate level;
- previous interview or survey experience, ideally related to the health sector;
- basic knowledge and experience of the government health system; and
- caste and ethnic balance.

2.4 ORIENTATION AND TRAINING

Supervisor orientation — Prior to training, the 13 supervisors took part in a one-day orientation meeting, which provided an introduction to the questionnaire, fieldwork and code of conduct.

Training — The 65 enumerators and 13 supervisors attended a five-day training workshop in August 2011. The training took place through presentations, role-plays, and group discussions. It covered survey objectives, approach, ethical issues, research instruments, monitoring and reporting, data quality assurance and logistical support. Participants were orientated on the three questionnaires with every question thoroughly discussed and misinterpretations clarified.

2.5 IMPLEMENTATION

Data collection— Enumerators were allocated to all 13 districts in sufficient numbers to ensure that the fieldwork could be completed within 30 days. Five enumerators were allocated to Makawanpur, Kapilbastu and Sindhupalchowk districts while four were assigned to all the other districts. Thirteen district supervisors were assigned. Data collection was undertaken between 12 September and 25 October 2011.

Support and supervision — Monitoring and supervision visits were made by the supervisors soon after fieldwork started so that any problems could be identified and corrected early on. The research team planned to visit all 13 districts; but visits were not possible to the remote districts of Mugu and Solukhumbu. Frequent support was provided to all districts by phone.

Quality assurance — The completed questionnaires were checked by the monitoring team during and after data collection. Feedback was provided to survey teams during data collection. Supervisors checked all questionnaires before sending them to Kathmandu for data entry.

2.6 DATABASE DESIGN, CODING, ENTRY AND CLEANING

Database design — Three databases were developed in CS Pro software — one for each tool. The data entry software was developed to have the same appearance as the questionnaire to minimise data entry errors. The databases were pre-tested before data entry started, and any errors were fixed.

Coding — Open-ended responses were coded prior to data entry. Completed questionnaires were assigned unique ID codes.

Data entry — The data entry officers received a one-day orientation. The completed questionnaires were entered into the CS Pro databases. Data entry personnel were hired from among supervisors with experience in data entry and processing. They were closely monitored by the database designer and back-up files were created each day to prevent data loss.

Data cleaning — Consistency checks and content cleaning were carried out. Outliers in continuous variables were checked. Entry errors were cross-checked against hard copies of the completed questionnaire. Variables were cross-tabulated to check consistency

Data analysis — Statistical analysis software Statistical Product and Service Solutions (SPSS) 16 has been used for data analysis. Frequency tables of all variables have been produced, along with cross tabulation with type of facilities for all the facility level information and key socio-demographic (such as caste/ethnicity, ecological zone, and level of facilities) for exit interview clients.

Weighting

Facility data:

- In order to produce nationally representative results, when data from all facility levels are combined, it was necessary to calculate appropriate weights based on the sample design (Annex 2.1). The weighting has eliminated any bias related to the different probabilities of selecting different levels of facility. Without weighting, the lower level facilities are under-represented, given the lower proportion selected, and the higher level facilities are over-represented, given the higher proportion selected. The data were post-stratified, so that the data from each level of facility were weighted in proportion to the number of facilities at each level of facility, at the national level, using data from the DoHS Annual Report 2009/10. However, with weighting the total figures are naturally more reflective of performance at the lower levels given the higher numbers. Given the large differences in expectations between different levels of facilities for many indicators, a more accurate picture of performance may be gained by looking at the data for the levels of facility individually, rather than the combined figure.

- The data presented for each level of facility individually were unweighted, as the weight applied to each level is constant. It was not felt appropriate to give, for example, one PHCC more weighting than another PHCC just because it was selected from a larger sub-region and so had a lower probability of being sampled. There is no evidence of greater similarities between facilities within one sub-region compared to facilities from another, and indeed neighbouring facilities can often be in stark contrast to one another.
- Different weights were applied to assess the functionality of CEONC facilities, BEONC facilities, birthing centres and Safe Abortion Services. These were calculated based on the distribution of the different levels of facilities within these categories at the national level (Annex 2.1).

Client data:

- As with the facility data, it was necessary to calculate appropriate weights for the client exit interview data based on the sample design, to produce nationally representative results. The weighting has eliminated any bias related to the different probabilities of selecting different levels of facility (Annex 2.1).

- The client exit interview data were also weighted to eliminate any bias related to the different first stage probabilities of selecting one district in each sub-region. There are differences in the level of utilization at each facility level between sub-regions and, without weighting, the characteristics of

the larger sub-regions are under-represented and the characteristics of the smaller sub-regions are over-represented.

- The data were post-stratified so that the data from each sub-region and level of facility are weighted in proportion to the expected utilization of health services, using data from the DoHS Annual Report 2009/10 for the outpatient exit interview and the Nepal Demographic Health Survey 2011 (NDHS 2011) for the maternity exit interviews.
- The weights for both the outpatients and maternity clients were trimmed: any weights greater than ten were allocated a weighting of ten, and any weights less than 0.1 were allocated a weight of 0.1 which resulted in ten maternity clients having their weight trimmed.
- However in Tables 3.4 and 3.5 unweighted figures are given as our objective there is simply to describe the sample of clients achieved in terms of facility and district, not to make inference for clients across Nepal

Significance tests and Interval estimation

The sampling design involved the selection of only one PSU (district) within each sub-region (strata), and also involves post-stratification; such a design cannot be acknowledged precisely in the data analysis. However, we approximate this design as the selection of districts within strata defined by ecological zones (mountain, hill, and Terai). We acknowledged the weighting of the data, the approximate stratification, and the two-level clustering (districts as PSUs and facilities as Secondary Sampling Units (SSUs)) while computing statistical tests and confidence intervals, using the complex survey functions of SPSS. Statistical tests were performed for the client data to assess the differences in utilisation by ecological zone, caste/ethnicity and facility level. However, significance tests were not performed to assess differences by facility level when using the facility survey data due to the small number of hospitals sampled and the high sampling fractions of some facility levels, particularly hospitals.

- We have used the complex survey adaptations of the chi-squared test for the categorical variables.
- We have reported significance with a p-value of <0.05 (significant at the 5% level).
- Confidence intervals were computed for the key variables in each chapter, including all NHSP-2 LF indicators.

2.7 LIMITATIONS AND CHALLENGES

The main limitations of the methodology of the STS 2011 were as follows:

- The STS 2011 is a cross-sectional survey and hence only provides a snapshot of information at one point in time.
- The findings are nationally representative, but the study was not designed to produce sub-regional or district estimates of the research questions.
- Some of the questions relied on the perspective of clients and so their answers may be biased by subjective interpretations.
- Some of the sample sizes, especially when disaggregating the results by caste/ethnicity and topographical zone are small, and hence further research may be needed to confirm these observations.
- Only descriptive findings and associations have been reported, and no causal relationships have been deduced between data.

The main challenges faced in carrying out the survey were as follows:

- Field researchers were unable to meet all representatives from facilities as planned.
- Some health workers were uncooperative.
- Poor quality record keeping at many health facilities, including inconsistent approaches to record keeping, facility records kept in locked cupboards with key-holders absent and the incomplete recording of information and missing pages in record books.

3 BACKGROUND CHARACTERISTICS

3.1 INTRODUCTION

This chapter presents the characteristics of the facilities surveyed and clients interviewed. It should be noted that the characteristics of those interviewed may not be representative of all clients who use the selected facilities. Infrastructure data is presented at the facility level. Client information is broken down by type of facility, place of residence, demographic characteristics (sex, age, caste/ethnic group, religion and education) and services accessed.

3.2 FACILITIES

The Service Tracking Survey 2011 (STS 2011) covered 169 public health facilities: 16 hospitals, 28 primary health care centres (PHCCs), 45 health posts and 80 sub-health posts (SHPs). The 16 hospitals comprised 1 central level, 1 regional, 2 zonal and 12 district hospitals. (Note the cabinet level decision to upgrade Hetauda hospital to regional level status [50 beds] was taken just prior to STS 2011 data collection and upgrading was in process at the time of STS 2011 data collection).

Ownership of health facility buildings — Table 3.1 shows the ownership status of the health facility buildings. All hospitals surveyed and a high proportion of PHCCs (89%) and health posts (93%) were self-owned. However, less than two-thirds of SHPs (64%) were self-owned.

Table 3.1: Ownership of health facility buildings by level of facility

	Hospital (%)	PHCC (%)	Health post (%)	SHP (%)
1. Ownership of building				
Own building	100	89.3	93.3	63.8
VDC/public building	0.0	3.6	4.4	20.0
Leased/rented	0.0	7.1	2.2	16.3
n (total facilities)	16	28	45	80
2. Length of time rented or leased				
1-5 years	0.0	100	100	69.3
> 5 years	0.0	0.0	0.0	30.8
n (total facilities)	0	2	1	13
3. Built by:				
Local authority	6.3	15.4	25.0	73.1
MoHP	68.8	69.2	40.9	10.4
INGO/NGO	31.3	19.2	34.1	22.4
Individual	0.0	0.0	2.3	1.5
n (total facilities)	16	26	44	67

Source: STS facility questionnaire

- **Perceived need for additional construction** — The following findings on the need for additional construction should be interpreted with caution as they are the perspective of health facility staff and are not derived from a systematic comparable assessment measuring the current

situation against government guidelines. Staff at almost all hospitals (94%) reported the need for additional construction and staff from nearly three-quarters of hospitals (73%) and PHCCs (71%) reported the need for additional construction of staff quarters (Table 3.2). Likewise, over half of all staff reported the need for a birthing facility with the need greatest at the lower level facilities — at 61% of SHPs and 56% of health posts.

- **Separate delivery room** — The likelihood of having a separate delivery room decreased by level of facility with 89% of PHCCs having a separate room for this purpose compared to 69% of health posts and only 14% of SHPs.

Table 3.2: Additional construction required and availability of separate delivery rooms

	Hospital (%)	PHCC (%)	HP (%)	SHP (%)
1. Additional construction required	93.8	80.8	81.8	83.6
2. Areas in need of additional construction				
Staff quarters	73.3	71.4	58.3	44.6
Birthing unit	40.0	47.6	55.6	60.7
Admin. and finance section	20.0	33.3	47.2	28.6
Outpatient area	46.7	23.8	19.4	37.5
Inpatient ward	73.3	28.6	8.3	7.1
3. Have separate delivery room	100	89.3	68.9	13.8
n (total facilities)	16	28	45	80

Source: STS facility questionnaire

Table 3.3: Availability of permanent and overnight accommodation by level of facility

	Hospital (%)	PHCC (%)	HP (%)	SHP (%)
Permanent accommodation for institution head	100	50.0	35.6	8.8
Permanent accommodation for nurses	93.8	46.4	26.7	5.0
Overnight accommodation for health workers	56.3	35.7	35.6	5.0
Overnight accommodation for nurses	43.8	14.3	8.9	3.8
No accommodation for staff	0.0	35.7	46.7	85.0
n (total facilities)	16	28	45	80

Source: STS facility questionnaire

- **Staff accommodation** — All hospitals had permanent accommodation for the head of the institution (100%) and most (94%) had permanent accommodation for the nursing staff (Table 3.3). However, the provision of overnight accommodation was less common, with over half having this for health workers (56%) and less than half for nurses (44%). Permanent and overnight accommodation was less common at lower-level facilities —just 46% of PHCCs had permanent accommodation for nurses and 14% had overnight accommodation for nurses.

3.3 CLIENT CHARACTERISTICS

A total of 1,017 exit interviews were conducted — 820 (81%) with outpatients and 197 (19%) with maternity clients. Data are presented separately for maternity clients and outpatients, given that the services they are accessing differ greatly. When describing the client sample in terms of facility type and district unweighted percentages are presented, but otherwise to make inference for clients across Nepal data are weighted to give nationally representative figures (see Section 2.6).

Facility type — Hospitals represented only a small proportion of the facilities surveyed, but their higher caseloads resulted in most maternity exit interviews being with hospital clients (91%) (Table 3.4). However, 40% of outpatient exit interviews were conducted with hospital clients. Most of the hospital exit interviews were conducted at district hospitals (50% of maternity interviews and 25% of outpatient interviews). More than one quarter (30%) of outpatient interviews were conducted at PHCCs, followed by 16% at SHPs and 15% at health posts. Of the maternity interviews, 8% were at PHCCs, 1% at health posts and SHPs.

Table 3.4: Exit interviews by type of facility

	Maternity (%)	Outpatients (%)	All (%)
1. Hospital	90.9	40.0	33.3
Central	11.2	3.5	3.3
Regional	9.6	4.4	3.6
Zonal	19.8	7.1	6.4
District	50.3	25.0	19.9
2. PHCC	7.6	29.8	17.0
3. Health post	1.0	14.8	8.1
4. Sub-health post	0.5	15.5	8.4
n (total clients interviewed)	197	820	1,017

Source: STS maternity and outpatient exit interviews

Note: Percentages presented in the table are unweighted

Districts — Most exit interviews were conducted in the four districts with the largest populations — Mahottari, Sunsari, Makawanpur, and Syangja, which together accounted for 51% of outpatient exit interviews and 53% of maternity interviews (Table 3.5). The proportion of interviews conducted for outpatients and maternity cases were similar in each district. Few interviews were conducted in Mugu owing to the small caseload there.

Place of residence — The maternity clients (14%) were more likely than the outpatients (1.5%) to use a facility located in a different district from the one in which they normally reside (Table 3.6), suggesting that maternity clients may be willing to, or need to, travel further than outpatients. For maternity clients, 82% of PHCC clients interviewed came from the same district, while hospital clients were more likely to come from a different district (14%). For outpatients, the pattern was similar with all health post and SHP clients, and 98% of PHCC clients interviewed coming from the same district, and 9% of hospital clients coming from a different district. The districts with the most non-resident clients were Sunsari, Banke and Kailali. Sunsari had clients from a wide range of places: Dhankuta, Morang, Saptari, Bhojpur, Jhapa, Khotang, Saptari, Siraha and India. The non-resident Banke clients came largely from

the adjoining district of Bardiya, and non-resident clients in Kailali came largely from the adjoining district of Kanchanpur. It is not surprising that these districts had the highest proportion of clients coming from outside their districts given that these districts contain the central and zonal hospitals.

Table 3.5: Number of exit interviews conducted in each district

	Maternity (%)	Outpatients (%)	All (%)
Mahottari	15.2	14.6	14.7
Sunsari	15.7	14.6	14.8
Makwanpur	11.7	11.7	11.7
Syangja	10.2	10.0	10.0
Kapilvastu	10.2	9.4	9.5
Kailali	9.6	9.0	9.1
Banke	7.1	7.2	7.2
Panchthar	8.1	7.2	7.4
Jajarkot	1.0	5.1	4.3
Mugu	5.6	4.8	4.9
Baitadi	3.0	3.0	3.0
Sindhupalchowk	2.0	2.4	2.4
Solukhumbu	0.5	0.9	0.8
n (total clients)	197	820	1,017

Source: STS maternity and outpatient exit interviews

Note: Percentages presented in the table are unweighted

Table 3.6: Clients' place of residence: same or different district

	Hospital (%)	PHCC (%)	HP (%)	SHP (%)	Total (%)
1. Outpatients					
Same district	91.3	97.8	100	100	98.5
Different district	8.7	2.2	0.0	0.0	1.5
n (total clients)	328	244	121	127	820
2. Maternity					
Same district	86.4	81.8	100	100	86.1
Different district	13.6	18.2	0.0	0.0	13.9
n (total clients)	179	15	2	1	197

Source: STS maternity and outpatient exit interviews

Urban/rural — Across Nepal 83% of the population resides in rural areas (i.e. village development committees [VDCs]) (GoN census 2011). To assess whether surveyed clients came from urban or rural areas, they were asked whether they resided in a municipality or a VDC area. Of the clients interviewed 94% of outpatients resided in rural areas, slightly higher than the national distribution, along with 70% of maternity clients (Table 3.7). There were very few urban clients in facilities below hospital level, and

97% of PHCC outpatients coming from rural areas. At the hospital level 68% of maternity clients and 57% of outpatients were rural.

Table 3.7: Clients' place of residence: urban or rural

	Hospital (%)	PHCC (%)	HP (%)	SHP (%)	All (%)
1. Maternity					
Rural	68.0	100	100	100	70.3
Urban	30.1	0.0	0.0	0.0	27.9
India	2.0	0.0	0.0	0.0	1.8
n (total clients)	179	15	2	1	197
2. Outpatients					
Rural	57.4	96.7	100	100	93.5
Urban	41.7	3.3	0.0	0.0	6.4
India	0.9	0.0	0.0	0.0	0.1
n (total clients)	328	244	121	127	820

Source: STS maternity and outpatient exit interviews

Demographic characteristics — As already stated, the characteristics of clients interviewed may not be representative of all clients using the facilities. The characteristics of the clients interviewed were as follows (see Table 3.8):

- ***Sex:*** 67% of outpatient clients were female and 33% male.
- **Age:** The maternity clients tended to be younger than the outpatient clients with 97% of maternity clients being under 30 years of age compared to 47% of outpatient clients. Maternity clients ranged from 16 to 39 years old, with a mean age of 23 years. Male outpatients were aged between 1 and 85 years with a mean of 37 years while female outpatients were between 1 and 83 years old with a mean of 33 years. (Note that the guardians of child clients were interviewed.) More than one fifth of maternity clients were under nineteen years old, 3% were in their thirties and none were over 40 years. In contrast, 35% of outpatients were over 40 years. Nationally, the NDHS 2011 found that 20% of mothers were under 20 years old, 73% were between the ages of 20 and 34 years and 7% were older than 35 years.
- **Marital status:** All but one of the maternity clients were married (the exception was a widowed woman), compared to 83% of outpatients. Twelve per cent of outpatients were single, 5% widowed and 0.5% were separated.
- **Caste and ethnic group:** Thirty per cent of outpatients and 31% of maternity clients were from the Brahmin and Chhetri castes. Many maternity clients (69%) and outpatients (70%) belong to castes and ethnic groups that are prioritised for social inclusion initiatives. NHSP 2 classifies Dalits, Adibasi-Janajati (Newar and Janajati), Madhesi other castes and Muslims as excluded caste and ethnic groups. Note that the study followed the caste, ethnic and other population group categorisation as given by Bennett et al. (2008). This has the groups of Brahman/Chhetri, Terai/Madhesi other castes[2], Dalits, Newars, Janajatis (ethnic groups excluding Newars), Muslims and other (see Annex 3.1).

[2] Note that 'Tarai/Madhesi other castes' are also referred to as 'Other Backward Classes' (OBCs).

Table 3.8: Demographic characteristics of surveyed clients

Background characteristics	Maternity (%)	Outpatients (%)	All (%)
1. Sex			
Female	100	66.9	72.6
Male	-	33.1	27.4
2. Age (years)			
<20	21.7	12.7	14.2
20-24	46.9	18.0	23.0
25-29	28.1	16.3	18.3
30-34	2.7	9.6	8.4
35-39	0.7	8.8	7.4
40+	0	34.7	28.8
Don't know	0	0	0.0
3. Marital status			
Married	100	82.5	85.5
Widowed	0.0	5.0	4.1
Separated	0.0	0.5	0.4
Single	0.0	12.0	9.9
4. Caste-ethnic group			
Brahmin and Chhetri	30.8	29.8	30.0
Janajati	26.2	30.7	29.9
Terai-Madhesi other castes	22.0	16.7	17.6
Dalits	8.3	15.6	14.3
Muslim	8.4	4.4	5.1
Newar	4.1	2.8	3.0
Other	0.2	0.1	0.1
5. Education			
No schooling – illiterate	24.9	50.1	45.8
No schooling – literate	4.1	10.9	9.7
Grade 1-5	14.7	10.6	11.3
Grade 6-9	27.4	14.6	16.8
SLC	14.7	10.4	11.1
Proficiency certificate	5.1	1.9	2.5
Bachelor degree or above	9.1	1.6	2.9
6. Religion			
Hindu	86.1	80.4	81.4
Buddhist	2.9	9.4	8.3
Muslim	8.3	5.3	5.8
Christian	0.9	2.3	2.1
Kirat	1.8	2.6	2.5
n (total clients)	197	820	1,017

Source: STS maternity and outpatient exit interviews

- **Education** — In general, the maternity clients were more educated than the outpatients, and the outpatients were more likely to be illiterate (50% compared to 25%). This is largely a reflection of the differences in the age structure with maternity clients tending to be younger than outpatients and hence more likely to have a higher level of education. More than half of maternity clients (56%) had completed up to grade 6-9 at school, and 29% had completed their school leaving certificate (SLC) or higher (grade 10+). For outpatients, 29% had completed grade 6-9, and 14% their SLC or higher.
- **Religion** — Most clients were Hindu (86% of maternity clients and 80% of outpatients). There was a higher proportion of Buddhist clients using outpatient services than maternity services (3% compared to 9%).

Services accessed — The study found that (Table 3.9):

- over four-fifths of exit interviewees were outpatients and the remaining 19% were maternity clients, reflecting the higher caseload of outpatients at the facilities; and
- most outpatients interviewed attended for general curative services (85%), followed by acute respiratory infections (10%) and diarrhoea (10%).
- Note that obstetric clients were interviewed using the outpatient tool if it had been more than 42 days since their delivery.

Table 3.9: Purpose of visits to health facilities

Purpose of visit	%
General Curative Services	85.4
Diarrhoea	10.2
ARI	10.1
Antenatal Care	5.2
Family Planning	4.9
Immunization	3.8
Postnatal Care - infant	2.9
Lab test and x-ray	1.8
Postnatal Care - mother	1.5
Delivery care	1.1
TB	0.6
Gynaecological problem	0.5
Other	0.5
n (total clients)	820

Source: STS maternity and outpatient exit interviews

Maternity services — Most of the maternity clients interviewed had delivered at the facility (96%), with 12% having arrived before labour started, 76% during the first 24 hours of labour and 8% after 24 hours of labour (Table 3.10). The reasons for attending before going into labour included breech pregnancies and eclampsia.

Table 3.10: Stage of childbirth when maternity clients arrived at facilities

Stage	%
Before labour	12.2
During first 24 hours of labour	75.7
After 24 hours of labour	8.4
Postpartum	3.7
n (total clients)	197

Source: STS maternity exit interviews

Childbirth complications — Nearly one third (27%) of the surveyed maternity clients reported that they had experienced a complication prior to arriving at the facility (Table 3.11). This reflects the 2008/09 maternal mortality and morbidity (MMM) study findings, which showed that those experiencing complications were more likely to go to a facility for delivery (Pradhan et al. 2010). The most common complication experienced prior to arrival was prolonged or obstructed labour (51%), followed by antepartum haemorrhage (26%).

Table 3.11: Experience of complications by maternity clients prior to arrival

Experience of complications	%
1. Had complication prior to arrival at facility	27.2
n (total clients)	197
2. Complications	
Prolonged/obstructed labour	51.2
Antepartum haemorrhage	25.5
Vaginal bleeding during pregnancy	14.3
Retained placenta	6.3
High blood pressure	5.1
Postpartum haemorrhage	3.8
Intrapartum haemorrhage	3.5
Puerperal sepsis/infection	1.3
Eclampsia/pre-eclampsia	0.5
Missing	0.6
n (total clients)	45

Source: STS maternity exit interviews

Mode of delivery — Among the maternity clients interviewed, 92% were seen as inpatients and 8% as outpatients. Of those who were seen as outpatients, most had arrived within the first 24 hours of labour (81%). For those who delivered at the facility, most had a normal delivery (96%), with 3% having an assisted delivery and 0.7% a caesarean section (note that the mode of delivery findings reflect those who were interviewed and are not necessarily reflective of the population) (Table 3.12). The main reasons for having an assisted or caesarean delivery were prolonged labour (66%) and foetal distress (42%).

Table 3.12: Mode of delivery, for those who delivered in an STS 2011 facility

Mode of delivery for those who delivered in an STS 2011 facility	%
1. Mode of delivery	
Normal	96.1
Vacuum aspiration/forceps delivery	3.2
Caesarean section	0.7
n (total clients)	189
2. Reason for assisted/caesarean delivery	
Prolonged labour	65.5
Foetal distress	41.6
Multiple pregnancy	3.3
Client requested caesarean section	6.6
n (total clients)	10

Source: STS maternity exit interviews

Time of delivery — The deliveries of those interviewed were not evenly distributed throughout the day with 40% occurring between 9am and 3pm — the timing most convenient to service providers (Table 3.13).

Table 3.13: Time of delivery of women who delivered in the facilities

Time period	%
09:00-14:59 hrs	40.3
15:00-20:59 hrs	15.8
21:00-02:59 hrs	14.9
03:00-08:59 hrs	29.0
n (total clients)	189

Source: STS maternity exit interviews

4 FREE CARE

4.1 INTRODUCTION

The interim Constitution of Nepal, 2007 (the current constitution) considers the right to health as a fundamental right of the people of Nepal and guides the state's actions. The Government of Nepal introduced free health care in several stages:

- Since 2006, emergency and inpatient services have been provided free of charge to poor people, people living with disabilities, senior citizens and female community health volunteers (FCHVs) in district hospitals (of up to 25 beds) and primary health care centres (PHCCs) (as per government decision of 15 December 2006).
- Since January 2008, the provision of free care services has been expanded to all citizens at sub-health post (SHP) and health post level (as per decision of 8 October 2007).
- Since January 2009, all services at district hospitals (of up to 25 beds) have been provided free of charge for the targeted population groups of poorer people, poor/destitute/helpless people, people living with disabilities, senior citizens and FCHVs.
- Also since January 2009, essential drugs have been made available free of charge to all citizens (see list of drugs in Annex 4.1) and delivery care (childbirth) services have been provided free of care (see survey findings on the latter in Chapter 5).

Therefore, according to government policy, primary outpatient care[3] consultations, essential drugs, and institutional deliveries in all public and some private facilities should be provided free of charge to all citizens, while targeted population groups also benefit from free secondary care.

This chapter presents the findings of the Service Tracking Survey, 2011 (STS 2011) on the situation of free health care in 169 public sector health facilities. Data are presented from the STS facility questionnaire and exit interviews conducted with outpatients (N=820). The STS data collection also reviewed Health Management Information System (HMIS) record forms. Analysis by type of facility, topological zone and ethnicity is given where relevant.

4.2 RESULTS

Box 4.1: Key STS indicators for free care

Indicators	2011 results (%)	95%CI
% of outpatients aware of free care	92.1	83.1-96.6
% of Dalit and Janajati outpatients aware of free care	80.6	50.3-94.3
% of outpatients from mountain districts aware of free care	82.6	41.1-96.9
% of outpatients who paid for care under the free care policy	11.3	6.2-19.7
% of Dalit and Janajati outpatients who paid for care under the free care policy	5.5	2.4-12.4

[3] In the remainder of this chapter 'outpatient care' refers to primary outpatient care, unless stated otherwise.

4.2.1 Awareness

Under the free care policy district hospitals, PHCCs, health posts and SHPs should all provide outpatient care and essential drugs free of charge. Three of the 169 health facilities are referral hospitals (BP Koirala Institute of Health Sciences, Bheri Zonal Hospital and Seti Zonal Hospital) and were excluded from the outpatient exit interviews as they are not included in the free care policy.

The STS 2011 found that 92% of outpatients were aware that services should be provided free of charge. Brahmins and Chhetris (98%) were most aware of free essential health care with the Dalits the least aware (77%) (Table 4.1). This difference is statistically significant (p=0.004). There was no significant difference in awareness of the entitlement to free care by topographical zone (Table 4.2).

Most clients had learned about free care from their friends and neighbours (58%), followed by family members and relatives (41%) and FCHVs (28%) (Table 4.1). There is little difference by caste/ethnicity, with friends/neighbours being the main source of information on free care for all groups.

Table 4.1: Awareness of free care and source of information by caste/ethnicity

	Brahmin/ Chhetri (%)	Terai/ Madhesi other castes (%)	Dalits (%)	Newar (%)	Janajati (%)	Muslim (%)	Total (%)	*P*
1. Aware of entitlement to free care	97.8	91.5	77.2	95.5	94.6	90.6	92.1	0.004
n (total clients)	234	133	105	18	196	47	733	
2. Source of information:								
Friends/ neighbours	57.8	43.6	47.4	76.3	69.3	42.6	57.7	
Family member/ relative	39.8	37.5	58.6	19.9	37.7	41.3	40.8	
FCHV	20.1	40.8	35.2	58.2	18.3	68.0	28.1	
Facility staff	28.1	25.5	21.8	24.3	21.5	5.1	23.7	
Radio	28.9	17.7	9.6	20.5	28.6	9.4	23.3	
Health providers	17.2	22.1	17.4	7.9	20.1	11.0	18.5	
Posters/ pamphlets	4.0	7.5	7.0	0.0	5.3	0.0	5.1	
Television	4.0	7.4	0.5	0.0	3.5	13.3	4.2	
Teachers	0.5	0.0	4.6	0.0	0.2	0.0	0.8	
n (total clients)	219	106	96	16	180	40	657	

Source: STS outpatient exit interviews

Table 4.2: Awareness of free care and source of information by topographical zone

Sources	Mountain (%)	Hill (%)	Terai (%)	Total (%)	*P*
1. Aware of entitlement to free care	82.6	96.7	89.4	92.2	0.208
n (total clients)	86	247	400	733	
2. Source of information:					
Friends/ neighbours	62.1	62.0	51.7	57.7	
Family member/ relative	29.2	36.5	47.7	40.8	
FCHV	22.7	25.8	31.7	28.1	
Facility staff	8.2	24.6	25.5	23.7	
Radio	33.4	30.9	12.6	23.3	
Health providers	35.3	15.6	18.5	18.5	
Posters/ pamphlets	2.6	4.8	6.0	5.1	
Television	1.8	2.4	6.7	4.2	
Teachers	1.6	0.3	1.3	0.8	
n (total clients)	78	230	349	657	

Source: STS outpatient exit interviews

4.2.2 Client reporting of payment

Although care should have been free and most clients were aware of this (Table 4.1), one in ten (11%) had paid for their services (Table 4.3). There are some variations by caste/ethnicity, p=0.02, with Muslims (3%) being the least likely to pay for services, and Brahmin/Chhetris the most likely to (16%). There was no significant difference in client reporting of payment for services by topographical zone (Table 4.4). Of those clients who paid for services by giving a tip to health personnel, few did so voluntary, with no statistically significant difference by caste/ethnicity (Table 4.3) or topographical zone (Table 4.4).

Table 4.3: Payment for free care by caste and ethnic group

	Brahmin/ Chhetri (%)	Terai/ Madhesi other castes (%)	Dalits (%)	Newar (%)	Janajati (%)	Muslim (%)	Total (%)	*P*
1. Paid for services that should be free	16.4	7.6	4.9	9.5	13.0	3.1	11.3	0.021
n (total clients)	234	133	105	18	196	47	733	
2. Told to pay tip to health service provider	100	100	100	100	97.2	100	99.0	0.853
3. Voluntarily paid tip to service provider	0.0	0.0	0.0	0.0	2.8	0.0	1.0	
n (total clients)	87	45	24	4	57	13	230	

Source: STS outpatient exit interviews

Table 4.4: Payment for free care by topological zone

Information on free care	Mountain (%)	Hill (%)	Terai (%)	Total (%)	*P*
Paid for services that should be free	29.0	13.0	5.9	11.3	0.242
n (total clients)	86	247	400	733	
Told to pay a tip to health service provider	100	98.4	100	99.0	0.717
Voluntarily paid tip to health service provider	0.0	1.6	0.0	1.0	
n (total clients)	41	82	107	230	

Source: STS outpatient exit interviews

Reasons for payment

Overall, more than three quarters of clients (78%) who had paid for services reported that payment had been a condition for receiving the service (Table 4.5). The second and third most common reason given by clients had been that the drugs given were not on the essential drug list (i.e. provided free of charge) (25%) and that the facility had run out of essential/free drugs (8%).

Table 4.5: Reasons for payment, by caste/ethnicity

	Brahmin/ Chhetri (%)	Terai/ Madhesi other castes (%)	Dalits (%)	Newar (%)	Janajati (%)	Muslim (%)	Total (%)
Would not get treatment unless paid	87.4	92.3	80.3	76.4	63.6	66.9	78.2
Medicine not in free drugs list	14.8	15.9	25.7	0.0	44.7	0.0	25.3
No free drugs in stock	8.9	4.4	2.3	23.6	9.9	0.0	8.0
Facility short of money	0.0	4.4	7.0	0.0	11.7	18.0	5.7
Free services not available at facility	4.7	15.9	8.0	0.0	0.2	15.1	4.6
Not entitled to free services	2.0	1.1	5.0	0.0	1.0	36.0	2.3
n (total clients)	82	45	20	3	57	12	219

Source: STS outpatient exit interviews

The reason given for having to pay for care was more or less similar in different topological zones. The most commonly reported reason in every region was that the client would not get treatment unless they paid (67% of Mountain, 82% of Hill and Terai) (Table 4.6).

Table 4.6: Reasons for payment, by topological zone

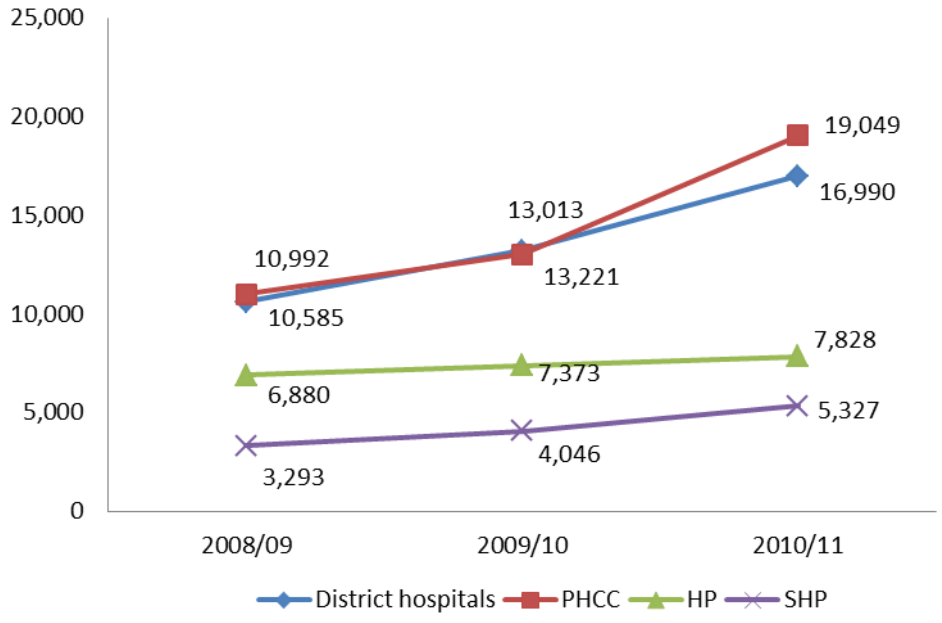
Reason for paying	Mountain (%)	Hill (%)	Terai (%)	Total (%)
Would not get treatment unless paid	66.8	81.6	82.3	78.2
Medicine not in free drugs list	34.1	25.8	17.6	25.3
No free drugs in stock	11.2	6.4	10.5	8.0
Facility short of money	18.0	0.0	5.7	5.7
Free services not available at facility	2.1	2.3	12.6	4.6
Not entitled to free services	4.1	0.5	4.4	2.3
n (total clients)	41	73	105	219

Source: STS outpatient exit interviews

4.2.3 Facility reporting of provision of free care

The number of clients receiving free health services has markedly increased over time for all levels of facility (Figure 4.1). The rate of increase, however, differs greatly by facility type. For health posts and SHPs there has been a small increase for each year since 2008/09. For PHCCs and hospitals[4], following a small increase between 2008/09 and 2009/10 there was a large increase between 2009/10, especially for the district hospitals, with a 160% increase over three years (Figure 4.1). The lowest increase was at health post level (a 14% increase).

Figure 4.1: Clients receiving free services by level of facility (average per facility type) (for fiscal years 2008/09 to 2010/11)



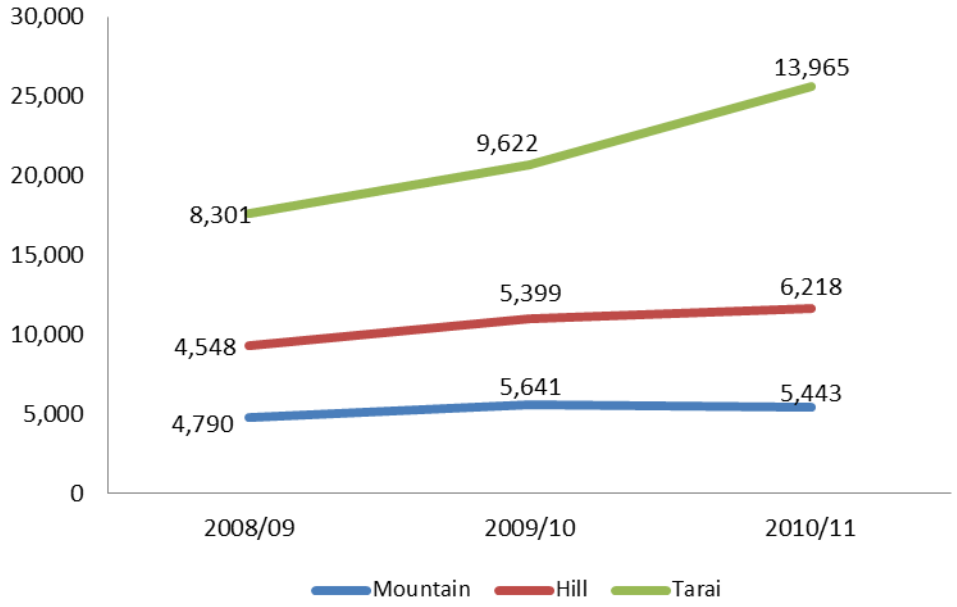
Source: STS facility questionnaire

The rate of increase in the number of clients receiving free care by topographical zone has been uneven (Figure 4.2). In the Terai districts the number of clients receiving free care saw a large increase

[4] Includes Hetauda hospital but not other higher level hospitals

from 2008/09 to 2010/11, whereas the hill districts saw a modest increase over this period while the mountain districts saw a modest increase between 2008/09 and 2009/10 but a decrease between 2009/10 and 2010/11.

Figure 4.2: Clients receiving free services by level of facility (average per topographical zone) (for FYs 2008/09 to 2010-11)



Source: STS facility questionnaire

4.2.4 Drugs under the free care policy

The government's free health care policy includes a list of essential drugs that each type of facility should provide free of charge to clients. Hospitals should provide 40 types of drugs free of charge, PHCCs, health posts 35 and SHPs 25. Annex 4.1 shows the list of essential drugs while Chapter 9 reports the detailed survey findings on drug supply.

4.3 KEY FINDINGS

Awareness

- Ninety two percent of outpatients at district hospitals, PHCCs, health posts and SHPs were aware that health care should be free.
- Brahmins and Chhetris (98%) were most likely to be aware of free health care and Dalits (77%) least likely.
- Most clients learned about free care through their friends and neighbours (56%), family members and relatives (41%) and female community health volunteers (28%).

Client reporting of payment

- Although care should have been free, and most clients knew it, one in ten clients (11%) had paid for health care.

- By far the most common reason why clients had paid for health care that should have been free was that payment was said to have been a precondition for receiving the services with more than three-quarters of clients (78%) giving this as a reason. The second and third most common reasons were that the required drugs were not on the list of essential/free drugs (25%) and that the facility had run out of essential/free drugs (8%).

Facility reporting of the provision of free care

- Data from HMIS shows that the number of clients receiving free essential health care services has markedly increased over the past three years for all levels of facility.
- The rate of increase differs by the level of facility with the largest increases at hospitals and PHCCs.
- There was an uneven rate of increase by topological zone. The number of clients receiving free care saw a large increase over the three fiscal years 2008/09–2010/11 in the Terai districts, while the increase was modest in the hill districts and there was a reduction between 2009/10 and 2010/11 in the mountain districts.
- The SHPs, health posts and PHCCs reported providing free care to most of their clients, thus suggesting that the free care policy is being correctly implemented.

5 AAMA PROGRAMME

5.1 INTRODUCTION

One of the main objectives of the Aama Programme is to reduce the financial barriers households face in accessing delivery care and thereby improve maternal and child health outcomes. Through the programme all women delivering in health facilities that are implementing the Aama Programme (both public and non-public), receive free delivery care and a transport incentive. Cash incentives were initiated in July 2005 under the Safe Delivery Incentive Programme (SDIP) with NPR 1,000 paid to women residing in the mountain and hill districts that ranked the lowest on the human development index (HDI). Free institutional delivery care was subsequently launched in January 2009, and a separate programme for antenatal care (providing incentives for women who attend four antenatal care checkups) began in 2009 funded from pooled donor contributions.

The Aama Programme provides the following:

- **Transport incentives –** all women who deliver in a facility implementing the Aama Programme receive a cash payment after delivery. The amount received varies by topographical zone, with women residing in mountain districts receiving NPR 1,500, women in hill districts NPR 1,000 and women in Terai districts NPR 500.
- **Free delivery care** — all women who deliver in a facility implementing the Aama Programme are entitled to free delivery, irrespective of the mode of delivery. A payment is made to health facilities for providing free care. For a normal delivery, health facilities with less than 25 beds receive NPR 1,000 and facilities with 25 beds or more receive NPR 1,500. For complicated deliveries health facilities receive NPR 3,000 and for caesarean sections NPR 7,000. These payments are designed to cover all required drugs, medical supplies and instruments and an incentive to health workers of NPR 300.
- **Incentives to health workers for home deliveries** – An incentive payment of NPR 300 used to be paid to health workers who attended home deliveries to encourage deliveries by skilled birth attendants. This incentive is being phased out to promote institutional delivery and has been reduced to NPR 200 per delivery.

Previous studies (Powell-Jackson et al. 2010; SSMP and CREHPA 2010) have highlighted the following challenges associated with the Aama Programme: substantial increases in demand for delivery care may affect the quality of care; the need for continuously strengthening financial management systems at all programme levels; the need to monitor the rate of caesarean sections to avoid supply-side induced demand; and the need to strengthen referral systems.

This chapter reports the findings of the Service Tracking Survey 2011 (STS 2011) on the implementation of the Aama Programme. Information was gathered from the facility-based questionnaire for 94 of the 169 facilities that were implementing the Aama Programme, with public health nurses and family planning assistants as respondents. The Health Management Information System (HMIS) recording forms of the facilities were also accessed as a source of information for the facility questionnaire. Exit interviews were administered to 197 women who had recently delivered or had experienced complications in facilities implementing the Aama Programme. This chapter reports the findings from the facility and exit interview tools on the general implementation of the scheme, the transport incentives, free delivery care and home delivery incentives.

5.2 RESULTS

Box 5.1: Key STS indicators for the Aama Programme

Indicators	2011 results (%)	95% CI
% of hospitals, PHCCs and health posts implementing Aama	88.0	77.2-94.1
% of maternity clients aware of transport incentive	81.4	54.3-94.2
% of Dalit and Janajati maternity clients aware of transport incentive	82.8	55.2-95.0
% of maternity clients aware of free delivery care	78.3	43.2-94.5
% of Dalit and Janajati maternity clients aware of free delivery care	83.1	47.6-96.4
% of maternity clients who paid for delivery care	50.3	25.2-75.2
% of Dalit and Janajati maternity clients who paid for delivery care	57.3	20.4-84.0

5.2.1 Facilities implementing Aama Programme

All public hospitals, primary health care centres (PHCCs) and health posts are required to implement the Aama Programme. Most hospitals (94%) and PHCCs (96%) were implementing the Aama Programme, along with 82% of health posts (Table 5.1). Note that some facilities are counted as 'not providing Aama' because they do not provide delivery care. Sub-health posts (SHPs) can choose to opt into the Aama Programme if they meet certain criteria and are approved by the Family Health Division (FHD). Of the surveyed sub-health posts 19% were voluntarily implementing the Aama Programme. However it should be noted that SHPs with birthing centres were prioritised for selection in the sampling of SHPs and hence this is not a generalisable figure.

All of the hospitals and PHCCs, 92% of health posts and 67% of sub-health posts that were implementing the Aama Programme reported provided the incentives (Table 5.1). These figures do not tally with what the clients report as only 63% of women reported actually receiving the incentives (see Table 5.6 below). This suggests that facilities over-report on the number of women they provide transport incentives to, but further research is needed to confirm this.

Table 5.1: Health facilities implementing the Aama Programme

	Implementation status				
	Hospitals (%)	PHCCs (%)	HPs (%)	Total (hospitals, PHCCs, HPs) (%)	SHPs (optional) (%)
Implementing Aama Programme	93.8	96.4	82.2	88.8	19.0
n (total facilities)	16	28	45	89	80
Facility reported providing transport incentive to clients	100	100	91.9	96.2	66.7
n (total facilities)	15	27	37	79	15

Source: STS facility questionnaire

5.2.2 Client awareness

Transport incentives

Overall 81% of maternity clients were aware of the transport incentive with no significant difference by caste/ethnicity or topographical zone (Table 5.2 and 5.3). Overall clients' main sources of information on the transport incentive were friends and neighbours (53%), followed by female community health volunteers (FCHVs) (44%) (Table 5.2).

Table 5.2: Awareness of transport incentives and source of information, by topographical zone

Awareness of transport incentives and source of information	Mountain (%)	Hill (%)	Terai (%)	Total (%)	P
1. Aware of entitlement to transport incentive	100.0	84.1	78.1	81.3	0.606
n (total clients)	19	55	123	197	
2. Sources of information					
Friends/neighbours	15.9	51.2	58.0	53.1	
FCHVs	72.9	40.0	43.0	43.5	
Facility staff	12.8	24.2	31.4	27.6	
Health providers	21.9	37.5	14.8	24.0	
Family members/relatives	58.7	14.1	41.8	31.9	
Radio	2.5	26.8	9.7	16.0	
Television	7.5	13.0	5.5	8.5	
Posters/pamphlets	0.0	2.2	5.8	4.1	
n (total clients)	18	48	100	166	

Source: STS maternity exit interviews

Table 5.3: Awareness of transport incentives and source of information, by caste/ethnic group

Awareness of transport incentives and source of information	Brahmin/ Chhetri (%)	Terai/ Madhesi other castes (%)	Dalits (%)	Newar (%)	Janajati (%)	Muslim (%)	Other (%)	Total (%)	P
1. Aware of entitlement to transport incentive	76.5	83.3	84.6	71.4	83.7	92.9	0.0	81.3	0.656
n (total clients)	59	40	18	10	59	10	1	197	
2. Sources of information									
Friends/neighbours	40.8	59.5	34.2	26.5	69.7	54.0	0.0	53.1	
FCHVs	29.4	48.8	57.0	46.5	48.2	49.5	0.0	43.5	
Facility staff	18.7	42.1	43.4	0.0	29.1	13.4	0.0	27.6	
Health providers	35.6	20.1	13.5	38.7	21.9	8.9	0.0	24.0	
Family members/relative	23.5	37.7	28.3	0.0	23.5	82.4	0.0	31.9	
Television	19.3	0.0	0.0	3.9	9.9	1.4	0.0	8.5	
Radio	22.7	5.4	18.6	0.0	24.2	1.4	0.0	16.0	
Posters/pamphlets	0.0	6.3	10.5	20.7	4.0	0.0	0.0	4.1	
n (total clients)	48	32	17	8	51	9	0	166	

Source: STS maternity exit interviews

Free care

Overall 78% of maternity clients were aware that goods and services related to delivery care should be provided free of charge with no significant difference between topographical zone or caste/ethnicity (Table 5.4 and 5.5). Of the 155 clients who had been aware that delivery care services should be free, 93% had known this prior to visiting the facility. The main source of information on free delivery care was friends and neighbours (54%) followed by family members/relatives (44%) and FCHVs (42%) and (Table 5.4).

Table 5.4: Awareness of free care and source of information, by topographical zone

Awareness of free delivery health care	Mountain (%)	Hill (%)	Terai (%)	Total (%)	P
1. Aware of free delivery at health facility?	100	81.0	75.0	78.3	0.696
n (total clients)	19	55	123	197	
2. When aware of free delivery					
2.1. Aware of free delivery prior to going to health facility	100	94.1	91.7	93.1	
2.2. Became aware of free delivery only after going to health facility	0.0	5.9	8.3	6.9	
n (total clients)	17	45	93	155	
3. Sources of information on free care					
Friends/neighbours	20.5	58.3	53.6	53.6	
Family members/relatives	57.8	29.4	52.2	43.6	
FCHVs	65.7	33.4	44.9	41.6	
Facility staff	6.5	37.6	26.3	29.6	
Health providers	21.2	22.3	18.9	20.3	
Radio	6.5	32.7	10.4	18.9	
Television	7.6	7.9	5.7	6.6	
Posters/pamphlets	0.0	2.7	3.3	5.9	
n (total clients)	17	45	93	155	

Source: STS maternity exit interviews

Table 5.5: Awareness of free care and source of information, by caste and ethnic group

Source of Information	Brahmin/ Chhetri (%)	Terai/ Madhesi other castes (%)	Dalits (%)	Newar (%)	Janajati (%)	Muslim (%)	Others (%)	Total (%)	P
1. Aware of free delivery	70.6	81.1	100	42.9	79.1	100.0	0.0	78.3	0.154
n (total clients)	59	40	18	10	59	10	1	197	
2. When aware of free delivery									
2.1. Aware of free delivery prior to going to health facility	94.4	96.7	84.6	100.0	88.2	100.0	0.0	93.1	
2.2. Became aware of free delivery only after going to facility	5.6	3.3	15.4	0.0	11.8	0.0	0.0	6.9	
n (total clients)	42	33	17	6	47	10	0	155	
3. Sources of information									
Friends/neighbours	48.3	48.4	37.8	21.6	69.3	61.3	0.0	53.6	
Family members/relatives	38.8	53.6	46.0	0.0	26.8	80.9	0.0	43.6	
FCHVs	32.3	56.1	53.2	67.6	42.2	16.6	0.0	41.6	
Facility staff	30.8	32.5	21.8	0.0	36.9	15.1	0.0	29.6	
Health providers	28.8	8.6	31.3	7.2	14.8	29.1	0.0	20.3	
Radio	26.1	8.2	25.0	0.0	26.8	1.3	0.0	18.9	
Television	7.9	10.9	0.0	14.4	5.7	1.3	0.0	6.6	
Posters/pamphlets	4.4	9.5	0.0	0.0	9.6	0.0	0.0	5.9	
n (total clients)	42	33	17	6	47	10	0	155	

Source: STS maternity exit interviews

5.2.3 Client receipt

Transport incentives

The STS 2011 found that only 61% of the clients had actually received the transport incentive at the time of discharge (Table 5.6) despite 81% of them being aware of their entitlement (see Table 5.2). There were no significant differences in the extent to which clients from the different caste and ethnic groups or different topographical zones received the transport incentives.

Clients from the mountain districts received NPR 1,500 for the transport incentive — which is the amount they expected and the amount they should receive (Figure 5.1). However, clients from the hill and Terai districts expected to receive slightly more than they were entitled to and reported receiving similar to what they were entitled to. It is possible that women from hill and Terai districts perceive the 4ANC and the Aama transport incentive to come as one incentive package. This casts doubt on the validity of client responses regarding how much they received for the transport incentive despite being asked at the time of discharge. Similar, but distinct, policy interventions seem to be causing confusion.

Table 5.6: Payment for delivery care and receipt of incentive payments, by caste and ethnicity

Receipt of Incentive	Brahmin/ Chhetri (%)	Terai/ Madhesi other castes (%)	Dalits (%)	Newar (%)	Janajati (%)	Muslim (%)	Total (%)	P
Paid delivery expenses	47.1	40.5	46.2	57.1	55.8	71.4	50.3	0.439
n (total clients)	59	40	18	10	59	10	197	
Received incentive	56.9	58.3	84.6	42.9	61.4	85.7	61.4	0.360
n (total clients)	59	40	18	10	59	10	197	

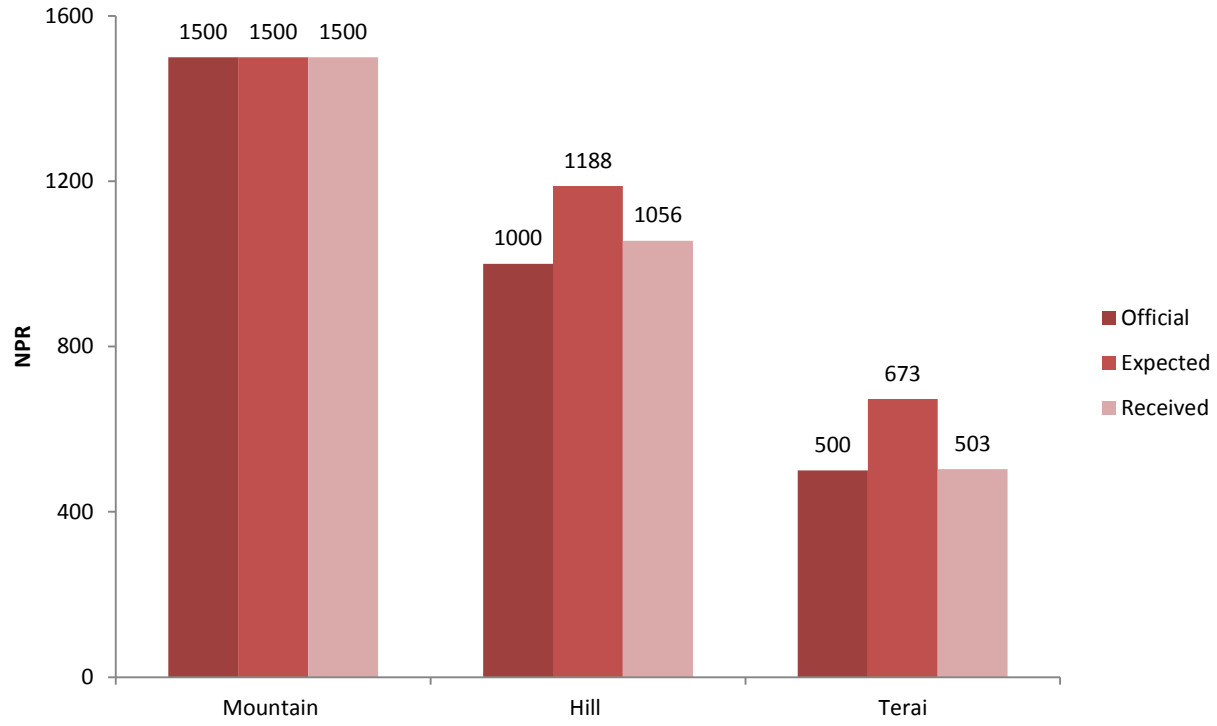
Source: STS maternity exit interviews Note: Others category in each row showed zero

Table 5.7: Payment for delivery care and receipt of incentive payments, by topographical zone

Awareness	Mountain (%)	Hill (%)	Terai (%)	Total (%)	P
Paid delivery expenses	37.5	40.3	57.9	50.3	0.668
n (total clients)	19	55	123	197	
Received transport incentive	87.5	61.9	59.4	61.4	0.768
n (total clients)	19	55	123	197	

Source: STS maternity exit interviews

Figure 5.1: Official amount, expected amount and amount given for transport incentive, by topographical zone (in NPR)



Source: STS maternity exit interviews (Official amount is as per Aama Guideline)

Free delivery care

Half of the clients (50%) had received delivery care for free (Table 5.6) despite 78% of them being aware that they are entitled to free delivery care (see Table 5.4). There were no significant differences by caste/ethnicity or topographical zone.

Types of payment made by clients

The Aama guidelines specify that all the goods and services listed in Table 5.8 should be provided free of charge, and tips should not be provided to health personnel. However, one out of two of the maternity clients (50%) paid for goods and/or services at Aama implementing facilities. The most common costs were for medicine (51%), registration fees (49%), laboratory tests (30%), cord cutting (22%) and sanitary staff fees (19%).

Table 5.8: Types of payments made by maternity clients

Types of payment	Mountain (%)	Hill (%)	Terai (%)	Total (%)
Medicine	100.0	16.0	65.5	51.2
Registration fee	0.0	72.0	41.1	49.4
Laboratory tests	0.0	24.0	33.9	29.8
Cord cutting	0.0	56.0	7.3	21.7
Sanitary staff fee	0.0	20.0	20.0	19.3
Delivery/operation fee	0.0	0.0	17.9	11.9
Sanitary pads	0.0	4.0	14.5	10.8
Sanitary staff tips	0.0	0.0	10.7	7.1
Informal payments to providers	0.0	0.0	9.1	6.0
Delivery items required	50.0	12.0	0.0	4.9
Gloves	0.0	0.0	1.8	1.2
Complication management fee	0.0	0.0	0.0	0.0
n (total clients)	14	25	73	112

Source: STS maternity exit interviews

5.2.4 Procedures for paying incentives

The Aama guidelines stipulate that clients are required to fill out a form to claim their transport incentive. The requirement to fill out a form was followed by 79% of facilities (Table 5.9). More than one-third of facilities requested clients to show their antenatal care (ANC) card to obtain the transport incentive, although this is not specified by the Aama guidelines. This may have resulted from confusion with the guidelines for the ANC incentive programme. These results highlight that not all facilities comply with the Aama guidelines, and that different systems for different schemes may cause confusion. A few facilities (4%) reported that women did not have to show any documentation in order to claim their incentive.

Table 5.9: Procedures requested by facilities to claim transport incentive

Action needed	%
Fill out claim form	78.7
Show antenatal care (ANC) card	36.2
Show ID card	6.4
Needed to do nothing (just received incentive)	4.3
Needed VDC recommendation	2.1
n (total clients)	94

Source: STS facility questionnaire

5.2.5 Record keeping

According to the Aama guidelines facilities must record programme beneficiaries (those who receive free delivery care and a transport incentive). However, 13% of hospitals, 11% of PHCCs, 16% of HPs and

40% of SHPs did not maintain a list (Table 5.10). Furthermore, not all of those who reported that they kept a list were able to show it to the enumerators, including one-fifth (20%) of the hospitals. The facilities kept such a list and were able to show the list of beneficiaries, with compliance being greatest at PHCCs (74%) and lowest at SHPs (60%).

Table 5.10: Record keeping of women receiving Aama benefits (incentives & free delivery)

Questionnaire finding	Hospital (%)	PHCC (%)	HP (%)	SHP (%)
Showed list of beneficiaries	66.7	74.1	70.3	60.0
Reportedly kept list, but not seen	20.0	14.8	13.5	0.0
Did not maintain a list	13.3	11.1	16.2	40.0
n (total facilities)	15	27	37	15

Source: STS facility questionnaire

5.2.6 Number of deliveries

The health facilities' records revealed that the hospitals had provided services to many more maternity clients (average 1,188) in the previous fiscal year, for all modes of delivery, than the other types of facilities (e.g. PHCCs had an average of 121 clients) (Table 5.11). Currently hospitals receive a higher subsidy (NPR 1,500) for normal deliveries than lower level health facilities (NPR 1,000). As expected complicated deliveries were more likely to be carried out at hospitals and caesarean sections were only performed at hospitals.

Table 5.11: Average number of deliveries by level of facility (FY 2010/11)

	Hospital	PHCC	HP	SHP
Total women who received service	1,188	136	43	21
Normal deliveries	942	121	41	21
Complicated deliveries	147	14	2	0
Caesarean sections	98	0	0	0
n (total facilities)	15	27	37	15

Source: STS facility questionnaire

5.2.7 Receipt of payments

Hospitals implementing the Aama programme received an average of NPR 3.2 million from the programme, PHCCs NPR 251,222, health posts NPR 82,010 and SHPs NPR 39,060 (Table 5.12). These amounts were for paying the incentives and free delivery costs. The same pattern, with hospitals receiving the most and SHPs the least, holds true for the amounts broken down into the incentives and free delivery costs.

Hospitals received more than ten times the amount other facilities received. This is the result of both a price and quantity effect. Hospitals receive a higher subsidy per delivery because they deliver comparatively more complicated deliveries and caesarean sections; and they also receive a higher unit

subsidy (an additional NPR 500) for normal deliveries. And hospitals deliver more infants across all types of delivery than other facilities (as shown in Table 5.11).

Table 5.12: Average amount received from Aama Programme by facility type

Aama Fund received	Hospital (NPR)	PHCC (NPR)	HP (NPR)	SHP (NPR)
Total amount received	3,283,788	251,222	82,010	39,060
Amount for free delivery	1,478,013	133,988	42,759	11,226
Amount for transport incentive	876,366	85,251	34,519	10,300
n (total facilities)	15	27	37	15

Source: STS facility questionnaire

5.2.8 Health management committee engagement with programme

One of the intended consequences of the Aama Programme is that facilities use the subsidies they receive from the Aama Programme to improve their performance. Anecdotal evidence suggests that health management committees (hospital development committee [HDCs] and health facility management committees [HFMCs]) often actively discussed the distribution of the subsidies received per delivery across the different types of costs of procuring drugs, small-scale facility maintenance and health worker incentives. The STS found that most facilities (>85% at each level of facilities) with health management committees reported that the committees discussed the implementation of the Aama Programme (Table 5.13).

Table 5.13: HDC/HFMC engagement with Aama Programme

	Hospital (%)	PHCC (%)	HP (%)	SHP (%)
HDC/HFMC discussed about Aama Programme	86.7	92.6	86.5	86.7
n (total facilities)	15	27	37	15

Source: STS facility questionnaire

5.2.9 Incentives for home deliveries

Thirteen per cent of hospitals, 19% of PHCCs, 24% of HPs and 27% of SHPs implementing the Aama Programme did not provide incentives to health workers for attending deliveries at clients' homes, despite the programme providing an incentive of NPR 200 per such delivery (Table 5.14). SHPs (27%) were twice as likely to pay incentives to health workers as hospitals (13%), which corresponds with expectations, as staff at lower level health facilities are more likely to conduct home deliveries.

Table 5.14: Provision of cash incentives to health workers for attending home deliveries

	Hospital (%)	PHCC (%)	HP (%)	SHP (%)
Provided incentive to health workers	13.3	18.5	24.3	26.7
n (total facilities)	15	27	37	15

Source: STS facility questionnaire

5.3 KEY FINDINGS

Implementation

- Not all facilities that should be implementing the Aama Programme were implementing it.

Client awareness

- Maternity clients were relatively well aware of the Aama Programme: Nearly four fifths were aware that delivery care should be free and 84% knew about the transport incentive.
- The main source of information on both the transport incentive and free delivery care were friends, neighbours and FCHVs with information and education materials (radio, television, posters and pamphlets) playing a relatively minor role.

Client receipt of free delivery care and transport incentive

- Only 61% of clients had received their entitled transport incentive and half of clients (50%) had received free delivery care.

Facility procedures, recording and receipt of payments

- More than one in three women had been asked to show their ANC card to obtain the Aama transport incentive. This is not part of the Aama guidelines and may be the result of confusion with the antenatal care incentive programme. These results highlight that not all facilities comply with the Aama policies, and that different schemes with different rules may hinder compliance.
- Not all health facilities had registered the names of the clients provided with benefits, and not all women were asked to fill in the form as per the Aama guidelines.
- Hospitals received significantly more Aama funding than other types of facilities.

6 FINANCIAL MANAGEMENT

6.1 INTRODUCTION

Sound financial management is crucial for ensuring that health facilities have adequate funds, receive funds on time, and spend these funds efficiently to ensure high quality health care. Health facilities in Nepal receive funding from the central government and a variety of other sources.

This chapter presents the findings of the Service Tracking Survey, 2011 (STS 2011) on the financial management of 169 health facilities. It describes the sources of revenue and amount of expenditure by level of facility, and provides information on their financial management procedures for fiscal year 2010/2011. It looks at the extent to which the surveyed health facilities disclose their financial information to the general public, and the extent to which they carry out their financial reporting and auditing obligations.

6.2 RESULTS

Box 6.1: Key STS indicators for financial management

Indicators	2011 results (%)	95% CI
% of facilities that spent all the money received	26.7	14.1-44.8
% of facilities with a bank account	94.6	74.4-99.1
% of facilities that disclosed their income and expenditure to the public	81.9	67.7-90.8
% of facilities that conducted an internal audit in the last fiscal year	12.7	7.4-21.1
% of facilities that conducted a final audit in the last fiscal year	15.3	9.6-23.5

6.2.1 Sources of revenue

The facilities were asked to provide information on their sources of revenue. Primary health care centres (PHCCs), health posts and sub-health posts (SHPs) are not Ministry of Health and Population (MoHP) cost centres and therefore do not receive funds directly from MoHP, nor do they have sanctioned posts responsible for financial management. However, health facilities at all levels do receive funding to implement specific programmes, for example, the Aama Programme and free care as well as revenue from local government bodies (village development committees [VDCs] and district development committees [DDCs]). Eighteen SHPs reported that they did not receive any funds from MoHP and are therefore excluded from the analysis in this chapter.

The MoHP was the main financier for district hospitals and lower level facilities (Table 6.1). The second largest source of income for district hospitals was INGOs, for HPs and SHPs it was VDCs and for PHCCs it was internal income (fees from on-the-job trainees, rental, individual donations and service charges). Registration fees are also a form of internal income, but this source is listed separately in Table 6.1. The MoHP's annual work plan and budget does not capture these internal income sources. Funding from INGOs does not include the pooled donor funding (which goes directly to the Treasury, and would therefore be classified as MoHP funding) or INGO commitments that have been rejected in the

government's Red Book (the government budget). The funding from INGOs in this analysis denotes their direct funding to health facilities.

Table 6.1: Sources of income for health facilities (FY 2010/2011) (in NPR million and %)

	District hospitals		PHCCs		Health posts		SHPs	
	NPR m	% of total budget	NPR m	% of total budget	NPR m	% of total budget	NPR m	% of total budget
MoHP	216.2	81.2	11.4	65.7	6.5	61.6	6.5	46.9
VDCs	2.2	0.8	1.9	10.8	2	19.1	3.2	23.4
INGOS	23.1	8.9	0.1	0.8	0.1	0.7	2.5	18.2
DDCs	0.2	0.1	0.4	2.1	0.5	5.2	0.9	6.6
Registration fees	2.3	0.9	0.6	3.6	0.1	0.5	0	0
(Other) internal income	22.1	8.3	2.9	16.8	1.4	13.0	0.7	4.8
Total budget	266.2		17.4	100	10.6	100	13.8	100
n (total facilities)	13		28		45		62	

Source: STS facility questionnaire

Table 6.2: Sources of income for BPKIHS and zonal hospitals (FY 2010/2011) (NPR million and %)

	BPKIHS		Zonal hospitals	
	NPR m	% of total budget	NPR m	% of total budget
MoHP	230	20.7	65.9	32.3
VDC	0	0.0	0	0.0
INGOS	0	0.0	0	0.0
DDC	0	0.0	0	0.0
Registration fees	0	0.0	0	0.0
(Other) internal income	880	79.3	137.8	67.6
Total budget	1,110		203.7	
n (total facilities)	1		2	

Source: STS facility questionnaire

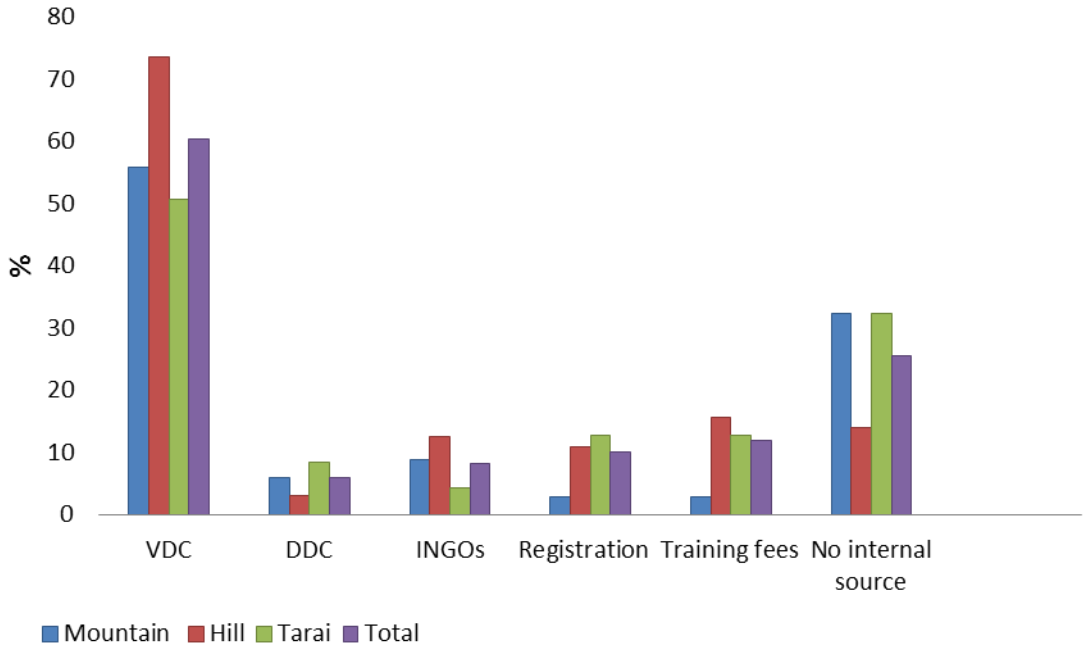
The breakdown of sources of income by the different types of health facilities was as follows:

- Internal income was the major source of income for the higher level hospitals (79% for BPKIHS and 68% for the two zonal hospitals) (Table 6.2). The BP Koirala Institute of Health Science (BPKIHS), in Dharan, eastern Nepal, is an autonomous academic institution that runs postgraduate and undergraduate programmes in medicine and allied health sciences. Seventy-nine percent of its income was from internal sources.
- The district hospitals mostly relied on central funding from MoHP (81%) with INGOs providing the second largest proportion of funding (Table 6.1).
- For the primary health care centres (PHCCs), MoHP provided the largest share of income (66%) followed by internal income (17%) and funds from VDCs (11%).

- For health posts, MoHP also provided the largest share of income (62%), followed by VDCs (19%) and internal income (13%). PHCCs and health posts received less than 1% of their income from INGOs.
- For the sub-health posts (SHPs), the funding pattern was different to that of PHCCs and health posts. The SHPs received less than half of their income from MoHP (47%), 23% from VDCs and 18% from INGOs. Internal income was the smallest source for SHPs.

This analysis suggests that facilities across the board received a large part of their income from sources not included in the MoHP's annual work plan and budget (AWPB): 53% for SHPs, 38% for health posts, 24% for PHCCs and 19% for district hospitals (Table 6.1). This has potential far-reaching consequences for the way in which the health system is managed towards outputs and outcomes as facilities are not reporting to government authorities on a large part of their revenue and expenditure. The government therefore has limited information on what these other sources of income are spent on and the extent to which their allocation contributes to achieving health sector goals. Furthermore, INGOs sometimes provide funding to health facility management committees directly. Figure 6.1 shows the composition of internal income only (non-MoHP income) by source and topographical zone.

Figure 6.1: Main sources of internal income by topographical zone (% of facilities, n=169)



Source: STS facility questionnaire

Hospitals, PHCCs and health posts receive most of their funding from central government funds. To supplement this 19% of hospitals, 29% of PHCCs, 20% of HPs and 18% of SHPs had generated funds from their local communities (Table 6.3). Registration fees were the most common source of internal funds generated by the hospitals, accounting for 56% of their internal funds, followed by on-the-job training (50%) where facilities charge people to attend training courses. VDCs were the main source of funds for 68% of PHCCs, 69% of health posts and 64% of SHPs. Fees from on the job training (OJT) were an important source of revenue for 50% of hospitals, 32% of PHCCs and 7% of HPs (Table 6.3). INGOs accounted for 8% and DDCs 6% of non-MoHP funds across all facilities. Many facilities levied

registration fees and these fees accounted for 10% of non-MoHP funds for the Terai (13%) and hill (11%) district facilities but only 3% of non-MoHP funds for mountain district facilities (Figure 6.1). No internal funding had been generated by 12% of hospitals, 21% of PHCCs, 27% of health posts and 29% of SHPs.

Table 6.3: Funding from local communities, FY 2010/2011

	Hospitals		PHCCs		HPs		SHPs	
	No.	%	No.	%	No.	%	No.	%
1. Funding generated from local communities	3	18.8	8	28.6	9	20.0	14	17.5
2. Mean amount generated (NPR) from local communities	12,617,229		129,897		54,666		79,752	
3. Sources of internally generated funds								
VDCs	1	6.3	19	67.9	31	68.9	51	63.8
On-the-job training fees	8	50.0	9	32.1	3	6.7	0	0.0
Registration fees	9	56.3	5	17.9	2	4.4	1	1.3
INGOs	2	12.5	1	3.6	5	11.1	6	7.5
DDCs	1	6.3	2	7.1	1	2.2	6	7.5
No internal source	2	12.5	6	21.4	12	26.7	23	28.8
n (total facilities)	16		28		45		80	

Source: STS facility questionnaire

6.2.2 Receipt of MoHP budget

The 169 facilities were asked whether or not they had received their allocated MoHP budget and if not, why not, and whether or not they had spent the resources they received.

A substantial proportion of facilities (19% of hospitals, 32% of PHCCs, 27% of HPs and 18% of SHPs%) reported not having received their allocated budget but almost similar proportion of the facilities (19% of hospitals, 21% of PHCCs, 22% of HPs and 34% of SHPs) reported not knowing whether they had received their allocated budgets (Table 6.4). Most facilities reported that the main reason for not receiving all their allocated funds from MoHP was 'budget deficit', although 67% of hospitals, 78% of PHCCs, 58% of HPs and 79% of SHPs also reported delays in financial report submission, which is a requirement to receive funds. The quality of this data is, however, uncertain because many facilities had not prepared a financial report nor had an audit report available, which would have provided a good basis for answering these questions.

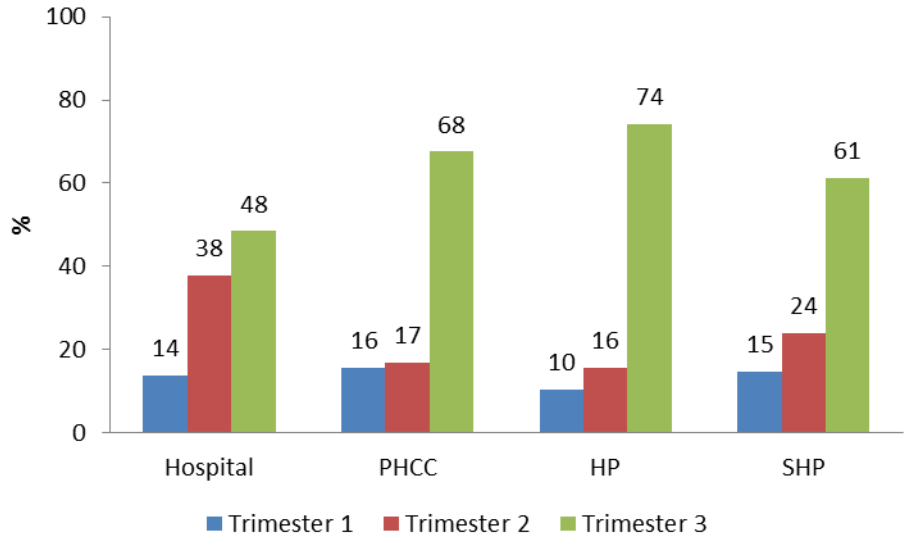
Table 6.4: Receipt of MoHP funds and reasons for non-receipt, FY 2010/11

Status	Hospital		PHCC		HP		SHP	
	No.	%	No.	%	No.	%	No.	%
1. Received allocated budget:								
Yes	10	62.5	13	46.4	23	51.1	39	48.8
No	3	18.8	9	32.1	12	26.7	14	17.5
Don't know	3	18.8	6	21.4	10	22.2	27	33.8
n (number of facilities)	16		28		45		80	
2. Reasons for non-receipt of budget:								
Budget deficit	2	66.7	7	77.8	7	58.3	11	78.6
Priority to other sector	1	33.3	2	22.2	3	25	4	28.6
Delay in financial report submission	1	33.3	1	11.1	3	25	0	0.0
n (number of facilities)	3		9		12		14	

Timing of receipt

Figure 6.2 shows the timing of fund received by facility type. In the first of the three trimesters, all types of facilities across the board received only a small proportion of their budgeted funds (between 10% and 16% of their budgets). In the second trimesters they received only between 16% and 38% of their budgeted amounts. Most funds were received in the third trimester (48% to 74%). The distribution of funds was most even for hospitals, probably because almost half of their funds were for salaries, and the least even for the health posts. This pattern complicates facility cash management and could be a large part of the reason why budgets were underspent.

Figure 6.2: Proportion of annual budgeted funds received from MoHP, by health facilities, by trimester (FY 2010/2011)



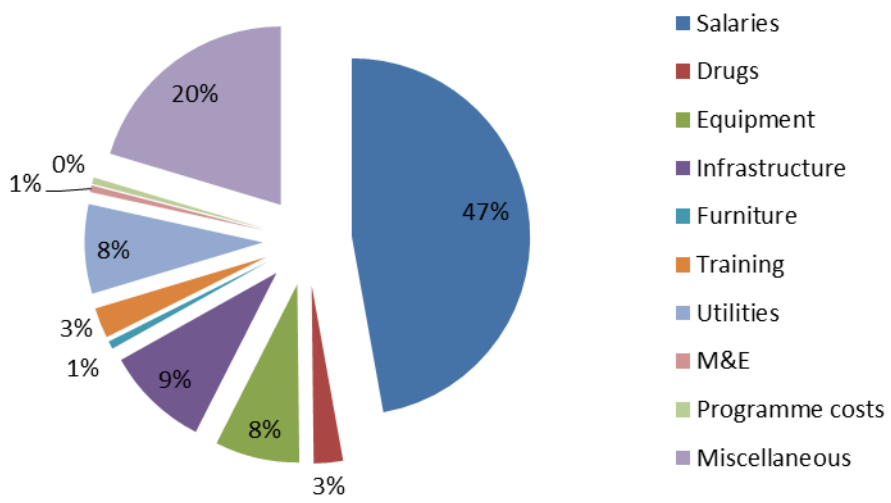
Source: STS facility questionnaire

6.2.3 Expenditure of MoHP budget

Facilities were asked to provide information on the major expenditure items for fiscal year 2010/11 from funds received from MoHP. This analysis therefore excludes the substantial amounts received from other sources. The categories they reported expenditure on were salaries, drugs, equipment, infrastructure, furniture, training and capacity building, utility costs, monitoring and evaluation, programme costs (mainly public health programmes) and miscellaneous expenses. The results were as follows:

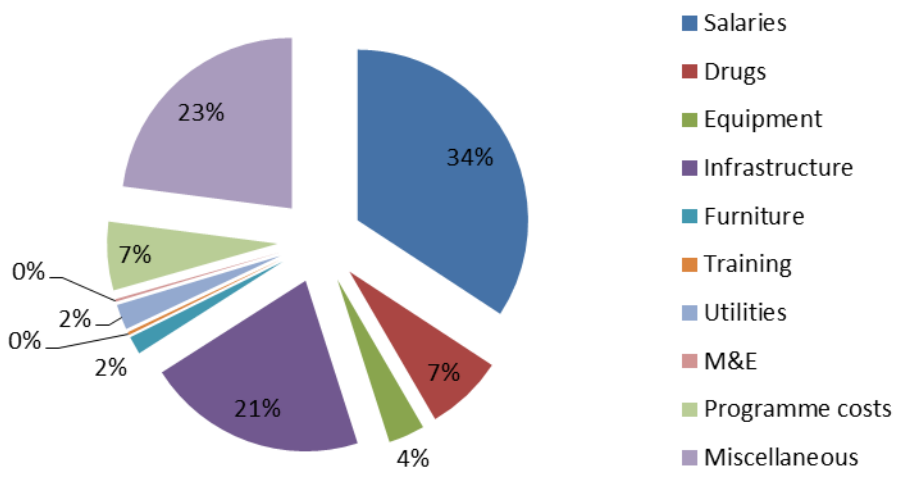
- For hospitals, salaries accounted for nearly half of total expenditure (47%), miscellaneous expenses for 20%, construction for 9%, and equipment and utilities for 8% (Figure 6.3).
- PHCCs spent a lower proportion on salaries at just over one-third (34%), with miscellaneous (23%) and construction (21%) as their next largest expenditure categories (Figure 6.4). Three facilities dominated the PHCC sample with Panchamul, Gaushala and Manahari PHCCs accounting for 27%, 12% and 10% of total expenditure respectively.
- Health post expenditure was similar to that of the PHCCs, with salaries representing just over a third of the total (35%) followed by miscellaneous expenses (29%). Note that the salaries are those of locally recruited auxiliary nurse midwife and support staff paid from the Aama, free care-reimbursement and other sources of income. Construction expenses were comparatively lower at 7%, with 'programme costs' being the third largest proportion (14%) (Figure 6.5). About 10% of the health posts (4 of the 44) accounted for 55% of total health post expenditure.
- The SHPs had a slightly different pattern of expenditure compared to the other facility types with salaries accounting for a third of expenditure (33%), construction for 32% and equipment for 15% (Figure 6.6). Note that 49 of the 80 SHPs (61%) had not reported their expenditure to their district health offices. PHCCs, health posts and SHPs are responsible for dealing with advances taken and for submitting receipts to claim this expenditure. The results in Figure 6.6 are therefore only for the 31 SHPs that had reported.

Figure 6.3: Breakdown of hospital expenditure from funds received from MoHP (FY 2010/2011)



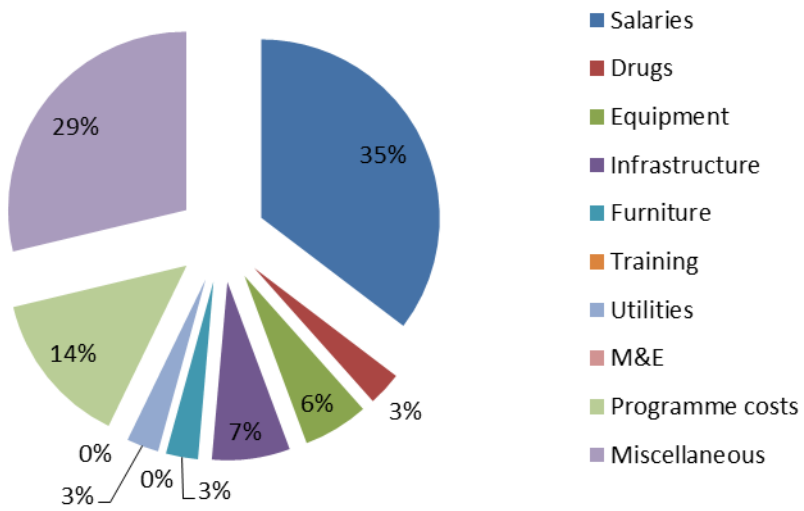
Source: STS facility questionnaire

Figure 6.4: Breakdown of PHCC expenditure from funds received from MoHP (FY 2010/2011)



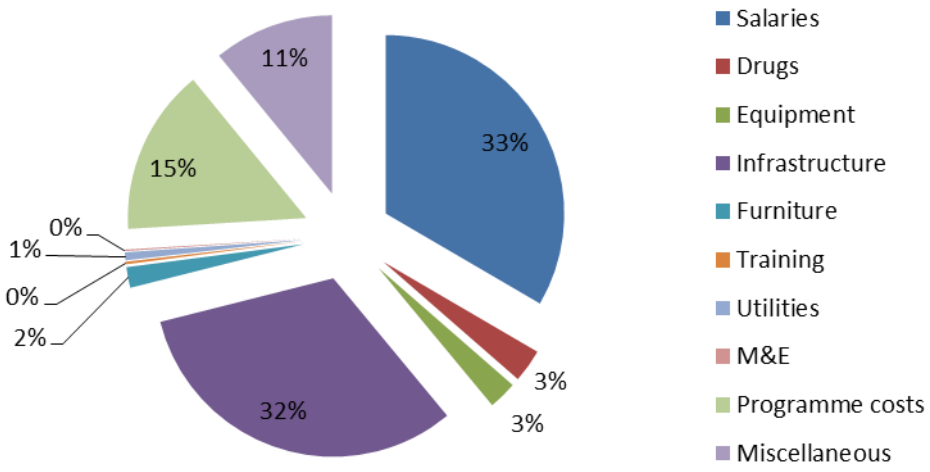
Source: STS facility questionnaire

Figure 6.5: Breakdown of health post expenditure from funds received from MoHP (FY 2010/2011)



Source: STS facility questionnaire

Figure 6.6: Breakdown of SHP expenditure from funds received from MoHP (n=31) (FY 2010/2011)



Source: STS facility questionnaire

Sixty nine per cent of hospitals, 54% of PHCCs, 71% of HPs and 82% of SHPs reported not having spent all the funds they received from MoHP (Table 6.5). The reported reasons were not having made necessary spending decisions (36% of hospitals, 39% of PHCCs, 54% of HPs and 46% of SHPs), delays in receiving funds (36% of hospitals, 39% of PHCCs, 46% of HPs and 41% of SHPs%) and delays in releasing the budget from the centre (36% of hospitals, 15% of PHCCs, 18% of HPs and 13% of SHPs) were other reasons for non-expenditure.

Table 6.5: Expenditure of MoHP funds and reasons for non-expenditure, FY 2010/11

Status	Hospital		PHCC		HP		SHP	
	No.	%	No.	%	No.	%	No.	%
1.Spent all MoHP funds	5	31.3	13	46.4	13	28.9	14	17.5
n (total facilities)	16		28		45		80	
2. Reasons for non-expenditure								
No decision made	4	36.4	5	38.5	15	53.6	21	45.7
Delay in receiving budget	4	36.4	5	38.5	13	46.4	19	41.3
Delayed budget release	4	36.4	2	15.4	5	17.9	6	13.0
To avoid financial crisis	0	0.0	2	15.4	3	10.7	9	19.6
Decrease in case load	2	18.2	0	0.0	0	0.0	1	2.2
Transfer of human resources	0	0.0	0	0.0	0	0.0	2	4.3
n (total facilities)	11		13		28		46	

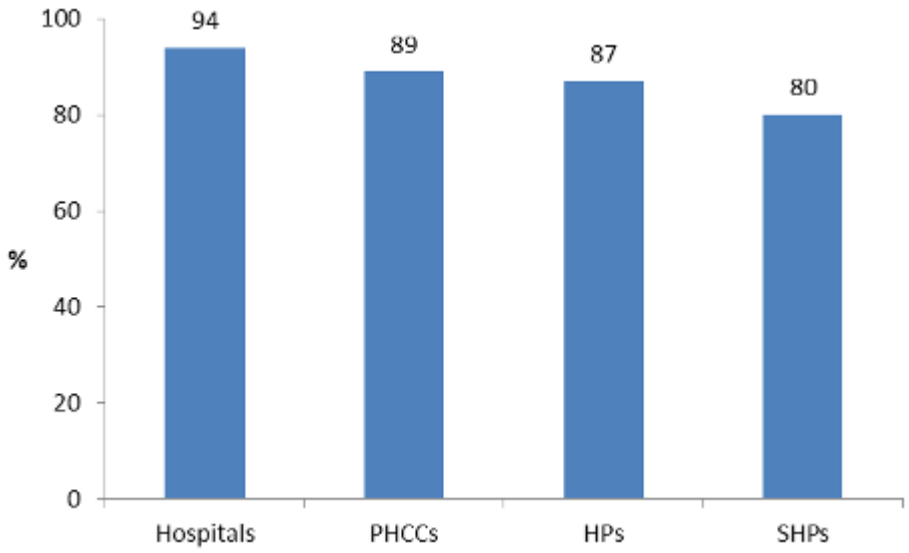
Source: STS facility questionnaire

6.2.4 Disclosure

The study found that 94% of hospitals, 89% of PHCCs, 87% of HPs and 80% of SHPs had disclosed their revenue and expenditure figures to the general public in the previous fiscal year (2010/2011) (Figure 6.7). The most common means of disclosing income and expenditure for all levels of health facilities

were through committee meetings (73% of hospitals, 56% of PHCCs, 64% of HPs and 50% of SHPs) , followed by the annual gathering of VDCs (20% of hospitals, 44% of PHCCs, 41% of HPs and 42% of SHPs) (Table 6.6).

Figure 6.7: Disclosed revenue and expenditure to the general public (n=169 facilities)



Source: STS facility questionnaire

Table 6.6: Statement of revenue and expenditure (fiscal year 2010/11)

	Hospitals		PHCCs		HPs		SHPs	
	No.	%	No.	%	No.	%	No.	%
1. Revenue and expenditure disclosed	15	93.8	25	89.3	39	86.7	64	80.0
n (total facilities)	16		28		45		80	
2. Method of disclosing								
Committee meeting	11	73.3	14	56.0	25	64.1	32	50.0
Annual VDC gathering	3	20.0	11	44.0	16	41.0	27	42.2
Health facility information board	2	13.3	7	28.0	6	15.4	8	12.5
VDC information board	0	0.0	2	8.0	1	2.6	4	6.3
Audit report made public	0	0.0	0	0.0	1	2.6	0	0.0
n (total facilities)	15		25		39		64	

Source: STS facility questionnaire

6.2.5 Reporting and auditing

Having a bank account is a key financial management indicator of facility reporting and auditing. Of the 169 surveyed facilities, most of them had a bank account with no marked difference by level of facility: 94% of hospitals, 93% of PHCCs, 93% of health posts and 95% of SHPs. All hospitals reported that they had developed a financial report for the previous fiscal year, but this was less common in lower level facilities with only 36% of PHCCs, 27% of health posts and 10% of SHPs having done so (Table 6.7). It is, however, important to note that PHCCs, health posts and SHPs are not spending units (or cost centres)

under the government system and as such do not have to produce financial reports. They do, however, have to submit receipts to clear advances obtained from their district health offices. The most common reason for lower level for facilities not producing a financial report was because they felt no need (41% of PHCCs and 67% of SHPs%). A lack of relevant human resources (35% of PHCCs, 21% of HPs and 19% of SHPs%) and not having a responsible person (12% of PHCCs, 9% of HPs and 16% of SHPs) were other key reasons. Note that some PHCCs, health posts and SHPs hire administrative staff from their local resources to carry out tasks such as preparing financial reports. The large numbers of lower level facilities that had not prepared a financial report hampered the data collection on financial management.

Table 6.7: Financial reporting by health facilities in previous fiscal year

Status	Hospital		PHCC		HP		SHP	
	No.	%	No.	%	No.	%	No.	%
1. Prepared financial report in previous fiscal year	16	100	10	35.7	12	26.7	8	10.0
n (total facilities)	16		27		45		77	
2. Reasons for not preparing a financial report								
Need not felt			7	41.2	0	0.0	46	66.7
Lack of relevant human resources			6	35.3	7	21.2	13	18.8
Responsible person not identified			2	11.8	3	9.1	11	15.9
Audit in process			3	17.6	1	3.0	5	7.2
Delay in clearing advances			1	5.9	1	3.0	1	1.4
Transfer of human resources					1	3.0	2	2.9
n (total facilities)	0		17		33		69	

Source: STS facility questionnaire Blue (darker) shading = not applicable.

Table 6.8 shows whether or not facilities had conducted an internal or final audit and the major recommendations from final audits. Most facilities had not conducted an internal audit (25% of hospitals, 71% of PHCCs, 84% of HPs and 91% of SHPs) or a final audit (25% of hospitals, 61% of PHCCs, 88% of HPs and 90% of SHPs%) in the previous fiscal year. This again hampered data collection for this chapter as it was difficult to collect reliable financial data from lower level facilities. Of those facilities that had carried out an audit, 42% of hospitals, 36% of PHCCs, 20% HPs and 25% of SHPs had received a recommendation to carry out a financial audit in a more timely way, and 25% of hospitals, 27% of PHCCS and 13% of SHPs were recommended to work on auditing irregularities.

Table 6.8: Internal and final audits and audit recommendations

Status	Hospital		PHCC		HP		SHP	
	No.	%	No.	%	No.	%	No.	%
1. Conducted internal audit in previous fiscal year	12	75.0	8	28.6	7	15.6	7	8.75
2. Conducted final audit in previous fiscal year	12	75.0	11	39.3	10	22.2	8	10.0
n (total facilities)	16		28		45		80	
3. Major recommendations from final audits								
No recommendation given	4	33.3	4	36.4	6	60.0	4	50.0
Do timely financial auditing	5	41.7	4	36.4	2	20.0	2	25.0
Identified irregularities	3	25.0	3	27.3	0	0.0	1	12.5
Need for transparency of income and expenditure	0	0.0	1	9.1	1	10.0	2	25.0
n (total facilities)	12		11		10		8	

Source: STS facility questionnaire

6.3 KEY FINDINGS

Sources of revenue

- MoHP was the main financier of health facilities at all levels except for the higher level hospitals. MoHP provided 81% of district hospitals' income and 66%, 62% and 47% of the income of PHCCs, HPs and SHPs respectively in the previous fiscal year (2010/11). Internal income was the largest source of revenue for the teaching and zonal hospitals. The second largest source of income for PHCCs was internal income. The SHPs had the most diverse sources of income including significant amounts from their VDCs (23%) and INGOs (18%).
- All facilities except for district hospitals derived a significant proportion of their income from sources not included in the MoHP's annual work plan and budget: 24% for PHCCs and 38% for health post and more than 50% for SHPs. These resources are referred to as 'non-MoHP funds'. This has far-reaching consequences for the way in which the health system is managed towards outputs and outcomes, as facilities are not reporting on a significant part of their revenue and expenditure to the government. The government is not kept informed about what these non-MoHP funds are spent on and the extent to which their allocation contributes to achieving health sector goals.
- VDCs were the major source of non-MoHP funds for facilities across all topographical zones, accounting for 60% of such funds. On-the-job training fees provided 12% of such funds, while 10% of such funds came from registration fees, 8% from INGOs and 6% from DDCs.

Receipt of MoHP budget

- A significant proportion of facilities (19% of hospitals, 32% of PHCCs, 27% of HPs and 18% of SHPs%) reported not having received their allocated budget funds from MoHP. Likewise almost similar proportion of the facilities (19% of hospitals, 21% of PHCCs, 22% of HPs and 34% of SHPs) reported not knowing whether they had received their allocated budgets.
- In the first of the three trimester periods, all levels of facilities received only a small proportion of their budgeted funds (10% to 16% of their budgets). They received more in the second trimester

(16% to 38%) and the most in the third trimester (48% to 74%). The most even distribution of funds received was at the hospitals while health posts had the most uneven receipt of funds from MoHP. This pattern complicates facility cash management and helps explain why budgets are often underspent.

Expenditure of MoHP budget

- Staff salaries were the major expenditure category for all facilities from funds received from MoHP. This was more so for hospitals (47% of their total expenditure) than for lower level facilities where salaries accounted for about a third of expenditure from MoHP funds. Miscellaneous expenditure and infrastructure investment were among the higher spending categories.

Disclosure

- Almost all hospitals (94%) had made their income and expenditure data available to the general public, followed by PHCCs (89%), health posts (87%) and SHPs (80%).

Reporting and auditing

- Of the 169 surveyed facilities, most (94% of hospitals, 93% of PHCCs, 93% of health posts and 95% of SHPs) had a bank account, with no marked difference between facility types.
- All the hospitals reported having developed a financial report for the previous fiscal year. This was far less widespread in the lower level facilities with only 36% of PHCCs, 27% of health posts and 10% of SHPs having done so. Note that PHCCs, health posts and SHPs are not government spending units and so do not have to produce financial reports.
- The most common reason for lower level facilities for not preparing a report was that they hadn't felt the need (41% of PHCCs and 67% of SHPs). A lack of relevant human resources (35% of PHCCs, 21% of HPs and 19% of SHPs%) and not having a responsible person (12% of PHCCs, 9% of HPs and 16% of SHPs) were other key reasons.
- Most facilities reported not having carried out an internal audit (25% of hospitals, 71% of PHCCs, 84% of HPs and 91% of SHPs) or final audit (25% of hospitals, 61% of PHCCs, 88% of HPs and 90% of SHPs%)in the previous fiscal year.
- Of those facilities that had carried out an audit, 42% of hospitals, 36% of PHCCs, 20% HPs and 25% of SHPs had received a recommendation to carry out a financial audit in a more timely way, and 25% of hospitals, 27% of PHCCS and 13% of SHPs were recommended to work on auditing irregularities.

7 GOVERNANCE AND ACCOUNTABILITY

7.1 INTRODUCTION

NHSP 2 recognises that putting in place a system and resources may not yield the intended results and impact unless adequate attention is given to improving the governance and accountability of health service provision. The Ministry of Health and Population (MoHP) is setting up a downward accountability mechanism for health planning and management through participatory planning with local stakeholders and by promoting social audits. The move towards more decentralised management should increase downward accountability and community ownership, which should improve access to health services for local people, and especially for poor and excluded people. The Local Self-Governance Act, 1999 authorises local bodies (district development committees, village development committees [VDCs] and municipalities) to operate and manage health institutions at the local level. However, the absence of elected officials in local bodies since mid-2002 has hindered the effective implementation of this act.

In 2010, MoHP produced a governance and accountability action plan (GAAP) (MoHP 2010c), which incorporates measures to make health services more client-focused and accountable, with a particular focus on poor and excluded people. However, a lack of clarity about GAAP activities and how they can be implemented means that it is difficult to assign clear measurable indicators for monitoring and evaluating achievements against the GAAP. This plan is being revised.

This chapter explores findings from the Service Tracking Survey (STS) 2011 related to governance and accountability, specifically in regards to the implementation of NHSP 2's GAAP, to give a picture of the current situation of governance and accountability in Nepal's health sector.

7.2 RESULTS

Box 7.1: Key STS indicators for governance and accountability

Indicators	2011 results (%)	95% CI
% of health facilities that undertook social audits in the current or last fiscal year*	27.4	17.4-40.4
% of facilities that conducted a social audit in the last fiscal year, made findings public and incorporated recommended actions in annual workplan and budget (AWPB)	22.0	15.0-31.0
% of facilities with a citizen's charter placed in a visible location and included information on free drugs, outpatient services and Aama (if Aama implementing facility)	58.4	43.8-71.8
% of facilities with a health management committee (health facility management committees [HFMCs] and hospital development committees [HDC]) meeting on a monthly basis	37.1	22.3-54.8
% of health facilities with at least three females and at least two Dalit and Janajati members in health facility management committees (HFMCs) and hospital development committees (HDC). *	46.0	36.5-55.8
% of facilities with an emergency contingency plan for women and children	29.4	16.7-46.4

* NHSP 2 logframe indicators

7.2.1 Social audits and community scorecards

The demand for greater citizen participation in governance is increasing in Nepal. Social accountability tools, including social audits and community scorecards have been introduced in public and private organisations and are a key component of the GAAP. Social audits recognise service users as 'right holders' rather than 'beneficiaries' and should be instituted as processes rather than one-off events. The main objectives of social auditing are to monitor how resources are used, to understand who is benefiting, to increase transparency and to hold service providers and officials to account. Health sector social audits are a process by which citizens audit government health programmes and services. They also include the public dissemination of findings at public gatherings where social auditors present their findings, facilitate community engagement with service providers and officials, and solicit responses from service providers and officials. This process should result in action plans and communities rating the performance of health facilities.

Under the Local Authority Financial Administration Regulations, 2007, the government committed to making social audits mandatory for all programmes within four months of the completion of that fiscal year. However, this is yet to be fully implemented. In 2009, the Family Health Division (FHD) of the Department of Health Services (DoHS) developed a model for social auditing linked to the Aama Programme. A model developed by the Management Division of DoHS in the same year has a broader scope and covers overall health service provision. The DoHS under the leadership of the Primary Health Care Revitalization Division (PHCRD) has recently harmonised these two social audit guidelines and plans to roll out the new social auditing approach to 20 districts in 2012. Recently, in 2012, PHCRCD has developed social audit guidelines for the whole health sector (Social Audit Guidelines for Health Sector, 2068). According to these guidelines health facilities from SHPs to district hospitals and urban health clinics should undertake social audits and district (public) health offices need to make action plans to ensure that social audits are operational in all health facilities in their district within five years.

The STS 2011 asked about the prevalence of social auditing. Nearly one third (27%) of the health facilities surveyed had conducted a social audit in the current or last fiscal year The practice of social auditing was less common at hospitals (25%) than at PHCCs (57%), health posts (44%) and SHPs (34%) (Table 7.1 and Figure 7.1).

A social audit report had been produced by all the hospitals that had conducted social audits in the current or last fiscal year, however over one third of PHCCs (36%), 12% of health posts and 20% of SHPs had not produced such reports. Enumerators could not observe social audit reports in 54% of PHCCs, 41% of health posts and 45% of SHPs that reported conducting social audits.

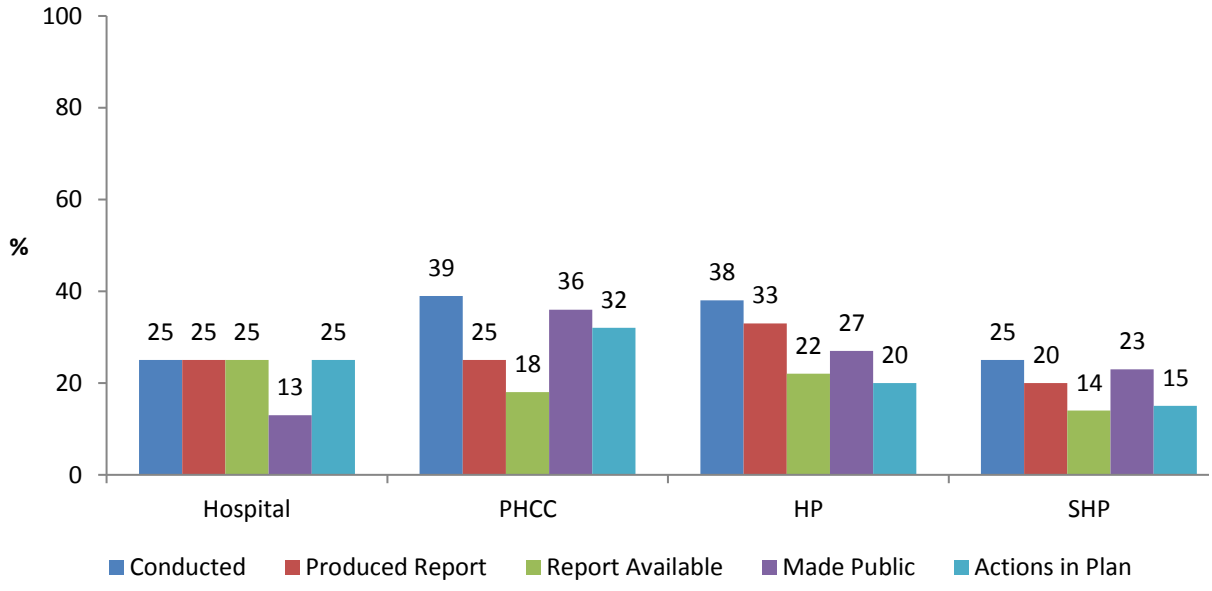
Of those facilities that conducted social audits 50% of hospital, 91% of PHCCs, 71% of HPs and 90% of SHPs reported that they had publically disclosed the findings (Table 7.1). Lower level facilities were less likely to have also displayed the information on an information board. All hospitals, 82% of PHCCs, 53% of HPs and 60% of SHPs that conducted social audits in the previous years, reported that they had incorporated the recommended actions into their annual work plan and budgets (AWPB).

Table 7.1: Social audit practice and use of community scorecards

	Hospitals (%)	PHCCs (%)	HPs (%)	SHPs (%)
1. Ever conducted a social audit	25.0	57.1	44.4	33.8
n (total facilities)	16	28	45	80
2. Timing of last social audit (fiscal year)				
2068/69 (2011/2012 to date)	25.0	25.0	40.0	33.3
2067/68 (2010/2011)	75.0	43.8	45.0	40.7
2066/67 (2009/2010)	0.0	31.3	15.0	25.9
n (total facilities ever conducted social audit)	4	16	20	27
3. Conducted social audit in current or last fiscal year (2067/68 or 2068/69)	25.0	39.3	37.8	25
n (total facilities surveyed)	16	28	45	80
4. Use of social audit etc.				
Used a community scorecard	0.0	9.1	17.6	25.0
Produced a report	100	63.6	88.2	80.0
Report available in the facility	100	45.5	58.8	55.0
Report/findings made public	50.0	90.9	70.6	90.0
Made findings public on facility information board	25.0	18.2	0.0	5.0
Made findings public at public meeting	25.0	72.7	70.6	85.0
Included recommended actions in annual work plan and budget (AWPB)	100	81.8	52.9	60.0
n (facilities that conducted social audit in current or last fiscal year)	4	11	17	20

Source: STS facility questionnaire

Figure 7.1: Social audit practices by health facilities in the current or last fiscal year



Note: Denominator for all variables in Figure 7.1 is all facilities surveyed, and hence percentages differ from Table 7.1

Source: STS facility questionnaire

The use of community scorecards (CSCs) for social accountability is a new practice in Nepal. These scorecards solicit user perceptions on quality, efficiency and transparency. This helps to compare performance across facilities, generate feedback between providers and users, build local capacity and strengthen citizens' voices and community empowerment. Citizens are often empowered by having the opportunity to provide immediate feedback to service providers.

The STS 2011 found the use of community scorecards was very low in the facilities that had conducted social audits in the current or last fiscal year. None of the hospitals and only 9% of PHCCs, 8% of health posts and 25% of SHPs reported having used a scorecard in their most recent social audits.

7.2.2 Citizen's charters

Across Nepal, all public organisations, including health facilities, are required to post citizen's charters outside their buildings in visible places accessible to the general public. Citizen's charters inform citizens about their public service entitlements, service availability, opening hours, service related costs and procedures and their rights. Sometimes, fines related to citizens' grievances are also listed. Such charters at health facilities are intended to improve the quality of health care by publishing the standards that users can expect. Well-informed clients can more easily exert pressure on service providers to improve their performance, make informed choices and push for greater transparency. The location of charters, the language used, and literacy, mobility and time constraints can limit the use of citizen charters, especially for women and poor and excluded people.

The STS 2011 found that 88% of hospitals, 71% of PHCCs, 96% of health posts and 78% of SHPs had a citizen's charter. Of those with a charter, only 79% of hospitals, 55% of PHCCs, 33% of HPs and 23% of SHPs had placed it outside in a visible place. The hospitals were more likely to have their charter outside their building in a visible place than lower level facilities (Table 7.2 and Figure 7.2).

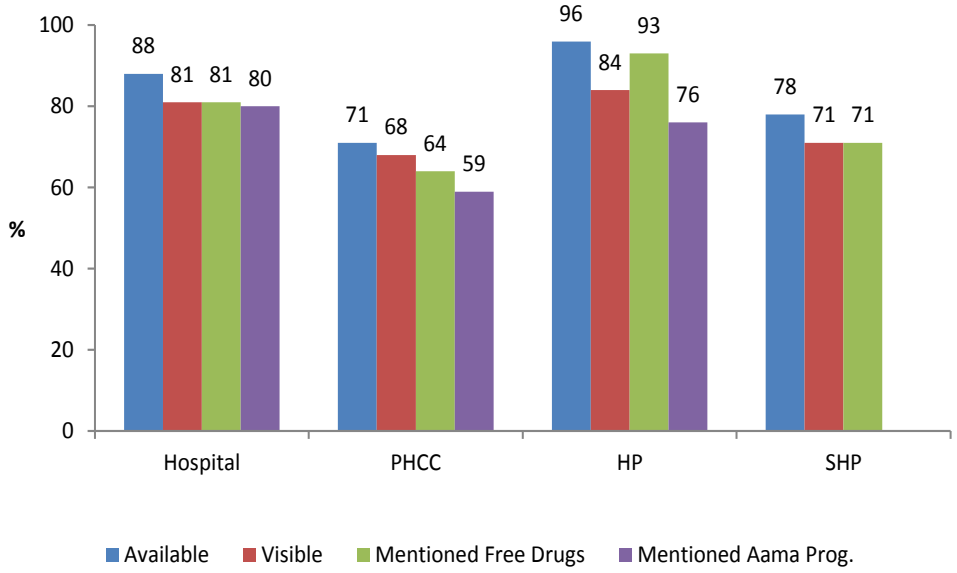
Table 7.2: Availability, location and information included in citizen charters

	Hospitals (%)	PHCCs (%)	HPs (%)	SHPs (%)
1. Charter available in facilities	87.5	71.4	95.6	77.5
n (total facilities)	16	28	45	80
2. Place where charter located				
Inside – visible	14.3	40.0	55.8	69.4
Outside – visible	78.6	55.0	32.6	22.6
Inside - not visible	7.1	5.0	9.3	8.1
Outside - not visible	0.0	0.0	2.3	0.0
3. Charter updated to include				
Free drugs	92.9	90.0	97.7	91.9
Out-patient services	100	90.0	93.0	91.9
n (total facilities)	14	20	43	62
4. Charter had info. on Aama Programme	92.3	80.0	62.9	80.0
n (facilities with citizen's charter implementing Aama Programme)	13	20	35	10

Source: STS facility questionnaire

The researchers checked whether the charters included necessary information on free drugs, the Aama Programme (if applicable) and outpatient services. Of the 139 facilities with a charter, most included information on free drugs (94%) and outpatient services (93%). Amongst the 94 surveyed health facilities implementing the Aama Programme, 78 had a citizen's charter. Nearly three quarters (74%) of the 78 facilities with a charter included information on the Aama Programme in their charters.

Figure 7.2: Availability, location and information in citizen's charters by type of health facility



Note: The denominator for all variables in Figure 7.2 is all the facilities surveyed, and hence figures differ from Table 7.2

Source: STS facility questionnaire

7.2.3 Transparency and disclosure measures

Table 7.3 shows STS 2011 findings on the transparency and disclosure measures adopted by health facilities. Information related to free essential drugs was most likely to be disclosed (79%) along with information on the facility workforce (77%) and current disease trends and public health interventions (76%). Gatherings (39%) were most commonly used to provide information on free essential drugs, followed by public notice boards (32%) and dissemination by female community health volunteers (FCHVs) (17%). For the other types of information, public gatherings were the most common means of disclosure. Noticeboards were also commonly used for information on the available workforce, disease trends and public health interventions. See Chapter 6 on financial management for findings related to the disclosure of information related to income and expenditure.

Table 7.3: Transparency and disclosure measures on types of activities and information

Activities and information	Public noticeboards (%)	Gatherings (%)	Disseminated by FCHVs (%)	Disclosed but not specified the means (%)	Not disclosed (%)
Action taken on complaints	1.8	20.2	4.9	13.2	61.2
Complaint mechanisms	7.4	16.8	10.7	16.5	52.1
Social and financial audit reports	5.4	44.0	5.2	13.5	38.5
Grants received	9.5	53.6	13.1	12.4	26.3
Info. on available health workforce	30.6	39.8	17.6	6.5	23.2
Free essential drugs	31.8	39.3	16.9	8.2	20.6
Current disease trends and public health interventions	17.4	34.9	42.9	7.3	23.7
n (total facilities)	16	28	45	80	169

Source: STS facility questionnaire;
Note: disclosing information on public noticeboards, gatherings, HFOMC meetings, disseminated by FCHVs are the measures for being transparent and disclosure of information, and some facilities use more than one method

7.2.4 Health facility committees

The Health Sector Reform Strategy (2004) authorised local bodies to be responsible for managing health facilities (MoHP 2004). The Health Facility Management Committee (HFMC) Guidelines specify that the formation of HFMCs for PHCCs should be led by the district development committee member and that the formation of HFMCs for health posts and SHPs should be led by VDC chairpersons. Hospitals have hospital development committees (HDCs), which are chaired by political appointees.

Capacity building of local government units and HFMCs/HDCs is an important task to improve the management of local health services. Furthermore, health facilities need flexible grants to address local health needs and develop their functional capacity. The National Health Training Centre is currently strengthening the management capacity of HFMCs and HDCs.

The STS 2011 found that HDCs had been established in all the hospitals and HFMCs in all the other surveyed facilities except for one SHP and that most of the HDCs and HFMCs were reportedly active (86%) (Table 7.4 and Figure 7.3). The lower level facilities were more likely to have inactive HFMCs. Over three-quarters of the facilities reported that all the members of HFMCs/HDCs had been oriented on their roles and responsibilities (78%), with this more common at lower level facilities. Nineteen percent of the hospitals, 14% of PHCCs, 11% of health posts and 14% of SHPs reported that none of their HFMC members had been oriented on their roles and responsibilities.

Committee members include political leaders, academicians, elected female members of local bodies, FCHVs and local health promoters. The member secretary should be the chief of the health facility. The guidelines stipulate that women and disadvantaged people should be represented on these committees. SHPs and health posts are supposed to have nine-member HFMCs with at least four women of whom at least one should be Dalit or Janajati, and two Dalit or Janajati (ethnic group) members. PHCC committees should have 13 members with at least three women of whom at least one should be Dalit or Janajati, and two Dalit and Janajati members. HFMCs and HDCs can invite additional representatives of NGOs working in the local health sector to their meetings.

Table 7.4: Health facility committee findings

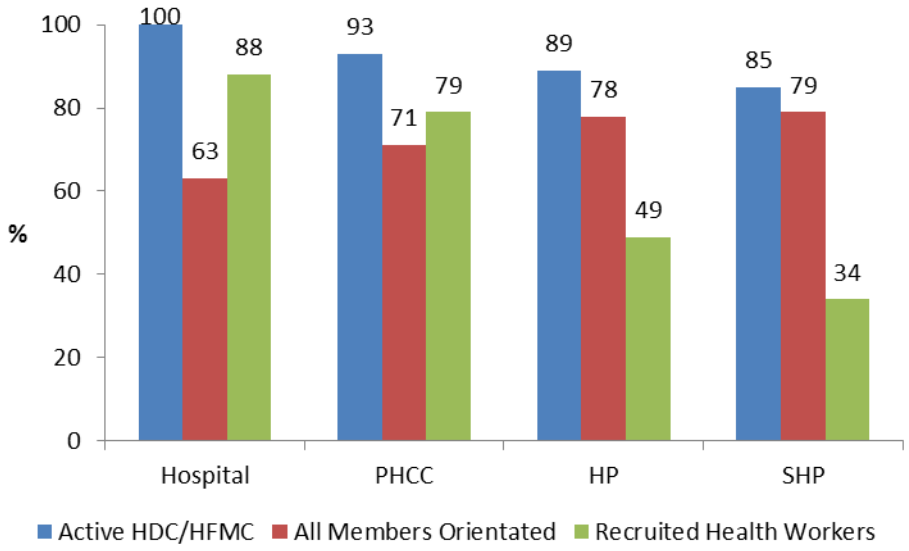
	Hospitals (%)	PHCCs (%)	HPs (%)	SHPs (%)	All (%)
1. HFMC/HDC established	100	100	100	98.4	98.8
2. HFMC/HDC active	100	92.9	88.9	85.0	85.9
n (total facilities)	16	28	45	80	169
3. HFMC/HDC members oriented on roles and responsibility					
All members	62.5	71.4	77.8	79.7	78.4
Some members	18.8	14.3	11.1	6.3	7.8
No members	18.8	14.3	11.1	13.9	13.8
4. Participation of marginalised, Dalit & female members in meetings					
Always	43.8	32.1	55.6	53.2	51.8
Most of the time	25.0	50.0	24.4	31.6	31
Sometimes	0.0	7.1	15.6	7.6	8.9
Rarely	0.0	3.6	2.2	5.1	4.2
Never	31.3	7.1	2.2	2.5	4.2
n (total facilities)	16	28	45	79	168
5. Participation of marginalised, Dalit and female members in decision-making					
Always	63.6	23.1	54.5	42.9	44.4
Most of the time	27.3	42.3	22.7	33.8	32.1
Sometimes	9.1	19.2	13.6	11.7	12.3
Rarely	0.0	15.4	9.1	10.4	9.9
Never	0.0	0.0	0.0	1.3	1.2
n (total facilities)	11	26	44	77	158

Source: STS facility questionnaire

The STS 2011 found that the minimum number of members was 4, 6 and 5 on PHCC, health post and SHP HFMCs respectively (Table 7.5). The lower level facilities reported on average higher membership of women and excluded caste/ethnic groups (Dalits and Janajatis) on their HFMCs, whereas hospitals on average had more Brahmins, Chhetris and men on their committees. Some of the committees had no Dalit or Janajati representatives. Only 42% of the health facilities surveyed (13% hospitals, 43% PHCCs, 40% health posts and 49% SHPs) reported that their HFMC/HDC had at least three female members and at least two members from excluded groups (Dalits and Janajatis).

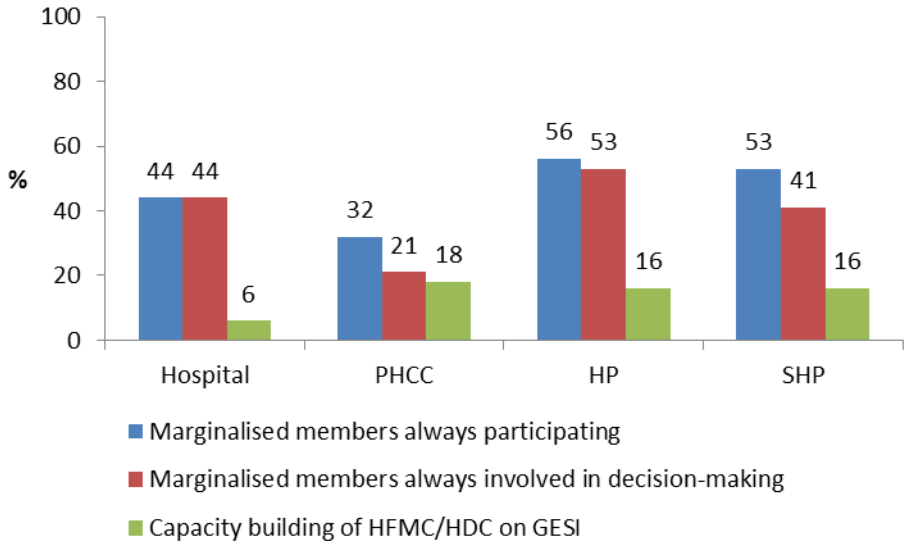
The level of participation of marginalised, Dalit and female members in HFMC/HDC meetings was encouraging. Nearly half of the facilities with committees reported that these members were always active in the meetings (49%) and 44% of facilities with these member participating stated that they always participated in decision-making (Figure 7.4). Participation by these members was reportedly better in health posts and SHPs than in PHCCs and hospitals. However, where they were reported as participating at the hospital-level they were more likely to be involved in decision-making than in lower level facilities. These members reportedly never participated in committee meetings in only 6% of facilities.

Figure 7.3: Health facility committee (HFMCs and HDCs) 'activeness' findings



Source: STS facility questionnaire

Figure 7.4: Capacity building on GESI and participation of marginalised people on health facility committees



Source: STS facility questionnaire

Table 7.5: Number of members of health facility committees (HFMCs and HDCs)

		Hospitals	PHCCs	HPs	SHPs
Total members on HFMC/HDC	Mean	9.7	11.3	9.9	9.8
	Min.	5	4	6	5
	Max.	17	21	20	15
	Total	155	316	446	772
Males	Mean	8.2	8.6	7.5	6.9
	Min.	4	3	3	3
	Max.	15	19	14	13
	Total	131	242	337	545
Females	Mean	1.5	2.6	2.4	2.9
	Min.	0	0	0	1
	Max.	3	6	6	7
	Total	24	74	109	227
Dalits and Janajatis	Mean	1.8	4.2	4.7	4.5
	Min.	0	0	0	0
	Max.	9	11	11	15
	Total	29	118	211	356
Brahmin/Chhetris	Mean	7.3	6.9	4.7	4.8
	Min.	0	0	0	0
	Max.	15	14	13	12
	Total	12	33	44	90
Terai/Madhesi other castes	Mean	0.6	0.2	0.5	0.5
	Min.	0	0	0	0
	Max.	9	6	6	9
	Total	9	6	22	36

Source: STS facility questionnaire

Government guidelines specify that Health Facility and Operation Management Committees (HFOMCs)/hospital development committees (HDCs) should meet once a month. However, only 39% of PHCCs, 38% of HPs and 38% of SHPs reported that they held a meeting at least once a month. It was even less common at hospitals, with just 19% doing so (Table 7.6). Further, 69% of hospitals, 75% of PHCCs, 62% of HPs and 67% of SHPs reported to have held at least one HFMC/HDC meeting in the current fiscal year (2011/12) prior to the survey. Of the 150 facilities reporting that their HFMC/HDC was active, only 38% reported holding regular monthly meetings (Table 7.7).

Table 7.6: Frequency of health facility committee (HFMC/HDC) meetings

	Hospitals (%)	PHCCs (%)	HPs (%)	SHPs (%)
1. Frequency of HFMC/HDC meeting				
Every month	18.8	39.3	37.8	38.0
Every 2-3 months	31.3	25.0	8.9	11.4
As per need	50.0	35.7	53.3	50.6
2. Last HFMC/HDC meeting (FY)				
2068/69 (2011/2012 to date)	68.8	75.0	62.2	67.1
2067/68 (2010/2011)	31.3	25.0	35.6	31.6
2066/67 (2009/2010)	0	0	2.2	1.3
n (total facilities)	**16**	**28**	**45**	**79**

Source: STS facility questionnaire

Table 7.7: Reported activeness and frequency of health facility committee (HFMC/HDC) meeting

Frequency of meetings	Active (%)	Not active (%)	Total (%)
Every month	38.7	16.7	37.7
Every 2-3 months	16.7	0.0	12.0
According to need	44.7	83.3	50.3
n (total facilities)	150	18	168

Source: STS facility questionnaire

The most common activity undertaken by the HFMCs and HDCs at all levels in the year preceding the survey was supporting infrastructure development and maintenance as mentioned by 56% of hospitals, 68% of PHCCs, 55% of HPs and 54% of SHPs, followed by health service management (38% of hospitals, 21% of PHCCs, 22% of HPs and 38% of SHPs expansion of services, financial management and human resources. The PHCC HFMCs were most likely to have focussed on expanding services (50%) and on logistics (32%). At the health post level activities relating to human resources (33%) and logistics (31%) were most common as was health service management at the SHP level (38%). Health facility committees (HFMCs/HDCs) reported that they had recruited health workers (88% of hospitals, 79% of PHCCs, 49% of HPs and 34% of SHPs) in the last fiscal year.

Table 7.8: Main activities of health facility committees (HFMCs/HDCs) in last fiscal year

	Hospitals (%)	PHCCs (%)	HPs (%)	SHPs (%)
1. Activities undertaken				
Infrastructure development and maintenance	56.3	67.9	55.6	54.4
Health service management	37.5	21.4	22.2	38.0
Expansion of services	37.5	50.0	17.8	24.1
Logistics	12.5	32.1	31.1	24.1
Human resources	31.3	25.0	33.3	15.2
Financial management	37.5	10.7	15.6	15.2
Health camps	6.3	7.1	11.1	6.3
No work done	0.0	0.0	8.9	11.4
2. Capacity building on GESI	6.3	17.9	15.6	16.3
3. HFMC/HDC recruited health workers	87.5	78.6	48.9	33.8
n (total facilities)	16	28	45	79

Source: STS facility questionnaire

7.2.5 Complaint/suggestion mechanisms

Although all health facilities should have a mechanism for complaints/suggestions, only 75% of hospitals, 29% of PHCCs, 9% of HPs and 13% of SHPs had such provision, suggesting that hospitals have more commonly established a complaint/suggestion mechanism compared to lower level facilities (Table 7.9).

The enumerators were able to see the complaint/suggestion mechanisms for all hospitals claiming to have one, but could not for 18% of PHCCs, 9% of HPs and 13% of SHPs.

Table 7.9: Complaint/suggestion mechanisms at health facilities

	Hospitals (%)	PHCCs (%)	HPs (%)	SHPs (%)
1. Yes, seen by researcher	75.0	28.6	28.9	17.5
2. Reportedly, but not seen by researcher	0.0	17.9	8.9	12.5
3. No mechanism in place	25.0	53.6	62.2	70.0
n (total facilities)	16	28	45	80
4. Type of mechanism				
Focal person assigned	50.0	84.6	64.7	75.0
Complaint/suggestion box	66.7	15.4	41.2	8.3
In gatherings and committee meetings	8.3	7.7	0.0	16.7
5. Mean no. complaints/suggestions received in last fiscal year	861.3	4.7	6.2	25.1
n (total facilities)	12	13	17	24

Source: STS facility questionnaire

The most common procedure for the lower level facilities was assigning a focal person to receive complaints (85% of PHCCs, 65% of health posts and 75% of SHPs). Half of hospitals also had focal persons (50%), but it was more common for them to have complaint/suggestion boxes (67%).

Given the higher caseload, it is not surprising that the mean number of complaints/suggestions received in the previous year was highest in the hospitals (861). However, the mean number of complaints/suggestions received by SHPs (25) was higher than for PHCCs (5) and health posts (6) despite the lower caseload of SHPs.

7.2.6 Emergency plans

A half of the hospitals (50%) and just over half of the PHCCs (54%) had emergency contingency plans for providing health services to women and children in conflict and emergency situations (Table 7.10). Such plans were less common at the lower level facilities. Of the facilities with emergency plans, only a quarter of hospitals (25%) and even fewer lower level facilities (7% of PHCCs, 14% of SHPs and no health posts) reported that a budget had been allocated to implement their plans. However, some facilities (25% of hospitals, 20% of PHCCs, 7% of HPs, and 19% of SHPs) reported that their emergency plans had received funding from local government (VDCs and district development committees) and local communities. For those that had received funding, the mean amount received by hospitals was 12.6 million rupees, and for PHCCs it was over 100,000 rupees. Half of the facilities reported holding a meeting (other than a regular staff meeting) related to preparing their emergency plan (50%).

Table 7.10: Availability of an emergency contingency plan for women and children

	Hospitals (%)	PHCCs (%)	HPs (%)	SHPs (%)
1. Have emergency plan	50.0	53.6	33.3	26.3
n (total facilities)	16	28	45	80
2. Budget allocated to implement plan	25.0	6.7	0.0	14.3
3. Plan received funding from local government (VDC, DDC) or community	25.0	20.0	6.7	19.0
n (total facilities)	8	15	15	21
4. Mean amount received (NPR)	1,181,418	151,400	6,000	54,900
n (total facilities)	2	3	1	4
5. Ever had meeting to prepare emergency plan	75.0	64.3	44.4	42.5
n (total facilities)	16	28	45	80

Source: STS facility questionnaire

7.2.7 Staff meetings

Regular staff meetings are important for planning and implementing facility and service delivery improvements. More than three fourths of the HPs (76%) reported that they held monthly staff meetings. Nearly one tenth of SHPs only had meetings when it was felt necessary (9%) and nearly one-fifth of SHPs did not hold any regular staff meetings (19%). PHCCs and SHPs were more likely to never hold staff meeting in comparison to hospitals and HPs. Almost all facilities (Hospitals 87%, PHCCs 92%, HPs 91%, SHPs 88%) reported that they had held their last staff meeting in the current fiscal year (2011/12).

Table 7.11: Frequency of staff meetings

	Hospitals (%)	PHCCs (%)	HPs (%)	SHPs (%)
1. Frequency of staff meetings				
At least once a month	62.5	53.6	75.6	55.0
At least once every 2 months	18.8	7.1	8.9	8.8
At least once every 3 months	12.5	14.3	6.7	7.5
At least once every 6 months	6.3	3.6	2.2	0.0
At least once a year	0.0	3.6	0.0	1.3
When needed	0.0	7.1	2.2	8.8
Never	0.0	10.7	4.4	18.8
n (total facilities)	16	28	45	80
2. Last staff meeting held				
2067/68 (2010/11)	6.3	4.0	4.7	3.1
2068/69 (2011/12)	87.5	92.0	90.7	87.7
Don't know	6.3	4.0	4.7	9.2
n (total facilities)	16	25	43	65

Source: STS facility questionnaire

7.2.8 Supervisory visits

Supervisory visits to health facilities by higher authorities are carried out to guide health workers on improving their performance. Supportive supervision promotes quality by strengthening relationships within the system, identifying and resolving problems, helping optimize the allocation of resources, and promoting higher standards, teamwork and better communication.

The STS 2011 found that PHCCs received most (96%) supervisory visits while hospitals received least (75%) supervisory visits from higher authorities in the past fiscal year (Table 7.12). PHCCs (222), HPs (187) and SHPs (166) received more visits from the district level than any other level. In comparison, hospitals received more visits (32) from the regional level. District level visits were most common at PHCCs (average 8 times per year) and least common at hospitals (average once per year). In contrast regional and central level visits were most common at hospitals. These patterns are what would be expected as district and public health offices supervise PHCCs, health posts and SHPs while regional and central level authorities supervise hospitals. Note that hospitals do not receive funding from the district level, while lower level facilities do.

Table 7.12: Supervisory visits from district, regional and central level authorities

	Hospitals		PHCCs		HPs		SHPs	
	No.	%	No.	%	No.	%	No.	%
1. Had supervisory visit(s) in last fiscal yr	12	75.0	27	96.4	41	91.1	63	78.8
2. Visits from district level:								
Total visits	14		222		187		166	
Mean number of visits	0.9		7.9		4.2		2.1	
3. Visits from regional level:								
Total visits	32		21		9		23	
Mean number of visits	2.0		0.8		0.2		0.3	
4. Visits from central level:								
Total visits	21		14		14		15	
Mean number of visits	1.3		0.5		0.3		0.2	
n (total facilities)	16		28		45		80	

Source: STS facility questionnaire

Overall, the facilities were most likely to receive feedback from supervisory visits on the subjects of service quality improvement (64%) followed by expediting progress particularly for increasing service coverage (46%) and improving data quality (40%) (Table 7.13). This reflected the pattern for PHCCs, health posts and SHPs. However, hospitals were more likely to receive feedback on ensuring the availability of essential drugs (33%) than on data quality. Feedback relating to the need to focus on reaching the underserved was more common at health posts and SHPs than at higher-level facilities.

Table 7.13: Types of feedback received during supervisory visits

Feedback received	Hospitals (%)	PHCCs (%)	HPs (%)	SHPs (%)
Service quality improvement	50.0	66.7	68.3	61.9
Expediting progress on activities	50.0	44.4	56.1	39.7
Data quality	25.0	37.0	43.9	41.3
Reaching underserved people	8.3	7.4	22.0	27.0
Availability of essential drugs	33.3	22.2	12.2	20.6
Human resources	25.0	18.5	17.1	17.5
Disclosure of financial statements	8.3	18.5	7.3	6.3
Developing/maintaining infrastructure	8.3	7.4	4.9	9.5
Improving record-keeping/reporting	8.3	3.7	4.9	7.9
No suggestions	16.7	3.7	0.0	3.2
n (total facilities)	12	27	41	63

Source: STS facility questionnaire

7.3 KEY FINDINGS

Social audits

- More than one fourth (27%) of the facilities had undertaken a social audit in the current or previous fiscal year. A lesser proportion of hospitals had conducted social audits although all the hospitals that had conducted one had produced a report on the audit that was available in their facilities. The lower level facilities were more likely to have made the findings of their audits public, and to have used a public gathering to do so, while hospitals were less likely to have made the findings public, and tended to display findings on information boards. Nearly one fourth of facilities had incorporated recommended actions into their annual plans and budgets. The use of community scorecards was very low.

Citizen's charters

- The hospitals were most likely to have the charter outside their building in a visible place. Of those with a charter, most included information on free drugs and outpatient services, and most of the facilities implementing the Aama Programme and having a citizen charter had information on the programme in their charters.

Disclosure

- The health facilities were most likely to have disclosed information related to free essential drugs and to have used public noticeboards to do so. The next most common subjects for information disclosure were current disease trends, public health interventions and information on the facility workforce. This information was largely disclosed through public gatherings.

Health facility committees

- Hospital development committees (HDCs) had been established in all hospitals and health facility management committees (HFMCs) in all the PHCCs and health posts and all but one of the SHPs. Most of these committees were reportedly active. Over three-quarters had oriented all committee members on their roles and responsibilities. More than 50% of facilities held committee meetings at least every two to three months and almost all facilities (94%) had held an HFMC meeting in the current fiscal year (2010/2011). The most common activity organised and supported by the HFMCs/HDCs was infrastructure development and maintenance and half of facilities reported that their HFMC/HDC had recruited health workers.
- More needs to be done to increase the active participation of marginalised and female members of HFMCs/HDCs. Just under a half of facilities reported that these members were always active in committee meetings with a lesser proportion reporting that they always participated in decision-making. Only 6% of facilities reported that these members never participated in committee meetings. Only a few facilities had specific activities for building the capacity of their HFMCs/HDCs on gender and social inclusion and this was least common in the hospitals.

Complaint/suggestion mechanisms

- Three-quarters of the hospitals had a complaints/suggestion mechanism, with the likelihood of having one decreasing by level of facility. The most common procedure for lower level facilities was to assign a focal person to receive complaints/suggestions. Half of hospitals had a focal person, but it was more common for them to have complaint/suggestion boxes.

Emergency plans

- About half of hospitals and PHCCs and a lower proportion of health posts and SHPs had emergency contingency plans. Of facilities with plans, only a quarter of hospitals and fewer lower level facilities reported that a budget had been allocated to implement the plans. Some facilities reported that their plans had received funding from local government or communities.

Staff meetings

- Many facilities held regular staff meetings with 63% of Hospitals, 54% of PHCCs, 76% of HPs and 55% of SHPs% holding them at least once a month.

Supervision

- Most facilities had received a supervisory visit in the past fiscal year, which varies from 96% PHCCs 96% to 25% of hospitals. Supervisory visits from the district level were more common than from regional and central levels. Higher proportions of district level visits were made to PHCCs and more regional and central level visits were made to hospitals. Health facilities were most likely to have received feedback on quality improvement, and feedback related to reaching the underserved was most common at health posts and SHPs.

8 HUMAN RESOURCES

8.1 INTRODUCTION

Human resources form the epicentre of every health system and play an indispensable part in producing and delivering high quality health services. However, it is only recently that the development and strategic management of the health workforce has received the same degree of prominence globally as other major health issues. Despite this recent acknowledgement, the lack of a concerted and decisive global effort to tackle the issue has meant that developing nations are struggling to produce, manage and retain a health workforce that is capable of meeting all the basic health needs of their populations.

Within Nepal, there is a need to ensure that on-going reforms in the health sector are complemented by adequate human resources. The Government of Nepal's Strategic Plan for Human Resources in Health, 2003-2017 (MoH 2003) puts human resources planning and management at the heart of the wider health sector reforms in Nepal. Its recommendations aim to help policy-makers decide on and plan for:

> *"i) the right number of people ii) in the right place, iii) at the right time, iv) with the right skills, v) with the right motivation and attitude, vi) at the right cost and vii) doing the right work." (MoH 2003:12).*

Examples of the commitment of the Nepalese government to developing human resources for health include the introduction of a mandatory rural service programme for scholarship students in medical schools (Shanker 2010), training more skilled birth attendants (SBAs), increasing the provision of in-service training for staff and hiring contractual staff to fill recruitment gaps. However, the extent to which these strategies are able to deliver the desired results is arguable in light of the findings of the recent, more comprehensive and critical analysis by the Human Resources for Health Strategic Plan 2010-2015 (MoHP 2012).

There is thus a need to regularly evaluate the human resources situation; and while centrally controlled databases exist, the information currently held there is not updated regularly. By carrying out a strategic analysis of current human resources, this Service Tracking Survey 2011 (STS 2011) aims to help policy-makers:

- identify the gaps in current provision — i.e. between sanctioned posts and filled posts;
- understand the current employment mix — i.e. between filled, deputed and contract posts; and
- identify where to prioritise attention and resources.

The analysis in this chapter only focuses on technical personnel and excludes administrative personnel. See definitions of different kinds of posts in Box 8.1.

Box 8.1: Definitions

Sanctioned posts are permanent allocated posts approved by the Ministry of Health and Population (MoHP) and its divisions in consultation with the Ministry of General Administration and the Ministry of Finance.

Filled posts are posts where a member of staff has been recruited to a sanctioned post (i.e. it is a permanent position). Filled posts do not include temporary postings, such as contract postings (including through health management committees [HDCs and HFMCs]) or deputations to posts. However, some of those officially recorded in filled posts at a facility may have been deputed out.

Deputation is the practice of posting staff to a facility different to the one in which they hold or held a sanctioned post. Note that deputations for less than one month are officially recorded as filled-sanctioned posts at the facility from which they are deputed from, but are not included in the filled-sanctioned posts of the facility where they are deputed to. According to government regulations, staff should not be deputed for more than three months.

Contracted employees are employed in temporary posts for fixed periods of time. These include those employed by health management committees. At present staff can only receive a contract up to one year; but they are often given new contracts once their initial contract expires. Multi-year contracting is currently under discussion.

Source: Civil service regulation, 2050 (1993)

8.2 RESULTS

Box 8.2: Key STS indicators for human resources

Indicators	2011 results (%)	95% CI
% of sanctioned posts that are filled:		
• Doctors at district hospitals*	68.9	46.7-79.6
• Doctors at PHCCs*	50.0	35.1-64.9
• Nurses at district hospitals*	83.3	74.3-89.6
• Nurses at PHCCs*	73.8	60.5-83.8
% of hospitals that have at least 1 obstetrician-gynaecologist or Specialist General Practitioner (MDGP), 5 SBA (skilled birth attendant) trained nurses, and 1 anaesthetist or anaesthetist assistant*	31.2	14.5-55.0
% of PHCCs with at least 1 medical officers, 1 health assistant/*senior auxiliary health worker* (SAHW), 1 staff nurse, 2 AHWs, 3 ANMs and 1 lab assistant in filled post	7.1	0.6-47.8
% of category A health posts with at least 1 health assistant/SAHW, 2 AHW and 1 ANM in filled post	53.3	19.2-84.6
% of category B health posts with at least 1 health assistant/SAHW, 1 AHW and 1 ANM in filled post	20.0	8.7-39.6
% of SHPs with at least 1 AHW, 1 MCHW and 1 VHW in post	50.0	37.8-62.2

* NHSP 2 logframe indicators

8.2.1 Sanctioned and filled posts

Having an appropriate number of sanctioned posts is fundamental for the adequate and equitable distribution of human resources in health facilities. The current sanctioned posts were set out in the Government of Nepal's National Health Policy, 1991. However, between 1991 and 2008 the population of Nepal increased by 35% while the number of health workers increased by only 3% (MoHP 2012). Furthermore, Nepal's population is ageing (with a higher percentage of the population in older age-groups), thus placing additional demands on the health system. One report claims that plans to increase the number of health workers, as set out in the HRH Strategic Plan in 2003 (MoH 2003), is unlikely to be achieved due to the large number of sanctioned posts that are unfilled (Kolehmainen-Aitken and Shrestha 2009). It has been estimated that nearly a third of all government sanctioned posts for doctors and nurses are unfilled, especially in skill areas that are most needed (MoHP 2012). Sanctioned posts are particularly difficult to fill in remote and mountainous areas.

Tables 8.1 to 8.7 show the official number of sanctioned posts at each level as stipulated in the DoHS operating manual (DoHS 2011) and the actual number of sanctioned posts as recorded by the STS 2011. These two sets of data were compared to assess the percentage of facilities that had at least the number of sanctioned posts. These tables also show the number of filled posts against both the official (DoHS operating manual) and actual number of sanctioned positions. In most cases the actual number of posts sanctioned matched the official number of posts sanctioned; although there were a few exceptions. We identified the following four reasons for the differences between the official sanctioned posts as per the DoHS operating manual and the actual sanctioned posts at the facilities visited for the STS 2011:

- **Upgrading of facilities** — Some facilities are in the process of being officially upgraded; but the number of sanctioned posts has not yet changed to reflect this new status. For example, a health post in Solukhumbu is in the process of being upgraded to a primary health care centre (PHCC), but still has the staffing of a health post.
- **Staff promotion** — Some staff in sanctioned posts have been promoted to positions that are not officially sanctioned for their level of facility but remain in the same facility (e.g. some maternal and child health workers [MCHWs] at sub-health posts [SHPs] have been promoted to auxiliary nurse midwife (ANMs), which are only sanctioned at health post level and above).
- **Defunct positions** — Some staff are in posts that were historically sanctioned at that level of facility but are no longer sanctioned at that level. In these circumstances the staff remain in post until they choose to leave; but once they leave they are not replaced (e.g. village health workers [VHWs] at health posts in Banke and Jajarkot).
- **Differences between topographical zones** — Sanctioned posts should take into consideration what is appropriate for the context and hence some sanctioned posts vary by topographical zone.

Higher level hospitals

The number of sanctioned posts varies by the level of hospital (zonal, regional, sub-regional, and district) and also within the same level of hospital. Table 8.1 shows the number of sanctioned posts for the four higher level hospitals in the STS 2011 as per the DoHS operating manual. It is not surprising

that the number of sanctioned posts varies substantially between the hospitals given that they include central, regional and zonal hospitals.

Table 8.1: Official number sanctioned posts at higher level hospitals (excl. administrative posts)

Position	Central	Regional	Zonal	Zonal
	BP Koirala Institute of Health Science	Hetauda Hospital	Bheri Zonal Hospital	Seti Zonal Hospital
Obstetrician/gynaecologist (O/G)	19	1	2	1
Paediatrician	22	1	2	1
MDGP	24	0	0	0
Medical officer	157	4	12	7
Anaesthetist assistant	20	0	0	0
Sister/matron/hospital inspector	56	1	3	2
Staff nurse	555	10	25	19
Health assistant (HA)	0	1	0	1
Auxiliary health worker (AHW)	0	5	5	6
Auxiliary nurse midwife (ANM)	92	4	4	5
Laboratory assistant	61	1	6	3
n (total posts)	**1006**	**28**	**59**	**45**

Source: Department of Health Services, Operating Manual for Department of Health Services 2011.

- All four higher level hospitals had at least the number of posts sanctioned as per the operating manual for most posts (O/Gs, paediatricians, MDGPs, medical officers, anaesthetist assistants, sister/matrons, staff nurses, health assistants, AHWs and ANMs). However, three of the four hospitals had at least the number of sanctioned posts for laboratory assistants, which resulted in 75% of the higher level hospitals having at least the number of posts sanctioned as stated in the DoHS operating manual (Table 8.2 column b).
- There were no cadre for which all higher level hospitals had at least the number of staff in filled posts as per the number officially sanctioned. Three of the four higher level hospitals had at least the number filled for O/Gs, MDGPs and anaesthetist assistants. Two of the four hospitals had at least the number filled for health assistants, AHWs, ANMs and laboratory assistants. Just one of the four hospitals had at the least the number of filled posts for paediatricians and medical officers (column c). It should be noted that Hetauda hospital has only recently been upgraded to a regional hospital and although the sanctioned posts have been changed to match, many of these have yet to be filled. For example, there are no filled posts for paediatricians, medical officers, sister/matrons, or health assistants, and only half of the staff nurse sanctioned posts are filled.
- Columns d and e of Table 8.2 aggregate all higher level hospitals together; but it should be noted that the high number of staff at BPKIHS heavily skews the overall results. The biggest gaps are seen for medical officers (where just 7% of sanctioned posts are filled) and staff nurses (where only 16% of sanctioned posts are filled) (Figure 8.1).

Table 8.2: Sanctioned and filled posts at higher level hospitals

Position	(a) Official no. sanctioned posts (in DoHS operating manual – see Table 8.1)	(b) Had at least no. officially sanctioned posts	(c) Had at least number of (a) in filled posts	(d) Total no. of sanctioned posts (i.e. 'actual' no. for all sampled hospitals)	(e) % of (actual) sanctioned posts (d) filled
	Range across hospitals	%	%	No.	%
Obstetrician/gynaecologist	1-19	100	75	23	65.2
Paediatrician	1-22	100	25	26	34.6
MDGP	0-24	100	75	26	57.7
Medical officer	4-157	100	25	183	6.6
Anaesthetist assistant	0-20	100	75	61	80.3
Sister/matron/hospital inspector	1-56	100	0	21	95.2
Staff nurse	10-555	100	25	613	15.7
Health assistant (HA)	0-1	100	50	3	33.3
AHW	5-6	100	50	24	88.4
ANM	4-92	100	50	121	91.7
Laboratory assistant	1-61	75	50	71	78.9
All	28-1,006	75	0	912	34.3
n (total facilities)	**4**				

Sources: DoHS 2011 Operating Manual and STS facility questionnaire

District hospitals

District hospitals are divided into four categories (A-D) each with a different number of sanctioned posts, with the number increasing from category A to D (Table 8.3). Two of the district hospitals sampled in STS 2011 were category A hospitals, one category B, eight category C, with no category D hospitals. It should be noted that there are no sanctioned anaesthetist assistant (AA) posts in district hospitals, and no sanctioned obstetrician-gynaecologist posts in categories A–C, which will hamper progress on all districts having at least one comprehensive emergency obstetric and neonatal care (CEONC) facility.

- The DoHS operating manual stipulates that the official number of sanctioned posts at district hospitals in categories A to C is one to two medical officers, two to four staff nurses, one health assistant, two to three AHWs, two ANMs, and one to two laboratory assistants (Table 8.4 column a).
- All 12 district hospitals had at least the number of sanctioned posts (as specified in the DoHS operating manual) for medical officers, health assistants, and ANMs; however, only 83% had at least the number of sanctioned posts for staff nurses and AHWs and only a quarter (25%) had at least one to two laboratory assistants. This resulted in just 8% of district hospitals having at least the number of posts sanctioned as per the DoHS operating manual (Table 8.4 column b).

Table 8.3: Official number of sanctioned posts at district hospitals (excl. administrative posts)

Position	Category A	Category B	Category C	Category D
	Solukhumbu, Mugu	Jajarkot	Panchthar, Sunsari, Sindhupalchowk, Mahottari, Baitadi, Syangja, Kapilbastu, Tikapur (Kailali)	-
Obstetrician/ gynaecologist				1
Paediatrician				1
Medical officer	1	1	2	3
Sister/matron/hospital inspector				1
Health assistant (HA)		1	1	1
Staff nurse	2	3	4	9
AHW	3	2	2	4
ANM	2	2	2	3
Laboratory assistant	1	1	2	2
n (total posts)	**9**	**10**	**13**	**25**

Source: DoHS operating manual, 2011. Note: The second header row names the STS 2011 district hospitals

- In regards to filled posts, all the district hospitals had at least two ANMs, 83% had at least one health assistant, and 75% had at least one to two medical officers and two to three AHWs. Of more concern is that only half of the district hospitals had at least the required number of laboratory assistants in filled posts, while just 42% had two to four staff nurses (Table 8.4 column c).

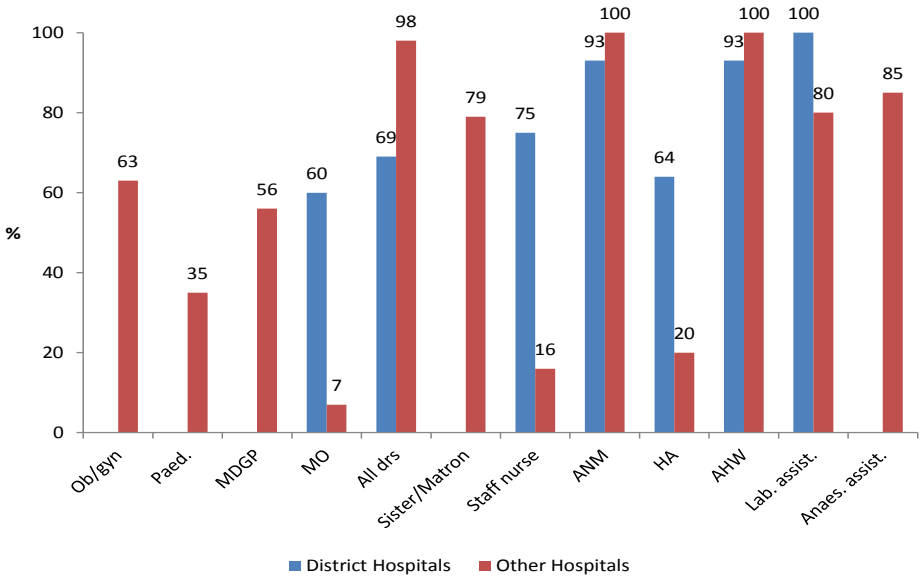
Table 8.4: Sanctioned and filled posts at district hospitals

Position	(a)	(b)	(c)	(d)	(e)
	Official no. of sanctioned posts (in DoHS operating manual – see Table 8.3)	Had at least no. of officially sanctioned posts	Had at least the number of (a) in filled-posts	Total no. of sanctioned posts (i.e. 'actual' no. for all STS dist. hospitals)	% of (actual) sanctioned posts (d) filled
	Range across hospitals	%	%	No.	%
Medical officer	1-2	100	75.0	35	60.0
Staff nurse	2-4	83.3	41.7	48	75.0
Health assistant	1	100	83.3	14	64.3
AHW	2-3	83.3	75.0	27	92.6
ANM	2	100	100	28	92.9
Laboratory assistant	1-2	25.0	50.0	12	76.2–133.3
All (1-2 medical officers, 1 HA, 2-4 staff nurse, 2-3 AHWs, 2 ANMs & 1-2 lab. assts)	9-14	8.3	0	164	81.1
n (total facilities)	**12**				

Sources: DoHS 2011 Operating Manual and STS facility questionnaire

- Overall 81% of the 164 sanctioned posts at the 12 district hospitals were filled. The percentage of these sanctioned posts that are filled varied by position. This is slightly better than PHCCs, health posts and SHPs (see below). Most ANM posts (93%) and AHWs (93%) were filled (85%), along with 75% of staff nurses. Of greater concern is the medical officers and health assistant positions with only 60% and 64% of them filled respectively (Table 8.4 column e and Figure 8.1).

Figure 8.1: Percentage of sanctioned posts filled at district and higher level hospitals



Source: STS facility questionnaire

Primary health care centres

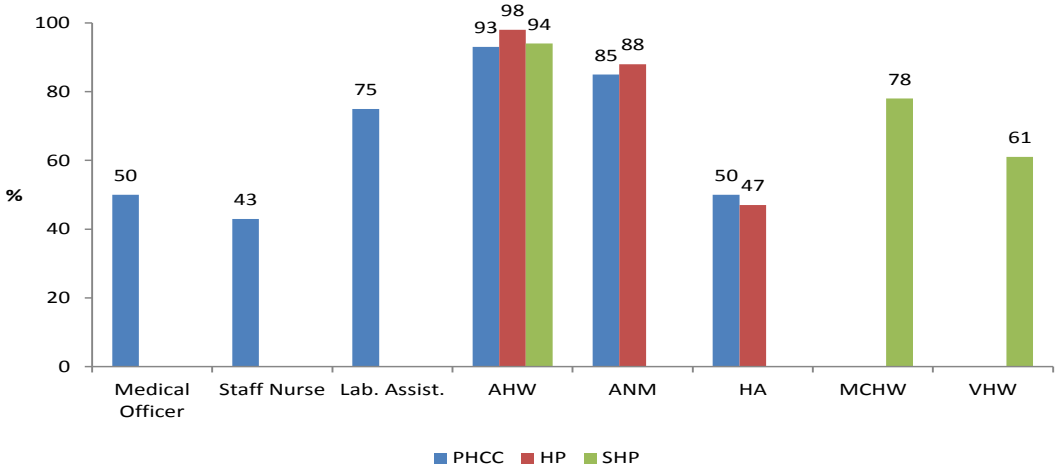
- The DoHS operating manual stipulates that the official number of sanctioned posts at PHCC level should be one of each of the following: medical officer, health assistant, staff nurse, and laboratory assistant, along with two AHWs and three ANMs (Table 8.5, column a).
- All PHCCs had at least this number of sanctioned posts (as specified in the DoHS Operating manual) for medical officers, health assistants/SAHWs, staff nurses, laboratory assistant, and AHWs; however, only 82% had three sanctioned posts for ANMs (column b). Three quarters of PHCCs (75%) had at least one laboratory assistant in a filled post, 71% had at least two AHWs in a filled post, while just 50% of the facilities had at least one medical officer, one health assistant and three ANMs. This resulted in just 7% of PHCCs having at least one medical officer, one health assistant, one staff nurse, two AHWs, three ANMs and one laboratory assistant in filled posts (column c).
- Overall just under three quarters of the 247 sanctioned posts at the sampled PHCCs were filled (73%) — similar to health posts and SHPs (see below). The percentage of these sanctioned posts that are filled varied by position. Most AHW (93%) and ANM posts were filled (85%) as were 75% of laboratory assistant posts. Of greater concern are the staff nurse (43%), medical officer (50%) and health assistant (50%) positions (column e and Figure 8.2).

Table 8.5: Sanctioned and filled posts at PHCCs

Position	(a) Official no. sanctioned posts (in DoHS operating manual)	(b) Had at least number of officially sanctioned posts	(c) Had at least the number of (a) in filled posts	(d) Total no. sanctioned posts (i.e. 'actual' no. for all sampled PHCCs)	(e) % of (actual) sanctioned posts (d) filled
	No.	%	%	No.	%
Medical officer	1	100	50.0	28	50.0
Health assistant	1	100	50.0	28	50.0
Staff nurse	1	100	42.9	28	42.9
AHW	2	100	71.4	28	92.9
ANM	3	82.1	50.0	56	84.8
Laboratory assistant	1	100	75.0	79	75.0
All (1 medical officer, 1 HA, 1 staff nurse, 2 AHWs, 3 ANMs and 1 lab. asst)		82.1	7.1	247	72.9
n (total facilities)	28				

Sources: DoHS 2011 Operating Manual and STS facility questionnaire

Figure 8.2: Percentage of sanctioned posts filled at PHCCs, health posts and SHPs



Source: STS facility questionnaire

Health posts

Health posts are divided by topographical zones into category A (Terai districts) and category B types (hill and mountain districts). Of the 45 STS health posts, 15 were category A and 30 category B.

- The DoHS operating manual stipulates that the official number of sanctioned posts at health posts should be one health assistant and one ANM with the only difference between the two

categories being that category A health posts should have two AHWs and category B should just have one AHW (Table 8.6, columns a1 and a2).

- All category A health posts had at least this number of sanctioned posts (as per the DoHS operating manual) for health assistants and ANMs.
- All category B health posts had at least this number of sanctioned posts (as per the DoHS operating manual) for each of these positions, except that three health posts in the Karnali zone (Mugu district) do not have any sanctioned ANM posts (column b2).
- Most category A health posts had at least 2 AHWs (93%) in a filled post and most category B had at least one (87%). Likewise most had at least one ANM (80% of category A and 83% of category) in a filled post. However, only two-thirds (67%) of category A health posts had at least one health assistant in a filled post, and filling these posts in the hill and mountain districts appears to be even more problematic, with just one-third (37%) of category B health posts having at least one health assistant in a filled post (columns c1 and c2).
- This resulted in just over half of category A health posts (53%) and only one-fifth of category B (20%) having at least the number of officially sanctioned positions in filled posts.
- The total number of sanctioned posts in the health posts was 150, with 60 AHWs and 45 each health assistant and ANMs, reflecting one of each post in each facility (column d).
- Overall, 80% of the 147 sanctioned posts at health posts were filled. The percentage of these sanctioned posts that were filled varied by position, but most AHWs were filled (98%). Most ANM sanctioned posts were also filled (88%); but only 47% of sanctioned health assistant posts were filled (column e and Figure 8.2).

Table 8.6: Sanctioned and filled posts at health posts

	Category A			Category B			All	
	(a1)	(b1)	(c1)	(a2)	(b2)	(c2)	(d)	(e)
	Official no. sanctioned posts (in DoHS operating manual)	Had at least no. of officially sanctioned posts	Had at least no. of (a) in filled-posts	Official no. sanctioned posts (in DoHS operating manual)	Had at least no. of officially sanctioned posts	Had at least no. of (a2) in filled-posts	Total no. sanctioned posts (i.e. 'actual' no. for all STS HPs)	% of (actual) sanctioned posts (d) filled
Position	No.	%	%	No.	%	%	No.	%
Health assistant	1	100	66.7	1	100	36.7	45	46.7
AHW	2	100	93.3	1	100	86.7	60	98.3
ANM	1	100	80.0	1	90.0	83.3	42	88.1
All (1 HA, 1 or 2 AHWs, 1 ANM)	4	93.3	53.3	3	90.0	20.0	147	79.6
n (total facilities)	15			30			45	

Sources: DoHS 2011 operating manual and STS facility questionnaire

Sub-health posts

- The DoHS operating manual stipulates that the official number of sanctioned posts at SHP level should be one AHW, one MCHW and one VHW (Table 8.7 column a).
- All of the sub-health posts had at least this number of sanctioned posts (as per the DoHS operating manual) for each of these positions (column b).
- Most SHPs had at least one (as specified in the DoHS operating manual) AHW (91%) and one MCHW (90%) in filled-sanctioned posts. However, less than two-thirds (61%) of SHPs had at least one VHW in a filled-sanctioned position (column c). This resulted in only half of the SHPs (50%) having one AHW, one MCHW and one VHW in filled posts.
- The total number of sanctioned posts in the sampled SHPs was 240, split equally between the three cadre (AHWs, MCHWs and VHWs) (column d). Overall just over three quarters of the 240 sanctioned posts at sampled SHPs were filled (78%). However, the percentage of these sanctioned posts that were filled varied by position. Most AHW posts (94%), but only 78% of MCHW and 61% of VHW posts were filled (column e and Figure 8.2).

Table 8.7: Sanctioned and filled posts at SHPs

Position	(a) Official no. sanctioned posts (in DoHS operating manual)	(b) Had at least the no. of officially sanctioned posts	(c) Had at least the number of (a) in filled posts	(d) Total no. sanctioned posts (i.e. 'actual' no. for all sampled SHPs)	(e) % of (actual) sanctioned posts (d) filled
	No.	%	%	No.	%
AHW	1	100	91.3	80	93.8
MCHW	1	100	77.5	80	77.5
VHW	1	100	61.3	80	61.3
All (1 AHW, 1MCHW and 1 VHW)	3	100	46.3	240	77.5
n (total facilities)	80				

Sources: DoHS 2011 operating manual and STS facility questionnaire

All levels (excluding higher level hospitals)

This sub-section presents the percentage of sanctioned posts filled for district hospitals, PHCCs, health posts and SHPs combined. (Note that the higher level hospitals have been excluded from this analysis and the sanctioned posts reflect the actual number recorded during STS and not the official number in the DoHS operating manual). Most sanctioned ANM (93%), AHW (89%), and MCHW (89%) posts were filled (Table 8.8). The biggest gaps were for medical officers (58% filled), health assistants (65%), and staff nurses (66%).

Table 8.8: Percentage sanctioned posts filled at district hospitals, PHCCs, health posts and SHPs

Posts	%
ANM	92.9
AHW	89.3
MCHW	88.7
Laboratory assistant	83.0
VHW	79.1
Staff nurse	66.2
Health assistant	65.3
Medical officer	58.3

Staff perceptions on number of sanctioned posts

Facility staff were asked whether or not they felt that the number of sanctioned staff was adequate for the services provided by their facilities (Table 8.9). Staff at PHCCs were most likely to report the number of sanctioned staff as being inadequate (91%) and hospital staff were the least likely to, although the proportion was still very high (81%). Nearly two-thirds of those who felt the number of sanctioned posts was inadequate reported that this was the case for maternity services (65%), especially among PHCC staff (79%). The number of sanctioned posts in child health services at the hospital level were deemed to be as inadequate as maternity services (62%).

Table 8.9: Staff perceptions regarding number of sanctioned posts

	All hospitals (%)	PHCC (%)	HP (%)	SHP (%)
1. No. sanctioned posts are inadequate	81.3	85.7	91.1	86.3
n (total facilities)	16	28	45	80
2. Services for which no. sanctioned staff were perceived to be inadequate:				
Surgical	46.2			
Maternity	61.5	79.2	63.4	62.3
Medical	53.8	66.7	34.1	49.3
Admin. service	23.1	25.0	31.7	27.5
Child health	61.5	25.0	14.6	17.4
Others	23.1	16.7	24.4	13.0
n (total facilities)	13	24	41	69

Source: STS facility questionnaire

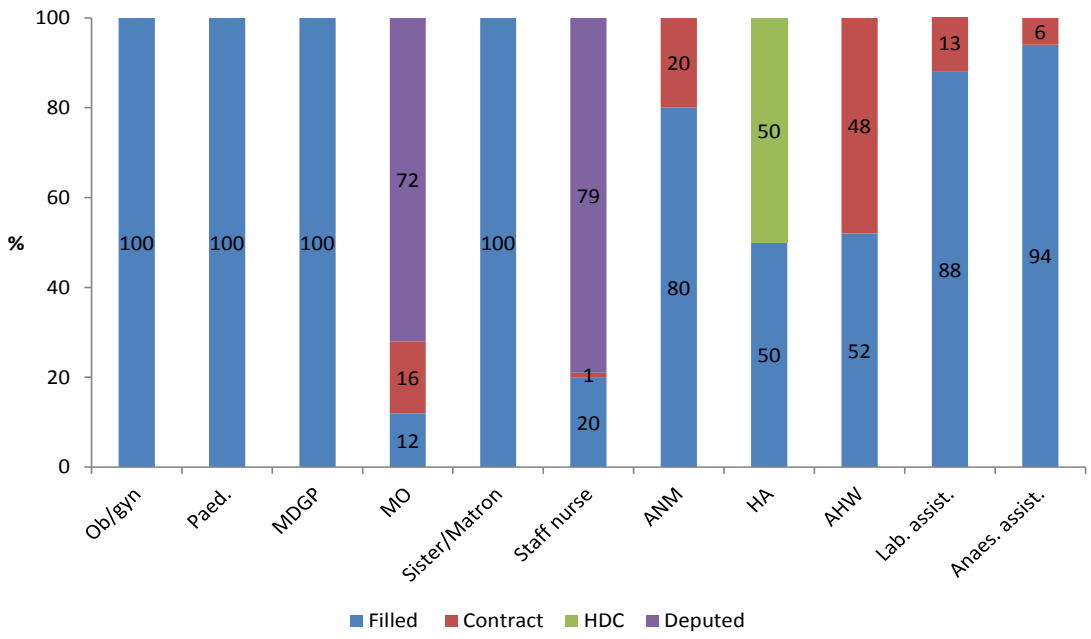
8.2.2 Service contracts

As the creation and filling of sanctioned posts for health care providers is usually a lengthy process, health facilities frequently recruit temporary staff to meet their urgent needs. Temporary staff can be recruited through contract posts, including through HFMCs and HDCs, or deputed from another facility. Such staff are in addition to permanent filled-sanctioned posts. Temporary staff are hired for fixed

lengths of time depending on available budgets. Every year, some of the budget from the Red Book (the government's budget) is allocated for recruiting contract staff at any level. Furthermore, usually at least five percent of village development committee (VDC) budgets are allocated to health costs, with one possible use of these funds being to contract health workers. HFMC/HDC-recruited staff are monitored by these committees. Contract staff, including those recruited through HFMCs/HDCs, can be relocated under certain circumstances to another facility, depending on need, but they are never deputed.

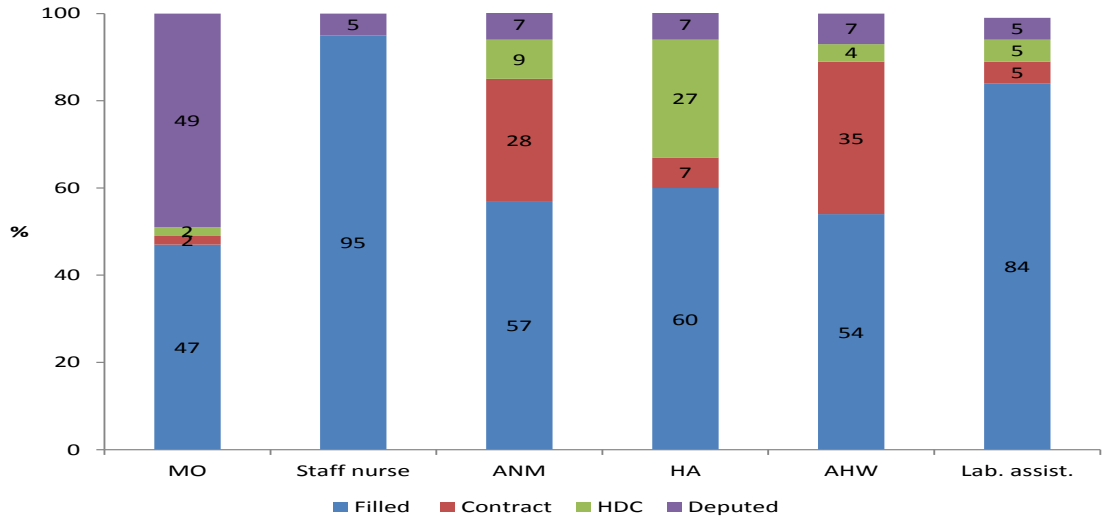
Figures 8.3-8.7 show the service-contract mix at all facility levels. The highest proportions of contracted staff (excluding HDC/HFMC) were seen for medical officers at higher level hospitals (72%) and district hospitals (49%) and for staff nurses at higher level hospitals (79%) (Figures 8.3 and 8.4). HDCs/HFMCs have been responsible for recruiting a relatively high proportion of ANMs (20%) at higher level hospitals, AHWs (35%) and ANMs (28%) at district hospitals, and AHWs (48%), and AHWs (18%) at health posts (Figures 8.3, 8.4 and 8.6). High proportions of deputed posts are seen for health assistants at higher level hospitals (50%) and district hospitals (27%).

Figure 8.3: Service-contract mix at higher level hospitals



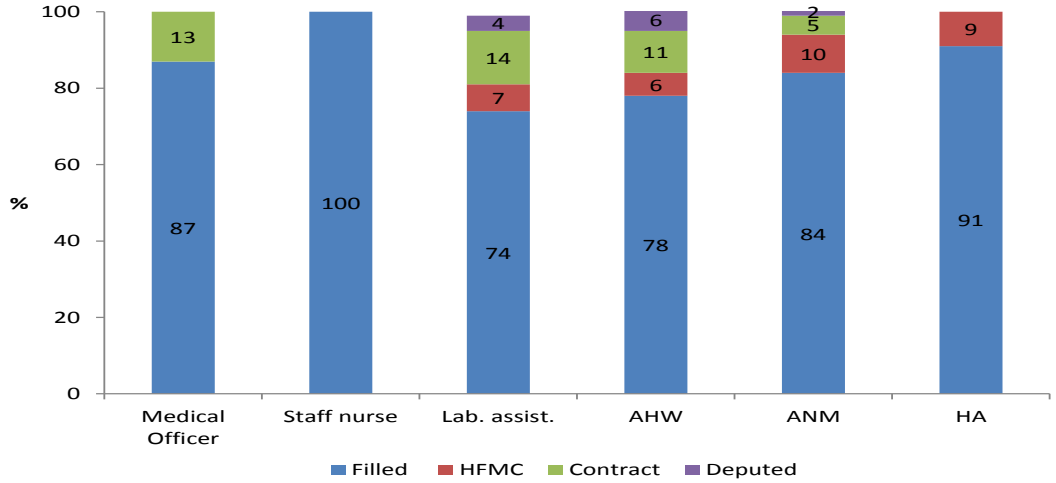
Source: STS facility questionnaire

Figure 8.4: Service-contract mix at district hospitals



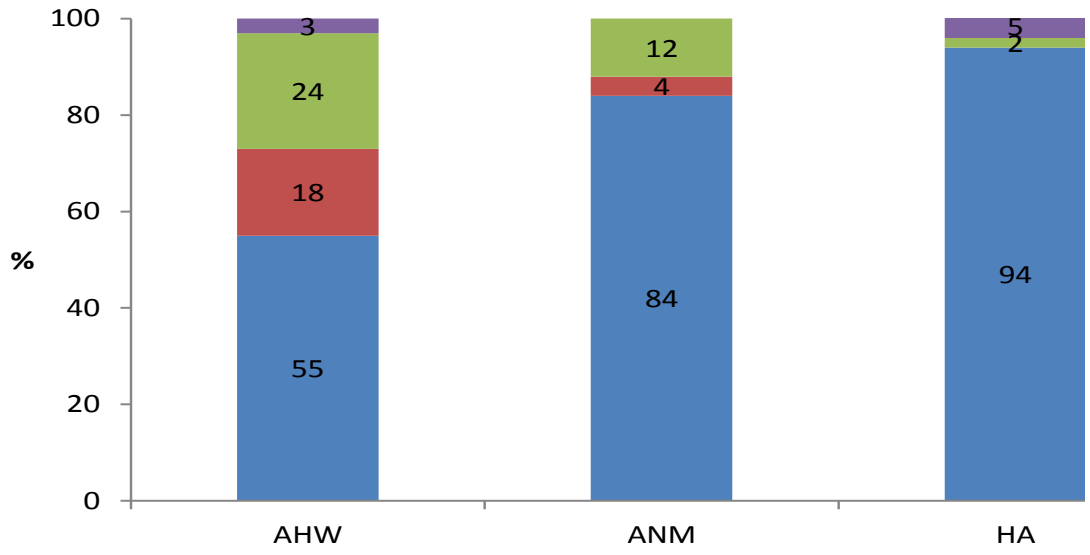
Source: STS facility questionnaire

Figure 8.5: Service-contract mix at PHCCs



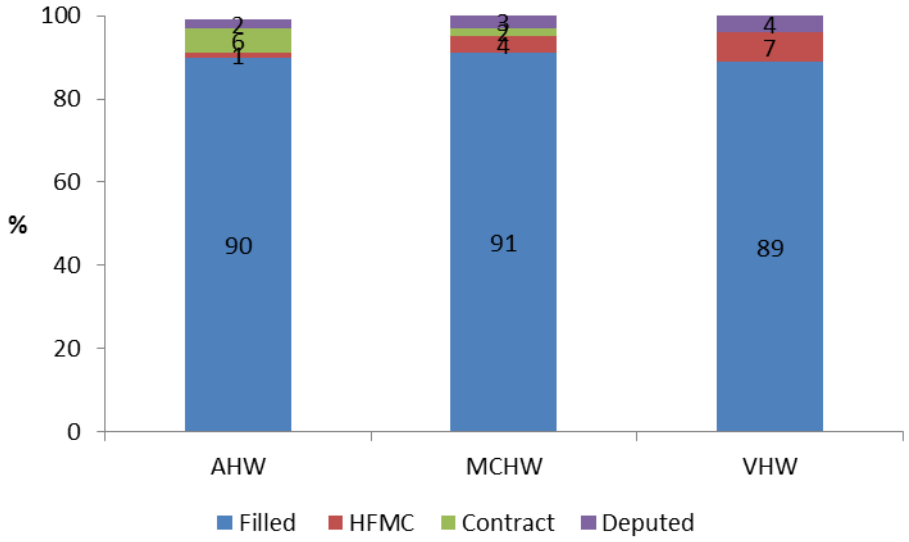
Source: STS facility questionnaire

Figure 8.6: Service-contract mix at health posts



Source: STS facility questionnaire

Figure 8.7: Service-contract mix at SHPs



Source: STS facility questionnaire

The STS 2011 also assessed whether or not contracted posts, including HFMC/HDC and deputed posts, were in addition to filled-sanctioned posts or had been instituted because sanctioned posts were not filled (Table 8.10). However, it should be noted that some of the filled posts may have been deputed out, and hence the number in post was smaller. So many staff being deputed will have significant repercussions for the facilities from which they are deputed.

Table 8.10: Service-contract mix at health facilities compared to sanctioned posts

Posts	Staff in post as % of actual sanctioned posts (i.e. includes filled, contract and deputed)	% in post who are:			
		Filled	Contracted – HFMC/HDC only	Contracted- excl. HFMC/HDC	Deputed
1. District hospitals (n=12)					
Medical officer	128.6	46.7	2.2	48.9	2.2
Staff nurse	79.2	94.7	0.0	5.3	0.0
ANM	164.3	56.5	28.3	6.5	8.7
Health assistant	107.1	60.0	6.7	6.7	26.7
AHW	170.4	54.3	34.8	6.5	4.3
Lab. asst/lab. technician	158.3	84.2	5.3	5.3	5.3
All of the above	127.4	63.6	15.3	15.3	5.7
2. PHCCs (n=28)					
Medical officer	57.1	87.5	0.0	12.5	0.0
Staff nurse	42.9	100	0.0	0.0	0.0
ANM	113.9	74.4	6.7	14.4	4.4
Health assistant	64.3	77.8	5.6	11.1	5.6
AHW	110.7	83.9	9.7	4.8	1.6
Lab. assistant	82.1	91.3	8.7	0.0	0.0
All of the above	89.5	81.4	6.8	9.0	2.7
3. Health posts (n=45)					
ANM	148.9	55.2	17.9	23.9	3.0
Health assistant	55.6	84.0	4.0	12.0	0.0
AHW	105.0	93.7	0.0	1.6	4.8
All of the above	103.3	75.5	8.4	12.9	3.2
4. SHPs (n=80)					
AHW	103.8	90.4	1.2	6.0	2.4
MCHW	85.0	91.2	4.4	1.5	2.9
VHW	68.8	89.1	7.3	0.0	3.6
All of the above	85.8	90.3	3.9	2.9	2.9

Source: STS facility questionnaire

At the district hospitals the addition of contracted and deputed posts means that for all positions, except for staff nurses, the number of staff in post is higher than the number sanctioned. These posts need to be reviewed in regards to whether this is in fact over-staffing and not the most efficient use of additional funds, or whether the number of sanctioned posts is inadequate and needs revising. At district hospitals the posts with the smallest percentage of sanctioned posts filled were medical officers (60%) and health assistants (64%) (Table 8.10). Additional contracted and deputed posts help to cover unfilled sanctioned posts. For medical officers the significant number of contracted posts helps to address this shortfall, and for health assistants deputed posts do the same. For ANMs and AHWs most of the additional staff were in HDC appointed posts.

At lower level facilities, despite additional contracted and deputed posts, there were still positions at some levels with far fewer staff in post than the number sanctioned — namely staff nurses (43%), medical officers (57%) and AHWs (64%) at PHCCs, ANMs at health post (56%) and VHWs at SHPs (69%) (Table 8.10). In contrast, for some posts the addition of contracted and deputed posts has resulted in more staff in post than the number of sanctioned posts. This includes ANMs and laboratory assistants at PHCCs, AHWs and health assistants at health posts and AHWs at SHPs. Again these posts need to be reviewed in regards to whether this is over-staffing or whether the number of sanctioned posts is inadequate and needs to be revised. At SHP level there are still fewer MCHW and VHW posts than sanctioned despite the additional contracted and deputed posts. Different patterns are seen for the same positions at different levels of health facility: for example, at health post level there are more AHWs and health assistants in post than the sanctioned number, but fewer ANM posts, whereas at PHCC level there are more ANMs in post than the sanctioned number, but fewer AHWs and health assistants.

8.2.3 Skills mix

A previous analysis of the skills mix at health facilities revealed that 4% of total health care providers were doctors, 12% nurses (excluding ANMs), 47% paramedics, 1% public health officers and 3% traditional health care providers (HuRIC 2008 cited in MoHP 2010). The STS 2011 also gathered data on the skills mix at health facilities (see Tables 8.11 and 8.12). However, this data was not collected for all positions in the health sector and hence these findings are not directly comparable to the earlier analysis.

Table 8.11: Skills mix at district and non-district hospitals

	District hospitals	Higher level hospitals
	% of staff in post (filled, HFMC, contracted & deputed)	% of staff in post (filled, HFMC, contracted & deputed)
Obstetrician-gynaecologist	0.5	1.6
Paediatrician	0.0	1.0
MDGP	0.9	1.5
Medical officer	21.1	10.9
Sister/matron	0.5	5.4
Staff nurse	17.8	53.0
ANM	21.6	14.7
Health assistant	7.0	0.2
AHW	21.6	4.6
Lab. assistant	8.9	7.0
n (total posts)	213	911

Source: STS facility questionnaire

The STS 2011 findings reveal differences between district hospitals and higher level hospitals. District hospitals had a far higher percentages of medical officers than the higher level hospitals (21% of staff compared to 11%) and AHWs (22% compared to 5%), but far lower percentages of staff nurses (18% compared to 53%) (Table 8.11). At PHCC level 7% of staff were medical officers and 46% were nurses (5% staff nurses and 41% ANMs) (Table 8.12) while AHWs comprised 28%, lab assistants 10% and

health assistants 8%. At the health posts 43% of staff were ANMs, 41% AHWs and 16% health assistants. At the SHPs 40% of staff were AHWs, 33% MCHWs and 27% VHWs.

Table 8.12: Skills mix of personnel at PHCCs, health posts and SHPs (filled, HFMC, contracted & deputed)

	PHCC (%)	HP (%)	SHP (%)
Medical officer	7.2		
Staff nurse	5.4		
Lab. assistant	10.4		
AHW	28.1	40.6	40.3
ANM	40.7	43.2	
Health assistant	8.1	16.1	
MCHW			33.0
VHW			26.7
n (total posts)	221	155	206

Source: STS facility questionnaire. Blue (darker) shading = not applicable.

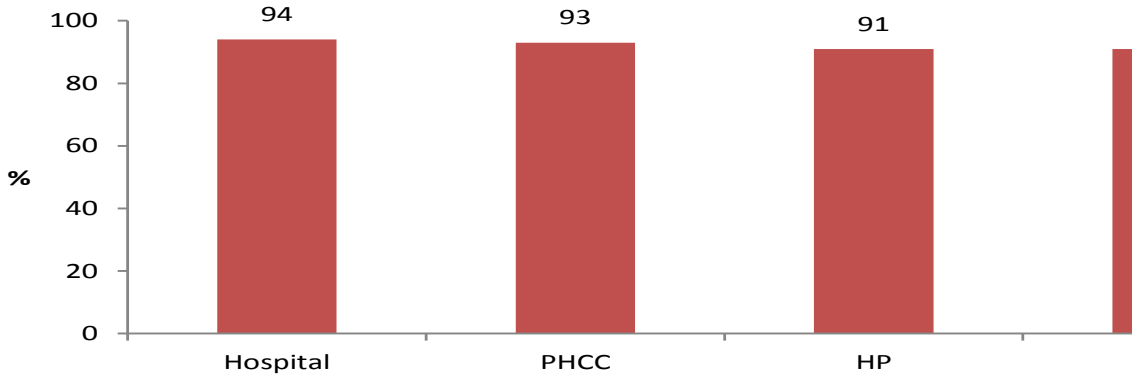
8.2.4 Training

The National Health Training Centre (NHTC) is responsible for training human resources within Nepal's health system. In-service training includes:

- upgrading training — e.g. training for staff promotion such as training ANMs to become senior ANMs or AHWs to become senior AHWs;
- specialised training — training to enable service providers to take on additional responsibilities such as skilled birth attendance, anaesthesia and resuscitation;
- refresher training — short courses to improve job performance of health workers; and
- orientation programmes — to raise awareness of health and non-health workers of the objectives of programmes and of their roles and responsibilities.

The priority for attending training courses should go to employees who secure the highest marks for qualification, seniority, experience of serving and work performance. Training participants are paid their full salaries plus a training allowance. Most facilities reported that some of their staff had received training in the previous fiscal year (Figure 8.8).

Figure 8.8: Percentage of facilities where staff received training in previous fiscal year



Source: STS facility questionnaire

At the district hospitals over half of the medical officers (57%) and laboratory assistants (56%) in filled posts had received training in the previous fiscal year, along with more than a third of other staff in filled posts (Table 8.13). Staff in contracted/deputed posts at district hospitals were less likely to have received training. Staff in filled posts at higher level hospitals were also less likely to have received training in the previous fiscal year except for AHWs, of which 86% had received training. Only one member of contracted/deputed staff at the higher level hospitals had received training.

Table 8.13: Percentage of staff trained at hospitals in previous fiscal year

	District hospitals		Higher level hospitals	
	Filled (%)	Contracted/deputed (%)	Filled (%)	Contracted/deputed (%)
Obstetrician-gynaecologist			6.7	0.0
Paediatrician			11.1	0.0
MDGP			0.0	0.0
Medical officer	57.1	20.8	100	0.0
Sister/matron			0.0	0.0
Staff nurse	47.2	50.0	15.6	0.0
ANM	34.6	15.0	6.5	4.0
Health assistant	44.4	0.0	0.0	0.0
AHW	48.0	14.3	86.4	0.0
Lab. assistant	56.3	0.0	21.4	0.0

Source: STS facility questionnaire. Blue (darker) shading = not applicable.

There was good provision of training at lower levels with 57% of medical officers and health assistants in filled posts at PHCCs receiving training along with 76% of health assistants and 84% of ANMs at health posts (Table 8.14). All filled positions at SHP had high percentages of staff receiving training: 73% of MCHW, 80% of VHW and 83% of AHW. Once again at the lower level facilities staff in filled

posts were more likely to have been trained in the last fiscal year, although only 43% of ANMs in contracted/deputed posts at PHCCs and 43% of the same at health posts had received training.

Table 8.14: Percentage of staff trained at PHCCs, health posts and SHPs in the last fiscal year

	PHCC		HP		SHP	
	Filled (%)	Contracted/deputed (%)	Filled (%)	Contracted/deputed (%)	Filled (%)	Contracted/deputed (%)
Medical officer	57.1	0.0				
Staff nurse	50.0					
Lab. asst	33.3	0.0				
AHW	38.5	0.0	49.2	0.0	82.7	50.0
ANM	37.3	39.1	83.8	43.3		
Health assistant	57.1	50.0	76.2	25		
MCHW					72.6	16.7
VHW					79.6	16.7

Source: STS facility questionnaire. Blue shading = not applicable.

In the previous fiscal year skilled birth attendant (SBA) training had been most common for ANMs at health posts (27%), and staff nurses (17%) and ANMs (10%) at PHCCs (Table 8.15). Essential newborn care (ENC) training was most common for health assistants at health posts (33%) and PHCCs (29%), and for AHWs at SHPs (35%). Training in anaesthesia was only reported for one staff member at the STS facilities in the last fiscal year: a hospital health assistant. Other training included on disaster management, the birth preparedness package (BPP), intrauterine contraceptive devices (IUCDs), health management information systems (HMIS), HIV, tuberculosis (TB), laboratory management, malaria and student health.

Table 8.15: Staff who received skilled birth attendant (SBA), essential newborn care (ENC) or anaesthesia training in last fiscal year

	SBA	ENC	Anaesthesia	Other	No. of staff (N)
	%	%	%	%	
1. Hospitals (n=16)					
Obstetrician-gynaecologist					
Paediatrician					
MDGP					
Medical officer	3.0	3.0		24.2	33
Sister/matron		2.0		4.0	50
Staff nurse	3.8	1.5		3.0	132
ANM	0.8	1.5		3.0	133
Health assistant		10.0	10.0	20.0	10
AHW		6.4		12.8	47
Lab. assistant		1.4		9.7	72
2. PHCCs (n=28)					
Medical officer				57.1	14
Staff nurse	16.7	16.7		16.7	12
Lab. assistant				33.3	21
AHW		7.7		25.0	52
ANM	10.4	4.5		10.4	67
Health assistant		28.6		28.6	14
3. Health posts (n=45)					
AHW		13.6		34.7	59
ANM	27.0	18.9		37.8	37
Health assistant		33.3		42.9	21
4. SHPs (n=80)					
AHW		34.7		49.3	75
MCHW					
VHW					

Source: STS facility questionnaire; Blue (darker) shading = not applicable.

8.2.5 Turnover

At district hospitals far more staff joined than were transferred, retired or left for other reasons (Table 8.16). In particular, there had been a notable increase in medical officers and staff nurses. Very few staff had retired or been transferred from the higher level hospitals. However, many MDGPs, medical officers and staff nurses had left for other reasons. It was learned that many of these had reached the end of their contracts, and in most instances had secured new contracts in the same facility. This is reflected in the similar numbers in the 'joined' column. There was also a notable increase in the number of obstetricians at the higher level hospitals.

At PHCC level it is concerning that twice as many medical officers seem to have left than joined; although more promisingly there appears to have been an increase in the number of staff nurses. At health posts more AHWs left than joined, but there was a big increase in the number of ANMs.

Table 8.16: Turnover of health facility staff in previous fiscal year

	Number of staff who:			
	Joined	**Transferred**	**Retired**	**Left for other reasons**
1. Higher level hospitals (n=4)				
Obstetrician-gynaecologist	10	0	0	0
Paediatrician	5	0	0	0
MDGP	11	0	0	29
Medical officer	55	0	0	57
Sister/matron	4	0	2	0
Staff nurse	135	2	0	126
ANM	0	0	0	9
Health assistant	0	0	0	0
AHW	0	0	0	0
Lab. assistant	3	0	0	0
Anaesthetist assistant	5	0	0	0
2. District hospitals (n=12)				
Medical officer	10	3	0	3
Staff nurse	10	0	0	1
ANM	1	1	0	0
Health assistant	3	0	0	0
AHW	2	1	0	0
Lab. assistant	2	0	1	0
3. PHCCs (n=28)				
Medical officer	5	3	3	4
Staff nurse	7	1	0	0
Lab. assistant	3	2	0	0
AHW	3	1	3	0
ANM	9	2	6	1
Health assistant	1	0	1	0
4. Health posts (n=45)				
AHW	3	7	0	1
ANM	16	4	1	1
Health assistant	2	3	1	0
5. SHPs (n=80)				
AHW	8	8	1	0
MCHW	0	1	0	2
VHW	2	4	5	0

Source: STS facility questionnaire

8.2.6 Attendance

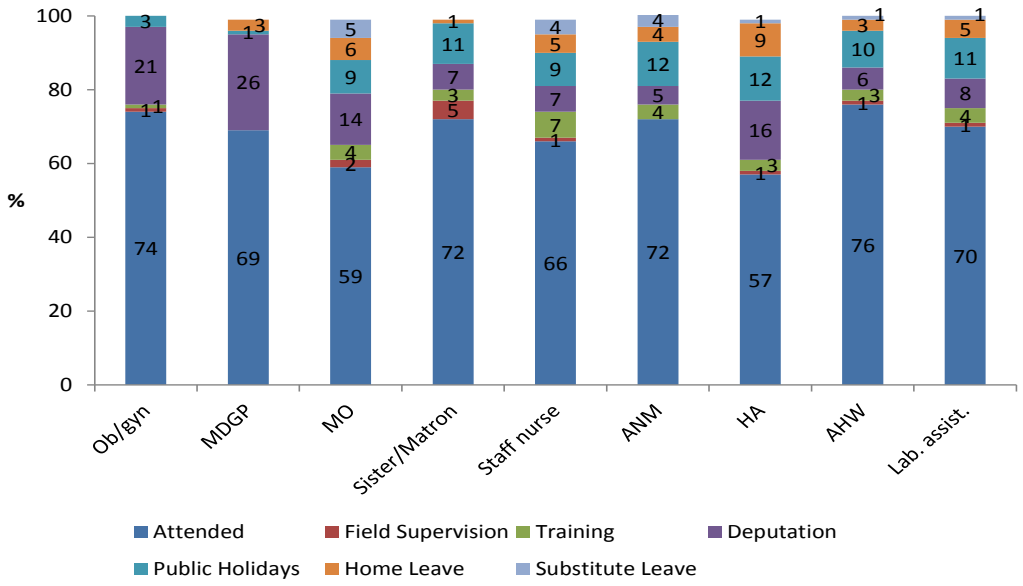
All types of facilities keep staff attendance records in the same way and collect information for each employee on the number of days they are:

- in attendance at the facility;
- on field supervision;
- on training;
- on deputation;
- on public holiday;
- on substitute leave (health workers are entitled to receive substitute leave if they work outside normal working hours, such as during holidays; but such leave must be taken within three months); and
- on home leave (health workers are entitled to one days home leave every 12 days. Employees are entitled to accumulate up to 180 days of home leave. Employees entitled to winter or summer leave are not entitled to receive home leave).

The STS 2011 consulted facility attendance records to record the number of days in the previous fiscal year that staff at all facilities were in attendance and on the different kinds of leave. Figures 8.9 to 8.13 chart this data for each level of facility, based on mean number of days.

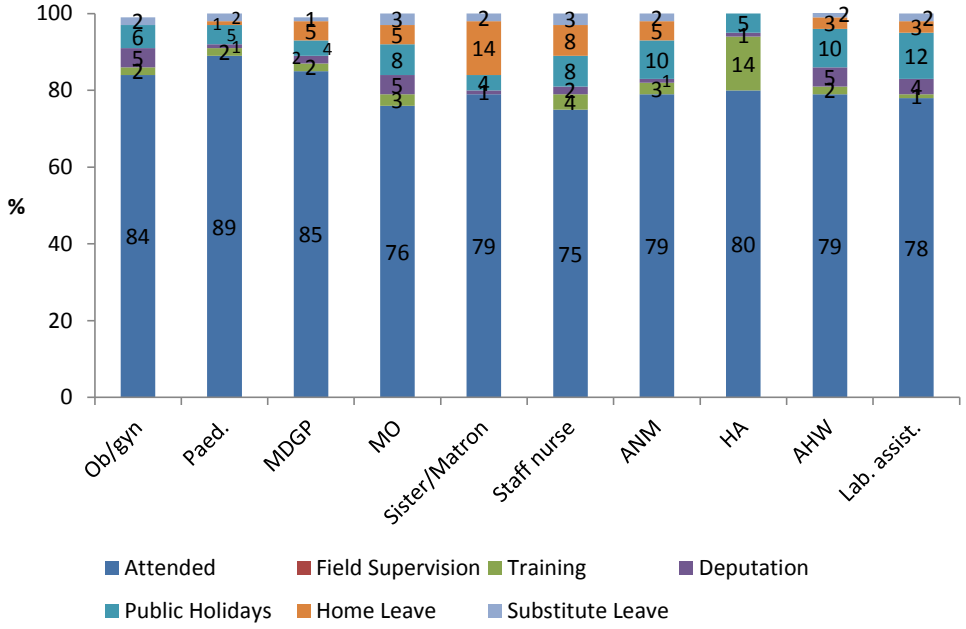
The percentage of time in attendance at a facility by staff was higher at hospitals and especially at the higher level hospitals (Figure 8.10). At higher level hospitals all cadre spent at least 75% of their time in attendance at the facility, and staff at these facilities were far less likely to be deputed than from the other levels of facility. In contrast, at district hospitals (Figure 8.9) deputation accounted for over a fifth of obstetricians' (21%) and paediatricians' time (26%). The staff at PHCCs, health posts and SHPs were more likely to spend a greater proportion of their time on public holidays (Figures 8.11, 8.12 and 8.13).

Figure 8.9: Attendance at district hospitals of staff in last fiscal yr (based on mean no. days)



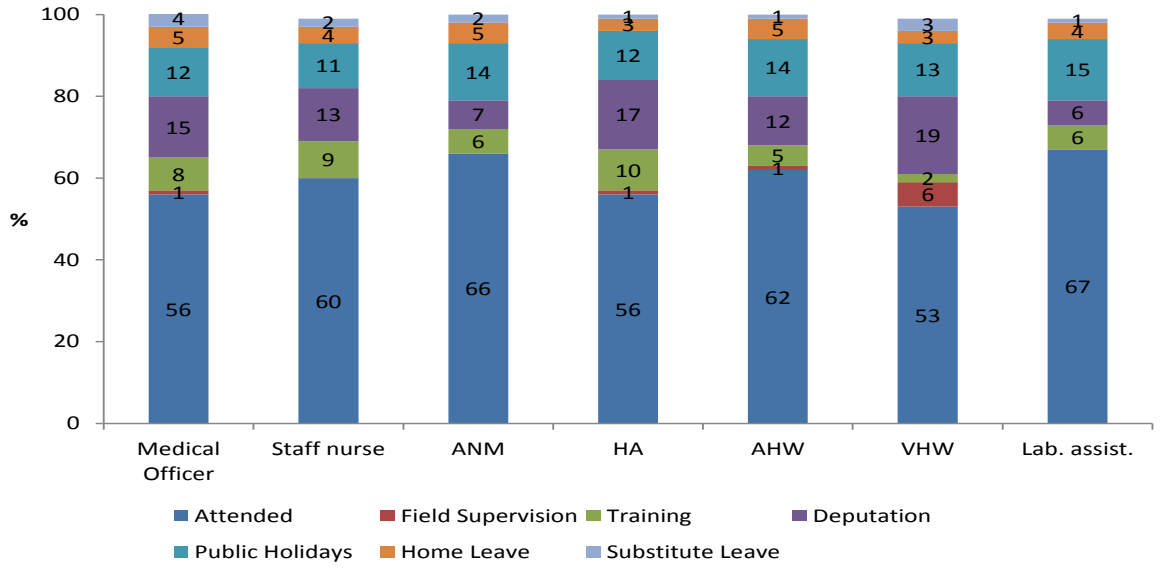
Source: STS facility questionnaire

Figure 8.10: Attendance at higher level hospitals of staff in last FY (based on mean no. days)



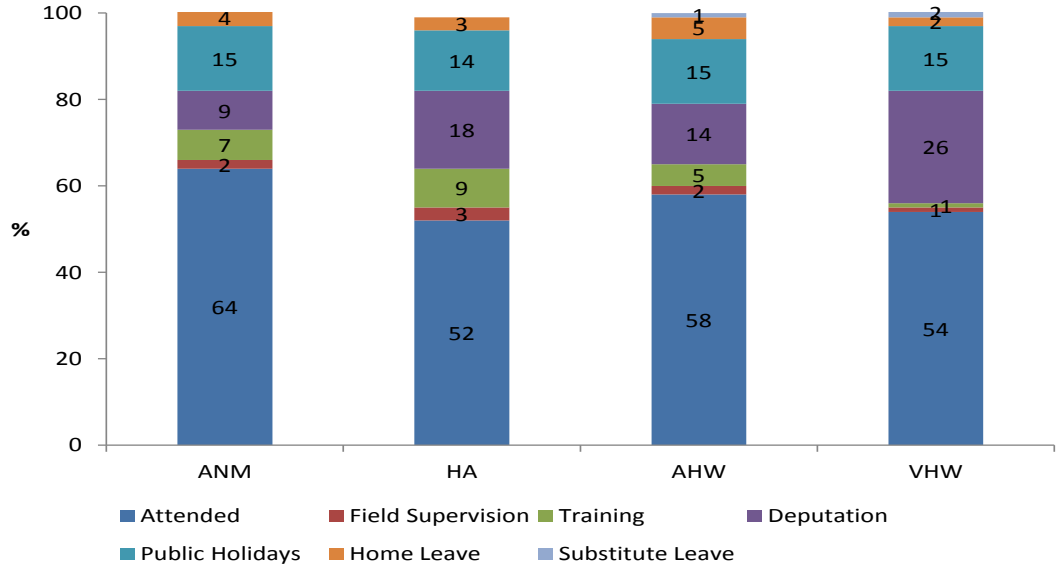
Source: STS facility questionnaire

Figure 8.11: Attendance at PHCCs of staff in last fiscal year (based on mean no. days)



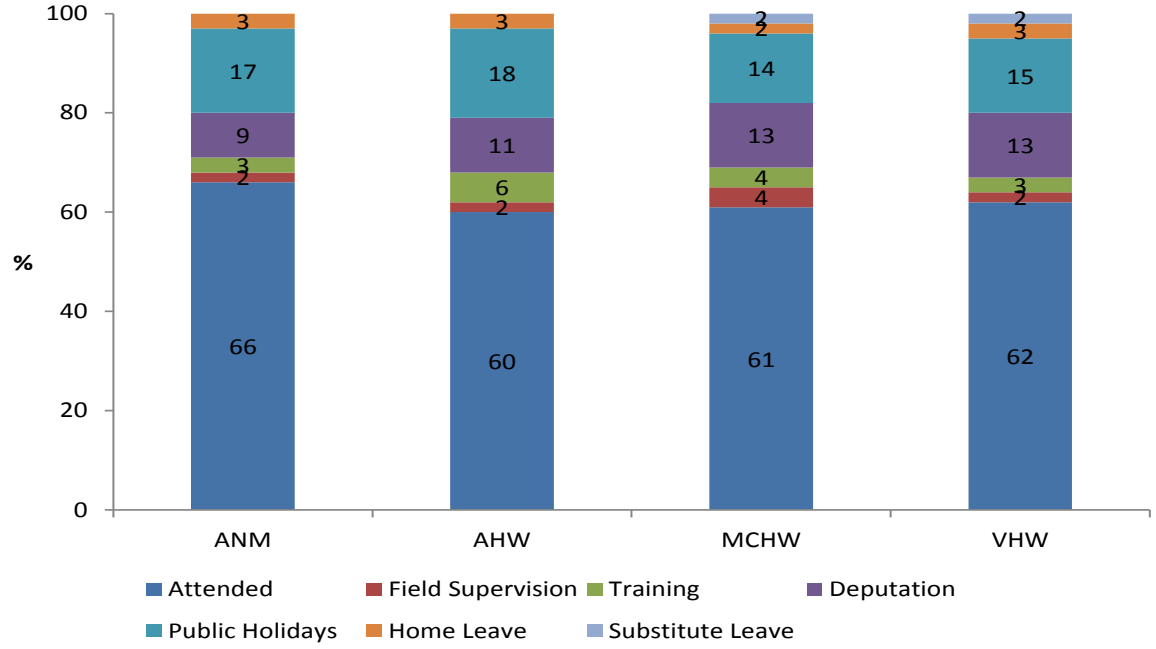
Source: STS facility questionnaire

Figure 8.12: Attendance at health posts of staff in last fiscal yr (based on mean no. days)



Source: STS facility questionnaire

Figure 8.13: Attendance at SHPs staff in last fiscal year (based on mean no. days)



Source: STS facility questionnaire

8.2.7 Demographic characteristics of staff

One of the strategies of NHSP 2 is to increase the proportion of women and people from excluded caste and ethnic groups in the government health care workforce. Specific strategies include the recruitment and training of an additional ANM as a *rahat* (welfare worker) from Dalit or other excluded groups at health posts in underserved areas. It is planned to recruit 1,000 ANMs as rahats over the five years of NHSP 2 (200 per year). Furthermore, the 2009 amendment of the Health Services Act states

that 45% of vacant posts should be reserved (however this is yet to be approved), with the breakdown of these reserved posts being as follows:

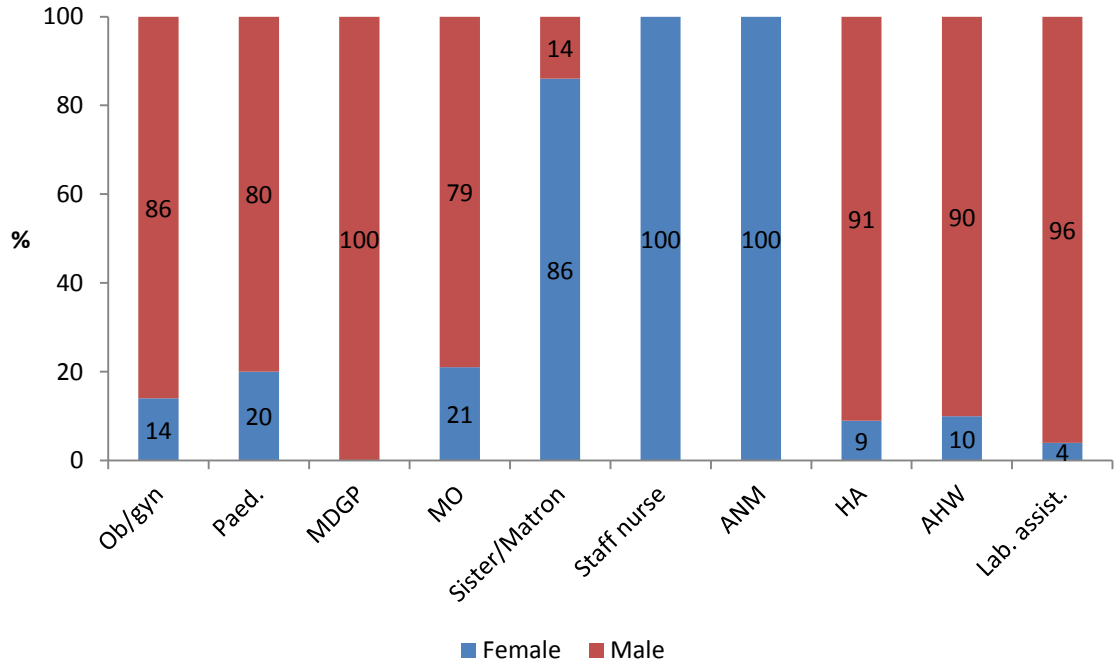
- 33% for women
- 27% for Janajatis
- 22% for Terai/Madhesi other castes
- 9% for Dalits
- 5% for people with disabilities
- 4% for people from 'backward' areas.

The STS 2011 collected information on the sex and caste/ethnicity of all staff from the 169 facilities.

Sex

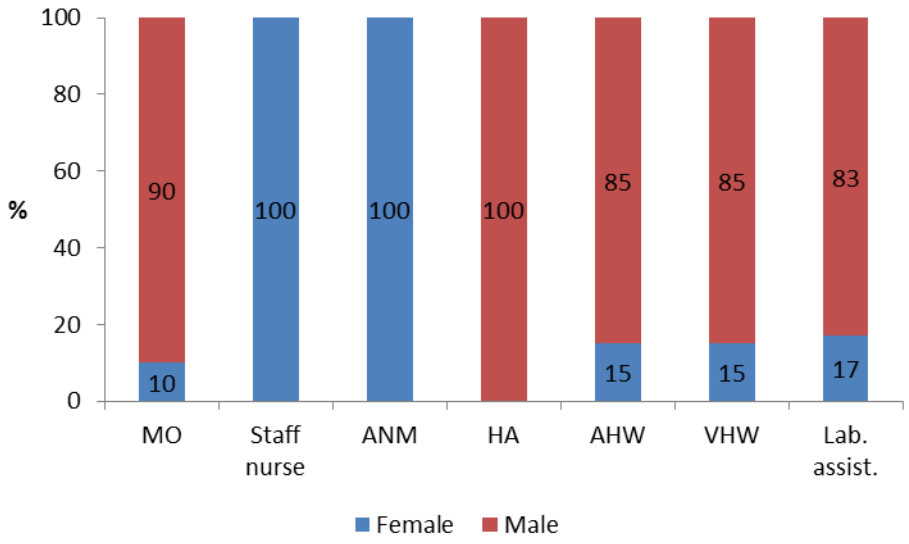
The sex of the health workforce differs by staff position. The predominantly male positions were found to be obstetricians, gynaecologists, paediatricians, MDGPs, medical officers, health assistants, AHWs, VHWs and laboratory technicians/assistants (see Figures 8.14 to 8.17). The positions predominantly filled by women were the nursing positions (sisters, matrons, staff nurses and ANMs) and MCHWs. In the lower level health facilities (PHCCs, health posts and SHPs) all nursing positions were filled by women; however, 14% of the sister/matron level posts in hospitals were filled by men.

Figure 8.14: Breakdown of hospital staff by sex



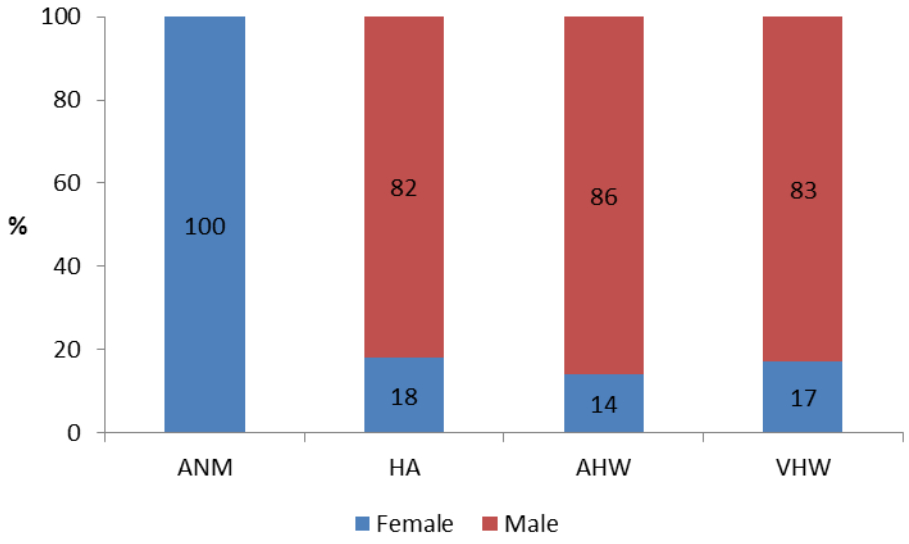
Source: STS facility questionnaire

Figure 8.15: Breakdown of PHCC staff by sex



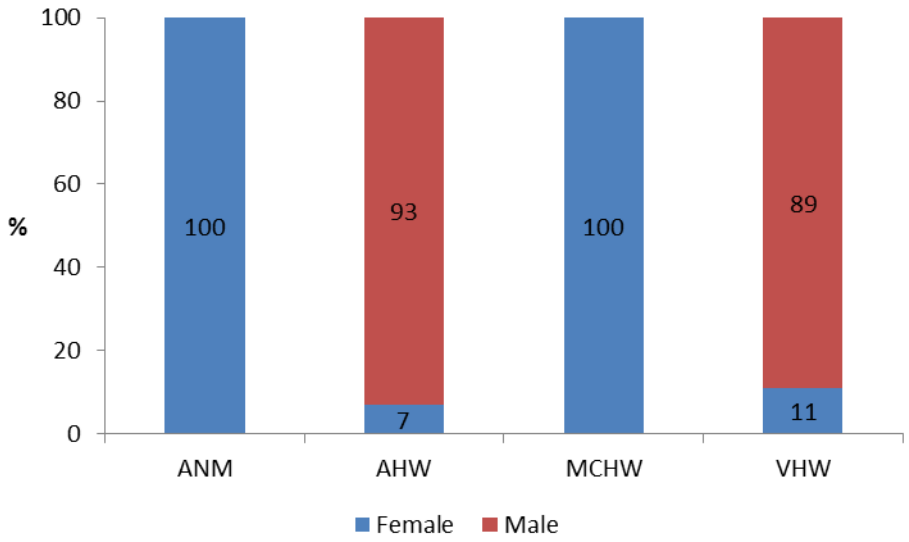
Source: STS facility questionnaire

Figure 8.16: Breakdown of health post staff by sex



Source: STS facility questionnaire

Figure 8.17: Breakdown of SHP staff by sex

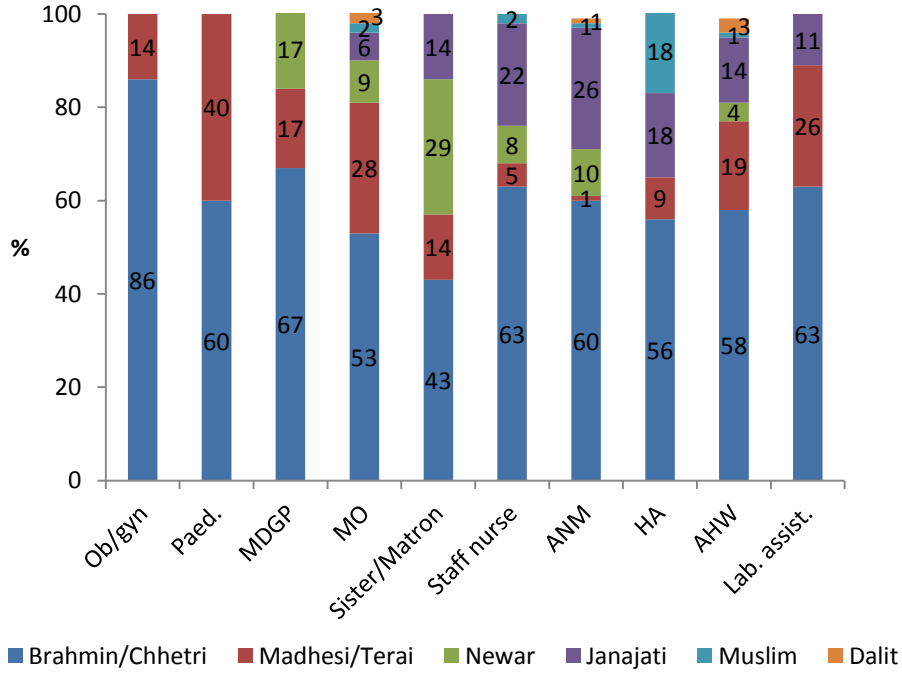


Source: STS facility questionnaire

Caste and ethnicity

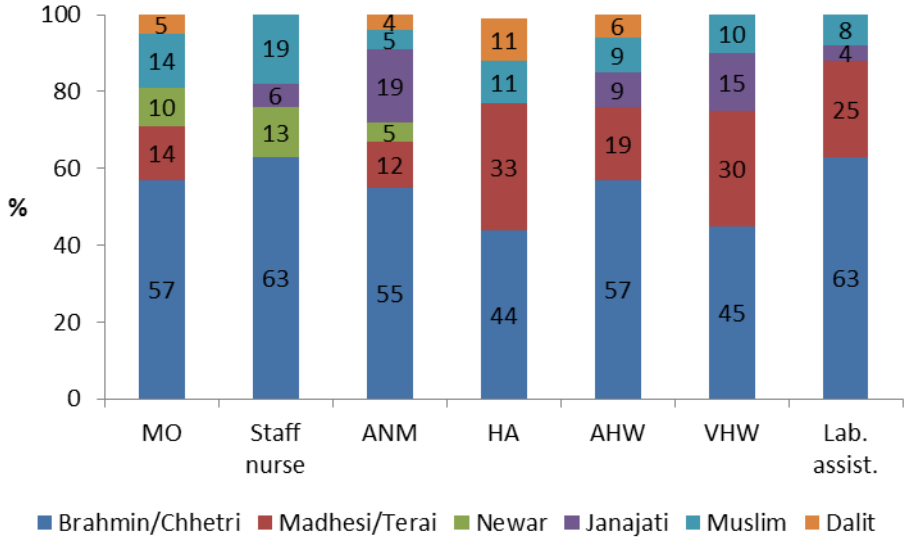
Ideally an analysis by caste and ethnicity should take into account what proportion these groups comprise within the total population. However, at the time of the STS analysis the 2011 census data was unavailable and 2001 data is no longer an accurate reference. See Annex 3.1 for the seven categories of caste, ethnic and other population groupings used in this study. The STS 2011 data clearly shows that the staff of the 169 health facilities are mostly people from the Brahmin, Chhetri and Madhesi-Terai other caste groups (Figures 8.18 to 8.21). This is especially true for higher level facilities and more senior positions. The excluded groups — Dalits, Janajatis, Muslims, were more likely to occupy posts at lower level facilities; but even there the proportion was small.

Figure 8.18: Hospital staff by caste and ethnicity



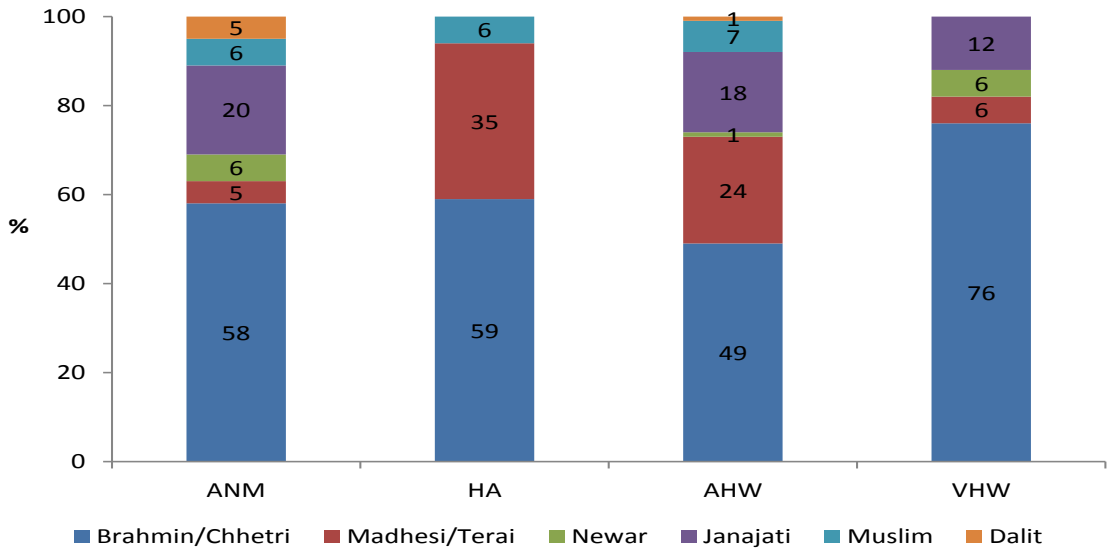
Source: STS facility questionnaire

Figure 8.19: PHCC staff by caste and ethnicity



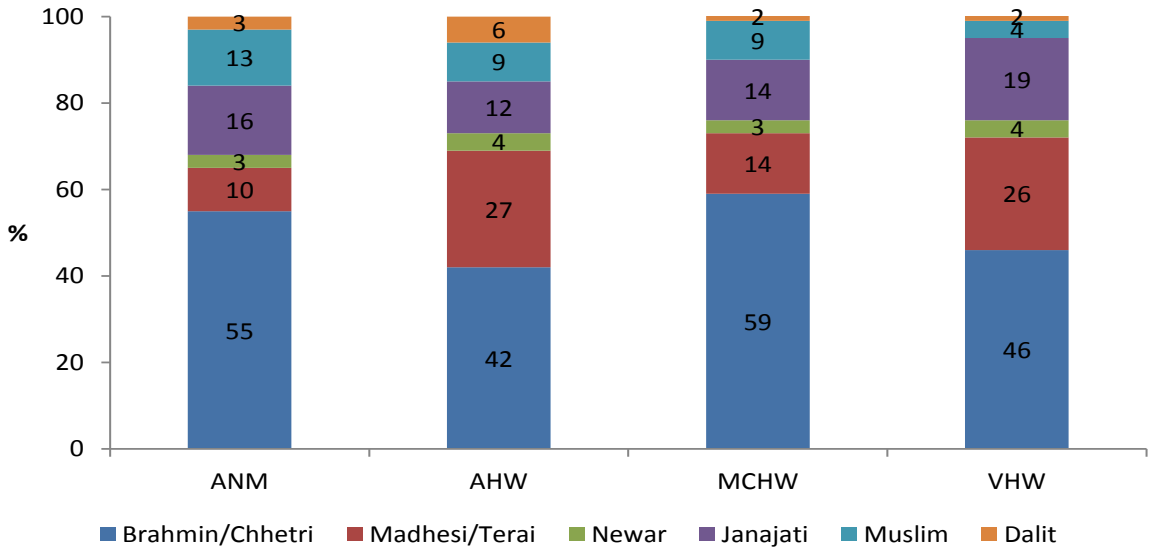
Source: STS facility questionnaire

Figure 8.20: Health post staff by caste and ethnicity



Source: STS facility questionnaire

Figure 8.21: SHP staff by caste and ethnicity



Source: STS facility questionnaire

8.2.8 Link between human resources and provision of caesarean sections

Human resources have a direct impact on service provision. This section looks at the availability of caesarean sections, the carrying out of which requires anaesthesia and obstetric skills. (Note that in Nepal obstetricians, MDGPs and medical officers with advanced skilled birth attendant training are trained to conduct caesarean sections) (Table 8.17).

Less than half (44%) of the 16 hospitals were able to provide caesarean section as they had at least one anaesthetist or anaesthetist assistant (AA) and at least one obstetrician/gynaecologist (O/G) or at least one MDGP. Thirteen percent of hospitals had staff with obstetric skills, but were unable to provide caesarean sections due to the lack of anaesthesia skills and a further 44% of hospitals lacked both an

obstetrician and an anaesthetist. This highlights the implications of inadequate staffing for service provision and the urgent need to ensure that the right skill mix is in place in hospitals to provide comprehensive emergency obstetric and neonatal care (CEONC) services. As already mentioned, O/Gs, paediatricians and anaesthetist posts are not sanctioned at district level hospitals below category D and this is a barrier to achieving the NHSP 2 logframe target of having at least one CEONC facility per district.

Table 8.17: Hospital staff trained in anaesthesia and obstetrics in post, and provision of caesarean sections

Hospital name	District	At least 1 AA/ anaesthetist	At least 1 obstetrician	At least 1 MDGP	Provision of caesarean sections
BP Koirala Institute	Sunsari	Yes	Yes	Yes	Yes
Bheri Zonal Hospital	Banke	Yes	Yes	No	Yes
Seti Zonal Hospital	Kailali	Yes	Yes	No	Yes
Hetauda Hospital	Makawanpur	Yes	Yes	Yes	Yes
District Hospital	Syangja	Yes	No	Yes	Yes
Solu Hospital (Paphlu)	Solukhumbu	Yes	No	Yes	Yes
District Hospital	Panchthar	Yes	Yes	No	Yes
District Hospital (Gothalapani)	Baitadi	No	Yes	No	No
Prithvi Bir Hospital	Kapilbastu	No	Yes	Yes	No
Jaleshwor Hospital	Mahottari	No	No	No	No
Tikapur Hospital	Kailali	No	No	No	No
District Hospital	Jajarkot	No	No	No	No
Shivaraj Hospital	Kapilbastu	No	No	No	No
District Hospital	Mugu	No	No	No	No
District Hospital	Sindhupalchowk	No	No	No	No
Inaruwa Hospital	Sunsari	No	No	No	No
Total hospitals (n)		**43.8%**	**56.3%**		**43.8%**

Source: STS facility questionnaire

8.3 KEY FINDINGS

Sanctioned/filled posts

- The official number of sanctioned posts did not always match the actual number. Four key reasons were identified for this: some facilities were in the process of being upgraded but the number of sanctioned posts had not yet changed to reflect the new status; some staff had been promoted into positions not officially sanctioned by that facility but had remained at the facility; some positions had become defunct but staff could and were remaining in post until they chose to leave; and some differences reflected the different needs between topographical zones.

- All **higher level hospitals** had at least the number of officially sanctioned posts, except for laboratory assistants. However, there were no cadre for which all higher level hospitals had at least this number in filled posts. This was largely due to Hetauda hospital only being upgraded to a regional level hospital recently and many of the posts at this new level having yet to be filled.
- All **district hospitals** had at least the number of officially sanctioned posts, except staff nurses, AHWs and laboratory assistants. This resulted in just 8% of district hospitals having at least the number of posts sanctioned as per the DoHS operating manual. All 12 district hospitals had at least two ANMs, but only half had at least the required number of laboratory assistants and staff nurses in filled posts. Overall 81% of the sanctioned posts at district hospitals were filled. Most ANM and AHW posts were filled, along with three-quarters of staff nurse posts. Of greater concern is that less than two-thirds of medical officer and health assistant posts were filled.
- All **PHCCs** had at least the official number of sanctioned posts for medical officers, health assistant/SAHWs, staff nurses, laboratory assistant and AHWs; however, not all had for ANMs. Just 7% of PHCCs had at least one medical officer, one health assistant, one staff nurse, two AHWs, three ANMs and one laboratory assistant in filled posts. However, only 73% of the sanctioned posts at PHCCs were filled. Most AHW and ANM posts and three-quarters of laboratory assistants were filled. The relatively low number of staff nurse (43%), medical officer (50%) and health assistant (50%) posts filled is a concern.
- All **health posts** had at least the official number of sanctioned posts for health assistants and ANMs (except there are no sanctioned ANM posts at health posts in Karnali districts). Most health posts had at least the officially sanctioned number of AHWs and ANMs in a filled post. However, only two-thirds of category A health posts had at least one health assistant in a filled post, and filling these posts in the hill and mountain districts appears to be even more problematic, with just one-third of category B health posts having at least one health assistant. This resulted in just over half of category A health posts (53%) and only one-fifth of category B health posts (20%) having at least the number of officially sanctioned positions in filled posts. Overall, 80% of the sanctioned posts at health posts were filled. Most AHW and ANM posts were filled, but only 47% of sanctioned health assistant posts were filled.
- All the **SHPs** had at least the number of official sanctioned posts. Most had at least one AHW and one MCHW in filled-sanctioned posts. However, less than two-thirds had at least one VHW in a filled-sanctioned position, this resulted in only half of the SHPs having one AHW, one MCHW and one VHW in filled posts. Overall just over three quarters of the sanctioned posts at SHPs were filled. Most AHW, but only 78% of MCHW and 61% of VHW posts were filled.
- For district hospitals, PHCCs, health posts and SHPs combined most sanctioned ANM, AHW, and MCHW posts were filled. The biggest gaps were for medical officer, health assistant and staff nurse posts.
- Staff at most facilities (87%) felt that the number of sanctioned staff was inadequate. Nearly two-thirds of those who felt sanctioned posts were inadequate reported that this was the case for maternity services.

Service contracts

- The highest proportion of contracted staff (excluding HDC/HFMC-appointed) was for medical officers at hospitals and staff nurses at higher level hospitals. HFMCs/HDCs were responsible for recruiting relatively high proportions of ANMs at higher level hospitals; AHWs (35%) and ANMs (28%) at district hospitals, and AHWs (48%) and AHWs (18%) at health posts. There were high proportions of deputed posts for medical officers at hospitals and staff nurses at the higher level hospitals.

Training

- Most facilities reported that some of their staff had received training in the last fiscal year. Training was most common for health posts ANMs, and staff nurses and ANMs at PHCCs. Essential newborn care training was most common for health assistants at health posts and PHCCs, and AHWs at SHPs. In the last fiscal year only one staff member at the 169 facilities was reportedly trained on anaesthesia: one hospital health assistant.

Attendance

- The percentage of time spent in attendance at a facility by staff was higher at hospitals, especially at the higher level hospitals. These hospitals cadre had spent at least 75% of their time in attendance were far less likely to have been deputed than from the other levels of facility. In contrast, at district hospitals deputation accounted for over a fifth of obstetricians' and paediatricians' time. Staff at PHCC level and below spent a greater proportion of time on public holiday.

Demographic characteristics of staff

- The sex of health providers is closely related to the type of staff position. The predominantly male positions were obstetricians-gynaecologists, paediatricians, MDGPs, medical officers, health assistants, AHWs, VHWs and laboratory technicians/assistants. The predominantly female positions were the nursing positions (sisters, matrons, staff nurses and ANMs) and MCHWs. At the lower level all nursing positions were filled by women although 14% of sister/matron posts in hospitals were filled by men. The positions in the health facilities were dominated by Brahmins, Chhetris and Madhesi-Terai other castes. This was especially true for higher level facilities and more senior positions. The excluded caste and ethnic groups (Dalit, Janajati and Muslims) were more likely to be in post at lower level facilities, but even then the proportion was small.

Link between human resources and service provision

- Human resources have a direct effect on the provision of health services. This chapter has highlighted this in regards to the provision of caesarean sections, with the lack of provision being linked to the shortage of formal anaesthesia skills and the lack of O/Gs, MDGPs and medical officers with advanced skilled birth attendant training. Over half of the hospitals (56%) were unable to provide caesarean sections: 13% had an O/G but no anaesthetist and 44% had neither an O/G nor an anaesthetist assistant.

9 DRUG SUPPLY AND STORAGE

9.1 INTRODUCTION

The supply and storage of drugs is a core part of any health system, and monitoring this is central to the implementation of NHSP 2. In Nepal the distribution of drugs is complicated by the limited road network while the storage of drugs is hampered by a lack of adequate storage facilities and continuous access to power. The supply and storage of drugs can be a major barrier to the provision of health services in the country.

The Interim Constitution of Nepal (2007) introduced the right for every citizen to have access to basic health care free of cost. On 8 October 2007 the government subsequently decided on a free essential health care service for all citizens at primary health care centre (PHCC), health post, and sub-health post (SHP) levels. The Ministry of Health and Population (MoHP) implemented this decision from 15 January 2008. The free services include registration, essential health services and essential drugs. This policy stipulates that essential drugs should be provided free of charge at health facilities, with 40 essential drugs provided at hospital level, 35 essential drugs at PHCCs and health posts, and 25 essential drugs at SHPs (see Annex 4.1 for list).

9.2 RESULTS

Box 9.1: Key STS indicators for drug supply and storage

Indicators	2011 results (%)	95% CI
% of facilities with drugs stored in a cool and dry place	86.8	64.0-96.1
% of facilities with drugs stored as per first expired, first out (FEFO) principles	87.9	76.5-94.2
% of PHCCs with at least one fridge with guaranteed power 24/7	47.6	24.3-72.0
% of outpatients who paid for essential drugs	40.6	24.0-59.7
% of maternity clients who paid for any drugs	55.0	25.9-81.0

9.2.1 Procurement

Drugs for health facilities are procured either centrally or locally. Centrally they are procured through the Logistic Management Division (LMD) of MoHP and then distributed to district (public) health offices (D(P)HOs). It should be noted that local procurement includes drugs procured at the district level using funds provided from the central level.

The Service Tracking Survey 2011 (STS 2011) found that all essential drugs on the list are procured both centrally and locally (see Annex 9.1). However, most essential drugs procured for hospitals came from central sources (e.g. 56% of hospitals sourced albendazole from central sources compared to 39% of PHCCs), while below hospital level a higher percentage of essential drugs are procured locally (e.g. 57% of PHCCs sourced albendazole locally compared to 19% of hospitals). At hospital level the essential drugs with the highest percentage procured centrally were albendazole, oral rehydration solutions (ORS) and clove oil (56%).

9.2.2 Storage

The storage of drugs is a major concern in health facilities, and not just for those drugs that require refrigeration. Most drugs that do not require refrigeration need to be stored at 'room temperature'. In addition to ensuring drugs are stored at the right temperature, they should not be exposed to direct sunlight, dampness or water. Furthermore, drugs should be stored in locked cabinets and not just placed on the floor or in unlocked cabinets.

Storage facilities

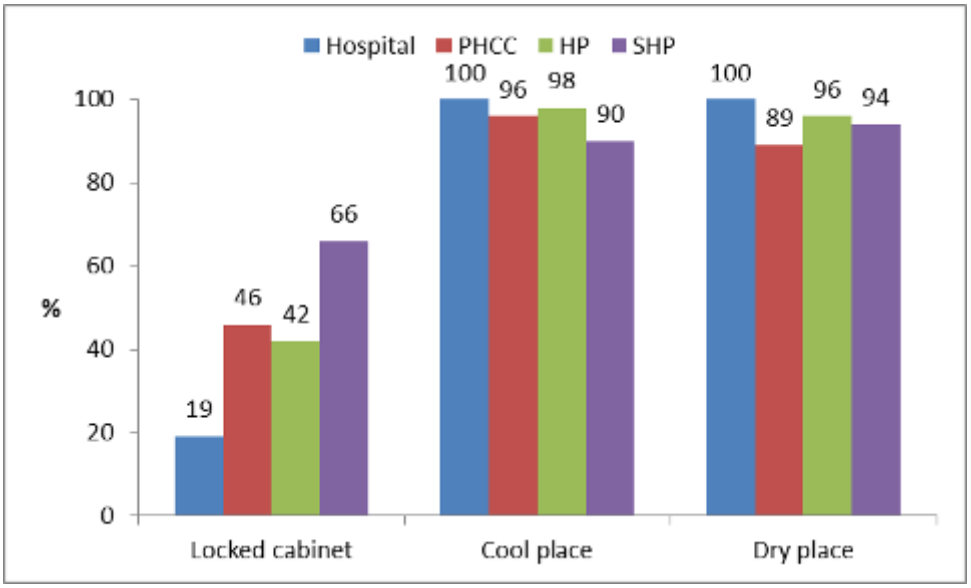
The STS 2011 found that 19% of hopitals, 46% of PHCCs, 42% of HPs and 66% of SHPs stored at least some of their drugs in locked cabinets, with many storing them on shelves, in unlocked cabinets or on raised platforms (Figure 9.1 and Table 9.1). Hospitals were also the least likely to store drugs in locked cabinets, with just one fifth doing so compared to two-thirds of SHPs. Nearly one fifth of hospitals (19%) stored some drugs directly on the floor. However, the STS 2011 questionnaire did not capture whether drugs were kept in separate locked rooms, which may explain why so few hospitals stored drugs in locked cabinets, as they may be less likely to do so if stored within locked rooms. None of the facilities stored drugs in a place exposed to direct sunlight and just two SHPs stored them in contact with dampness or water. Most facilities stored their drugs in cool and dry locations (87%), with all hospitals doing so.

Table 9.1: Storage of drugs that do not require refrigeration

	Hospital (%)	PHCC (%)	HP (%)	SHP (%)
1. Storage places:				
On shelves	87.5	67.9	62.2	33.8
In a locked cabinet	18.8	46.4	42.2	66.3
In an unlocked cabinet	43.8	39.3	35.6	32.5
On a raised platform	37.5	25.0	24.4	23.8
Directly on the floor	18.8	0.0	6.7	1.3
2. Storage conditions:				
Stored in cool place	100	96.4	97.8	90.0
Stored in dry place	100	89.3	95.6	93.8
Exposed to damp/water	0.0	0.0	0.0	2.5
Exposed to direct sunlight	0.0	0.0	0.0	0.0
n (total facilities)	16	28	45	80

Source: STS facility questionnaire

Figure 9.1: Storage of drugs that do not require refrigeration



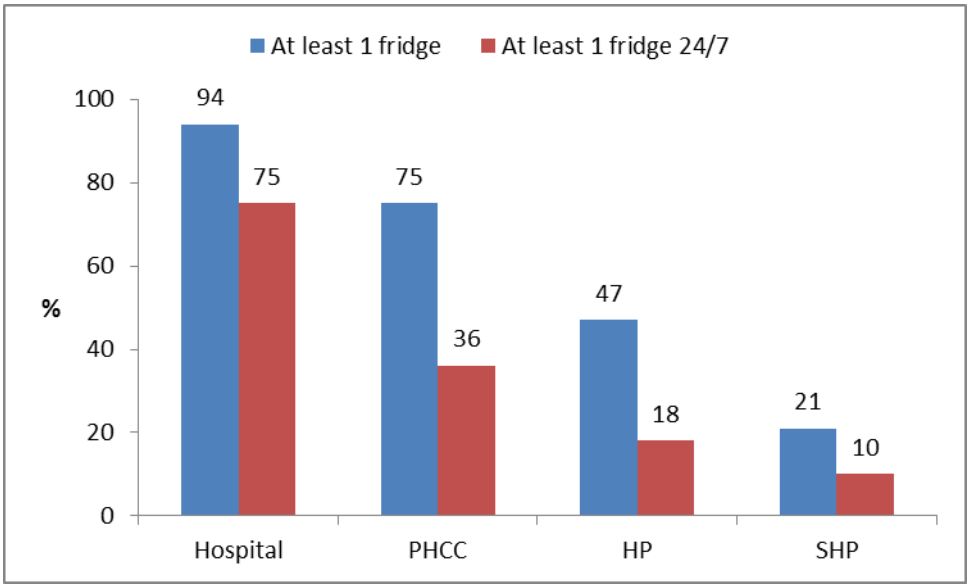
Source: STS facility questionnaire

Refrigeration

Some drugs need to be stored in refrigerators, including oxytocin, which is an essential drug for all levels of health facility (Annex 4.1). To ensure the required temperature for cold-chain drugs is maintained, at least one refrigerator at each health facility should have a constant power supply. According to the caseload, the number of refrigerators required in facilities varies, but a second one is always beneficial given the risk of one breaking down. As a minimum, every health facility should have access to at least one refrigerator with a continuous 24 hour power supply. Health facilities that do not have access to continuous power supplies for their refrigerators should use ice boxes to keep drugs at the correct temperature.

Most of the hospitals were found to have at least two refrigerators (88%), with nearly three-quarters having access to at least one with a power supply 24 hours a day (Table 9.2 and Figure 9.2). However, that still means that one hospital had no refrigerator, and three had to rely on iceboxes when their power supply cut off. Given the large volume of drugs stored at this level the lack of refrigeration could have serious implications.

Figure 9.2: Access to refrigeration for drug storage



Source: STS facility questionnaire

Table 9.2: Access to refrigeration for drug storage

	Hospital (%)	PHCC (%)	HP (%)	SHP (%)
1. Availability of refrigerator:				
Not available	6.3	25.0	53.3	78.8
1	6.3	25.0	40.0	18.8
2	31.3	28.6	4.4	2.5
3	18.8	14.3	2.2	0.0
4+	37.5	7.1	0.0	0.0
2. Had at least one fridge with guaranteed power 24/7	75.0	35.7	17.8	10.0
n (total facilities)	16	28	45	80
3. Method of cooling if no power 24/7:				
Icebox	100	81.8	76.9	66.7
Nothing	0.0	18.2	23.1	33.3
n (total facilities)	3	11	13	9

Source: STS facility questionnaire

As expected, access to refrigeration decreased by level of facility with three-quarters of PHCCs (75%), just under half of health posts (47%), and less than a quarter of SHPs (21%) having access (Table 9.2 and Figure 9.2). Most health posts and SHPs with a refrigerator only had one refrigerator, whereas 50% of PHCCs had access to two or more refrigerators. Only 36% of PHCCs, 18% of health posts and 10% of SHPs had refrigerators that were powered 24 hours a day. Furthermore, for those that did not, not all were using ice boxes when the power was off.

Expired drugs

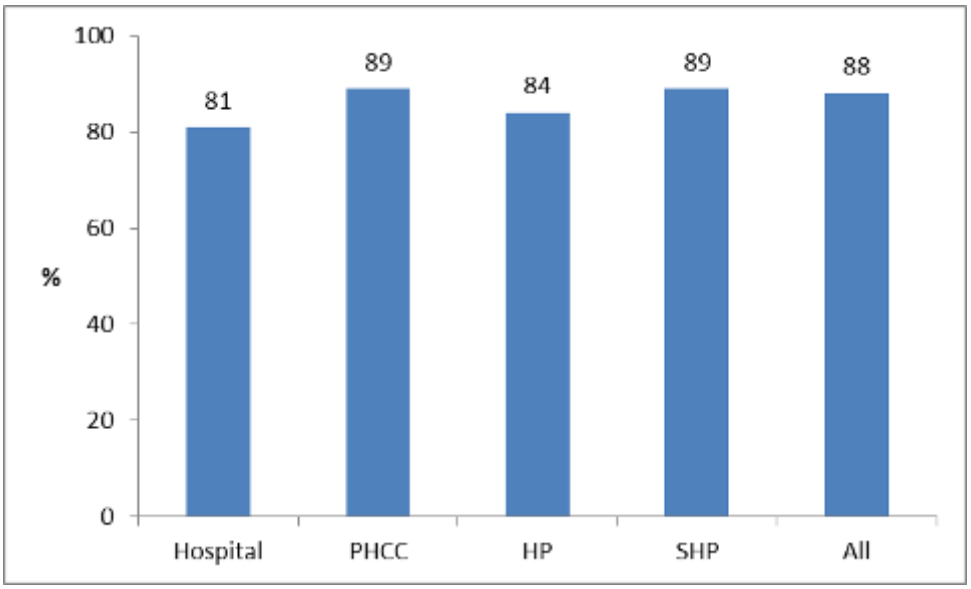
Storing drugs in order of their expiry date is essential to help monitor expired drugs and to reduce wastage. The STS 2011 assessed whether facilities were placing drugs as per the 'first expired, first out'

(FEFO) method. The study found that most of the facilities (87%) practiced this with no significant difference between level of facility (Figure 9.3). However, it is of quite serious concern that some of the facilities, including nearly one-fifth of the hospitals (19%), were not using the FEFO approach. Given the larger volume of drugs stored at hospitals the implications on the timely use of drugs are much greater.

As well as storing drugs by expiry date, it is also important to dispose of expired drugs and to replace them on time, since storing expired drugs increases the risk of them being given to clients. The STS 2011 monitored the presence of expired drugs at the time of its visits. Note that the absence of expired drug does not necessarily mean the presence of non-expired drugs.

The data presented in Annex 9.2 shows the presence of expired essential drugs in surveyed health facilities. 'No expired drugs' were observed for only six essential drugs (ciprofloxacin, benzoic acid + salicylic acid, sodium chloride, phenobarbitone, alprazolam, dextrose solution). The drugs most commonly stored past their expiry dates were amoxyciline, sulfamethoxazole and trimethoprim, oxytocin, magnesium sulphate, frusemide and atropine, with amoxyciline being found stored past its expiry date across all levels of facility.

Figure 9.3: Percentage of facilities with drugs stored using FEFO principles



Source: STS facility questionnaire

Overall, the hospitals were less likely to store expired drugs than the lower level facilities (probably due to their more frequent usage), although 13% of hospitals were found to be storing out-of-date chloramphenicol, and 6% storing expired amoxyciline, gentamycin, metronidazole, clove oil and aspirin. The problem was far more widespread at PHCCs, health posts and SHPs. Nearly one-fifth (18%) of PHCCs were found to have expired magnesium sulphate, frusemide and atropine, and 14% had expired amoxyciline. Expired sulfamethoxazole and trimethoprim were found at 16% of health posts and 18% of SHPs. Other drugs commonly stored past their expiry date were amoxyciline (13%) and frusemide (11%) at health post level, and oxytocin (15%) at SHP level.

9.2.3 Availability

All essential drugs should always be in stock in an adequate quantity. However, although the government has listed which drugs come under the free care policy by level of facility (see Annex 4.1), there are currently no guidelines on what quantity of each drug is adequate for each level of facility to maintain at any time. The standard practice is therefore to supply an amount based on the past consumption rates of each facility. This is in effect a 'push' system (i.e. from central level to district/facility level). In some parts of Nepal (such as remote or mountainous areas) the use of the 'push system' is beneficial. However, there is room for more flexibility where infrastructure is better and a combination of a 'push' and 'pull' system (i.e. from peripheral institution to district store) of drug supply, may be preferred by facility staff. The Logistics Management Information System (LMIS) database has potential for improving the stock-out situation; but it is currently not being used to its full potential. Stock-outs of free essential drugs occur.

Strategies — When drugs are out of stock the most common strategy at all levels of health facility was to advise clients to purchase them themselves (Table 9.3 and Figure 9.4). The second most common strategy at all levels of health facility was to request additional drugs from the D(P)HO. This strategy was more common at PHCCs and below than for hospitals. It is more concerning that the third most common strategy — more common at PHCCs, health posts and SHPs, was just to tell clients that the facility did not have the required drugs. The hospitals were the most likely to substitute similar alternative drugs.

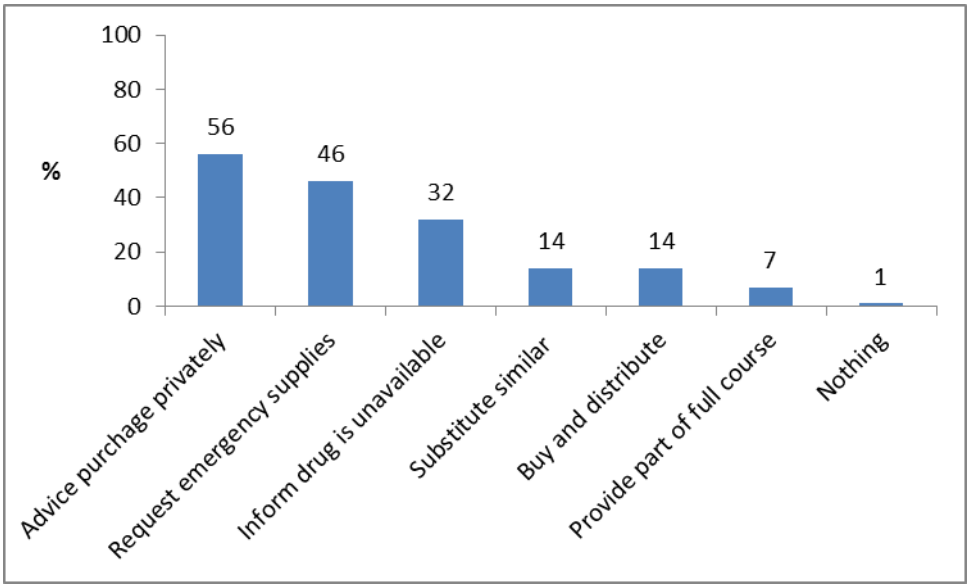
Reviews — In Nepal, all health facilities should regularly review their drug supplies. However, STS 2011 found that only 69% of hospitals, 57% of PHCCs, 42% of health posts and 40% of SHPs had undertaken such a review in the previous fiscal year. The higher the level of facility the more likely the facility was to have undertaken a review.

Table 9.3: Facility responses to stock-outs of essential drugs

	Hospital (%)	PHCC (%)	HP (%)	SHP (%)
Advised clients to purchase drugs themselves	62.5	60.7	60.0	51.3
Requested additional drugs from D(P)HO	31.3	57.1	40.0	47.5
Said didn't have the drug	12.5	35.7	37.8	31.3
Substituted similar drugs	18.8	17.9	8.9	13.8
Bought from local fund and distributed	18.8	21.4	13.3	10.0
Provided only part of full course of prescribed drugs (if some available)	0.0	7.1	6.7	8.8
Didn't know	6.3	3.6	6.7	3.8
n (total facilities)	16	28	45	80

Source: STS facility questionnaire

Figure 9.4: Facility responses to stock-outs of essential drugs



Source: STS facility questionnaire

Community drug schemes — The constant availability of essential drugs throughout the year in health facilities has been one of the major challenges for the efficient management of primary health care delivery in Nepal. To improve drug availability in its health facilities the Government of Nepal launched the Community Drug Programme (CDP) in 1995. This programme aims to improve the year-round availability of drugs at service delivery points by communities co-managing health facilities, thereby making health facilities more self-reliant and supplementing government funding. As mentioned above, essential drugs should be provided free of charge under the free care policy. However, essential drugs do not meet all demands, and local communities are still encouraged to develop community drug schemes to purchase drugs not covered by the free care policy. However, most of the 169 health facilities had no such scheme (96%). Nearly one-fifth of hospitals (19%) were involved in such a scheme, but it was very uncommon at lower levels with just 4% of PHCCs and health posts, and no SHPs having community schemes for drugs not covered under the free care policy. The higher percentage of hospitals with a community drug scheme may reflect the fact that there is a greater need at hospital level given that they offer a wider range of services and hence are more likely to prescribe drugs not covered by the free care policy.

9.2.4 Payment by clients

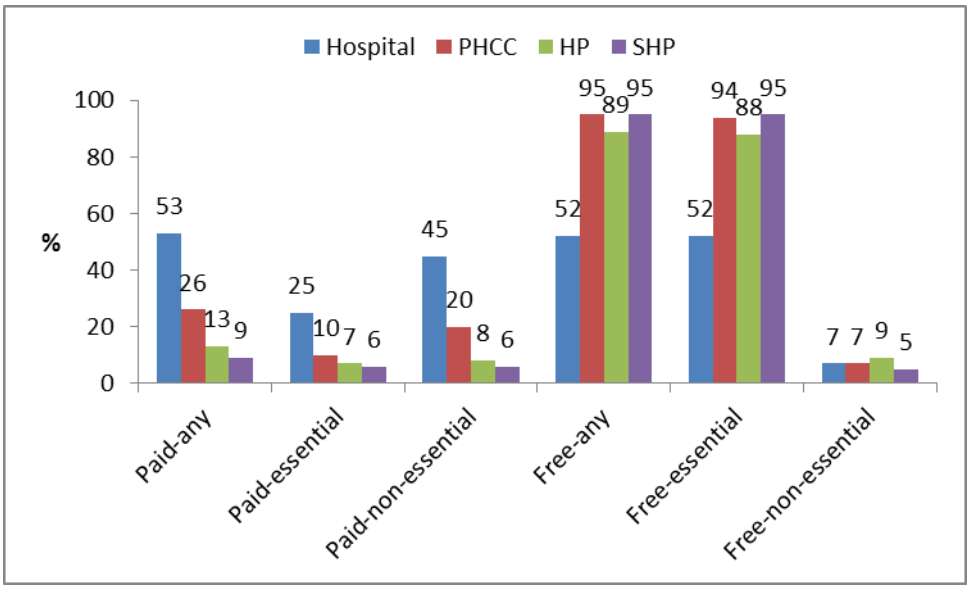
Clients who had been given any drugs or drug prescriptions were asked whether they had purchased the drugs or had received them free of charge. Figures 9.5 and 9.6 chart the results.

- **Paid for drugs** — Maternity clients were more likely to have paid for drugs than outpatients at both the hospitals and PHCCs. The difference between the two types of clients was greatest at PHCCs with 46% of maternity clients paying for drugs compared to only 26% of outpatients. (Note that results for maternity clients are not given below the PHCC level due to the small sample sizes). Outpatient and maternity clients at hospitals were more likely to have paid for drugs than those at lower level facilities: 53% of outpatients at hospitals had paid compared to 26% at PHCCs, 13% at health posts and 9% at SHPs. At the health posts and SHPs there was little

difference between the percentage of outpatients who had paid for essential and non-essential drugs.

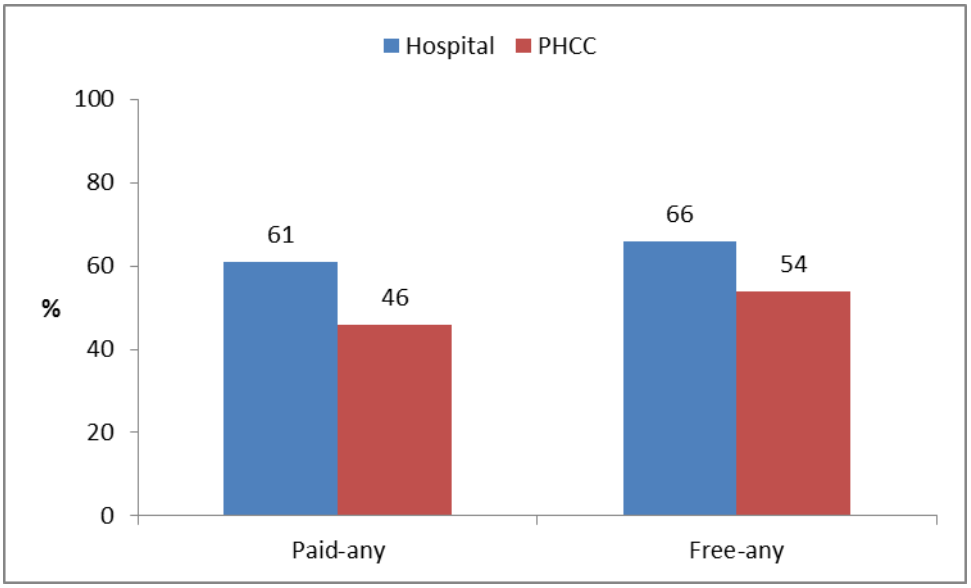
- **Received free of charge** — Despite the relatively high proportion of clients paying for some drugs, many clients had received drugs free of charge. The outpatients were more likely to have received free drugs than maternity clients at the PHCCs: 95% compared to 54%. However, the opposite was true at hospital level with 52% of outpatients compared to 66% of maternity clients receiving free drugs, although the difference is less stark. Most outpatients had received at least one essential drug free of charge at PHCC level. Importantly the proportion who had received free essential drugs was far higher at all levels than those who had paid for them.

Figure 9.5: Percentage of outpatients paying for drugs and receiving drugs for free



Source: STS outpatient exit interviews

Figure 9.6: Percentage of maternity clients paying for drugs and receiving drugs for free



Source: STS maternity exit interviews

Amounts paid — The clients who had paid for drugs were asked how much they had spent in total on drugs. (The results for health posts and SHPs and maternity clients at PHCCs are not shown here as the sample sizes were small.) The maternity clients had paid more for drugs than outpatients at hospital level: with maternity clients (who paid for drugs) paying an average of NPR 1,892, while outpatients (who paid for drugs) had paid an average of NPR 250 (Table 9.4).

Table 9.4: Mean drug expenditure by maternity clients and outpatients (who paid) (NPR)

	Hospitals		PHCCs
	Maternity clients	Outpatients	Outpatients
Mean	NPR 1,892	NPR 250	NPR 103
Standard deviation	NPR 3,158	NPR 236	NPR 101
n (total clients)	61	73	18

Source: STS maternity and outpatient exit interviews

9.3 KEY FINDINGS

Procurement

- All essential drugs in the official list are procured from both central and local sources. However, most of the essential drugs available at hospitals are procured from central sources, while below hospital level a higher percentage of essential drugs come from local sources.

Storage

- Hospitals were the least likely to store at least some of their drugs in a locked cabinet (19%). However, most facilities did store their drugs in cool and dry locations (87%).
- Most of the hospitals had access to at least two refrigerators (88%), and nearly three-quarters had access to at least one refrigerator 24 hours a day. However, a quarter of PHCCs (25%), over

a half of health posts (53%) and over three-quarters of SHPs (79%) had no access to a refrigerator. While 50% of PHCCs had access to two or more refrigerators, over a third of PHCCs (36%), 18% of health posts and 10% of SHPs had access to a refrigerator 24 hours a day. Not all of those facilities without constant access to a working refrigerator used ice boxes in the absence of a power supply.

- Many of the health facilities (88%) stored drugs ordered by expiry date. However, nearly one-fifth of hospitals (19%) did not. There were only six essential drugs for which no expired drugs were observed. The hospitals were less likely to store expired drugs than lower level facilities. Nearly one fifth (18%) of PHCCs were found to have expired magnesium sulphate, frusemide and atropine. Other commonly expired drugs were amoxyciline, sulfamethoxazole and timethoprim and oxytocin.

Availability

- The data show that the most common strategy used at all levels when drug stock-outs occurred was to advise clients to purchase the drugs privately, with more than half of facilities resorting to this (56%). The second most common strategy was to request emergency supplies of the affected drugs —more common at below hospital level facilities. The third most common strategy was just to tell clients the facility did not have the drugs with this being reported by nearly a third of facilities (32%).
- Hospitals (69%), PHCCs (57%), health posts (42%), and SHPs (40%) had undertaken a review of their drugs in the previous fiscal year.
- Very few of the health facilities had community drug schemes for drugs not included under the free care policy. Only about one-fifth of hospitals (19%) and just 4% of PHCCs and health posts, and no SHPs had such a scheme.

Payment

- The proportion of clients who received free essential drugs was far higher in all types of health facility than those who had paid for them and clients were more likely to have paid for 'non-essential' than 'essential' drugs. However, a significant proportion of outpatient clients had paid for essential drugs, which should be free of charge. The maternity clients were more likely to have paid for drugs than outpatients at both hospitals and PHCCs; with a greater difference at PHCCs. Both outpatient and maternity clients at hospitals were more likely to have paid for drugs than those at lower level facilities. At hospitals, of those who paid for drugs, maternity clients paid an average of NPR 1,892, while outpatients paid an average of NPR 250.

10 QUALITY OF CARE

10.1 INTRODUCTION

Increasing the utilisation of health services may not improve health outcomes unless the services are also characterised by excellence in delivery along with benchmarks for good quality. Quality of care can result in the greater use of health facilities, better uptake of health programmes by individuals and communities, and lead to better health outcomes for the population. Despite assertions about the importance of quality, it remains one of the largest challenges for health policy makers (WHO 2006). With an evolving body of medical science and related technology, and an ever-changing evidence-base and changes in demographics, there is a need to set standards. It is also necessary to devise evidence-based guidelines and protocols based on these standards, which can then be monitored by gathering good quality information on a range of health system indicators.

While the concept of quality is subjective in nature and depends on individual perceptions and interpretations, the author Donabedian believes an assessment of quality should encompass an analysis of factors that are structural, process-related and outcome-related (2003). His framework can help establish the basis by which care can be made safe, effective, patient-centred, timely, efficient, and equitable (Berwick 2002).

The Service Tracking Survey, 2011 (STS 2011) collected information on a range of quality of care components from 169 health care facilities in Nepal. These components have been classified as inputs, processes and outputs (see Table 10.1). Some of these components are covered elsewhere in this report, (see Table 10.1), and the remaining components are presented in this chapter.

Table 10.1: Quality of care components covered in STS

INPUTS	PROCESSES	OUTPUTS
• Infrastructure (Ch. 1) • Human resources (see Ch. 8) • Drugs (see Ch. 9) • Utilities • Equipment	• Governance and Accountability (see Ch. 7)	• Provision of services • Client experience

10.2 RESULTS

Box 10.1: Key STS indicators for quality of care

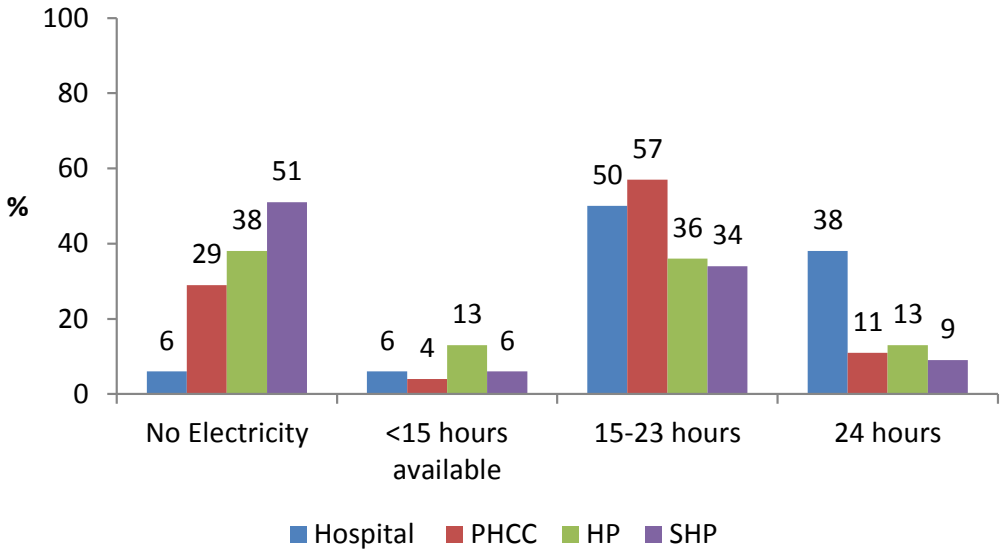
Indicators	2011 results (%)	95% CI
% of health facilities with running water and soap	88.0	78.6-93.6
% of facilities with comprehensive biomedical waste management in place (puncture proof bin for needles; bin for disposing of plastics; bin for disposing of blood/fluid stained items; pit for placenta/deep burial)	12.5	8.5-17.9
% of CEONC facilities providing all CEONC signal functions 24/7	71.4	26.4-94.6
% of district hospitals providing all CEONC signal functions 24/7	8.3	0.7-53.2
% of districts with at least one facility providing all CEONC signal functions 24/7*	38.5	21.5-58.8
% of BEONC facilities providing all BEONC signal functions 24/7	40.9	20.1-65.5
% of PHCCs that provide all BEONC signal functions*	21.1	8.1-45.7
% of health posts that are birthing centres providing deliveries 24/7*	79.2	51.6-93.1
% of safe abortion sites providing post-abortion care, and first trimester abortion	25.7	11.1-48.9
% of safe abortion sites with long acting family planning services*	91.4	77.8-97.0
% of district hospitals providing male and female permanent family planning services	33.3	9.6-70.2
% of health posts providing condoms, pills, injectables, IUCDs and implants*	13.3	5.8-27.9
% of outpatients who thought the facility was overcrowded	30.9	20.2-44.1
% of maternity clients who thought maternity department was overcrowded	23.6	13.9-37.0
% of clients (maternity and outpatients) who thought the facility was clean/very clean	45.4	35.2-56.0
% of clients (maternity and outpatients) who thought the respect for their privacy was good/very good	54.1	37.2-70.0
% of clients (maternity and outpatients) satisfied with their health care*	95.8	91.5-98.0

* NHSP 2 logframe indicators

10.2.1 Utilities

Power supplies — The availability of electricity increased with the level of facility: 49% of SHPs, 62% of health posts, 71% of PHCCs and 94% of hospitals had an electricity supply. (The one hospital without electricity has solar power during the daytime). Although only 38% of hospitals had electricity available for 24 hours a day (see Figure 10.1), most had a generator (94%). However, in the mountain districts, and during the frequent times of fuel shortage across the country, facilities may not have access to the fuel required to run a generator.

Figure 10.1: Availability of electricity at health facilities (hrs/day)



Source: STS facility questionnaire

Table 10.2: Sources of power by level of health facility

	Hospital (%)	PHCC (%)	HP (%)	SHP (%)
1. Power supply				
Electricity	93.8	71.4	62.2	48.8
Kerosene	50.0	46.4	46.7	48.8
Solar	43.8	21.4	20.0	5.0
Generator	93.8	14.3	2.2	0.0
LP-gas	0.0	7.1	6.7	12.5
Inverter	12.5	21.4	6.7	2.5
Diesel	56.3	10.7	0.0	0.0
Wind	12.5	0.0	2.2	0.0
Biogas	6.3	0.0	2.2	0.0
2. Number of hours of electricity per day				
Mean	20	14	12	9
Median	21	19	14	0
Minimum	0	0	0	0
Maximum	24	24	24	24
n (total facilities)	16	28	45	80

Source: STS facility questionnaire

The lack of a continuous electricity supply affects life-saving machines, storage of cold chain drugs, and provision of an enabling working environment; but promisingly solar panels have been included in the recently developed standard designs for key areas of hospitals (e.g. operating theatres, delivery rooms, emergency departments). Of the alternative sources of energy, (solar power, wind power and biogas)

solar power was most common, being available at 44% of hospitals, 21% of PHCCs, 20% of health posts and 5% of SHPs. See Table 10.2 for more details.

Water supplies — Table 10.3 shows that all of the hospitals had running water with soap, along with most PHCCs (89%) and SHPs (89%) However, it is concerning that 18% of the health posts did not. Half of the hospitals surveyed had a piped water supply, with a quarter relying on a tank, 19% a tube well and 6% a borehole for their water. Thirty nine percent of PHCCs, 29% of health posts and 30% of SHPs had access to piped water, with many having a tube well or tank as their main source of water. Seven per cent of PHCCs, 11% of HPs and SHPs reported not having any source of water.

Table 10.3: Main source of water by level of health facility

	Hospital (%)	PHCC (%)	HP (%)	SHP (%)
1. Running water with soap	100	89.3	82.2	88.8
2. Main water source:				
Piped	50.0	39.3	28.9	30.0
Tube well	18.8	32.1	28.9	35.0
Tank	25.0	17.9	24.4	16.3
Well	0.0	0.0	0.0	6.3
River, lake, pond	0.0	0.0	6.7	1.3
Borehole	6.3	3.6	0.0	0.0
No water source	0.0	7.1	11.1	11.3
n (total facilities)	16	28	45	80

Source: STS facility questionnaire

Patient waiting areas — Most facilities had a waiting area for their clients, including 94% of hospitals, 82% of PHCCs and 86% of health posts. Most outpatient clients (82% from hospitals, 91% from PHCCs, 88% from HPs and 73% from SHPs) and maternity clients (81% from hospitals, 80% from PHCCs, 100% from HPs and SHPs) felt there was enough waiting space for clients (Table 10.4).

Telephone — Most hospitals (94%) had access to a telephone 24 hours a day (either a landline or a mobile). Access to a telephone was less common for lower level facilities, with just 32% of PHCCs and 7% of health posts having 24 hour access to a telephone. Forty six percent of PHCCs, 87% of health posts and 96% of SHPs had no access to a telephone.

Toilets — All hospitals had an available and functioning toilet, but only three-quarters of them had a separate functioning one allocated for females only (Table 10.4). Provision of an available and functioning toilet was less common for lower level facilities, with only 89% of PHCCs, 73% of health posts and 61% of SHPs having one. They were less likely to have a separate toilet for females with just 54% of PHCCs, 29% of health posts and 10% of SHPs having such a functioning toilet. Most clients (89% of maternity clients and 81% of outpatients) reported that there was a toilet available for them to use (Table 10.4).

Table 10.4: Availability of waiting area, access to phone and toilets by level of health facility

	Hospital (%)	PHCC (%)	HP (%)	SHP (%)
1. Waiting space for clients	93.8	82.1	86.7	63.8
2. Phone				
Available 24/7	93.8	32.1	6.7	0.0
Available, but not 24/7	6.3	21.4	6.7	3.8
Not available	0.0	46.4	86.7	96.3
3. Toilet facilities				
Functional	100	89.3	73.3	61.3
Available but not functional	0.0	0.0	4.4	3.8
Not available	0.0	10.7	22.2	35.0
4. Separate toilet for women				
Functional	75.0	53.6	28.9	10.0
Available but not functional	6.3	3.6	2.2	5.0
Not available	18.8	32.1	46.7	50.0
n (total facilities)	16	28	45	80

Source: STS facility questionnaire

Drinking water — Table 10.5 shows that all of the maternity clients in HPs and SHPs and nearly three quarters of the clients at hospitals (73%) and PHCCs (73%) reported that drinking water was available for them at the health facility. For outpatient clients 64% reported the availability of drinking water (53% at hospitals, 72% at PHCCs, 75% at HPs and 67% at SHPs).

Overcrowding — Nearly half of outpatients (44%) considered the facility to be overcrowded and just under a quarter of maternity clients (23%) considered the maternity ward to be overcrowded (Table 10.5).

Table 10.5: Client perceptions of factors related to comfort in health facilities

	Hospital (%)	PHCC (%)	HP (%)	SHP (%)	Total (%)
1. Maternity					
Maternity dept/unit was overcrowded	23.4	27.3	0.0		23.3
Drinking water available	73.2	72.7	100.0	0.0	73.1
Toilet available	86.4	100.0	100.0	0.0	87.1
Enough waiting space for clients	76.6	90.9	100.0	0.0	77.5
Enough waiting space for companions	68.2	90.9	0.0	0.0	68.9
n (total clients)	179	15	2	1	197
2. Outpatients					
Facility was overcrowded	65.2	37.8	24.8	22.7	44.5
Drinking water available	53.0	72.2	75.2	67.4	64.2
Toilet available	86.1	83.3	71.5	60.3	79.1
Enough waiting space for clients	81.0	92.2	84.8	73.8	83.8
Enough waiting space for companions	74.1	78.9	82.4	67.7	75.8
n (total clients)	328	244	121	127	820

Source: STS maternity and outpatient exit interviews

10.2.2 Patient beds

The STS 2011 collected information on the number of inpatient, maternity and emergency beds, and whether the beds were functional or not. At hospital level most allocated beds were functional with no non-functional maternity or emergency beds and just 13% of hospitals having some non-functional inpatient beds (Table 10.6). Most of the hospitals (88%) had at least 11 functional inpatient beds, and a quarter (25%) had 11 or more functional maternity beds. Less than half of the hospitals had at least six functional maternity beds (44%) or at least six functional emergency beds. Most concerning was that 13% of hospitals had no maternity beds and 6% had no emergency beds.

Table 10.6: Percentage of hospitals with available and functional beds (N=16)

Number of beds	Inpatients		Maternity		Emergency	
	Allocated (%)	Functional (%)	Allocated (%)	Functional (%)	Allocated (%)	Functional (%)
0	0.0	0.0	12.5	12.5	6.3	6.3
1-5	0.0	0.0	43.8	43.8	50.0	50.0
6-10	0.0	12.5	18.8	18.8	31.3	31.3
11-25	75.0	62.5	12.5	12.5	6.3	6.3
26 and above	25.0	25.5	12.5	12.5	6.3	6.3
n (total facilities)	16	16	16	16	16	16

Source: STS facility questionnaire

At the lower level health facilities, again most available beds were functional for inpatient, maternity or emergency use. However, half of the PHCCs (50%) had no inpatient beds available, 18% had no maternity beds and 64% no emergency beds (Table 10.7).

Table 10.7: Percentage of PHCCs, health posts and SHPs with available and functional beds

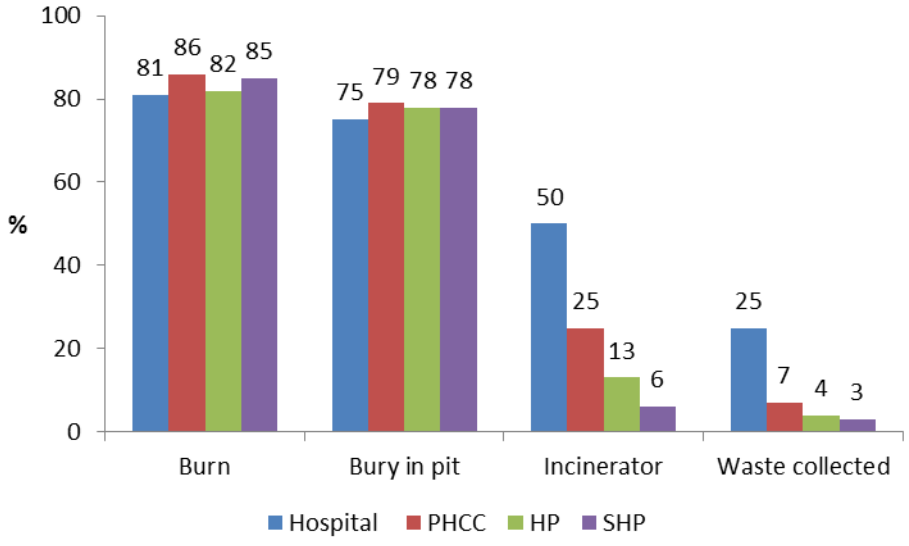
	Number of beds	PHCC		HP		SHP	
		Allocated (%)	Functional (%)	Allocated (%)	Functional (%)	Allocated (%)	Functional (%)
Inpatient	0	50.0	50.0	84.4	84.4	98.8	98.8
	1-3	35.7	35.7	15.6	15.6	1.3	1.3
	4-8	14.3	14.3				
Maternity	0	14.3	17.9	44.4	44.4	80.0	81.3
	1-5	85.7	82.1	55.6	55.6	20.0	18.8
Emergency	0	64.3	64.3	86.7	86.7	93.8	93.8
	1-5	35.7	35.7	13.3	13.3	6.3	6.3
n (total facilities)		28		45		80	

Source: STS facility questionnaire

10.2.3 Biomedical waste management

Since biomedical waste is hazardous both for the environment and public health, proper management is critical. Burning was the most common method for the disposal of biomedical waste for all facility types (84%), followed by burial in a pit (78%). The use of an incinerator was less common and reduced by level of facility: hospital (50%), PHCC (25%), health post (13%) and SHP (6%) (Figure 10.2). If used incorrectly, incinerators can be more hazardous than other methods because of the dioxins produced, but this study did not assess how incinerators were used. Only a few facilities had their waste collected and transferred to a waste management site, with the incidence decreasing by level of facility.

Figure 10.2: Biomedical waste management



Source: STS facility questionnaire

Enumerators observed whether puncture-proof bins, for disposal of needles and sharps, were present in facilities (Table 10.8). While all of the Hospitals and PHCC had puncture proof bin for disposing of needles and sharps, the likelihood decreased for lower level facilities: 91% of HPs and 84% of SHPs. Bins for disposing of plastics were available in 94% of hospitals, 71% of PHCCs, 76% of HPs and 70% of SHPs. Bins for disposing of blood/tissue/fluid stained items were available in all hospitals with likelihood reducing by level of facility (89% of PHCCs, 69% of HPs, and 59% of SHPs). However, this survey did not access whether the bins were being used correctly where they were available. The availability of a pit for deep burial of placentas was less common and the likelihood reduced by level of facility: 94% of hospitals, 79% of PHCCs, 40% of health posts and 4% of SHPs.

Table 10.8: Availability of biomedical waste management facilities by level of health facility

	Hospital (%)	PHCC (%)	HP (%)	SHP (%)
Puncture proof bin for disposing of needles/sharps	100	100	91.1	83.8
Bin for disposing of plastics	93.8	71.4	75.6	70.0
Bin for disposing of blood/ tissue/fluid-stained items	100	89.3	68.9	58.8
Placenta pit/deep burial	93.8	78.6	40.0	3.8
n (total facilities)	16	28	45	80

Source: STS facility questionnaire

10.2.4 Equipment

Annual review — The availability and functionality of health facility equipment should be monitored regularly and the government recommends that this is done at least once a year by the D(P)HO storekeeper. The STS found that the higher the level of facility the more likely it is to have undertaken an equipment review, with 69% of hospitals and 57% of PHCCs, 47% of health posts (47%) and 35% of SHPs having undertaken a review in the previous fiscal year.

Availability and functionality — The total number available, as well as the number that were functional, of selected items of equipment in facilities were recorded and compared to a standard list developed by the MoHP's Logistical Management Division for equipment reviews, which includes a recommended quantity. Considerable gaps were found between what is recommended on the LMD list and what was available at all levels of facility. In many cases this was due to facilities not having the recommended quantity. The quantities listed need to be reviewed as to whether they are appropriate.

The STS 2011 found that the hospitals had a good provision of many items, such as functional vacuum extractors (100%), plastic containers for placenta disposal (94%), plastic containers for medical waste (gauze etc.) (88%) and otoscopes (88%) (Table 10.9). However, no hospital had the required number of delivery lights, sterile trays, steel bowls, suction pumps, uterine dilators and suction/aspirating devices. At PHCCs there was again good provision of functional plastic containers for placenta disposal (86%), plastic containers for medical waste (gauze etc) (82%), microscopes (89%) and syringes and disposable needles (82%). However, no PHCCs had the minimum required number of many items, including delivery lights, kidney basins, protective aprons, plastic draw sheets, vaginal speculums, clamps, thermometers and IV stands.

The study found faulty equipment at all levels of facility that needed repairing or replacing. At the hospitals this was seen in particular for sphygmomanometers (available in 31% of facilities, but only

functional in 19%), centrifuges (available in 38%, functional in 25%) and microscopes (available in 69%, functional in 50%). PHCCs were more likely to have non-functioning equipment available than hospitals, including for delivery tables (available in 68%, functional in 46%); sphygmomanometers (available in 54%, functional in 29%) centrifuges (available in 11%, not functional in any); steriliser (available in 50%, functional in 39%); stethoscopes (available in 57%, functional in 43%); suction devices (available in 86%, functional in 75%).

Table 10.9: Equipment available and functional at hospitals and PHCCs

Hospitals (N=16)				PHCCs (N=28)			
Instruments	**No. specified in guidelines**	**% had**	**% had functional**	**Instruments**	**No. specified in guidelines**	**% had**	**% had functional**
Vacuum extractor	1	100	100	Microscope	1	92.9	89.3
Plastic container with plastic liner to dispose of placentas	1	93.8	93.8	Plastic container with plastic liner to dispose the placenta	1	89.3	85.7
Plastic containers with a plastic liner for medical waste (gauze, etc.)	1	87.5	87.5	Plastic container with plastic liner for medical waste (gauze, etc.)	1	85.7	82.1
Otoscopes	1	93.8	87.5	Syringes and disposable needles	10	82.1	82.1
Examination gloves	25	81.3	81.3	Suction/aspirating device	1	85.7	75
Syringes and disposable needles	10	81.3	81.3	Newborn resuscitation set	1	71.4	67.9
Hand soap or detergent	10	75	75	ORT corner with equipment (1 lt container, cups and spoons and rehydration guidelines)	1	64.3	60.7
Haemoglobin meter	1	75	75	Examination gloves	25	57.1	57.1
Refrigerator for storing reagents	2	81.3	75	Vacuum extractor	1	64.3	57.1
Sterile towels (one to receive baby, one for active management)	2	68.8	68.8	Suction pump, hand of foot operated	1	78.6	53.6
Stethoscope (adult)	2	62.5	62.5	Children's weighing scale	2	53.6	50
Sterilizer (autoclave)	2	62.5	56.3	Delivery table	2	67.9	46.4
Height measure scale	1	56.3	56.3	Sterile towels (one to receive the baby, one for active management)	2	46.4	46.4
Umbilical cord clamps or sterile tape or sterile ties	22	50	50	Stethoscope	4	57.1	42.9
Needle holders	5	62.5	50	Sterilizer (autoclave)	2	50	39.3
Vaginal retractors	2	50	50	Height measure scales	1	39.3	39.3
Children's weighing scales	2	50	50	Refrigerator for storing reagents	2	46.4	39.3
Microscopes	3	68.8	50	Umbilical cord clamp or sterile tape or sterile tie	20	35.7	35.7
Newborn resuscitation	2	50	43.8	Stethoscope, adult	2	39.3	35.7

Hospitals (N=16)				PHCCs (N=28)			
Instruments	**No. specified in guidelines**	**% had**	**% had functional**	**Instruments**	**No. specified in guidelines**	**% had**	**% had functional**
sets							
Clean towels	5	43.8	43.8	Sphygmomanometer	4	53.6	28.6
Adult weighing scales	4	50	43.8	Scissors	5	32.1	25
Oral rehydration therapy (ORT) corner with equipment (1 lt container, cups, spoons & rehydration guidelines)	1	37.5	37.5	Oxygen cylinder	2	25	21.4
Stethoscopes (paediatric)	2	31.3	31.3	I & D set and suture set	10	21.4	21.4
Curette, uterine	5	31.3	31.3	Clean towels	5	17.9	17.9
Fetoscope	7	25	25	Hand soap or detergent	5	21.4	17.9
Newborn weighing scales	2	31.3	25	Needle holder	5	17.9	17.9
Incision and drainage (I&D) set and suture set	12	25	25	Otoscope	2	46.4	17.9
Centrifuge	2	37.5	25	Vaginal retractor	2	17.9	14.3
Aspirator/suction bulb	6	18.8	18.8	Aspirator/suction bulb	2	17.9	10.7
Scissors	13	18.8	18.8	Adult weighing scale	4	25	10.7
Sphygmomanometer	17	31.3	18.8	Stethoscope, paediatric	2	7.1	7.1
Thermometers	32	25	18.8	Newborn weighing scales	2	14.3	7.1
Oxygen cylinders	21	18.8	18.8	Curette, uterine	5	7.1	7.1
IV stand	58	18.8	18.8	Fetoscope	5	3.6	3.6
Tape measure	7	18.8	18.8	Uterine dilator	10	3.6	3.6
Delivery table	4	12.5	12.5	Tape measure	5	3.6	3.6
Guerdal airways-neonatal, child, and adult	4	18.8	12.5	Delivery light (perilight)	10	0.0	0.0
Stethoscope	42	12.5	12.5	Sterile tray	37	0.0	0.0
Kidney basin	50	6.3	6.3	Kidney basin	50	0.0	0.0
Protective apron and plastic draw sheet	22	6.3	6.3	Steel bowl	45	0.0	0.0
Speculum, vaginal	30	6.3	6.3	Protective apron and plastic draw sheet	20	0.0	0.0
Clamps (hemostats)	35	6.3	6.3	Speculum, vaginal	30	0.0	0.0
Torch/flashlight	17	6.3	6.3	Clamps (hemostats)	35	0.0	0.0
Delivery light (perilight)	11	0.0	0.0	Guerdal airways-neonatal, child and adult	4	0.0	0.0
Sterile tray	37	0.0	0.0	Thermometers	20	0.0	0.0
Steel bowl	45	0.0	0.0	IV stand	20	0.0	0.0
Suction pump, hand of foot operated	6	0.0	0.0	Torch/flashlight	11	0.0	0.0
Uterine dilator	56	0.0	0.0	Centrifuge	2	10.7	0.0
Suction/aspirating device	20	0.0	0.0	Haemoglobin meter	4	0.0	0.0

Source: STS facility questionnaire

The health posts had good provision of child (78%) and adult (71%) weighing scales, scissors (71%) and examination gloves (71%) (Table 10.10). However, there was inadequate provision of much equipment including functional IV stands (2%), clamps (2%), oxygen cylinders (4%), protective aprons and plastic draw sheets (4%) and stethoscopes (4%).

Again there were items of equipment that were available but not functional, such as sphygmomanometer (available in 40%, functional in 9%), sterilisers (available in 38%, functional in 22%) and suction devices (available in 51%, functional in 36%) at health post level. At SHP level non-functional items included sphygmomanometers (available in 24%, functional in 5%), stethoscopes (available in 25%, functional in 11%). The presence of non-functioning sphygmomanometers is clearly a problem at all levels (Table 10.10).

Table 10.10 Equipment available and functional at health posts and SHPs

Health posts (N=45)				SHPs (N=80)			
Instruments	**No. specified in guidelines**	**% had**	**% had functional**	**Instruments**	**No. specified in guidelines**	**% had**	**% had functional**
Children's weighing scales	1	77.8	77.8	Adult weighing scale	1	77.5	72.5
Scissors	2	71.1	71.1	Children's weighing scale	1	71.3	71.3
Examination gloves	5	71.1	71.1	Examination gloves	5	66.3	63.8
Adult weighing scales	1	80	71.1	Scissors	2	63.8	61.3
Plastic container with plastic liner for medical waste (gauze, etc.)	1	66.7	66.7	ORT corner with equip. (1 lt container, cups & spoons & rehydration guidelines)	1	60	58.8
Syringes and disposable needles	12	66.7	64.4	Syringes and disposable needles	12	57.5	55
ORT corner with equipment (1 lt container, cups, spoons & rehydration guidelines)	1	68.9	64.4	Fetoscope	2	52.5	50
Fetoscope	2	71.1	62.2	Clean towels	1	47.5	47.5
Otoscope	1	77.8	60	Plastic container with plastic liner for medical waste	1	46.3	46.3
Newborn resuscitation set	1	57.8	57.8	Newborn weighing scale	1	42.5	42.5
Clean towels	1	57.8	57.8	Otoscope	1	51.3	42.5
Plastic container with plastic liner to dispose the placenta	1	53.3	53.3	Hand soap or detergent	2	43.8	40
Newborn weighing scales	1	53.3	53.3	Kidney basin	2	32.5	31.3
Kidney basin	2	48.9	48.9	Sterile tray	2	23.8	23.8
Hand soap or detergent	2	48.9	46.7	Aspirator/suction bulb	1	20	20
Aspirator/suction bulb	1	44.4	42.2	Newborn resuscitation set	1	21.3	20
Umbilical cord clamp or sterile tape or sterile tie	2	35.6	35.6	Suction/aspirating device	1	21.3	16.3
Sterile tray	2	37.8	35.6	Plastic container with plastic liner to dispose placenta	1	15	15
Speculum, vaginal	2	37.8	35.6	Height measure scale	1	18.8	15

Health posts (N=45)				SHPs (N=80)			
Instruments	**No. specified in guidelines**	**% had**	**% had functional**	**Instruments**	**No. specified in guidelines**	**% had**	**% had functional**
Suction/aspirating device	1	51.1	35.6	Thermometers	5	17.5	13.8
Refrigerator for storing reagents	1	51.1	33.3	Refrigerator for storing reagents	1	16.3	13.8
Suction pump, hand of foot operated	1	35.6	28.9	Umbilical cord clamp or sterile tape or sterile tie	2	12.5	12.5
Delivery light (Perilight)	1	26.7	26.7	Stethoscope	4	25	11.3
Sterile towels (one to receive the baby, one for active management)	2	26.7	26.7	I & D set and suture set	5	13.8	11.3
Height measure scales	1	33.3	26.7	Sterilizer (Autoclave)	2	15	10
Sterilizer (autoclave)	2	37.8	22.2	Delivery light (perilight)	1	10	8.8
Steel bowl	4	22.2	20	Needle holder	4	8.8	8.8
Thermometers	5	24.4	20	Sterile towels (one to receive baby, one for active management)	2	7.5	7.5
Tape measures	2	20	20	Suction pump, hand of foot operated	1	8.8	7.5
Stethoscopes	4	35.6	15.6	Delivery table	1	5	5
Needle holders	4	13.3	13.3	Guerdal airways-neonatal, child, and adult	1	5	5
Stethoscope, paediatric	1	11.1	11.1	Sphygmomanometer	4	23.8	5
I & D set and suture set	5	13.3	11.1	Stethoscope, adult	4	8.8	2.5
Delivery table	1	13.3	8.9	Stethoscope, Paediatric	1	3.8	2.5
Sphygmomanometer	4	40	8.9	Speculum, vaginal	2	3.8	2.5
Guerdal airways-neonatal, child, and adult	1	6.7	6.7	Torch/Flash light	2	3.8	2.5
Stethoscope, adult	4	8.9	4.4	Steel bowl	4	2.5	1.3
Protective apron and plastic draw sheet	4	4.4	4.4	Protective apron and plastic draw sheet	4	1.3	1.3
Oxygen cylinders	1	13.3	4.4	Oxygen cylinder	1	2.5	1.3
Torch/flashlight	2	8.9	4.4	IV stand	5	1.3	1.3
Clamps (hemostats)	4	4.4	2.2	Tape measure	2	1.3	1.3
IV stand	5	2.2	2.2	Clamps (hemostats)	8	7	1

Source: STS facility questionnaire

10.2.5 Provision of services

Delivery, BEONC and CEONC services — Less than half (44%) of the 16 hospitals visited were officially accredited as comprehensive emergency obstetric and neonatal care (CEONC) facilities, while 56% of hospitals and 46% of PHCCs were officially accredited as basic emergency obstetric and neonatal care (BEONC) centres (Table 10.11). Half of PHCCs (50%), over half of health posts (53%) and 11% of SHPs were classified as birthing centres.

Table 10.11: Proportion of facilities officially accredited as CEONC, BEONC and birthing centres

	Hospital (%)	PHCC (%)	HP (%)	SHP (%)
CEONC facility	43.8			
BEONC facility	56.3	46.4		
Birthing centre		50.0	53.3	11.3
None of these		3.6	46.7	88.8
n (total facilities)	16	28	45	80

Source: STS facility questionnaire

Most birthing centres were providing routine deliveries (98%), with over three-quarters providing this service 24 hours a day (77%) (Table 10.12). Furthermore, 38% of the facilities not yet classified as birthing centres were already providing routine delivery services.

Table 10.12: Provision of BEONC and CEONC services by type of facility

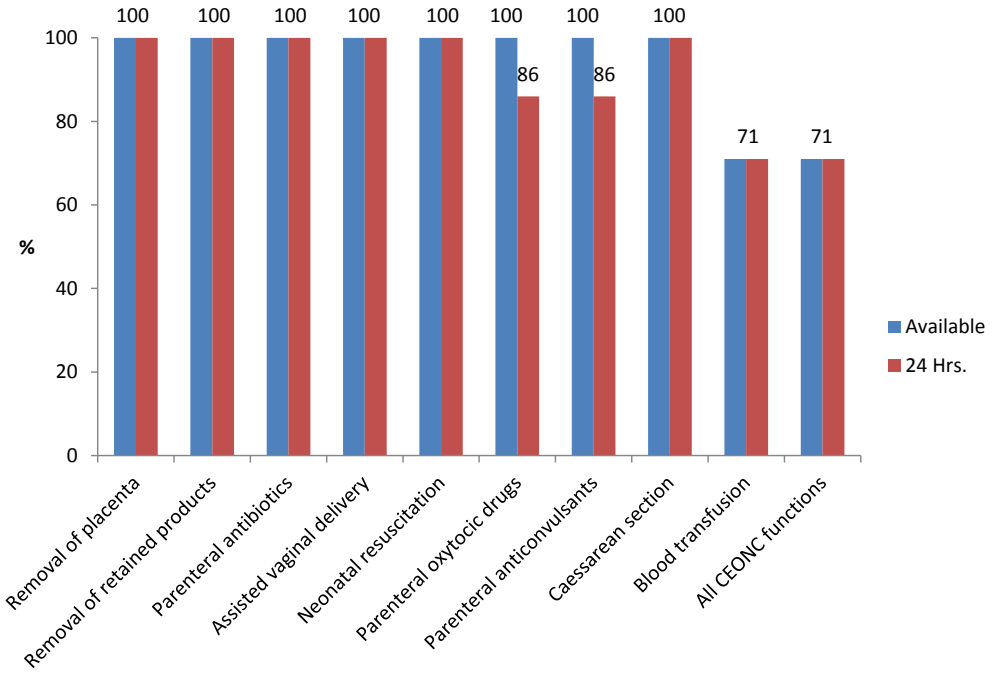
	1. CEONC facilities (%)	2. BEONC facilities (%)	3. Birthing centres (%)	4. None of 1–3 (%)	5. At least one facility in district providing service (%)
Vaginal delivery	100	100	97.9	37.6	100
24hrs	100	95.5	76.6	15.1	100
CEONC and BEONC signal functions					
1. Administer parenteral antibiotics	100	90.9	46.8	21.5	100
24hrs	100	81.8	34.0	7.5	100
2. Administer parenteral oxytocic drugs	100	86.4	70.2	23.7	100
24hrs	85.7	72.7	57.4	11.8	100
3. Administer parenteral anticonvulsants for pre-eclampsia/eclampsia	100	81.8	53.2	23.7	92.3
24hrs	85.7	81.8	42.6	12.9	92.3
4. Perform manual removal of placenta	100	95.5	61.7	20.4	100
24hrs	100	90.9	51.1	10.8	100
5. Perform removal of retained products	100	77.3	36.2	3.2	100
24hrs	100	77.3	27.7	3.2	100
6. Perform assisted vaginal delivery (vacuum or forceps)	100	72.7	27.7	6.5	100
24hrs	100	63.6	21.3	6.5	100
7. Neonatal resuscitation	100	86.4	68.1	28.0	92.3
24hrs	100	81.8	57.4	8.6	92.3
All BEONC signal functions	100	45.5	8.5	2.2	84.6
24hrs	85.7	40.9	6.4	1.1	84.6
CEONC only signal functions					
8. Perform blood transfusion	71.4	9.1			46.2
24hrs	71.4				38.5
9. Perform surgery (caesarean sections)	100				53.8
24hrs	100				53.8
All CEONC signal functions	71.4				38.5
24hrs	71.4				38.5
n (total facilities) (columns 1-4) n (total districts) (column 5)	7	22	47	93	13

Source: STS facility questionnaire

STS 2011 looked at the provision of obstetric services by whether the facility was a CEONC or BEONC facility (Table 10.12). All the CEONC facilities were providing six of the nine CEONC signal functions on a 24 hour basis: administering parenteral antibiotics, manual removal of placenta, removal of retained products, performing neonatal resuscitation, providing assisted vaginal delivery, and providing caesarean sections (Figure 10.3). All of the facilities were also providing two further signal functions: administering parenteral oxytocic drugs and parenteral anticonvulsants, but only 86% provided these

services at all times. The main gap was the provision of blood transfusion services, with 29% of CEONC facilities not providing these, and hence not truly operating as CEONC sites. CEONC facilities should be providing all nine CEONC signal functions on a 24 hour basis; however, less than three-quarters (71%) of CEONC facilities did so.

Figure 10.3: Availability of the 9 CEONC signal functions at CEONC facilities

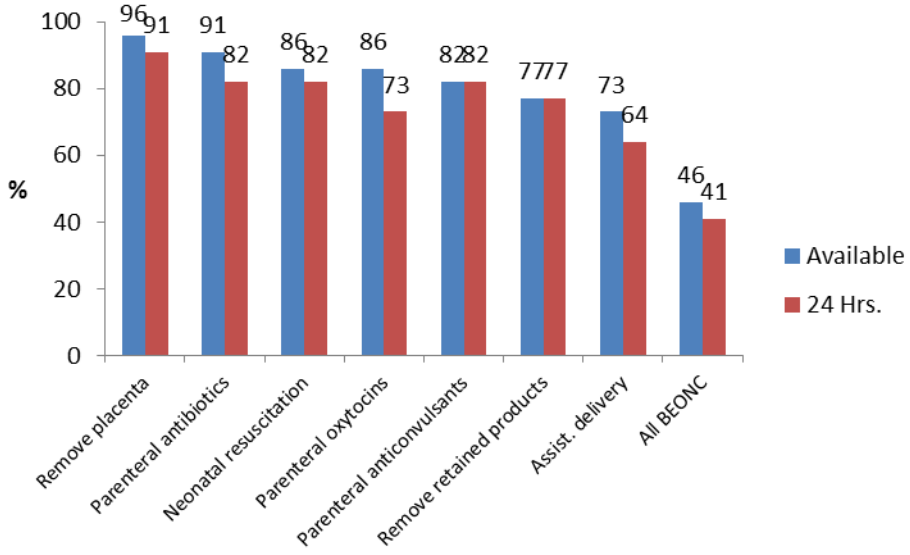


Source: STS facility questionnaire

None of the BEONC facilities were providing all seven BEONC signal functions, let alone on a 24 hour basis (Figure 10.4). The strongest provision was for manual removal of placentas, with 91% of BEONC facilities providing this at all times, followed by parental antibiotics and neonatal resuscitation (both available in 82% of facilities 24 hours a day). The weakest provision was for assisted deliveries, with less than two-thirds (64%) providing this at all times. Less than three-quarters (73%) were administering parenteral oxytocic at all times. Less than half (46%) of BEONC facilities provided all BEONC signal functions, while 41% did so on 24 hours a day.

Eighty five percent of the districts had at least one facility providing all BEONC signal functions, (although in regards to BEONC facilities one would ideally hope to find more than one) (Table 10.12). However, there was one district without even a single facility administering parenteral anticonvulsants, and one district without provision for neonatal resuscitation. Only 31% of the 13 districts had a facility providing all CEONC signal functions. Less than half of the districts (46%) had a facility that provides caesarean sections or blood transfusions, with even less (39%) doing so at all times.

Figure 10.4: Availability of the 7 BEONC signal functions at BEONC facilities



Source: STS facility questionnaire

This analysis also looked at the provision of obstetric services by level of facility (Table 10.13). Normal vaginal delivery care was available on a 24 hour basis in all the hospitals, 96% of PHCCs, 89% of health posts and 28% of SHPs. However, availability on a 24 hour basis at lower level facilities was less (86% of PHCCs, 58% of health posts and 10% of SHPs). It is very promising that nearly 90% of health posts are providing normal delivery care, and almost 60% provide it on a 24 hours a day.

Most BEONC signal functions were available at the hospitals on a 24 hour basis, although not all hospitals were able to administer parenteral oxytocic drugs, parenteral anticonvulsants, remove retained products and provide neonatal resuscitation, meaning that three-quarters of hospitals (75%) provided all BEONC signal functions on a 24 hour basis (Table 10.13). The provision of the additional two CEONC signal functions was even less, with less than one-third of hospitals providing blood transfusions or caesarean sections on a 24 hour basis. Only a quarter of hospitals provided all CEONC signal functions on a 24 hour basis. Just over one-fifth of PHCCs were providing all BEONC signal functions (21%), and just 14% were doing so on a 24 hour basis. The BEONC services that were least likely to be provided at PHCCs were the removal of retained products (50%) and assisted vaginal deliveries (39%). Health posts and SHPs are not expected to provide BEONC services, but it is encouraging to see that many were.

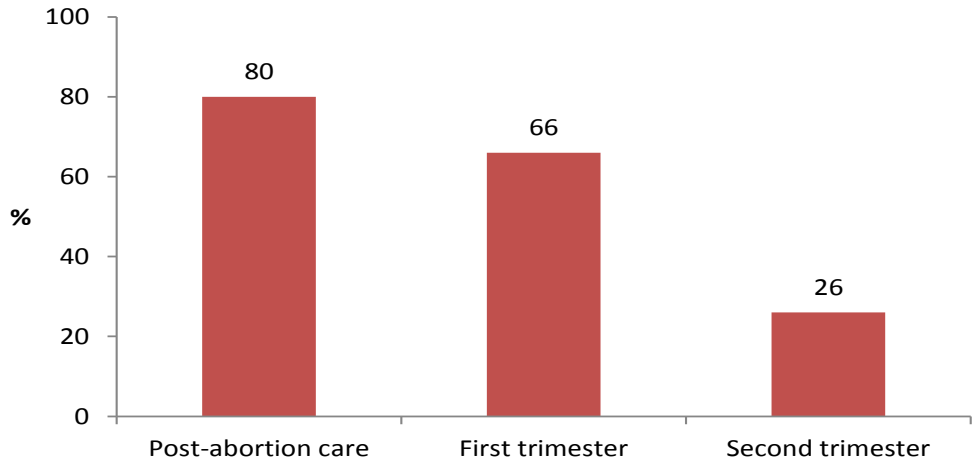
Table 10.13: Provision of maternity services in hospitals, PHCCs, health posts and SHPs

	Hospital (%)	PHCC (%)	HP (%)	SHP (%)
Normal delivery	100	96.4	88.9	27.5
24 hrs	100	85.7	57.8	10.0
CEONC and BEONC signal functions				
1. Administer parenteral antibiotics	100	78.5	42.2	15
24 hrs	100	71.4	22.2	2.5
2. Administer parenteral oxytocic drugs	93.8	78.6	68.9	16.3
24 hrs	81.3	64.3	51.1	7.5
3. Administer parenteral anticonvulsants for pre-eclampsia/eclampsia	93.8	71.5	57.8	13.8
24 hrs	87.5	67.9	42.2	5.0
4. Perform manual removal of placenta	100	82.1	57.8	13.8
24 hrs	100	71.4	46.7	5.0
5. Perform removal of retained products	93.8	50	28.8	2.6
24 hrs	93.8	46.4	24.4	1.3
6. Perform assisted vaginal delivery (vacuum or forceps)	100	39.2	33.4	0.0
24 hrs	100	32.1	26.7	0.0
7. Neonatal resuscitation	93.8	82.1	62.2	22.5
24 hrs	93.8	64.3	46.7	7.5
All BEONC signal functions	81.3	21.4	8.9	0.0
24 hrs	75.0	14.3	6.7	0.0
CEONC only signal functions				
8. Perform blood transfusion	43.8	7.1		
24 hrs	31.3			
9. Perform surgery (caesarean sections)	43.8			
24 hrs	43.8			
All CEONC signal functions	31.3			
24 hrs	31.3			
n (total facilities)	16	28	45	80

Source: STS facility questionnaire

Abortion services — All the selected hospitals and 68% of the PHCCs visited were officially classified as safe abortion sites, which means they are certified sites with a certified provider. If the certified provider is transferred the facility can no longer legally provide safe abortion services. Below PHCC level medical abortions are allowed in selected health posts. Second trimester abortions are only available at tertiary level hospitals where there are obstetrician-gynaecologists or MDGPs. Post-abortion care was available at most safe abortion sites (80%). Two-thirds of the safe abortion sites were providing first trimester abortion care (66%) and over a quarter (26%) second trimester abortions (Figure 10.5).

Figure 10.5: Availability of abortion services at safe abortion sites



Source: STS facility questionnaire

Family planning — According to government guidelines short term hormonal (such as oral contraceptive pills, and injectables) and non-hormonal family planning services (such as condoms) should be available at all levels of health facility. PHCCs and health posts can also provide IUCD and implant services, but these are dependent on the availability of a trained provider and supplies. Mini laparotomy (minilap) and vasectomy services should be available at the hospital level, but again this depends on the availability of a trained provider. There was good provision of short term hormonal and non-hormonal family planning: all PHCCs, all health posts, 96% of SHPs and all but one hospital provided hormonal and non-hormonal methods of family planning (Table 10.14). For long term methods, IUCDs were more common than implants and the likelihood of the provision of each of these decreased by level of facility. IUCDs were available at all hospitals (100%), nearly two-thirds of PHCCs (64%), one-third of health posts (33%), and just 1% of SHPs. Permanent family planning methods were only available at the hospitals, with over two-thirds of hospitals surveyed providing vasectomies (69%) and half providing minilaps (50%). One PHCC reported that it provided vasectomy and minilap services during camps, but not as a regular service.

As per government guidelines all facilities providing delivery and abortion services should provide their clients with family planning services. Safe abortion sites should provide short and long term methods (oral contraceptive pills, condoms, injectables, IUCDs and implants).

Of those facilities providing delivery care, 81% reported providing post-partum family planning: 88% of hospitals, 75% of PHCCs, 77% of health posts and 100% of SHPs. The exit interviews did not capture whether maternity clients were being provided with post-partum family planning. Eighty percent of the safe abortion sites reported providing post-abortion family planning.

Table 10.14: Availability of family planning services

	Hospital (%)	PHCC (%)	HP (%)	SHP (%)
1. Availability of family planning methods:				
Short term hormonal	93.8	100	100	96.3
Short term non-hormonal	93.8	100	100	97.5
IUCDs	100	64.3	33.3	1.3
Implants	93.8	35.7	15.6	0.0
IUCDs or implants	100	67.9	35.6	1.3
Vasectomies	68.8	3.6	0.0	0.0
Minilaps	50.0	3.6	0.0	0.0
n (total facilities	16	28	45	80
2. Availability of post-partum family planning:	87.5	75.0	76.9	100
n (facilities that provided delivery services)	16	24	26	8
3. Comprehensive family planning				
Had short term hormonal & non-hormonal, long term, permanent, post-partum & post-abortion family planning	62.5	3.6	0.0	0.0
n (total facilities)	16	28	45	80

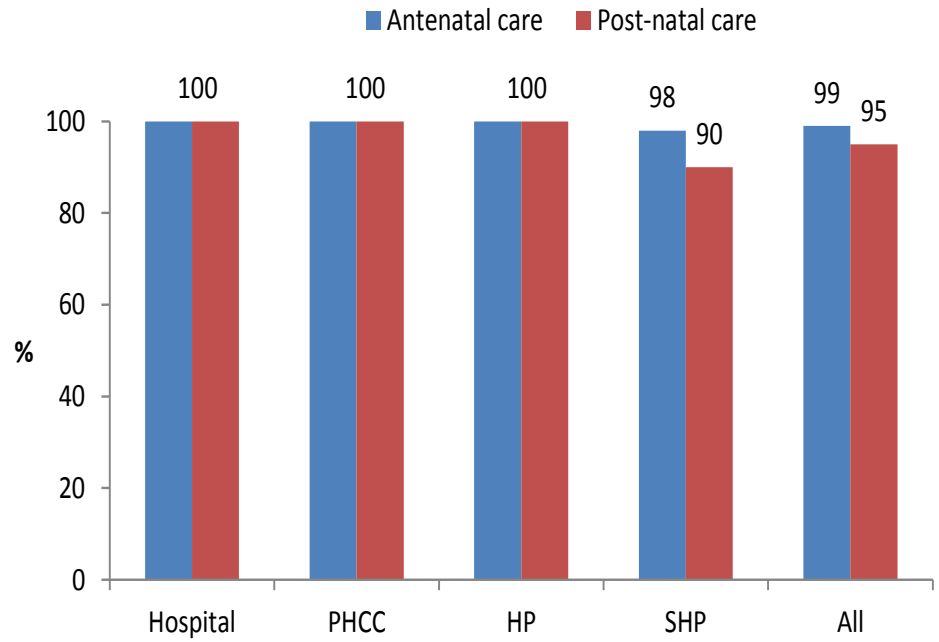
Source: STS facility questionnaire

Antenatal and postnatal care — The provision of antenatal and postnatal care was high for all levels of facility, with all hospitals, PHCCs, and health posts providing both antenatal and postnatal care (Figure 10.6). There was also good provision at SHPs with 98% providing antenatal and 90% providing postnatal care.

Ultrasound — Ultrasound services were available in 69% of the hospitals and at just one PHCC.

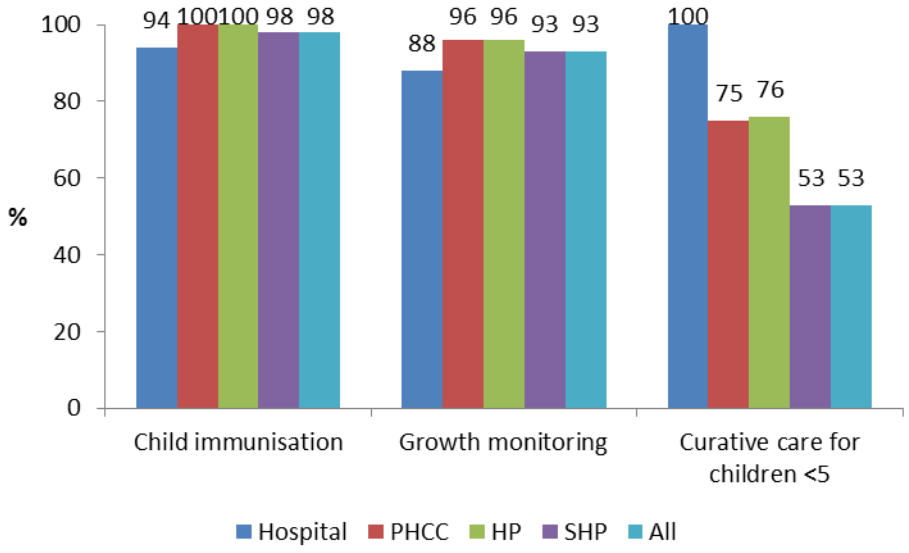
Child health — STS 2011 administered three questions relating to the provision of child health services — on childhood immunisation, growth monitoring, and curative care for children under five. As would be expected, curative care for children under five was more common at the higher level facilities: with all hospitals, three quarters of PHCCs (75%) and health posts (76%) and half of SHPs (53%) providing curative care (Figure 10.7). In contrast, but as expected, the hospitals were less likely to provide childhood immunisation (94%) and growth monitoring (88%). Childhood immunisation was available at all PHCCs and health posts and 98% of SHPs and growth monitoring at 96% of PHCCs and health posts.

Figure 10.6: Availability of antenatal and postnatal care services



Source: STS facility questionnaire

Figure 10.7: Availability of child health services



Source: STS facility questionnaire

Laboratory services — Laboratory services were available at 81% of hospitals, 82% of PHCCs and 16% of health posts (Table 10.15). It is concerning that nearly one-fifth of the hospitals had no laboratory services, and just 50% had laboratory services available 24 hours a day. The governments is aiming for all hospitals to provide laboratory services 24 hours a day, but there is only one sanctioned post for laboratory assistants at Category A and B district hospitals (See Chapter 8). Despite not all hospitals having laboratory services, all of them provided haemoglobin testing, malaria testing, tuberculosis (TB)

testing and directly observed treatment short course (DOTS), and all but one had diagnosis and treatment of reproductive tract infections (RTIs)/sexually transmitted infections (STIs). However, most of these services were not available at hospitals 24 hours a day: haemoglobin testing was most commonly available (63%), followed by diagnosis and treatment of RTIs/STIs (38%) and malaria testing (31%). TB testing was only available 24 hours a day at a quarter of hospitals. Infection detection and treatment reduced by level of facility. DOTS was most commonly available: in 96% of PHCCs and health posts and 84% of SHPs, followed by the diagnosis and treatment of RTIs/STIs.

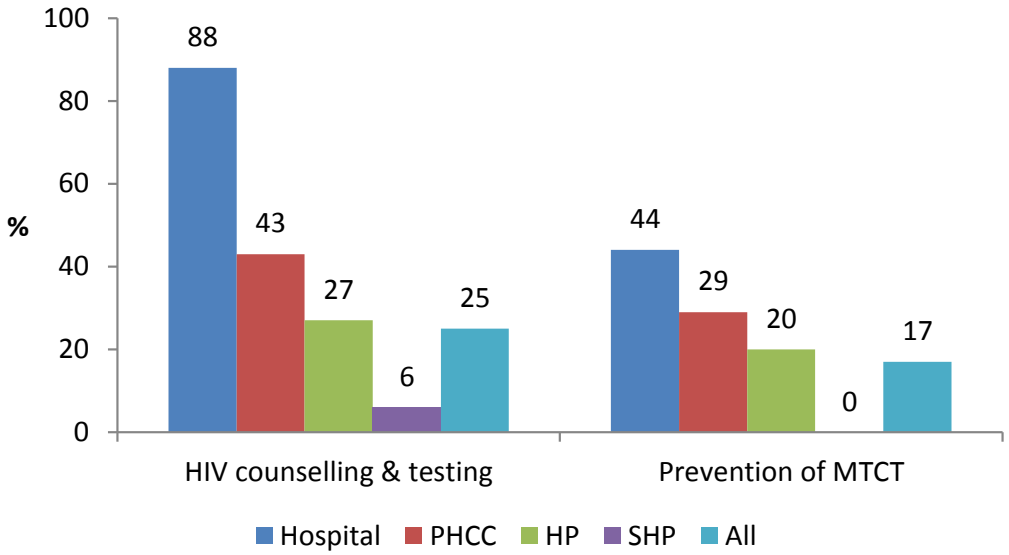
Table 10.15: Provision of services for infection detection and treatment

	Hospital (%)	PHCC (%)	HP (%)	SHP (%)
1. Laboratory diagnosis services:				
Available	81.0	82.0	16.0	0.0
Available 24/7	50.0			
Not available	18.8	17.9	84.4	100
2. Haemoglobin testing:				
Available	100	78.6	22.2	10.0
Available 24/7	62.5			
Not available	0.0	21.4	77.8	90
3. Diagnosis and treatment of RTIs/STIs:				
Available	93.8	85.7	55.5	31.3
Available 24/7	37.5			
Not available	6.3	14.3	44.4	68.8
4. Malaria testing:				
Available	100	78.6	17.8	11.3
Available 24/7	31.3			
Not available	0.0	21.4	82.2	88.8
5. TB testing:				
Available	100	85.7	13.3	1.3
Available 24/7	25			
Not available	0.0	14.3	86.7	98.8
6. DOTS				
Available	100	96.4	95.5	83.8
Not available	0.0	3.6	4.4	16.3
n (total facilities)	16	28	45	80

Source: STS facility questionnaire

HIV— The availability of human immunodeficiency virus (HIV) services decreased by level of facility. Most hospitals provided HIV counselling and testing (88%) (Figure 10.8), but less than half of the hospitals (44%) provided antiretroviral (ARV) therapy or prevention of mother to child transmission (PMTCT) treatment. Three-quarters of the hospitals provided opportunistic infection services and palliative care for people living with HIV (75%); however, less than one-third provided these services 24 hours a day (Table 10.16).

Figure 10.8: Availability of HIV services by type of facility



Source: STS facility questionnaire

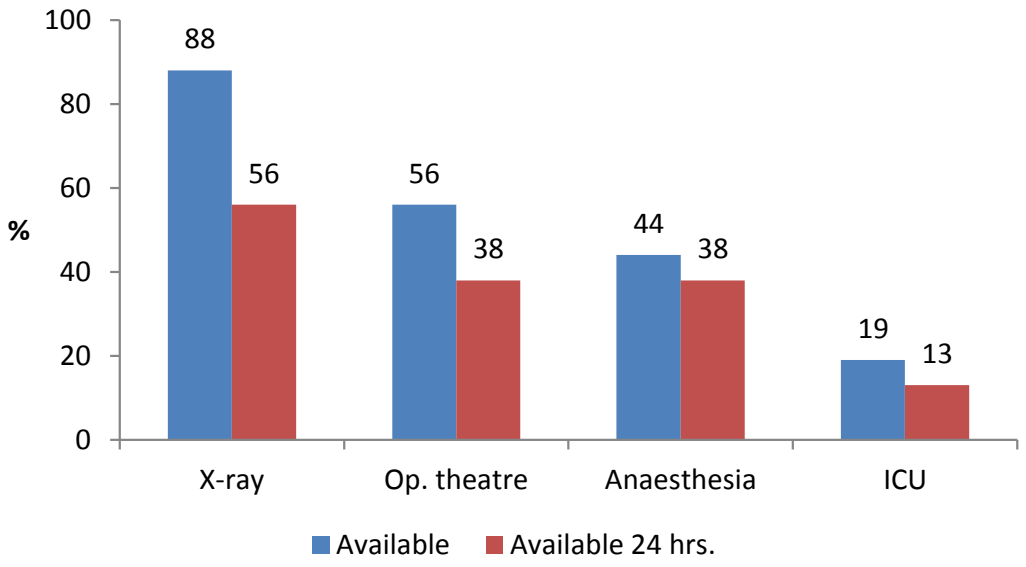
Table 10.16: Opportunistic infection services and palliative care for people living with HIV

Opportunistic infection services and palliative care for PLHIV	Hospital (%)	PHCC (%)	HP (%)	SHP (%)
Available	75.0	32.0	13.0	3.0
Available 24/7	31.3	14.3	0.0	0.0
n (total facilities)	16	28	45	80

Source: STS facility questionnaire

Other — Most of the hospitals had x-ray facilities (88%), but just over a half had an operating theatre (56%), less than half had provision for anaesthesia (44%) and a quarter had an intensive care unit (ICU) (Figure 10.9). Provision of these services is further reduced in regards to being available 24 hours a day, especially for x-ray services and operating theatres.

Figure 10.9: Provision of x-ray, operating theatre, anaesthesia and intensive care unit (ICU) at hospitals



Source: STS facility questionnaire

Most facilities provided treatment for acute respiratory infections: 100% of hospitals, 100% of PHCCs, 96% of health posts and 88% of SHPs (Table 10.17).

Table 10.17: Treatment for acute respiratory infections (facility-based or outreach)

	Hospital (%)	PHCC (%)	HP (%)	SHP (%)
Available	100	100	96	88
Available 24/7	50	39	15.6	6.3
n (total facilities)	16	28	45	80

Source: STS facility questionnaire

10.2.6 Referrals

For those facilities with transport available, many took more than three hours to get to the nearest referral facility: 25% of hospitals, 43% of PHCCs, and 59% of health posts (Table 10.18). From hospitals it took a maximum of six hours to reach the nearest referral facility, while for PHCCs and health posts it took a maximum of two days to reach the nearest one. These long transfers could prove fatal and/or costly for clients. However, for 50% of hospitals with transport, the referral time was less than one hour and for three quarters (75%) the maximum referral time was 3 hours.

Table 10.18: Time taken to transport clients to nearest referral facility (hrs)

	Hospital (%)	PHCC (%)	HP (%)	SHP (%)
<1 hour	50.0	19.0	17.2	26.1
1-3 hours	25.0	38.1	24.1	52.2
>3 hours	25.0	42.9	58.6	21.7
n (total facilities with transport available)	12	21	29	46
Mean hrs taken	2	9	8	3
n (total facilities)	12	21	29	46

Source: STS facility questionnaire

Of those outpatients surveyed, 9% had been referred to other facilities (Table 10.19). Most had been referred to a government hospital (64%) or a private facility, including medical colleges (16%). The main reasons for referral were clinical examination (61%) and laboratory tests (25%).

Table 10.19: Out-referrals for outpatients

	Hospital (%)	PHCC (%)	HP (%)	SHP (%)	Total (%)
1. Been referred	7.0	10.1	12.7	8.2	9.2
n (total clients)	328	244	121	127	820
2. Referred to:					
Government hospital	37.5	77.8	85.7	54.3	64.4
Private facility (incl. medical colleges)	25.0	22.2	0.0	22.9	16.4
PHCC	0.0	0.0	0.0	11.4	5.5
Health post	0.0	0.0	9.5	0.0	2.7
NGO facility	0.0	0.0	0.0	0.0	0.0
Community hospital	0.0	0.0	0.0	11.4	5.5
Outside Nepal	0.0	0.0	0.0	0.0	0.0
Not specified	37.5	0.0	4.8	0.0	5.5
n (total clients)	23	23	11	9	66
3. Reason for referral:					
Clinical examination	50.0	55.6	85.0	51.4	61.1
Laboratory test	37.5	22.2	5.0	34.3	25.0
Surgical	12.5	22.2	0.0	0.0	4.2
Gynaecological problem	0.0	0.0	10.0	0.0	2.8
Neurological problem	0.0	0.0	0.0	14.3	6.9
Don't know	0.0	0.0	0.0	0.0	0.0
n (total clients)	23	23	11	9	66

Source: STS outpatient exit interviews

There was little difference by type of facility in regards to whether outpatients were referred: 7% of hospital outpatients, 10% of PHCC outpatients, 13% of health post outpatients and 8% of SHP

outpatients. Those referred from hospitals were more likely to have been referred to private facilities, including medical colleges, while most outpatients from PHCCs (78%) and health posts (86%) were referred to public hospitals. Over a quarter of outpatients were referred from hospitals for laboratory tests. The STS did not capture if these clients referred for tests then returned and were treated by the original facility.

Transportation — Table 10.20 shows that three quarters of the hospitals (75%) had an ambulance, 36% of PHCCs, 9% of health posts and 5% of SHPs. Over half of the lower level facilities had a stretcher: PHCCs (50%), health posts (60%) and SHPs (54%).

Table 10.20: Availability of ambulances and stretchers by level of facility

	Hospital (%)	PHCC (%)	HP (%)	SHP (%)
Functional ambulance	75.0	35.7	8.9	5.0
Stretcher	31.3	50.0	60.0	53.8
n (total facilities)	16	28	45	80

Source: STS facility questionnaire

10.2.7 Client experiences

Waiting time — A small proportion of clients were seen immediately, 14% of maternity clients and 3% of outpatients (Table 10.21). Similar proportions of maternity clients (4%) and outpatients (3%) felt that the waiting time was far too long or were irritated with the length of waiting time while more than a quarter of maternity clients felt that the waiting time was a little too long.

Table 10.21: Mean waiting time and client's perception of waiting time

	Maternity clients (%)	Outpatients (%)
Client rating: waiting time		
No need to wait	14.3	2.9
Very pleased	14.5	14.1
Reasonable	40.0	64.6
A little too long	27.2	13.0
Far too long	3.9	3.3
Others	0.2	2.2
n (total clients)	197	820

Source: STS maternity and outpatient exit interviews

Companion — More than half of maternity clients (53%) and more than a quarter of outpatients (27%) requested to have a companion with them during their care. The provider obliged in 2% of outpatient cases and in only 9% of maternity cases (76%) (Table 10.22). Most maternity clients requested a companion during labour (78%).

Table 10.22: Companion requested and permitted

	Maternity clients (%)	Outpatients (%)
1. Requested a companion at any time	52.7	27.4
2. Provider allowed companion	9.4	1.8
n (total clients)	197	820
3. Stage companion was requested and refused		
During labour	77.6	
During delivery	53.7	
After delivery	55.3	
During treatment	36.4	
n (total clients)	154	

Source: STS maternity and outpatient exit interviews

Cleanliness — One quater of maternity clients (24%) and 11% of outpatients thought the facility was dirty or very dirty, while 48% of outpatients and 36% of maternity clients considered the facility to have been clean or very clean (Table 10.23).

Table 10.23: Cleanliness of facility

	Maternity clients (%)	Outpatients (%)
Very clean	7.3	4.4
Clean	28.4	43.1
Fair	39.2	41.9
Dirty	24.2	10.0
Very dirty	1.0	0.6
n (total clients)	197	820

Source: STS maternity and outpatient exit interviews

Privacy and confidentiality — Over a half of the maternity (57%) and outpatient clients (55%) reported that the staff has been either good or very good at respecting their privacy (Table 10.24). A small proportion of maternity clients (9%) and outpatients (7%) reported that the provider had been bad or very bad at respecting their privacy. Just over half of outpatients had their consultations in a private room (52%), with 62% receiving treatment in a private room, and most delivery clients delivering in a private room (92%). However, 37% of outpatients and 16% of maternity clients reported that there had been at least one unknown person present in the room. Most maternity clients (85%) but only 44% of outpatients reported that there had been curtains on windows (including windows in doors). In regards to confidentiality only 1% of outpatients and no maternity clients felt that their confidentiality had not been maintained.

Table 10.24: Respect for client privacy and confidentiality

	Maternity clients (%)	Outpatients (%)
1. Privacy facilitated		
Consultation in private room		51.6
Delivered/treated in private room	91.5	62.4
Any unknown person allowed in room	15.6	37.4
Curtains on windows	84.8	44.3
Divider between beds	79.9	20.7
Curtain between/around beds	24.3	24.6
Others	2.3	0.0
2. Client perception: respect for client privacy:		
Very well	4.7	5.5
Good	51.8	49.0
Satisfactory	34.4	38.9
Bad	7.5	6.1
Very bad	1.7	0.5
Confidentiality not maintained	0.0	1.2
n (total clients)	197	820

Source: STS maternity and outpatient exit interviews

Type of provider — According to the client exit interviews doctors (45%) followed by AHWs (34%) were reported as being the main care providers for most outpatients surveyed (Table 10.25). However, it is possible that many clients were not actually aware of the profession of the provider and, for example, may consider all male health workers to be doctors. There were also more interviews with outpatients in hospitals than at lower levels and hence more likelihood of clients being seen by a doctor. The maternity clients surveyed were most likely to have been seen by a nurse or auxiliary nurse midwife (ANM) (92%).

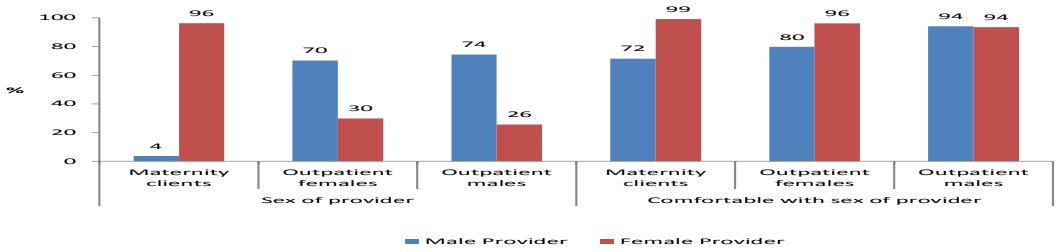
Table 10.25: Type of provider (main care provider)

	Maternity clients (%)	Outpatients (%)
Doctor	6.5	44.6
Nurse	76.5	3.5
Health assistant	0.0	7.2
AHW	1.1	33.8
ANM	15.3	4.9
MCHW	0.5	3.2
VHW/lab. assistant	0.0	1.2
Admin. staff	0.0	0.2
Didn't know	0.1	1.3
n (total clients)	197	820

Source: STS maternity and outpatient exit interviews

Sex of provider — Most maternity clients were seen by a female provider (96%), but most female outpatients were seen by a male provider (70%), as were most male outpatients (74%) (Figure 10.10). Of those who were seen by a provider of the opposite sex, maternity clients were least likely to report that they were comfortable with the sex of the provider (72%), compared to female outpatients (80%) and male outpatients (94%).

Figure 10.10: Sex of provider and client comfort with sex of provider



Source: STS maternity and outpatient exit interviews

Explanations and advice — Most clients reported that the provider had been good or satisfactory in providing explanations: 86% of maternity and 88% of outpatients (Table 10.26). Six percent of maternity clients and 7% of outpatients considered the providers to be poor or very poor in providing explanations. Specifically related to maternity care, clients were asked if they had received advice related to important care practices. The clients were most likely to have received advice about the importance of breastfeeding within the first hour of delivery (86%), but less likely to have received advice about exclusive breastfeeding (65%) and immunisation (58%). Just over a quarter of maternity clients received advice about family planning (27%).

Provider skills — Most of the maternity (79%) and outpatient (82%) clients perceived the providers to be skilled in providing care (Table 10.27). The main reason for maternity clients to perceive the provider as unskilled was that the provider was frequently consulting with others, although it should be noted that the sample size was small. Of those outpatients who felt that the provider was unskilled, most felt it was because they lacked confidence (56%), did not use instruments (46%) or did not perform a thorough examination (29%).

Table 10.26: Clients' perceptions of providers' explanations and advice

	Maternity clients (%)	Outpatients (%)
1. Client perception of providers' explanations:		
Very good	8.0	5.5
Good	57.0	49.0
Satisfactory	28.7	38.9
Poor	6.0	6.1
Very poor	0.2	0.5
n (total clients)	197	820
2. Client perception of advice received:		
Breastfeed within 1 hour	85.5	
Exclusive breastfeeding for 6 months	65.0	
Immunization	57.7	
Family planning	27.1	
n (total clients)	197	

Source: STS maternity and outpatient exit interviews

Table 10.27: Client perceptions on skills of providers and reasons for classifying as unskilled

	Maternity clients (%)	Outpatients (%)
1. Client perception of provider skills:		
Skilled	78.5	82.0
Unskilled	2.6	5.9
Don't know	18.9	12.2
n (total clients)	197	820
2. Reason why perceived provider to be unskilled:		
Lacked confidence	31.3	56.3
Did not use instruments	0.0	45.8
No thorough examination	0.0	29.2
Client not examined by relevant provider	0.0	8.3
Frequent consultations with others	50.8	6.2
Referred for minor problems	17.4	4.2
Rewrote prescription	0.0	4.2
n (total clients)	6	48

Source: STS maternity and outpatient exit interviews

Attitude and behaviour — Only 5% of maternity clients and 3% of outpatients felt that providers had been rude or very rude to them (Table 10.28). Most rated providers as being either fair or polite: 84% of maternity clients and 92% of outpatients. Of those who felt the provider had been rude or very rude, nearly one-third felt they had been stigmatised for being poor (23% of Maternity clients and 36% of Outpatients). However, many felt that this behaviour wasn't linked to anything specific about them

but that the provider simply had not cared about any of their clients, that they were too busy, had a high caseload or treated everyone the same. Eight percent of maternity clients and 2% of outpatients reported that they were scolded by the provider. The reasons reported were similar to those given for providers being rude.

Table 10.28: Client perception of provider's attitude and behaviour

	Maternity clients (%)	Outpatients (%)
1. Client perception of provider behaviour:		
Very polite	11.1	5.6
Polite	40.8	36.2
Fair	43.5	55.5
Rude	2.9	2.4
Very rude	1.6	0.2
n (total clients)	197	820
2. Clients' perceived reasons for provider rudeness:		
Didn't care about clients	43.8	36.4
Treated everyone badly	64.4	18.2
Poverty of client	23.0	36.4
Too busy	15.4	27.3
High caseload	0.0	13.6
Gender	5.6	9.1
Ethnicity or caste	12.6	9.1
Age	0.0	9.1
n (total clients)	10	22
3. Scolded by staff:		
Don't care about clients	7.0	25.0
Treat everyone badly	44.8	16.7
Poverty of client	23.9	50.0
Too busy	20.7	25.0
Gender	0.0	16.7
Ethnicity or caste	9.5	8.3
Age	0.0	16.7
Emotional reaction	26.3	0.0
n (total clients)	15	12

Source: STS maternity and outpatient exit interviews. *N.B. Caution should be taken in interpretation as sample size is small

Satisfaction — Overall most clients felt that the care they received from the provider had been good or very good: 65% of maternity clients and 73s% of outpatients (Table 10.29). The maternity clients were more likely to rate the care as unsatisfactory or very unsatisfactory (6%) compared to only 2% of outpatients.

Table 10.29: Client perception of care given by provider

	Maternity clients (%)	Outpatients (%)
Very good	8.0	8.2
Good	57.0	64.5
Satisfactory	28.7	25.4
Unsatisfactory	6.0	1.6
Very unsatisfactory	0.2	0.3
n (total clients)	197	820

Source: STS maternity and outpatient exit interviews

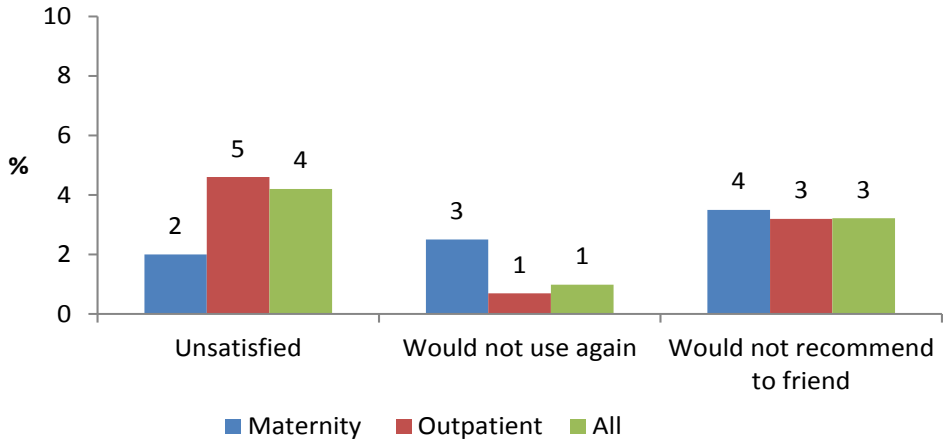
Client satisfaction is notoriously difficult to measure and therefore three questions were included in both the outpatient and maternity questionnaires to assess if the responses differed greatly. The first question asked directly about satisfaction with the care received. Clients were also asked whether they would come to the facility again and if they would recommend it to others as indirect indications of their satisfaction with quality of care. The percentages were similar for the different questions (Table 10.30). Overall a slightly higher percentage of clients stated they were unsatisfied (5%) than reported that they wouldn't use the facility again (1%) or wouldn't recommend it to a friend (3%) (Figure 10.11). This reflected the pattern for outpatients. Among maternity clients, slightly fewer said the services were unsatisfactory (2%) than said they wouldn't use it again (3%) or wouldn't recommend it to a friend (4%). However, a 'maybe or don't know' response is not very positive, and if combined with the 'no' responses the negative results are closer to one in ten.

Table 10.30: Client satisfaction

	Maternity clients (%)	Outpatients (%)
1. Satisfaction with care received:		
Excellent	3.5	5.3
Good	57.8	58.2
Satisfactory	36.5	31.9
Unsatisfactory	2.2	4.6
n (total clients)	197	820
2. Would use facility again:*		
Yes	71	92.9
No	2.5	0.7
Maybe/didn't know	15.2	6.5
n (total clients)	176	820
3. Would recommend to friend		
Yes	85.8	91
No	3.5	3.2
Maybe/didn't know	10.7	5.7
n (total clients)	197	820

Source: STS maternity and outpatient exit interviews. *Excludes those who said they did not intend to have any more children

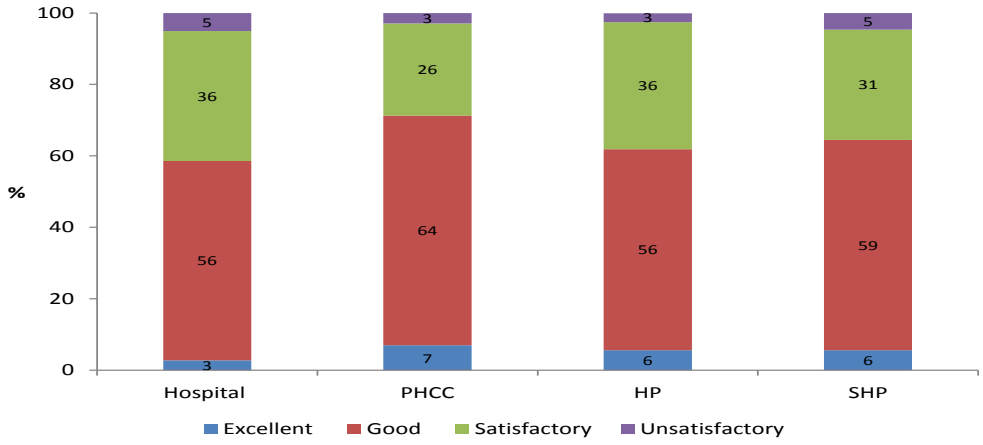
Figure 10.11: Client dissatisfaction



Source: STS maternity and outpatient exit interviews

Looking at levels of satisfaction by type of facility the percentage of clients reporting they were unsatisfied was small across all types of facility, ranging from 3% to 5% (Figure 10.12). However, more hospital and SHP clients reported they were unsatisfied.

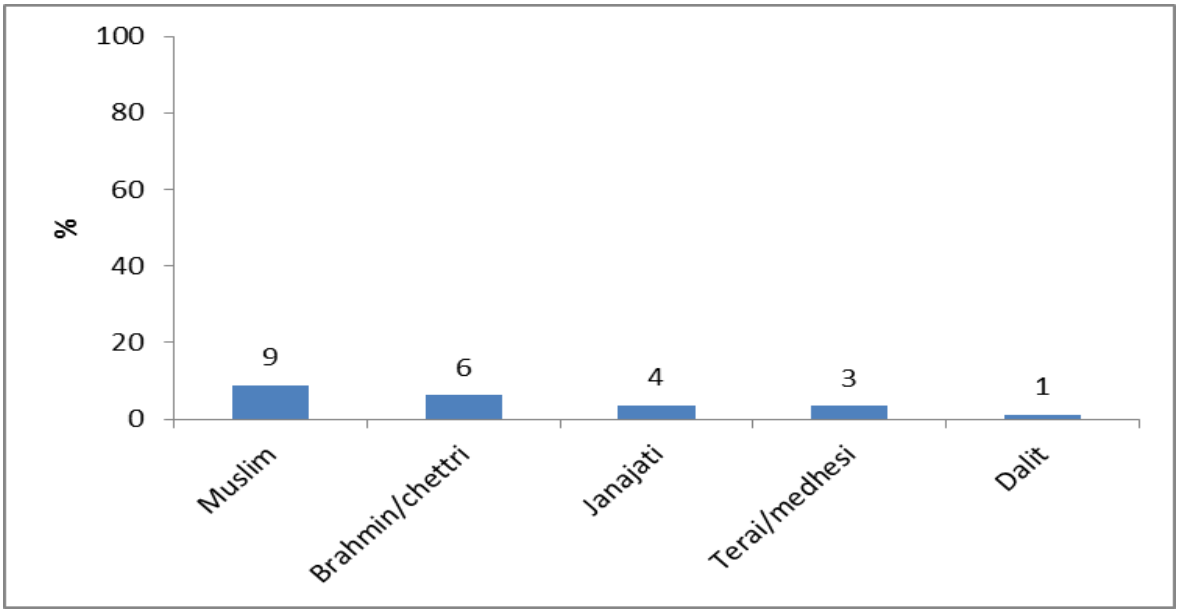
Figure 10.12: Client satisfaction by type of facility



Source: STS maternity and outpatient exit interviews

Muslims were most likely to report that the care had been unsatisfactory (9%), followed by Brahmins (6%). Dalits were least likely to report dissatisfaction with the care received (1%). The association between caste/ethnicity and dissatisfaction was statistically significant (Figure 10.13).

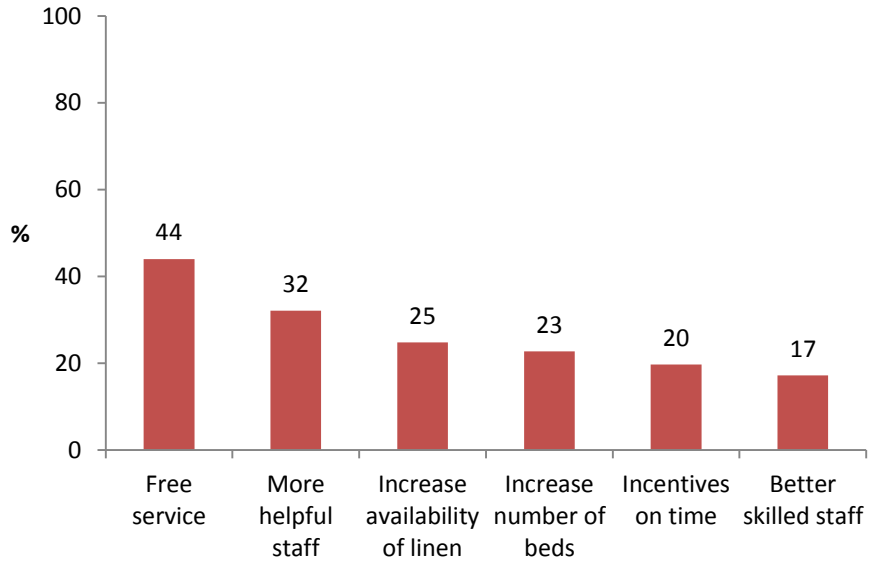
Figure 10.13: Percentage of clients dissatisfied with the care received, by caste and ethnicity



Source: STS maternity and outpatient exit interviews

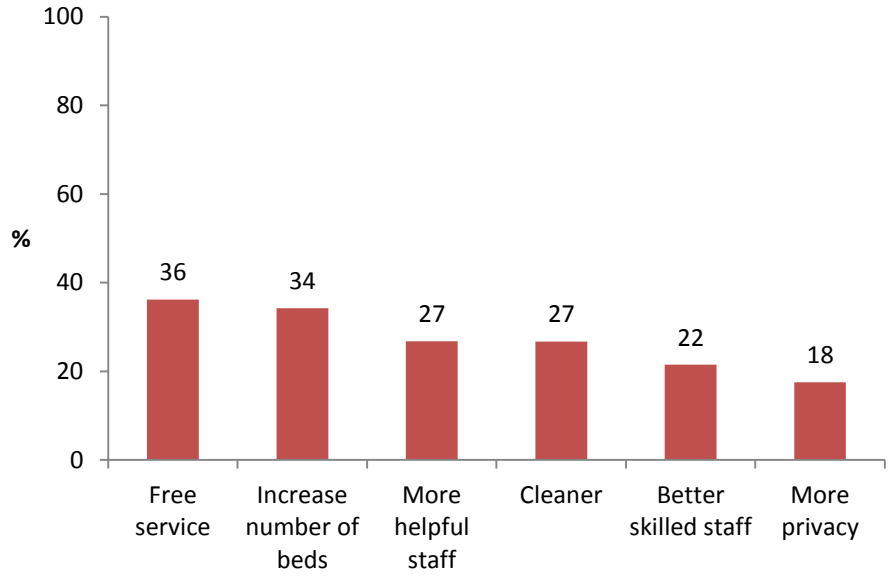
Recommendations for improvement — All clients were asked to suggest their main recommendations for improvement. Table 10.31 and Figures 10.14 and 10.15 show all results by maternity and outpatients. The top recommendation was the same for maternity clients and outpatients, with both stressing that the provision of free services was the main priority (44% and 36% respectively). This was followed by need for more helpful staff (32%) for maternity clients and need to increase the number of beds for outpatient clients (34%) Maternity clients also felt that it was important to provide incentive payments on time (20%) and to have better skilled staffs (17%)Outpatient clients felt that staff should be more helpful (27%) and better skilled (22%), the facility should be cleaner (27%) and privacy should be improved (18%). Increasing the availability of linen and number of beds was also important for maternity client (25% and 23% respectively).

Figure 10.14: Top six recommendations for improvement by maternity clients



Source: STS maternity exit interviews

Figure 10.15: Top six recommendations for improvement by outpatient clients



Source: STS outpatient exit interviews

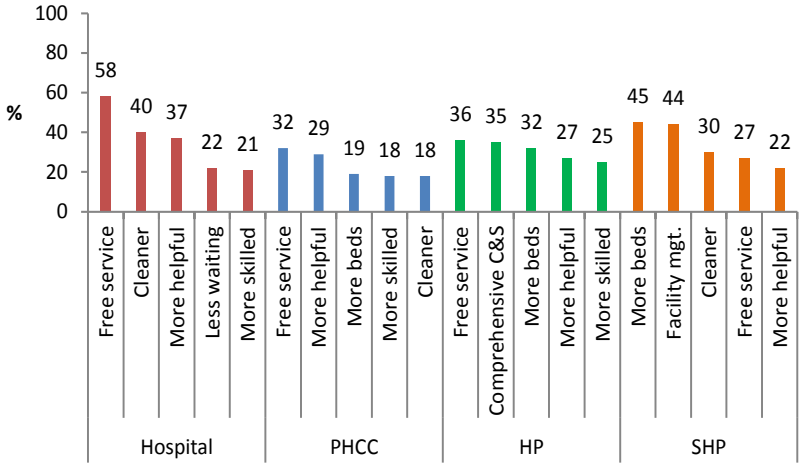
Table 10.31: Client recommendations for improvement, by service received

	Maternity clients (%)	Outpatients (%)
Provide a free service/do not charge for items or blood transfusions	44.0	36.2
Increase number of beds	22.7	34.2
Staff to be more helpful or improve behaviour	32.1	26.8
Improve cleanliness/levels of hygiene within facility	7.2	26.7
Staff should be better skilled/more competent	17.2	21.5
More privacy	12.3	17.5
Increase availability of linen	24.8	12.1
Make services available closer to home	8.5	13.9
Reduce waiting times	7.2	12.9
More female providers	3.1	13.5
No suggestion for improvement	10.6	4.3
Provide incentives on time	19.7	1.1
Discharge on time	6.3	0.6
More male providers	0.5	0.6
n (total clients)	197	820

Source: STS maternity and outpatient exit interviews

Table 10.32 and Figure 10.16 show the results for maternity and outpatient clients combined by facility type. The recommendations by facility type were similar. Once again providing a free service was a key recommendation, being the top one for hospitals (58%), PHCCs (32%) and health posts (36%). The other recommendations mentioned at all four levels were more helpful staff and better cleanliness and hygiene, neither of which requires excessive resources. Waiting times were a much bigger issue at the hospital level (22%) than at lower levels. The need for more skilled and competent providers was important at all levels (although not in the top five recommendations for SHPs despite them having the least skilled providers). The proximity of the facilities to people's homes was a bigger issue for the PHCC, health post and SHP levels, as were more beds at the health post and SHP levels.

Figure 10.16: Top five recommendations for improvement by facility type



Source: STS maternity and outpatient exit interviews

Table 10.32: Client recommendations for improvement by type of facility

	Hospital (%)	PHCC (%)	HP (%)	SHP (%)
Provide free service/don't charge for items or blood transfusion	57.9	31.6	35.7	27.1
Staff should be more helpful/improve behaviour	37.1	28.7	26.6	21.9
Improve cleanliness/levels of hygiene in facility	40.1	17.8	21.0	29.7
Staff should be better skilled/more competent	20.8	17.8	24.9	19.7
Reduce waiting time before being seen	22.3	0.0	11.1	4.8
Increase number of beds	17.5	18.8	31.7	45.2
Closer	8.2	16.8	9.6	16.4
Better privacy	12.3	8.9	21.0	19.6
More female providers	7.1	13.9	19.8	11.0
Increase availability of linen	16.4	13.9	8.5	15.5
Provide incentives on time	12.6	3.0	2.7	0.0
Discharge on time	4.5	3.0	0.0	0.2
More male providers	0.7	0.0	0.0	0.6
No suggestion for improvement	7.1	5.9	3.5	4.9
n (total clients)	269	101	166	429

Source: STS maternity and outpatient exit interviews

10.2.8 Quality improvement

The government introduced a health quality assurance policy in 2007 that makes it mandatory for all health facilities to establish quality improvement committees. These committees are responsible for revising, updating, implementing, coordinating and monitoring policies and strategies related to the quality assurance of health services. In fiscal year 2009/10 district (public) health offices (D(P)HOs) in 35 districts received an orientation on health quality improvement committees and the D(P)HOs in the remaining 40 districts were orientated in 2010/11. It is now the responsibility of D(P)HOs to orientate facilities and ensure that committees are established and active. STS found that a quarter of the facilities had established quality improvement committees. This included 38% of hospitals, 25% of PHCCs, 16% of health posts and 30% of SHPs (Table 10.33).

However, of those facilities with such a committee, 43% did not have a quality improvement plan. More hospitals (83%) than lower level facilities (43% of PHCCs, 71% of health posts and 50% of SHPs) had such plans. Half of the facilities (50%) didn't have the meeting minutes available for either of the last two meetings, although they were available for both meetings at 34% of facilities. All minutes accessed from the hospitals, PHCCs and health posts referred to agreed actions from the previous meeting, as did 83% of SHP minutes.

Table 10.33: Quality improvement plans and committees

	Hospital (%)	PHCC (%)	HP (%)	SHP (%)	Total (%)
1. Quality improvement committee established	37.5	25.0	15.6	30.0	26.0
n (total facilities)	16	28	45	80	169
2. Quality improvement plan available in the facility	83.3	42.9	71.4	50.0	56.8
3. Availability of minutes of last two meetings:					
Yes – both	50.0	57.1	14.3	29.2	34.1
Yes – just last meeting	0.0	14.3	14.3	20.8	15.9
No – neither meeting	50.0	28.6	71.4	50.0	50.0
n (total facilities)	6	7	7	24	44
4. Minutes from last meeting refer to agreed actions in previous meeting	100	100	100	83.3	90.9
n (total facilities)	3	5	2	12	22

Source: STS facility questionnaire

10.3 KEY FINDINGS

Utilities

- Although all the hospitals had running water with soap, along with most PHCCs (89%) and SHPs (89%), it is concerning that 20% of health posts did not. All but one hospital had an electricity supply, along with 71% of PHCCs, 62% of health posts and 49% of SHPs; but only 38% of hospitals had electricity available 24 hours a day.
- Three-quarters of the hospitals (75%) and one-third of PHCCs (36%) had an ambulance.
- For all levels of facility, burning was the most common method for disposing of biomedical waste, followed by burying in a pit. There was good availability of bins for biomedical waste

disposal: 90% had puncture proof bins for disposing of needles and sharps; 74% for disposing of plastics and 70% for disposing of blood, tissue and fluid-stained items.

Services

- Most birthing centres were providing routine deliveries (98%), with over three-quarters providing this service on a 24 hour basis (77%).
- Less than three-quarters of CEONC facilities (71%) provided all CEONC signal functions on a 24 hour basis, and this proportion was made up of just 31% of hospitals, resulting in just 39% of districts having at least one facility providing all CEONC functions at all times. Less than half of all BEONC facilities provided all BEONC signal functions 24 hours a day. Just one-fifth of PHCCs provide all BEONC signal functions, with 18% providing all of these on a 24 hour basis (18%). There is a need to improve the provision of services to remove retained products and provide assisted deliveries at all BEONC facilities, and provide blood transfusions at all CEONC facilities.
- All selected hospitals and 68% of the PHCCs visited were officially classified as safe abortion sites. Post-abortion care was available at most safe abortion sites (80%), two-thirds provided first trimester abortion care (66%) and over a quarter (26%) provided second trimester abortions.
- There was good provision of short term hormonal and non-hormonal family planning. IUCDs were available at all hospitals (100%), nearly two thirds of PHCCs (64%), and one-third of health posts (33%). Two thirds of hospitals provided vasectomies (69%) and half provided minilaps (50%). Eighty percent of safe abortion sites provided post-abortion family planning. However, nearly one-fifth of facilities providing delivery care did not provide post-partum family planning (19%).
- The provision of antenatal and postnatal care was high for all levels of facility, with all hospitals, PHCCs and health posts providing both antenatal and postnatal care.

Referral

- Nine percent of outpatients were referred to other facilities, the main reason being referral for laboratory services. Distances to the nearest referral facility were great, with many clients taking more than three hours to get to the nearest referral facility: 19% from hospitals, 32% from PHCCs, and 38% from health posts. From hospitals it took a maximum of six hours to reach the nearest referral facility, while for PHCCs and health posts it took a maximum of two days. These long transfers can prove fatal and costly for clients.

Client experiences

- Maternity clients were more likely to report that the facility had been dirty: one fifth of maternity clients (24%) and 11% of outpatients thought that the facility had been dirty or very dirty. However, when asked their key recommendations to increase quality of care 23% of all clients thought that it was important to improve cleanliness in the facility.
- Five percent of maternity clients and 3% of outpatients felt that the provider had been rude or very rude to them. Of those who felt the provider had been rude or very rude nearly one-third felt they had been stigmatised for being poor (23% for maternity clients and 36% for outpatients); however, many felt that this behaviour hadn't been linked to anything specific about them but that the provider simply didn't care about the clients, were too busy with a high caseload or treated everyone the same. When specifically asked if the provider had scolded

them, 8% of maternity clients and 2% of outpatients reported that they had been scolded (i.e. a greater proportion than those reporting that the provider was rude).

- Most clients were satisfied with the care they received with only 6% of maternity and 2% of outpatients reporting dissatisfaction. However, 28% of clients recommended that staff should improve their behaviour. A slightly higher percentage of hospital clients compared to clients at lower level facilities were likely to report dissatisfaction. Muslims were most likely to report that the care had been unsatisfactory (9%) and dalits were least likely to report dissatisfaction with the care received (1%).

11 PROGRESS AGAINST NHSP 2 LOGFRAME TARGETS

11.1 INTRODUCTION

The successful implementation of the Nepal Health Sector Programme 1 (NHSP 1, 2004–2009) has put Nepal on track to achieve the Millennium Development Goals (MDG) for child health, maternal health, HIV/AIDS and tuberculosis. The Nepal Health Sector Programme 2 (NHSP 2, 2010-2015) was developed as a continuation of NHSP 1. A high level technical advisory committee oversaw the planning process for NHSP 2 with the support of eight thematic task teams. One of these teams developed a results framework to monitor the three objectives of NHSP 2, which are:

- To increase access to and utilisation of quality essential health care services.
- To reduce cultural and economic barriers to accessing health care services and harmful cultural practices in partnership with non-state actors.
- To improve the health system to achieve universal coverage of essential health services.

In 2011, following consultations within MoHP, it was agreed that the results framework should be reviewed and revised to provide a clearer and sounder basis for monitoring and evaluating NHSP 2. Following several technical working group meetings and workshops a monitoring and evaluation (M&E) framework was drafted and shared with the concerned divisions and centres of the Department of Health Services (DoHS), MoHP and external development partners in 2012. The framework was developed in line with the Results Based Monitoring and Evaluation Guidelines of Nepal's National Planning Commission (NPC 2010). This new framework has been renamed as the logical framework of NHSP 2 and was endorsed by the government in May 2012.

This chapter presents the achievements of the logical framework indicators for which the Service Tracking Survey (STS) is cited as a source of data. The findings are disaggregated by gender equality and social inclusion (GESI) categories, where indicated in the logical framework. It should be noted that although the original results framework was consulted prior to STS 2011 data collection, the new logical framework only became available after the STS 2011 data collection was completed. Hence, necessary data was not collected for all revised indicators where STS is given as a data source and in some cases data for a similar alternative indicator is presented below. Table 11.1 lists the revised logical framework indicators, for which STS is a source of information, and whether the data from the 2011 STS can monitor the revised indicator, or whether the indicator needs to be modified.

Table 11.1: Logical framework (2012) indicators generated from Service Tracking Survey

No.	Revised logical framework indicators to be measured by STS	Indicator able to be measured using 2011 STS data
OC 2.6 (outcome)	Percentage of clients satisfied with their health care at hospitals, PHCCs, health posts and SHPs (age, sex and caste/ethnicity)	Same
OP 1.3 (output)	Percentage of health facilities with at least three females and at least two Dalit and Janajati members in health facility management committees (HFMCs) and hospital development committees (HDC).	Same
OP 3.1.1	Percentage of sanctioned posts that are filled - doctors at PHCC	Same
OP 3.1.2	Percentage of sanctioned posts that are filled - doctors at district hospitals	Same
OP 3.1.3	Percentage of sanctioned posts that are filled – nurses at PHCC	Same
OP 3.1.4	Percentage of sanctioned posts that are filled - nurses at district hospitals	Same
OP 3.2	Percentage of hospitals that have at least 1 obstetrician-gynaecologist or a specialist general practitioner (MDGP), 5 SBA (skilled birth attendant) trained nurses and 1 anaesthetist or anaesthetist assistant	Percentage of hospitals that have at least 1 obstetrician-gynaecologist or MDGP; 5 nurses; and 1 anaesthetist or anaesthetist assistant
OP 4.5	Percentage of districts with at least one facility providing all CEONC signal functions 24/7	Same
OP 4.6	Percentage of PHCCs that provide all BEONC signal functions	Same
OP4.7	Percentage of health posts that are birthing centres providing deliveries 24/7	Same
OP 4.8	Percentage of safe abortion sites with long acting family planning services	Same
OP 4.9	Percentage of health posts providing condoms, pills, injectables, IUCDs and implants	Percentage of health posts with short term hormonal (e.g. pills, injectables) and non-hormonal (e.g. condoms) and IUDs and implants
OP 8.1	Percentage of health facilities that have undertaken social audits as per MoHP guideline in the last fiscal year	Percentage of health facilities that have undertaken social audits in the current or last fiscal year

11.2 RESULTS

Table 11.2 presents the findings from STS 2011 for all the indicators in Table 11.1. For comparison, the 2011 findings are presented alongside the 2011, 2013 and 2015 targets where they are available. Those indicators where the target has been achieved are shaded in green, where targets achieved 90% of the target they are shaded in amber and if they have not reached 90% of the target they have been shaded in red. Where no targets are available for 2011 they are shaded in purple. These targets may be reviewed and revised at the NHSP 2 mid-term review (MTR), which will be carried out in December 2012/January 2013 and hence may change in future STS reports.

Table 11.2: Achievement of logframe indicators monitored by STS 2011 against baseline & targets

	Indicator	Achieved	Target		
		2011	2011	2013	2015
OC 2.6	Percentage of clients satisfied with their health care provider at public facilities				
	All	96%	68%	74%	80%
	Dalit	98%			
	Janajati	96%			
	Tarai/Madhesi other castes	95%			
	Newar	98%	-	-	-
	Brahmin and Chhetri	94%	-	-	-
	Muslims	94%	-	-	-
	Male	95%	-	-	-
	Female	96%	-	-	-
	<20	93%	-	-	-
	20-29	96%	-	-	-
	30-39	98%	-	-	-
	40+	95%	-	-	-
OP 1.3	Percentage of health facilities with at least three females and at least two Dalit and Janajati members in health facility management committees (HFMCs) and hospital development committees (HDC)	46%	No target set	50%	100%
OP 3.1	Percentage of sanctioned doctors and nurses posts at PHCCs and hospitals that are filled				
OP 3.1.1	Percentage of sanctioned posts that are filled - doctors at PHCC	50%	85%	88%	90%
OP 3.1.2	Percentage of sanctioned posts that are filled - doctors at district hospitals	69%	85%	88%	90%
OP 3.1.3	Percentage of sanctioned posts that are filled - nurses at PHCC	74%	85%	88%	90%
OP 3.1.4	Percentage of sanctioned posts that are filled - nurses at district hospitals	83%	85%	88%	90%
OP 3.2	Percentage of district hospitals that have at least 1 obstetrician-gynaecologist or MDGP, 5 SBA trained nurses and 1 anaesthetist or anaesthetist assistant	31%	No target set	60%	80%
OP 4.5	Percentage of districts with at least one public facility providing all CEONC signal functions 24/7	38%	No target set	68%	76%
OP 4.6	Percentage of public PHCCs providing all BEONC signal functions 24/7	21%	23%	50%	70%
OP 4.7	Percentage of health posts that are birthing centres providing deliveries 24/7	79%	45%	60%	70%

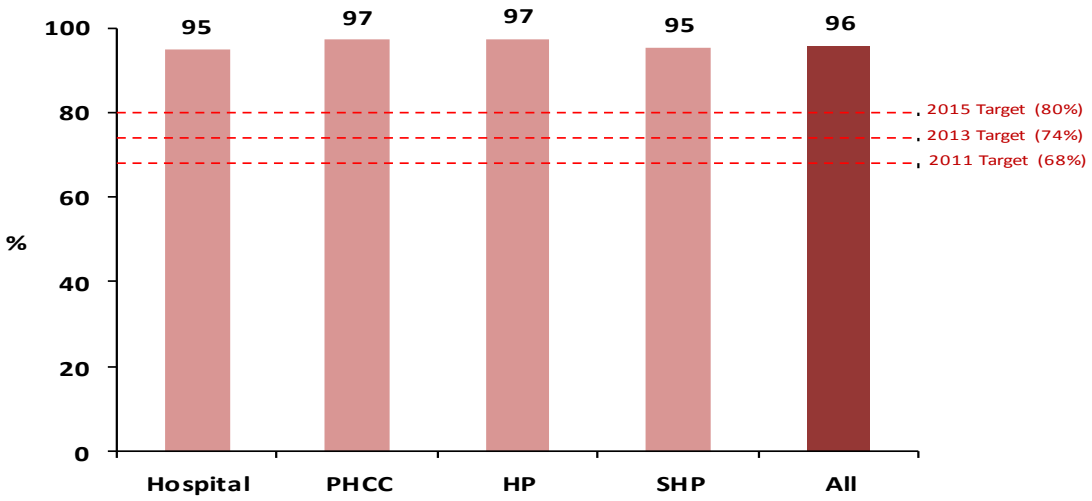
OP 4.8	Percentage of safe abortion (surgical and medical) sites with long acting family planning services	91%	No target set	60%	80%
OP 4.9	Percentage of health posts with at least five family planning methods	13%	45%	60%	70%
OP 8.1	Percentage of health facilities that have undertaken social audits as per MoHP guidelines in the current or last fiscal year	27%	5%	15%	25%

Green = Achieved 2011 target, Amber = 90% achieved 2011 target, red = <90% achieved 2011 target, Purple = 2011 target not available

11.2.1 Client satisfaction (indicator OC 2.6)

The fact that almost all clients (96%) were satisfied with their health care at health facilities far exceeds the targets for 2011 (68%), 2013 (74%) and 2015 (80%) (Figure 11.1). All levels of facility have individually also exceeded the target: hospitals (95%), primary health care centres (PHCCs) (97%), health posts (97%) and sub-health posts (SHPs) (95%). The baseline for the logframe showed in 2009 satisfaction was reported as 83%, although if those for whom the response was not available had been excluded the actual figure would have been 94% and hence very similar to the STS 2011 finding. It should be noted that satisfaction is difficult to measure, and clients commonly under-report dissatisfaction in exit interviews. However, similar results were achieved from a variety of direct and indirect questions related to satisfaction (see Chapter 10).

Figure 11.1: Percentage of clients satisfied with their health care at health facilities



Source: STS maternity and outpatient exit interviews

11.2.2 Social inclusion on facility committees (OP 1.3)

The STS 2011 found that 46% of health management committees (HFMCs and HDCs) had at least the targeted three female members and two members from an excluded caste or ethnic group (Dalit or Janajati), meaning that this indicator is on track to meet the 2013 target of 50% (Figure 11.2). However, progress by level of facility was uneven with just 13% of hospital HDCs achieving the targeted

representation, compared to at least 40% of lower level facilities HFMCs. No specific target was set for 2011 for this indicator.

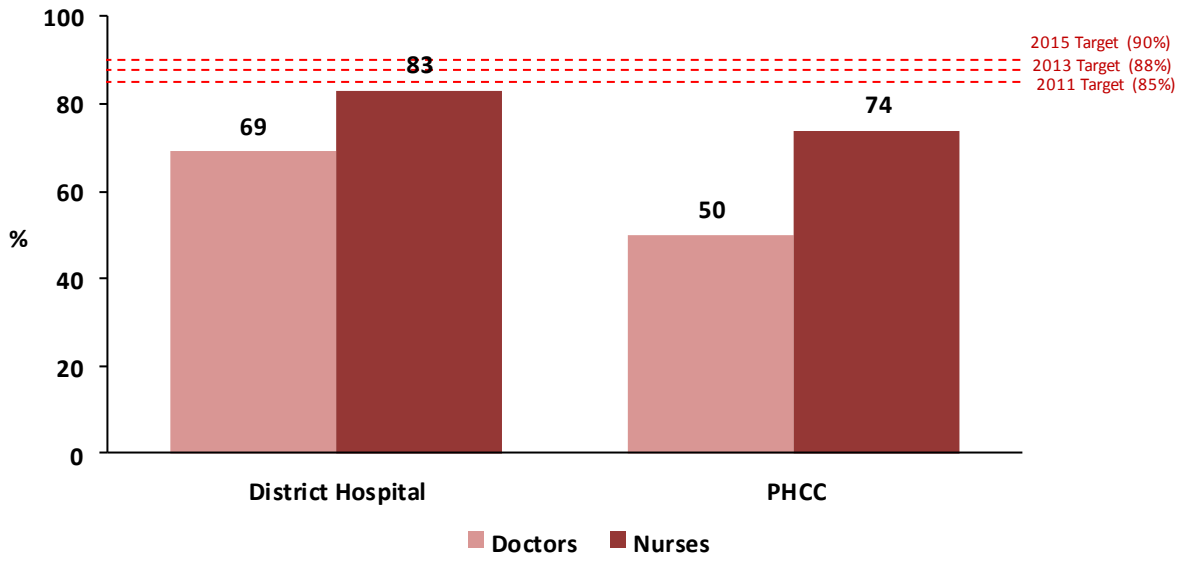
Figure 11.2: Percentage of health facility committees with at least 3 female members and 2 Dalit or Janajati members

Source: STS facility questionnaire

11.2.3 Doctor and nurse posts (OP 3.1.1–3.1.4)

Only 69% of sanctioned doctor posts at district hospitals were filled as were just 50% of doctor posts at PHCCs (Figure 11.3). The figures were better for nurses with 83% of sanctioned nurses posts filled at district hospitals and 74% at PHCCs. None of these indicators met the 2011 target of 85%, although the nurses at district hospitals nearly did. This highlights the urgent need to fill vacancies, especially for doctors.

Figure 11.3: Percentage of sanctioned and filled doctor and nurse posts at hospitals and PHCCs

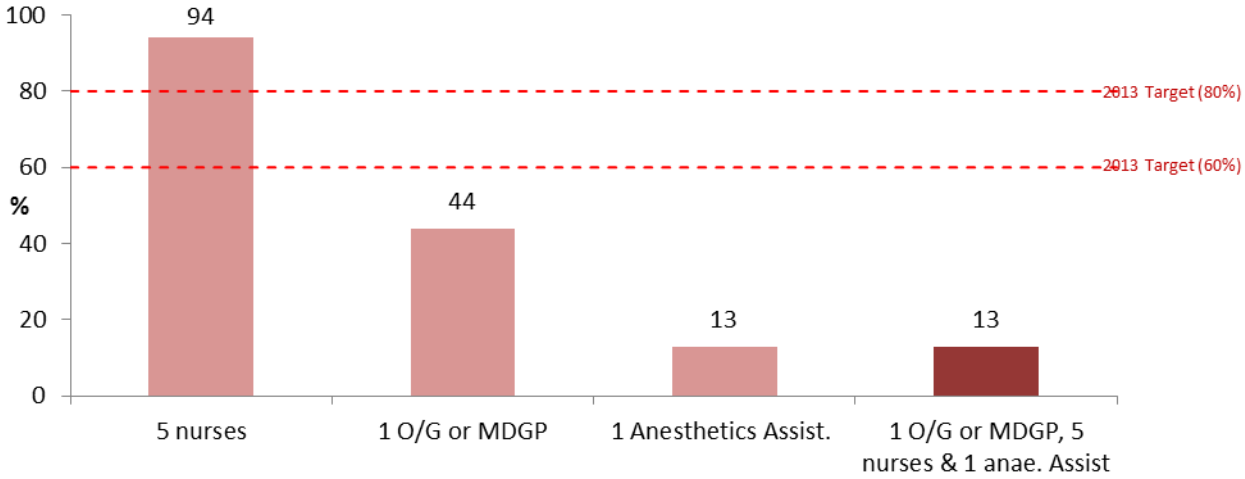


Source: STS facility questionnaire

11.2.4 CEONC staff in hospitals (OP 3.2)

The STS 2011 did not collect data on whether or not nurses were trained in skilled birth attendance (SBA) (a part of indicator OP3.2), and hence this variable was adjusted to only consider whether or not hospitals had at least five nurses, irrespective of whether they had received skill birth attendance training. Not surprisingly, all but one hospital had at least five nurses (94%) (Figure 11.4). However, performance was weaker for the other criteria, with 63% of facilities having at least one obstetrician-gynaecologist (O/G) or MDGP, and half of the hospitals (50%) having at least one anaesthetist assistant. There was no target for 2011, but current progress at 31% is a long way off the 2013 target of 60%.

Figure 11.4: Percentage of hospitals with at least 1 obstetrician-gynaecologist or MDGP; 5 nurses; and 1 anaesthetic/anaesthetic assistant

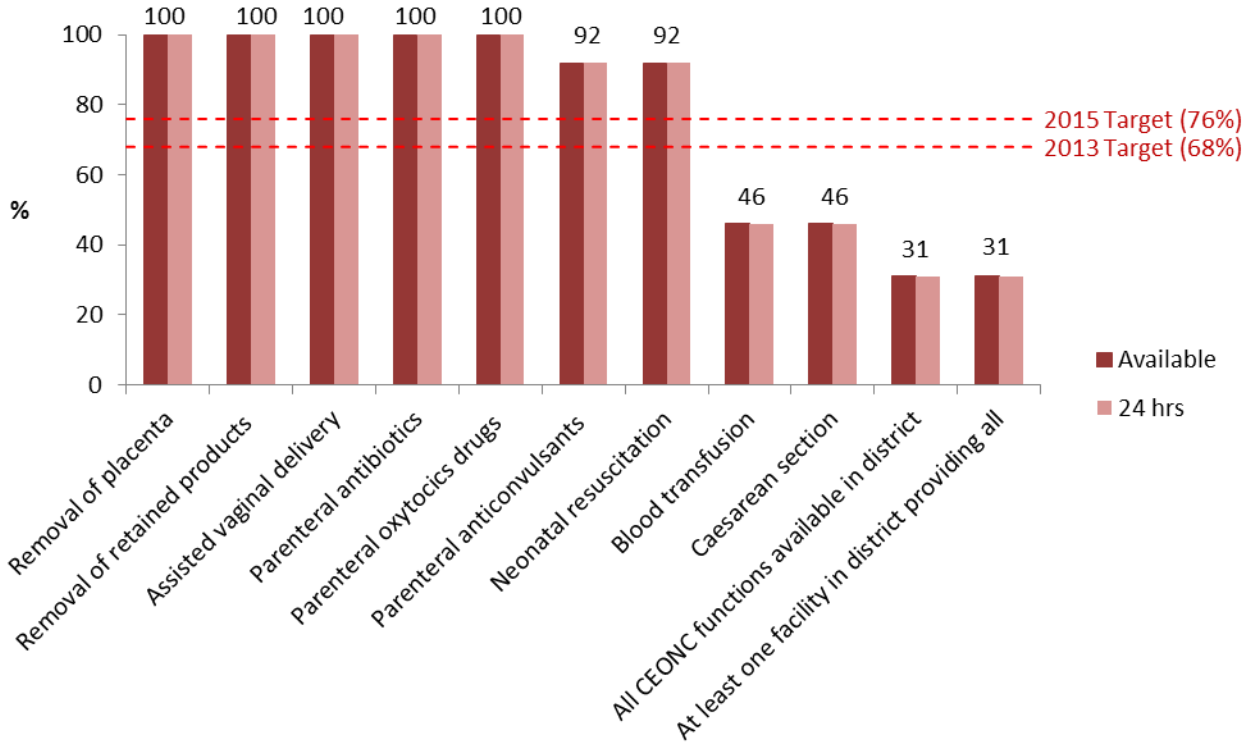


Source: STS facility questionnaire

11.2.5 Comprehensive emergency obstetric and neonatal care (CEONC) in districts (OP 4.5)

The provision of basic emergency obstetric and neonatal care (BEONC) services was found to be good at the district level with all districts having at least one facility providing services for the removal of placentas, removal of retained products, assisted vaginal delivery, administration of parenteral antibiotics, and the administration of parenteral oxytocic drugs. All but one district had at least one facility administering parenteral anticonvulsants and neonatal resuscitation. However, provision of the additional two comprehensive emergency obstetric and neonatal care (CEONC) signal functions was a lot poorer, with just 46% of districts having at least one facility providing blood transfusion, and 39% providing this on a 24 hour basis, and 54% of districts having at least one facility providing caesarean sections 24/7 (Figure 11.5). Only 39% of districts had at least one facility with all signal functions available on a 24 hour basis. No target was set for 2011, but it is clear that current progress is a long way off the 2013 target of 68%.

Figure 11.5: Percentage of districts with at least one facility providing CEONC signal functions 24/7

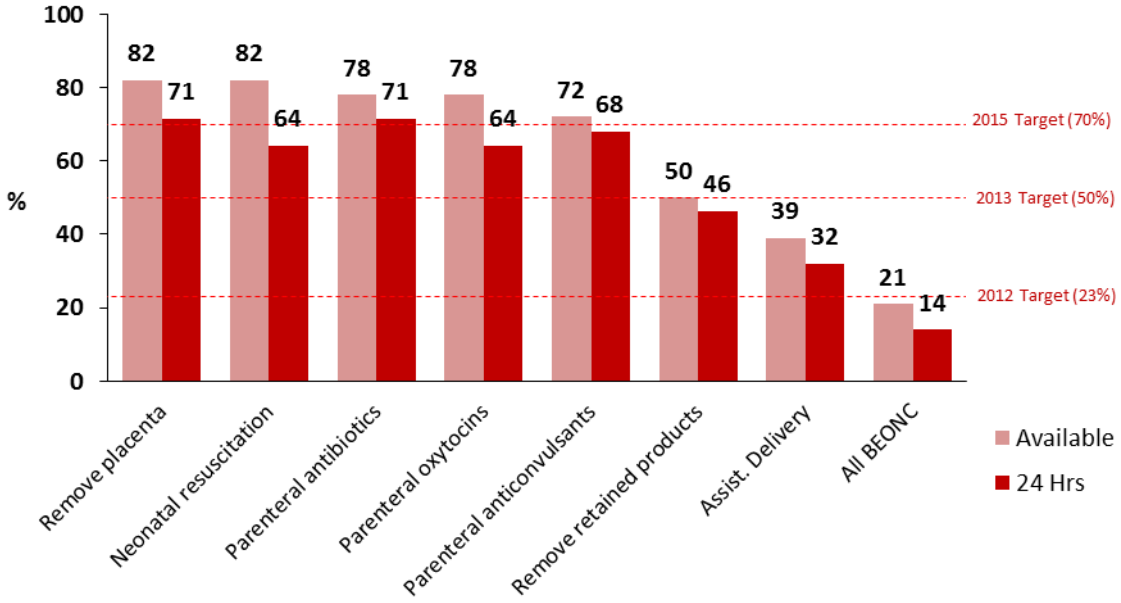


Source: STS facility questionnaire

11.2.6 Basic emergency obstetric and neonatal care (BEONC) at PHCCs (OP 4.6)

Most PHCCs (over 70%) were providing services for removing placentas, neonatal resuscitation, administering parenteral antibiotics, oxytocics and anticonvulsants, and many of these were doing so on a 24 hour basis (Figure 11.6). However, the relatively low target of 23% of PHCCs providing all BEOC signal functions by 2011 has not been reached because of the low proportion of PHCCs removing retained products (50%) and performing assisted deliveries (39%), with less than one-third providing the latter service 24 hours a day (32%). It should be noted that assisted deliveries cover either forceps or vacuum extraction. The lack of these services hinders progress towards achieving the 2013 target, which is a lot more ambitious at 50% and increases the need for referrals to higher level facilities.

Figure 11.6: Percentage of PHCCs that provide BEONC signal functions

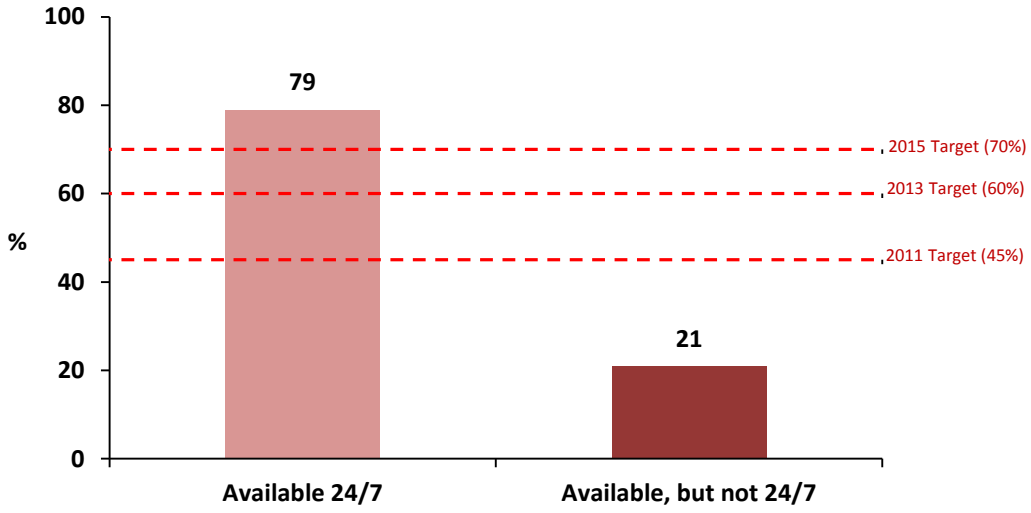


Source: STS facility questionnaire

11.2.7 Health posts that are birthing centres providing deliveries 24/7 (OP 4.7)

Of the health posts visited during the STS, 53% were officially 'birthing centres'. Of the health posts that were birthing centres 79% conducted deliveries on a 24 hour basis (Figure 11.7). This far exceeds the 2011 target of 45%, and exceeds the 2013 and 2015 targets.

Figure 11.7: Percentage of health posts that are birthing centres providing deliveries 24/7

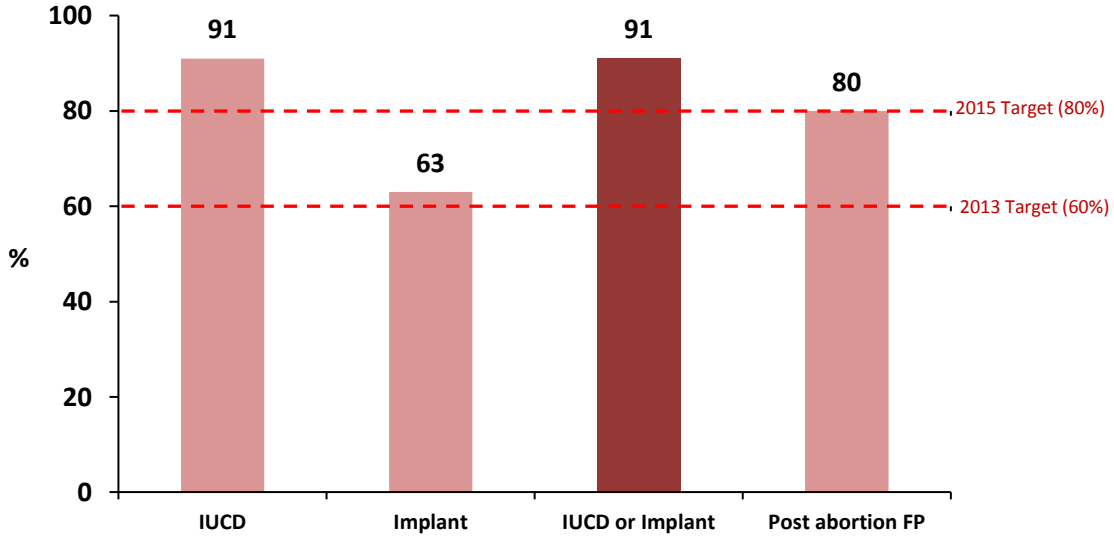


Source: STS facility questionnaire

11.2.8 Long acting family planning services at safe abortion sites (OP 4.8)

The STS 2011 collected information on whether safe abortion sites offered long-acting family planning services. However, it did not specifically ask whether the long-acting family planning services were offered post-abortion. At facilities classified as safe abortion sites, 91% provided intrauterine contraceptive device (IUCD) services, and 63% offered implants, with 91% offering at least one of these (Figure 11.8). However, when health personnel were asked whether their facilities provided post-abortion family planning, only 80% responded positively suggesting that, although family planning methods are available, they are not always offered to clients post-abortion.

Figure 11.8: Percentage safe abortion sites with long-acting family planning services

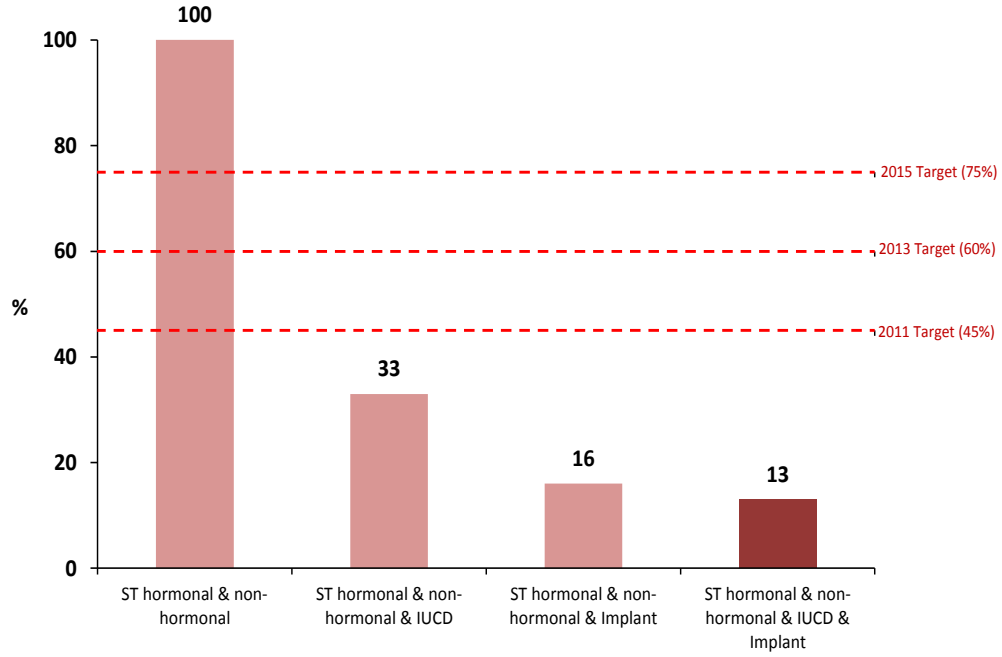


Source: STS facility questionnaire

11.2.9 Family planning commodity availability at health posts (OP 4.9)

The revised logical framework indicator for family planning reflects the government guidelines, which stipulate that the following five forms of contraception should be available at health posts: condoms, oral contraceptive pills, injectables, intrauterine contraceptive devices (IUCD) and implants (FHD 2007, p10). The information collected in 2011 was, however, not split by method of contraception for short-term methods and instead measured whether health posts provided short term non-hormonal contraceptive methods (e.g. condoms) and short-term hormonal contraceptive methods (e.g. oral contraceptive pills, injectables), so an alternative way of measuring this indicator was taken. The STS 2011 did, however, collect information on IUCD and implant methods. The STS 2011 found that all its health posts offered short term hormonal and non-hormonal contraception (Figure 11.9). However, only just over a third of them provided IUCDs and only 16% provided implants. The absence of these long-term contraceptive methods meant that just 13% of the health posts were offering short term hormonal, non-hormonal, IUCD and implants as stipulated in the government guidelines (FHD 2007). There is an urgent need to increase the provision of long-term methods of contraception at health posts to meet the NHSP 2 targets. Skilled birth attendants are trained to provide IUCD and implants and hence, as the number of them increases as targeted by NHSP 2, this indicator should also improve.

Figure 11.9: Percentage health posts providing the different types of contraception



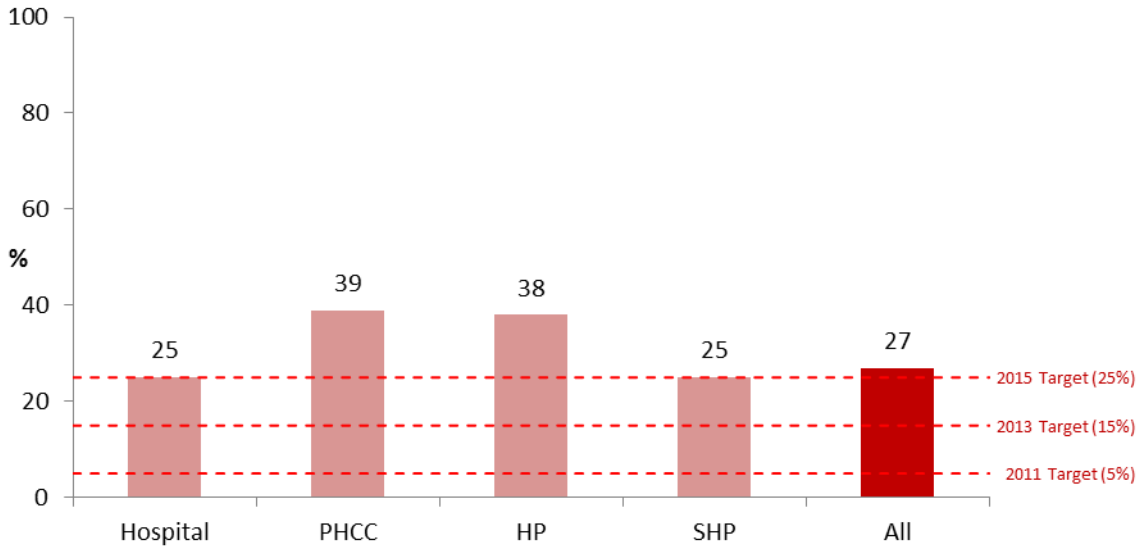
Source: STS facility questionnaire

11.2.10 Social audits of health facilities (OP 8.1)

The wording of the social audit indicator was revised following STS 2011 data collection to include adherence to the MoHP guideline that it should be undertaken each year. Therefore the findings for this indicator may be an over-estimate as information on whether or not the guideline was being followed was not captured in the 2011 questionnaire. The STS also captured the timing of the facility's last social audit and therefore if the last one was in the current fiscal year it was not known whether the facility had conducted one in the last fiscal year (as per the indicator wording). Therefore again the result here could be an over-estimate as the indicator measures whether an audit was undertaken in the current or last fiscal year.

The 2011 results as given are good with all four types of health facilities surpassing the 2011 target of 5% of health facilities carrying out social audits. The overall 2011 result (27%), and the results for each level of facility, surpass the overall targets for 2013 and 2015 (Figure 11.10). Although differences between the levels of facility suggest that more encouragement should be given to hospitals and sub-health posts to carry out social audits.

Figure 11.10: Percentage health facilities that undertook social audits in current or last fiscal year



Source: STS facility questionnaire

11.3 KEY FINDINGS

The progress on the NHSP 2 logical framework indicators measured by STS has been mixed with three of the 2011 targets achieved and six not achieved. Also, no targets were set for four of the indicators (with good progress made on two of them).

The 2011 targets were achieved for the following three indicators:

- Percentage of clients satisfied with their health care at hospitals, PHCCs, health posts and SHPs (age, sex and caste/ethnicity);
- Percentage of health facilities that have undertaken social audits as per MoHP guideline in the current or last fiscal year.
- Percentage of health posts that are birthing centres providing deliveries 24/7.

The progress on social audits has been particularly good, with the 2015 target being surpassed in 2011. The achievement of the client satisfaction target is not surprising given that clients (especially females) frequently under-report their dissatisfaction in exit interviews.

The following indicators had no targets for 2011, but were found to be progressing well or had already achieved towards the 2013 targets:

- Percentage of health facilities with at least three females and at least two Dalit and Janajati members in health facility management committees (HFMCs) and hospital development committees (HDC).
- Percentage of safe abortion sites with long acting family planning services

However, the progress by type of facility for social inclusion in HFMCs and HDCs is uneven with more emphasis on diversity needed at the hospital level.

The indicators that did not reach their 2011 targets are:

- Percentage of sanctioned posts that are filled - doctors at district hospitals;

- Percentage of sanctioned posts that are filled - doctors at PHCCs
- Percentage of sanctioned posts that are filled - nurses at district hospitals
- Percentage of sanctioned posts that are filled - nurses at PHCCs
- Percentage of PHCCs that provide all BEONC signal functions
- Percentage of health posts providing condoms, pills, injectables, IUCDs and implant contraceptives.

There is a long way to go before the human resource targets for doctors at district hospitals and PHCCs are met, whereas progress for nurses at district hospitals only just missed the target. However, as shown in the human resource write-up (Chapter 8), there are important differences within the doctor and nurse categories that should not be overlooked.

Many PHCCs were providing most of the BEONC signal functions, although gaps were seen in the provision of the removal of retained products from childbirth and for assisted delivery, especially given the poor access to caesarean sections at the district level.

The following two indicators had no target for 2011, and were not progressing well towards the 2013 target:

- Percentage of hospitals that have at least 1 obstetrician-gynaecologist or MDGP; 5 SBA trained nurses; and 1 anaesthetist or anaesthetist assistant.
- Percentage of districts that have at least one facility providing all CEONC signal functions 24/7.

These two indicators relate to the provision of CEONC services as the human resources specified in the first indicator need to be in place to enable the CEONC signal functions included in the second indicator to be carried out. The 2011 trend indicates that the achievement of the 2013 targets for these indicators is a long way off.

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Annex 1.1: Members of STS 2011 Technical Working Committee

- Dr Bal Krishna Suvedi, Chief PPICD/MoHP (chairperson)
- Dr Padam Bahadur Chand, Chief PHM&E/MoHP
- Mr Padam Raj Bhatta, Chief Finance and Human Resources/MoHP
- Dr Babu Ram Marasini
- Mr Deependra Kafle, Under-Secretary/PPICD
- Dr Naresh Pratap KC, Director FHD/DoHS
- Dr Shyam Raj Upreti, Director CHD/DoHS
- Dr Bhim Singh Tinkari, Director Revitalizing PHC/DoHS
- Mr Pawan Ghimire, Chief/HMIS
- Ms Prabha Baral, HEFU/MoHP
- Mr Mohan Bahadur Thapa, Finance Section/MoHP
- Mr Lila Raj Poudel
- Mr Rajan Adhikari
- Mr Matt Gordon, DFID
- Dr Asha Pun, UNICEF
- Mr Deepak Poudel, USAID
- Mr Devi Prasai, NHSSP
- Mr Ajit Pradhan, NHSSP
- Mr Pradeep Poudel, NHSSP
- Dr Suresh Tiwari, HF Advisor/NHSSP (member secretary)
- Annex 3.1: Categorisation of Caste, Ethnic and other Identity Groups

Annex 2.1 WEIGHTINGS USED IN STS

a. Calculation of health facility weights

Level of facility	Sampling frame*		Sample facility		Sample weight
	n	%	n	%	
Hospital	117	2.84	16	9.5	0.30
PHCC	208	5.04	28	16.6	0.30
HPs	675	16.36	45	26.6	0.61
SHPs	3125	75.76	80	47.3	1.60
Total	4125	100	169	100	1.00

**Source: Health Management information system: FY 2010/2011*

b. Calculation of outpatient weights

Weight - Outpatient exit interview	Users (Population)*		Exit (Sample)		Weight
	N	%	N	%	
Eastern mountain hospital	105873	0.44	8	0.98	0.45
Eastern hill hospital	259415	1.08	15	1.83	0.59
Eastern terai hospital	623993	2.60	48	5.85	0.44
Central mountain hospital	37612	0.16	23	2.80	0.06
Central hill hospital	261025	1.09	37	4.51	0.24
Central terai hospital	187283	0.78	30	3.66	0.21
Western hill hospital	821634	3.42	23	2.80	1.22
Western terai hospital	47397	0.20	37	4.51	0.04
Western/mid-western/far-western mountain hospital	193640	0.81	2	0.24	3.30
Mid-western hill hospital	189389	0.79	10	1.22	0.65
Mid-western terai hospital	344596	1.43	30	3.66	0.39
Far-western hill hospital	121475	0.51	17	2.07	0.24
Far-western terai hospital	193128	0.80	48	5.85	0.14
Eastern mountain PHCC	70458	0.29	6	0.73	0.40
Eastern hill PHCC	161197	0.67	11	1.34	0.50
Eastern terai PHCC	498456	2.07	36	4.39	0.47
Central mountain PHCC	71747	0.30	17	2.07	0.14
Central hill PHCC	295941	1.23	24	2.93	0.42
Central terai PHCC	424352	1.77	21	2.56	0.69
Western hill PHCC	337255	1.40	17	2.07	0.68
Western terai PHCC	113082	0.47	28	3.41	0.14
Western/mid-western/far-western mountain PHCC	80250	0.33	3	0.37	0.91
Mid-western hill PHCC	223591	0.93	8	0.98	0.95
Mid-western terai PHCC	162671	0.68	24	2.93	0.23
Far-western hill PHCC	73582	0.31	13	1.59	0.19
Far-western terai PHCC	128370	0.53	36	4.39	0.12
Eastern mountain HP	165191	0.69	3	0.37	1.88
Eastern hill HP	422383	1.76	6	0.73	2.40
Eastern terai HP	577009	2.40	18	2.20	1.09

Weight - Outpatient exit interview	Users (Population)*		Exit (Sample)		Weight
	N	%	N	%	
Central mountain HP	120764	0.50	9	1.10	0.46
Central hill HP	505627	2.10	11	1.34	1.57
Central terai HP	509846	2.12	11	1.34	1.58
Western hill HP	655677	2.73	8	0.98	2.80
Western terai HP	167339	0.70	14	1.71	0.41
Western/mid-western/far-western mountain HP	358749	1.49	1	0.12	10.00
Mid-western hill HP	495825	2.06	4	0.49	4.23
Mid-western terai HP	409516	1.70	12	1.46	1.16
Far-western hill HP	298627	1.24	6	0.73	1.70
Far-western terai HP	219934	0.91	18	2.20	0.42
Eastern mountain SHP	280310	1.17	3	0.37	3.19
Eastern hill SHP	1010118	4.20	7	0.85	4.92
Eastern terai SHP	2045484	8.51	18	2.20	3.88
Central mountain SHP	326773	1.36	10	1.22	1.11
Central hill SHP	1205599	5.02	10	1.22	4.11
Central terai SHP	2141148	8.91	12	1.46	6.09
Western hill SHP	1683199	7.00	11	1.34	5.22
Western terai SHP	735965	3.06	17	2.07	1.48
Western/mid-western/far-western mountain SHP	468514	1.95	1	0.12	10.00
Mid-western hill SHP	1279347	5.32	3	0.37	10.00
Mid-western terai SHP	783001	3.26	11	1.34	2.43
Far-western hill SHP	672410	2.80	6	0.73	3.82
Far-western terai SHP	472447	1.97	18	2.20	0.90
Total	24038214	100.00	820	100	1.00
**Source: Health Management information system: FY 2010/2011*					

c. Calculation of maternity client weights

Weight - Maternity exit interview	Users (Population)*		Exit (Sample)		Weight
	N	%	N	%	
Eastern mountain hospital	8	0.57	4	2.03	0.28
Eastern hill hospital	54	3.87	11	5.58	0.69
Eastern terai hospital	195	13.96	29	14.72	0.95
Central mountain hospital	13	0.93	10	5.08	0.18
Central hill hospital	163	11.67	20	10.15	1.15
Central terai hospital	229	16.39	14	7.11	2.31
Western hill hospital	131	9.38	13	6.60	1.42
Western terai hospital	95	6.80	23	11.68	0.58
Western/mid-western/far-western mountain hospital	27	1.93	1	0.51	3.81
Mid-western hill hospital	43	3.08	6	3.05	1.01
Mid-western terai hospital	59	4.22	20	10.15	0.42
Far-western hill hospital	18	1.29	1	0.51	2.54
Far-western terai hospital	56	4.01	29	14.72	0.27
Eastern mountain PHCC	0	0.00	0	0.00	

Weight - Maternity exit interview	Users (Population)*		Exit (Sample)		Weight
	N	%	N	%	
Eastern hill PHCC	18	1.29	0	0.00	
Eastern terai PHCC	14	1.00	1	0.51	1.97
Central mountain PHCC	3	0.21	2	1.02	0.21
Central hill PHCC	1	0.07	0	0.00	
Central terai PHCC	13	0.93	5	2.54	0.37
Western hill PHCC	25	1.79	2	1.02	1.76
Western terai PHCC	51	3.65	0	0.00	
Western/mid-western/far-western mountain PHCC	1	0.07	0	0.00	
Mid-western hill PHCC	31	2.22	0	0.00	
Mid-western terai PHCC	13	0.93	0	0.00	
Far-western hill PHCC	6	0.43	1	0.51	0.85
Far-western terai PHCC	17	1.22	2	1.02	1.20
Eastern mountain HP	8	0.57	0	0.00	
Eastern hill HP	8	0.57	0	0.00	
Eastern terai HP	0	0.00	0	0.00	
Central mountain HP	2	0.14	1	0.51	0.28
Central hill HP	8	0.57	0	0.00	
Central terai HP	6	0.43	0	0.00	
Western hill HP	2	0.14	1	0.51	0.28
Western terai HP	8	0.57	0	0.00	0.01
Western/mid-western/far-western mountain HP	4	0.29	0	0.00	
Mid-western hill HP	5	0.36	0	0.00	
Mid-western terai HP	9	0.64	0	0.00	
Far-western hill HP	10	0.72	0	0.00	
Far-western terai HP	8	0.57	0	0.00	
Eastern mountain SHP	2	0.14	0	0.00	
Eastern hill SHP	1	0.07	0	0.00	
Eastern terai SHP	3	0.21	0	0.00	
Central mountain SHP	0	0.00	1	0.51	0.10
Central hill SHP	5	0.36	0	0.00	
Central terai SHP	0	0.00	0	0.00	
Western hill SHP	4	0.29	0	0.00	
Western terai SHP	1	0.07	0	0.00	
Western/mid-western/far-western mountain SHP	3	0.21	0	0.00	
Mid-western hill SHP	6	0.43	0	0.00	
Mid-western terai SHP	3	0.21	0	0.00	
Far-western hill SHP	5	0.36	0	0.00	
Far-western terai SHP	2	0.14	0	0.00	
Total	1397	100.00	197	100.00	1.00

d. Calculation of CEONC weights

Level of facility	CEONC sampling frame*		CEONC sample facility		CEONC weight
	n	%	n	%	
Higher level hospital	15	40.54	3	42.86	0.95
District level hospital	22	59.46	4	57.14	1.04
PHCC					
HPs					
SHPs					
Total	37	100.00	7		

*Note: *Annual report 2010/11*

e. Calculation of BEONC weights

Level of facility	BEONC sampling frame*		BEONC sample facility		BEONC weight
	n	%	n	%	
Hospital	48	30.0	9.00	40.9	0.73
PHCC	112	70.0	13.00	59.1	1.18
HPs					
SHPs					
Total	160.0	100.0	22.00	100.0	1.00

*Note: *Annual report 2010/11*

f. Calculation of birthing centre weights

Level of facility	Birthing centre (BC) sampling frame*		Birthing centre sample facility		BC weight
	n	%	n	%	
Hospital					
PHCC	148	14.70	9	21.43	0.69
HPs	533	52.93	24	57.14	0.93
SHPs	326	32.37	9	21.43	1.51
Total	1007	100.00	42	100.00	1.00

*Note: *Annual report 2010/11*

Annex 3.1: Categorisation of Caste, Ethnic and other Identity Groups

	Main Caste/Ethnic Groupings (7)	Groups with regional divisions (11) and social groups (103) from 2001 Census	
Caste groups			
1.	Brahman/Chhetri	1.1	Hill Brahman Hill Brahman
		1.2	Hill Chhetri Chhetri, Takuri, Sanyasi
		1.3	Tarai/Madhesi Brahman/Chhetri Madhesi Brahman, Nurang, Rajput, Kayastha
2.	Tarai/Madhesi Other Castes	2.1	Tarai/Madhesi Other Castes Kewat, Mallah, Lohar, Nuniya, Kahar, Lodha, Rajbhar, Bing, Mali Kamar, Dhuniya, Yadav, Teli, Koiri, Kurmi, Sonar, Baniya, Kalwar, Thakur/Hazam, Kanu, Sudhi, Kumhar, Haluwai, Badhai, Barai, Bhediyar/Gaderi
3.	Dalits	3.1	Hill Dalit Kami, Damai/Dholi, Sarki, Badi, Gaine, Unidentified Dalits
		3.2	Tarai/Madhesi Dalit Chamar/Harijan, Musahar, Dushad/Paswan, Tatma, Khatwe, Dhobi, Baantar, Chidimar, Dom, Halkhor
Aadivasi-Janajati groups (ethnic groups)			
4.	Newar	4	Newar Newar
5.	Janajati	5.1	Hill/Mountain Janajati Tamang, Kumal, Sunuwar, Majhi, Danuwar, Thami/Thangmi, Darai, Bhote, Baramu/Bramhu, Pahari, Kusunda, Raji, Raute, Chepang/Praja, Hayu, Magar, Chyantal, Rai, Sherpa, Bhujel/Gharti, Yakha, Thakali, Limbu, Lepcha, Bhote, Byansi, Jirel, Hyalmo, Walung, Gurung, Dura
		5.2.	Tarai Janajati Tharu, Jhangad, Dhanuk, Rajbanshi, Gangai, Santhal/Satar, Dhimal, Tajpuriya, Meche, Koche, Kisan, Munda, Kusbadiya/Patharkata, Unidentified Adibasi/Janajati
Other			
6.	Muslim	6	Muslim Madhesi Muslim, Churoute (Hill Muslim)
7	Other	7	Other Marwari, Bangali, Jain, Punjabi/Sikh, Unidentified Others

Source: Bennett et al. 2008

Annex 4.1: List of Free/Essential drugs by Level of Health Facility

	Name of drug	Hospitals	PHCCs	HPs	SHPs
A. For stocking by hospitals, PHCCs, health posts and SHPs (25)					
1	Albendazole Tab.	X	X	X	X
2	Aluminium hydroxide + Magnesium hydroxide Tab.	X	X	X	X
3	Amoxyciline Tab., Cap.	X	X	X	X
4	Calamine lotion	X	X	X	X
5	Chloramphenicol Applicaps	X	X	X	X
6	Chlorpheniramine Tab.	X	X	X	X
7	Ciprofloxacin Drops	X	X	X	X
8	Ciprofloxacin Ointment	X	X	X	X
9	Clove oil	X	X	X	X
10	Compound solution of Sodium lactate (Ringers' Lactate) Inj.	X	X	X	X
11	Ferrous salt + Folic acid Tab.	X	X	X	X
12	Gamma benzene hexachloride cream	X	X	X	X
13	Gentamycin Inj.	X	X	X	X
14	Hyoscinebutylbromide Tab.	X	X	X	X
15	Lignocaine Inj.	X	X	X	X
16	Magnesium Sulphate Inj.	X	X	X	X
17	Metoclorpropamide Inj.	X	X	X	X
18	Metronidazole Tab., Sus.	X	X	X	X
19	Oral Rehydration Solution (ORS) Powder	X	X	X	X
20	Oxytocin Inj.*	X	X	X	X
21	Paracetamol Tab., Inj., Syp.	X	X	X	X
22	Pheniramine Inj.	X	X	X	X
23	Povidinelodine Solution	X	X	X	X
24	Sulfamethoxazole + Trimethoprim Tab., Sus.	X	X	X	X
25	Vitamin B complex Tab.	X	X	X	X
B. For stocking by hospitals, PHCCS and health posts (10)					
26	Atenolol Tab.	X	X	X	
27	Atropine Inj.*	X	X	X	
28	Benzoic acid + Salicylic acid cream	X	X	X	
29	Charcoal activated powder	X	X	X	
30	Ciprofloxacin Tab.	X	X	X	
31	Dexamethasone Inj.	X	X	X	
32	Frusemide Tab.	X	X	X	
33	Promethazine Tab.	X	X	X	
34	Salbutamol Tab.	X	X	X	
35	Sodium chloride Inj.	X	X	X	

	Name of drug	Hospitals	PHCCs	HPs	SHPs
C. For stocking by hospitals only (5)					
36	Alprazolam Tab.	X			
37	Aspirin Tab.	X			
38	Chloramphenicol Cap., Powder, Sus.	X			
39	Dextrose Solution Inj.	X			
40	Phenobarbitone Tab.	X			
Total		40	35	35	25

* Drugs that require refrigeration

Annex 9.1: Percentage of Facilities with Drugs Procured Centrally and Locally

Name of drug	Hospitals				PHCCs				Health posts				SHPs			
	Central	Local	Both	N/A	Central	Local	Both	N/A	Central	Local	Both	N/A	Central	Local	Both	N/A
	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%
1. For stocking by hospitals, PHCCs, health posts and SHPs																
Albendazole	56.3	18.8	6.3	18.8	39.3	57.1		3.6	37.8	51.1		11.1	35.0	63.8		1.3
Aluminium hydroxide + Mag. hydroxide	43.8	18.8	12.5	25.0	32.1	60.7		7.1	37.8	48.9		13.3	32.5	61.3		6.3
Amoxyciline	18.8	25.0	43.8	12.5	39.3	60.7			42.2	53.3		4.4	35.0	63.8	1.3	
Calamine lotion	50.0	12.5	6.3	31.3	39.3	57.1		3.6	40.0	48.9		11.1	31.3	56.3		12.5
Chloramphenicol Applicaps	18.8	12.5	12.5	56.3	32.1	53.6	3.6	10.7	28.9	37.8		33.3	30.0	47.5		22.5
Chlorpheniramine	43.8	6.3	18.8	31.3	39.3	57.1		3.6	40.0	53.3		6.7	33.8	62.5	1.3	2.5
Ciprofloxacin drops	43.8	12.5	12.5	31.3	28.6	53.6		17.9	33.3	37.8		28.9	18.8	47.5		33.8
Ciprofloxacin Ointment	25.0	6.3	6.3	62.5	21.4	60.7	3.6	14.3	31.1	33.3		35.6	12.5	40.0		47.5
Clove oil	56.3	6.3	6.3	31.3	39.3	60.7			40.0	51.1		8.9	35.0	60.0		5.0
Compound solution of Sodium lactate (Ringers' Lactate)	50.0	25.0	18.8	6.3	32.1	42.9	3.6	21.4	35.6	48.9		15.6	20.0	46.3		33.8
Ferrous salt + Folic acid	37.5	25.0	12.5	25.0	39.3	60.7			35.6	53.3		11.1	35.0	53.8		11.3
Gamma benzene hexachloride cream	50.0	12.5	6.3	31.3	35.7	60.7		3.6	33.3	51.1		15.6	27.5	55.0		17.5
Gentamycin	50.0	6.3	18.8	25.0	32.1	42.9	3.6	21.4	33.3	40.0		26.7	23.8	41.3		35.0
Hyoscinebutylbromide	25.0	12.5	31.3	31.3	35.7	57.1		7.1	37.8	48.9		13.3	31.3	53.8		15.0
Lignocaine	37.5	31.3	25.0	6.3	32.1	53.6	7.1	7.1	35.6	51.1	2.2	11.1	31.3	51.3		17.5
Magnesium Sulphate	43.8	25.0	12.5	18.8	21.4	46.4		32.1	17.8	24.4		57.8	13.8	26.3		60.0
Metoclorpropamide	31.3	31.3	25.0	12.5	28.6	42.9		28.6	17.8	26.7		55.6	15.0	26.3		58.8
Metronidazole	31.3	25.0	37.5	6.3	39.3	60.7			42.2	53.3		4.4	33.8	63.8		2.5
Oral Rehydration Solutions (ORS)	56.3	12.5		31.3	39.3	60.7			40.0	51.1		8.9	33.8	60.0		6.3
Oxytocin	37.5	25.0	18.8	18.8	35.7	53.6	3.6	7.1	31.1	44.4		24.4	21.3	43.8		35.0
Paracetamol	43.8	18.8	25.0	12.5	32.1	60.7	7.1		42.2	53.3		4.4	33.8	62.5	2.5	1.3

Name of drug	Hospitals				PHCCs				Health posts				SHPs			
	Central	Local	Both	N/A	Central	Local	Both	N/A	Central	Local	Both	N/A	Central	Local	Both	N/A
	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%
Pheniramine	50.0	12.5	12.5	25.0	25.0	46.4		28.6	31.1	40.0		28.9	18.8	30.0		51.3
Povidinelodine Solution	43.8	25.0	25.0	6.3	39.3	60.7			37.8	48.9		13.3	32.5	55.0		12.5
Sodium chloride	50.0	25.0	6.3	18.8	32.1	50.0		17.9	22.2	37.8		40.0	8.8	17.5		73.8
Sulfamethoxazole + Trimethoprim	37.5	18.8	25.0	18.8	39.3	60.7			42.2	51.1		6.7	32.5	63.8		3.8
Vitamin B complex	43.8	25.0	12.5	18.8	39.3	60.7			42.2	53.3		4.4	36.3	58.8		5.0
2. For stocking by hospitals, PHCCS and health posts																
Atenolol	31.3	25.0	6.3	37.5	3.6	35.7		60.7	4.4	8.9		86.7				
Atropine	50.0	18.8	18.8	12.5	21.4	42.9		35.7	4.4	35.6		60.0				
Benzoic acid + Salicylic acid	43.8	6.3	6.3	43.8	32.1	57.1		10.7	31.1	42.2		26.7				
Charcoal activated powder	12.5	6.3	6.3	75.0		17.9		82.1	2.2	13.3		84.4				
Ciprofloxacin	31.3	12.5	12.5	43.8	17.9	39.3		42.9	22.2	37.8		40.0				
Dexamethasone	43.8	25.0	12.5	18.8	28.6	50.0	3.6	17.9	28.9	40.0		31.1				
Frusemide	43.8	6.3	25.0	25.0	35.7	53.6		10.7	33.3	48.9		17.8				
Promethazine	25.0	25.0		50.0	14.3	35.7		50.0	11.1	17.8		71.1				
Salbutamol	43.8	18.8	12.5	25.0	39.3	50.0		10.7	42.2	53.3		4.4				
3. For stocking by hospitals only																
Alprazolam	18.8	25.0	6.3	50.0												
Aspirin	31.3	12.5	6.3	50.0												
Chloramphenicol	37.5	18.8	6.3	37.5												
Dextrose Solution	50.0	18.8	12.5	18.8												
Phenobarbitone	31.3	12.5	6.3	50.0												
n (total facilities)	16				28				45				80			

Source: STS facility questionnaire

Annex 9.2: Percentage of Facilities with Expired Drugs in Stock at Time of Visit

Name of drug	Hospitals	PHCC	HP	SHP
	%	%	%	%
Amoxyciline	6.3	14.3	13.3	8.8
Sulfamethoxazole + Trimethoprim		7.1	15.6	17.5
Oxytocin		7.1	8.9	15.0
Magnesium Sulphate		17.9	2.2	6.3
Gentamycin	6.3	3.6	6.7	8.8
Metronidazole	6.3	7.1	6.7	3.8
Clove oil	6.3	7.1		2.5
Lignocaine		7.1	2.2	5.0
Ferrous salt + Folic acid			2.2	8.8
Pheniramine			8.9	1.3
Calamine lotion		3.6	4.4	1.3
Chloramphenicol Applicaps		3.6	4.4	1.3
Oral Rehydration Solutions (ORS)			4.4	3.8
Albendazole		3.6	4.4	
Metoclorpropamide		7.1		
Gamma benzene hexachloride cream		3.6	2.2	
Hyoscinebutylbromide			4.4	1.3
Compound solution of Sodium lactate (Ringers' Lactate)		3.6		1.3
Ciprofloxacin Drop			2.2	2.5
Aluminium hydroxide + Magnesium hydroxide				3.8
Vitamin B complex			2.2	1.3
Povidinelodine Solution				2.5
Paracetamol			2.2	
Chlorpheniramine			2.2	
Ciprofloxacin Ointment			2.2	
Frusemide		17.9	11.1	
Atropine		17.9	4.4	
Charcoal activated Powder		10.7		
Dexamethasone		7.1	4.4	
Promethazine		7.1	2.2	
Atenolol		3.6	2.2	
Salbutamol		3.6		
Ciprofloxacin				
Benzoic acid + Salicylic acid				
Sodium chloride				
Chloramphenicol	12.5			
Aspirin	6.3			

Name of drug	Hospitals	PHCC	HP	SHP
	%	%	%	%
Phenobarbitone				
Alprazolam				
Dextrose Solution				
n (total facilities)	16	28	45	80