Nepal Household Survey

2012

Nepal Health Sector Programme II

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FOREWORD

The Household Survey 2012 (HHS 2012) was led by the Ministry of Health and Population (MoHP) with technical assistance from Nepal Health Sector Support Programme (NHSSP) and executed by Health Research and Social Development Forum (HERD). The design and implementation was overseen by a technical working committee (TWC) with representatives from government, external development partners and NHSSP advisors.

The survey was designed to collect the relevant information needed to provide national level estimates of key indicators that can monitor the following over time: the implementation of the Aama Programme and free health care; household expenditure on health care; awareness of health service governance; decision-making surrounding access to and utilization of services; and the NHSP II logical framework.

The districts were selected randomly, with one district chosen from each of 13 sub-regions to ensure that all regions and topographical zones were represented in the survey. This resulted in three districts selected from the mountain districts, five from the hill districts, and five from the Terai districts. The selected districts were the primary sampling units (PSUs). Within these PSUs enumeration areas (EAs) were randomly selected using Probability Proportionate to Size (PPS) and finally the households were systematically sampled following a listing and mapping exercise, with the same number sampled in each cluster. This resulted in 10,260 households being selected for the representative sample. In addition to this, all households in the cluster where a woman had delivered in a government facility in the last one year were also interviewed, resulting in an additional 405 households being visited.

I believe that this report provides crucial information to help monitor the progress of NHSP II, and to help plan for NHSP III. I would like to thank all of those who contributed to the successful completion of the HHS 2012.

Dr Praveen Mishra
Secretary
Ministry of Health and Population

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ACRONYMS

4ANC	Four Antenatal Care Visits Programme
Aama	Aama Surakshya Programme
AHW	Auxiliary Health Worker
AIDS	Acquired Immune Deficiency Syndrome
ANC	Antenatal Care
ANOVA	Analysis of Variance
APH	Antepartum Haemorrhage
ARI	Acute Respiratory Infection
CB-NCP	Community-based Newborn Care Programme
CBR	Crude Birth Rate
CEONC	Comprehensive Emergency Obstetric and Neonatal Care
CHD	Child Health Division
CI	Confidence Interval
CMAM	Community-based Management of Acute Malnutrition
CPR	Contraceptive Prevalence Rate
CREHPA	Center for Research on Environment Health and Population Activities
CS	Caesarean Section
CSPro	Census and Survey Processing System
D(P)HO	District (Public) Health Office(r)
DDC	District Development Committee
DFID	UK Department for International Development
DoHS	Department of Health Services
DS	District Supervisor
DSF	Demand-side Financing
EA	Enumeration Area
EDP	External Development Partner
EHCS	Essential Health Care Services
EPI	Expanded Programme on Immunization
FCHV	Female Community Health Volunteer
FHD	Family Health Division
GAAP	Governance and Accountability Action Plan
GESI	Gender Equality and Social Inclusion
GoN	Government of Nepal
HERD	Health Research and Social Development Forum
HIV	Human Immunodeficiency Virus
HHS	Household Survey
HMIS	Health Management Information System
HP	Health Post
HW	Hand Washing
IMCI	Integrated Management of Childhood Illnesses
IMR	Infant Mortality Rate
IUCD	Intrauterine Contraceptive Device
IYCF	Infant and Young Child Feeding
KA	Kala Azar
LF	Logical Framework
LLIN	Long-lasting Insecticide-treated Bed Net
LPG	Liquid Petroleum Gas
M&E	Monitoring and Evaluation
MCHW	Mother and Child Health Worker

MDG	Millennium Development Goal
MDR-TB	Multidrug-resistant Tuberculosis
MFI	Microfinance Initiative
MNCH	Maternal, Newborn, and Child Health
MoHP	Ministry of Health and Population
MWRA	Married Woman/Women of Reproductive Age
NDHS	Nepal Demographic Health Survey
NGO	Non-governmental Organisation
NHP	National Health Policy
NHRC	Nepal Health Research Council
NHSP	Nepal Health Sector Programme
NHSP-1	First Nepal Health Sector Programme
NHSP-2	Second Nepal Health Sector Programme
NHSSP	Nepal Health Sector Support Programme
NHTC	National Health Training Centre
NLSS	Nepal Living Standards Survey
NMR	Neonatal Mortality Rate
NPR	Nepalese Rupees
ORS	Oral Rehydration Salts
PAHO	Pan American Health Organization
PCA	Principal Component Analysis
PHCC	Primary Health Care Centre
PHCRD	Primary Health Care Revitalisation Division
PNC	Postnatal Care
PPH	Postpartum Haemorrhage
PPS	Probability Proportionate to Size
PSU	Primary Sampling Unit
RDW	Recently Delivered Woman/Women
RF	Results Framework
SAHW	Senior Auxiliary Health Worker
SAS	Safe Abortion Services
SBA	Skilled Birth Attendant
SDIP	Safe Delivery Incentive Programme
SHP	Sub-Health Post
SPSS	Statistical Product and Service Solutions
SSU	Secondary Sampling Unit
STS	Service Tracking Survey
SWAp	Sector-wide Approach
TBA	Traditional Birth Attendant
TFR	Total Fertility Rate
U5	Under-five
U5MR	Under-five Mortality Rate
UNICEF	United Nations Children's Fund
UP	Uterine Prolapse
USAID	United States Agency for International Development
VDC	Village Development Committee
VHW	Village Health Worker
WHO	World Health Organization
WRA	Woman/Women of Reproductive Age

EXECUTIVE SUMMARY

A. INTRODUCTION

The Second Nepal Health Sector Programme (NHSP-2), 2010-2015, focuses on increasing access to and utilisation of Essential Health Care Services (EHCS), particularly among women, the poor, and excluded populations. This is the first Household Survey (HHS) conducted to assist with monitoring the progress of NHSP-2. The objectives of HHS 2012 were to monitor:

1. indicators in the NHSP-2 Logical Framework (LF)
2. the implementation of the Aama Programme (including the Four Antenatal Care Visits Programme (4ANC)) and free care
3. household expenditure on health
4. knowledge of, participation in, and perceptions relating to health service governance
5. decision making surrounding access to and utilisation of services.

B. METHODOLOGY

HHS 2012 was a nationally representative cross-sectional survey. A stratified, three-stage cluster design was employed, first selecting districts, then wards, and then households. The same districts were selected for the Service Tracking Survey (STS) 2012. Districts are the Primary Sampling Units (PSUs), and one PSU was randomly selected from each of the 13 sub-strata (sub-regions). Within these 13 PSUs, wards were used as the basis for clusters, and 180 clusters were selected with Probability Proportionate to Size (PPS) (based on the number of households). From each cluster, 57 households were selected using systematic sampling to obtain a representative sample of 10,260 households. The survey was designed not just to have a representative household sample, but also to collect information on all women in the selected clusters who had delivered in a government institution in the last 12 months (N=873), including those in the representative sample). In order to obtain nationally representative results, the data were weighted.Data were collected between 2 August and 11 September 2012.

C. KEY FINDINGS

The key findings are presented according to the five objectives of STS 2012.

OBJECTIVE 1: To monitor indicators in the NHSP-2 LF

A LF was developed to monitor the success of NHSP-2, consisting of 12 goal-level, 14 purpose-level, 19 outcome-level, and 42 output-level indicators. HHS 2012 is the source for 20 LF indicators. There has been mixed progress for these indicators (see Table 0.1): six indicators have already exceeded the 2013 target set by NHSP-2 (with three exceeding the 2015 target); six have passed the 2011 target and are on track to meet the 2013 target; and six are unlikely to meet the 2013 target. Two indicators (population using inpatient and outpatient services) have no target.

Table 0.1: Progress of LF indicators

Already achieved 2013 target	On track to reach 2013 target	Will not reach 2013 target
• % of deliveries in institutions • % of clients satisfied with their health care at public facilities (maternal, outpatient, inpatient) • % of Women of Reproductive Age (WRA) (15-49) who know at least three pregnancy-related danger signs • % of WRA (15-49) giving birth in the last two years aware of at least three danger signs of newborns • % of infants exclusively breastfed for 0-5 months • % of children aged 6-59 months that have received vitamin A supplements	• % of WRA (15-49) aware of safe abortion sites • % of children under 5 with diarrhoea treated with zinc and Oral Rehydration Salts (ORS) • % of children under 5 with pneumonia who received antibiotics • % of deliveries by Caesarean Section (CS) • % of deliveries conducted by a Skilled Birth Attendant (SBA) • % of infants breastfed within one hour of birth	• % of population living within 30 minutes' travel time of a Health Post (HP) or Sub-Health Post (SHP) • % of households with Hand-washing (HW) facilities with soap and water near the latrine • Contraceptive Prevalence Rate (CPR) (modern methods) among Married Women of Reproductive Age (MWRA) • % of pregnant women attending at least four Antenatal Care (ANC) visits • % of children under 5 in the endemic area who slept under a Long-lasting Insecticide-treated Bed Net (LLIN) on the previous night • % of households in all high-risk areas with at least one LLIN per two residents

OBJECTIVE 2: To monitor the implementation of the Aama Programme (including 4ANC) and free care

Aama Programme (including 4ANC)

- Nearly three-quarters of respondents were aware of the Aama Programme, and friends/neighbours were a common source of information (70%). Nearly two-thirds were aware that it includes free care for normal deliveries (63%), and over half (56%) that it includes a transport incentive payment. Far fewer were aware that the Aama Programme also includes free care for assisted vaginal deliveries (23%) and CSs (15%). Very few respondents were aware of the Aama incentive payments to facilities (7%) or trained health workers (conducting facility or home deliveries) (7%).
- Over two-thirds (69%) of respondents were aware that government hospitals provide free delivery care, but fewer were aware that Primary Health Care Centres (PHCCs) (55%) and HPs (57%) do. Likewise, almost three-quarters (74%) were aware that government hospitals provide transport incentive payments, but fewer were aware that PHCCs (51%) and HPs (55%) do.
- Just over one-third of respondents were aware of 4ANC payments (35%), and less than one-quarter (21%) were aware of the criteria for eligibility and timing of payment. Less than one-third (31%) of those who had received ANC from a formal provider were informed about the 4ANC payments.
- Only 51% of women who had delivered in the last year and were entitled to the 4ANC payment received it. Of those entitled to the transport incentive payment, almost all (91%) received the

incentive, and most (86%) received it as per the guidelines. However, 14% of those eligible had experienced a delay in receiving or had not received their payment. The main reasons given were that the money was unavailable (59%), or that the responsible member of staff was unavailable (19%). Nearly nine out of ten women who had delivered in a government institution (87%) had received the services free of charge.

- Only one in twenty respondents (5%) reported that they had seen a list of Aama beneficiaries displayed.

Free Care

- Over three-quarters of respondents had heard of free care (76%), and more than two-thirds were aware that the consultation fee (68%) was free. Over half were aware that the registration fee (57%) and essential drugs (56%) were free. However, almost 35% of respondents thought that all drugs were included in the scheme, though only a small percentage (5%) incorrectly thought that x-rays or laboratory services were included. As with the Aama Programme, informal networks were the most common source of information about free care.
- Approximately two-thirds of respondents were aware that district hospitals (<25 beds) (61%), HPs (64%), and SHPs (62%) provided free care, with fewer aware that PHCCs also do (50%). Just 39% of respondents were aware that everyone is eligible for free care at district hospitals. Less than one-third of respondents were aware that the very poor/poor (31%), destitute/helpless (31%), elderly/senior citizens (31%), and Female Community Health Volunteers (FCHVs) (25%) are eligible for free inpatient care at district hospitals. Nearly two-thirds (64%) of respondents were aware that everyone is eligible for free care at PHCCs/HPs/SHPs.
- Overall, 42% of respondents were aware of someone in their household who had received free care, and one-fifth were aware of someone outside their household (20%) who had done so.

OBJECTIVE 3: To monitor household expenditure on health

Costs incurred

- Of those who had received outpatient care in government facilities, 48% had spent money at other facilities prior to their care in government facilities, with more than one-third (38%) spending money at a pharmacy.
- Of those who had received inpatient care in government facilities, 68% had spent money prior to their care in government facilities. Of these, more than half (54%) had spent money at a pharmacy.

Sources used to cover costs

- Of those who had paid for delivery care, nearly two-thirds of respondents had used household savings (62%) to pay for health care, 30% had used their own savings, 16% had taken out a loan, and less than 1% had sold assets. Friends, relatives, or neighbours were the most likely sources of a loan (87%); however, over 7% had used a money lender. FCHV funds or other emergency funds were not utilised by anyone.
- Of those who had paid for outpatient care, 53% had used their household savings, and 19% had taken out a loan to cover the costs. Of those who had taken out a loan, most had borrowed money from friends/relatives/neighbours (84%); however, one in nine (12%) had borrowed from a money lender.

- Of those who had paid for inpatient care, 42% had used their household savings, and 44% had taken out a loan to cover the costs. Of those who had taken out a loan, most had borrowed money from family, relatives, or neighbours (80%), but 15% had borrowed money from a money lender (known for their high interest rates). To repay the loan, 62% stated that they would be able to use their regular income, but 25% would have to sell assets. Of those who sold assets for inpatient care, 48% sold fixed assets, 42% sold livestock, 14% sold grains, and 6% sold their jewellery.

OBJECTIVE 4: To monitor knowledge, participation, and perceptions relating to health service governance

Knowledge

- There was low awareness of the social audit process (13%). Of those who were aware, few knew about the components of the social audit process, with respondents most likely to be aware that health services (32%) and financial records (27%) should be publicly displayed.
- Fewer than one-third of respondents (27%) were aware that all government health facilities should have a Citizen's Charter; 15% had seen a Citizen's Charter displayed. Of those who had seen a Citizen's Charter, most were aware that the charter should display the opening hours (85%) and types of services available (83%).
- Fewer than half of the respondents (44%) were aware of the suggestion/complaint mechanisms at health facilities. Fewer than one in ten (9%) had ever made a complaint.

Participation

- Only 3% of respondents had participated in a social audit in the last 12 months.
- The most common reasons for making a suggestion/complaint were the lack of availability of drugs (62%), staff behaviour (27%), and staff unavailability (26%).

Perceptions

- Of those who had participated in a social audit, the most commonly perceived benefit was the provision of information on available health services (81%), followed by improvements in service delivery (50%). However, 7% felt there were no perceived benefits.

OBJECTIVE 5: To monitor decision making surrounding access to and utilisation of services

Maternity

- The person most commonly involved in the decision-making process was the husband, with the husbands of 77% of women involved; this was followed by the woman herself (68%) and the woman's parents-in-law (35%).
- Most women were happy with both the decision and the process (62%), but a few women reported that they were unhappy with both the process and outcome (7%).

Outpatients and inpatients

- Nearly one-quarter of outpatients were not involved in the care-seeking decision-making process (22%). By gender, nearly one-fifth of males (19%) were not involved, compared to

less than one-quarter of females (24%). Spouses were an important part of the process, having involvement in the decision making for just over half (56%) of outpatients. FCHVs (0.3%) and outreach health workers (0.1%) were unlikely to be involved.

- Nearly one-third of inpatients were not involved in the decision-making process about seeking care, but spouses were involved in more than half of the cases (58%). Nearly one-quarter of males were not involved in decisions regarding inpatient care, compared to one-third of females (33%).
- Inpatients were more likely to be pleased with the decision-making process and outcome than outpatients. Over two-thirds of inpatients reported that they were satisfied (69%), with just 2% reporting that they were pleased with neither the process nor the outcome, whereas just under two-thirds (65%) of outpatients were pleased with the decision-making process and outcome, and nearly 5% were pleased with neither the process nor the outcome. Satisfaction among outpatients, with both the decision-making process and outcome, was similar for males and females. However, females were more likely to be satisfied with inpatient care than males, with just 64% of males being satisfied with the process and outcome in comparison to 72% of females.
- In some cases, namely those involving child patients, the patient was not the respondent, hence the data have been excluded from the decision-making analysis.
- Decision-making questions were only asked to those for whom care was sought, hence satisfaction with the process may be greater than if those for whom care was not sought were included.

D. HHS KEY INDICATORS

Table 0.2: Background characteristics

	Nepal Demographic Health Survey (NDHS) 2011	HHS 2012	
		%	95% Confidence Interval (CI)
% of households with floors made from earth, sand, or dung	66	82.5	78.3-86.5
% of households with an improved source of drinking water	89	83.3	78.9-87.7
% of households with an improved toilet facility	40	46.8	40.2-52.3
% of households with a HW station with soap and water	48		
% of households with HW facilities with soap and water near the latrine*		18.4	15.0-22.5
% of households in endemic districts with at least one LLIN		14.5	13.0-17.6
% of children under five in endemic districts who slept under a LLIN the previous night		10.4	6.2-14.6
% of households with at least one migrant		46.6	40.1-53.2
% of households with at least one migrant living overseas		27.0	
% of households that reported at least one member suffering from a chronic illness		7.5	6.1-11.4
% of households that reported at least one member suffering from a mental illness		1.1	0.8-1.6
% of population living within 30 minutes' travel time to a HP or SHP*		34.9	29.6-40.6

*LF Indicator

Table 0.3: Demand-side Financing (DSF) and free care

	NDHS 2011	HHS 2012	95% CI
		%	
% aware of 4ANC incentive payments		34.9	31.0-38.0
% aware that women need to have four ANC check-ups to receive the 4ANC incentive		20.5	15.5-21.2
% aware that women receive the 4ANC incentive after the first Postnatal Care (PNC) visit		15.0	12.6-17.8
% of women who had received ANC from a formal provider in the last year who were informed about 4ANC incentive payments by the provider		31.0	25.7-36.8
% of women who had delivered in the last year who had received the 4ANC incentive payment		11.0	7.9-15.2
% of women who were entitled to the 4ANC incentive payment in the last year who had received it		50.7	40.7-59.9
% aware of the Aama Programme		69.8	65.6-73.6
% aware that the Aama Programme includes a transport incentive		55.5	51.0-59.9
% aware that the Aama Programme includes free care for normal deliveries		62.7	57.4-67.7
% aware that the Aama Programme includes free care for assisted vaginal deliveries		23.3	19.8-27.1
% aware that the Aama Programme includes free care for CSs		15.2	12.8-17.8
% aware of Aama incentive payments to facilities for each delivery		7.8	6.1-10.1
% aware of Aama incentive payments to trained health workers for each facility delivery		7.3	5.7-9.2
% aware of Aama incentive payments to trained health workers for each home delivery		6.9	5.1-9.4
% of respondents who had seen a list of Aama beneficiaries displayed		4.7	3.8-5.8
% of those entitled to the Aama transport incentive who had received it		90.8	85.2-93.9
% of those entitled to the Aama transport incentive who had received it as per guidelines		85.7	79.8-90.1
% who had received delivery care free of charge		86.8	82.0-92.5
% aware of free care		76.2	69.4-81.8
% aware of free registration fees		57.4	51.5-63.2
% aware of free consultation fees		68.0	61.4-73.9
% aware of free essential drugs		56.1	50.0-62.0
% aware that everyone is eligible for free outpatient care at district hospitals		38.9	34.2-43.7
% aware of FCHV funds		10.6	8.7-12.8
% utilising FCHV funds*		0	NA

*LF Indicator

Table 0.4: Governance and accountability

	NDHS 2011	HHS 2012	95% CI
		%	
% aware of social audits		12.6	10.5-15.1
% participated in social audit in last year		2.5	1.9-3.2
% aware that all government facilities should have a Citizen's Charter		26.7	23.5-30.1
% of those visiting a health facility in the last year who saw a Citizen's Charter		14.8	12.9-17.0
% of those who saw the Citizen's Charter and experienced difficulties receiving services displayed in it		15.1	12.3-18.4
% aware of suggestion/complaint mechanism at health facilities		44.1	40.0-48.3
% who made a suggestion/complaint at health facility in the last year		9.3	7.9-10.8

Table 0.5: Reproductive health

	NDHS 2011	HHS 2012	95% CI
		%	
% of WRA (15-49) using a modern family planning method	33.2	37.3	34.9-39.7
CPR (modern methods) among MWRA*	43.2	41.4	38.7-44.1
% of MWRA living with husband using a modern family planning method	52.9	47.9	44.8-51.0
% of WRA (15-49) using only a traditional family planning method	5.0	2.8	2.2-3.5
% of MWRA using only a traditional family planning method	6.5	3.1	2.5-3.8
% of MWRA living with husband using only a traditional family planning method	9.1	3.4	2.7-4.2
% of WRA (15-49) not using any family planning method	61.8	59.9	57.5-62.3
% of MWRA not using any family planning method	50.3	55.5	52.9-58.2
% of MWRA living with husband not using any family planning method	38.0	48.7	45.6-51.9
% of MWRA using permanent modern family planning method (male/female sterilisation)	23.0	18.7	16.5-21.1
% of MWRA using long-term modern family planning method (Intrauterine Contraceptive Device (IUCD)/implant)	2.5	2.2	1.7-2.9
% of MWRA using short-term modern family planning method (pill/injectable/condom)	17.6	20.4	18.2-22.8
% of MWRA, who had previously given birth, who did not want to become pregnant at the time of their last pregnancy		10.0	7.9-13.1
% of women currently pregnant who did not want to become pregnant at that time		15.0	11.0-19.6
% of WRA (15-49) aware of safe abortion sites*	58.8	28.2	24.5-32.1
% of WRA (15-49) aware that abortion is legal in Nepal	37.8	36.7	32.9-40.9
% of WRA aware of all of the circumstances under which abortion is legal in Nepal		1.2	0.8-1.9

*LF Indicator

Table 0.6: Maternal health

	NDHS 2011	HHS 2012	95% CI
		%	
% of WRA (15-49) who know at least three pregnancy-related danger signs*		52.2	47.7-56.7
% of RDW aware of at least three danger signs during pregnancy		61.4	56.0-66.5
% of WRA aware of at least three danger signs during labour/delivery		40.2	36.1-44.5
% of RDW aware of at least three danger signs during labour/delivery		41.8	37.0-46.6
% of WRA aware of at least three danger signs during postnatal period		24.4	21.3-27.8
% of RDW aware of at least three danger signs during postnatal period		28.9	24.8-33.4
% of pregnant women attending at least four ANC visits*	50	43.2	37.6-48.9
% of RDW who had an ANC check-up during the fourth, sixth, eighth, and ninth months		21.0	17.2-25.4
% of RDW who had ANC who had at least one ANC check-up in a government facility		85.8	81.4-89.5
% of RDW who planned to deliver in a facility		49.6	44.2-56.2
% of deliveries in institutions*	35	36.5	30.9-42.3
% of RDW who delivered in a government facility	26	25.9	21.2-31.2
% of deliveries conducted by a SBA*	36	39.1	33.6-45.0
% of deliveries by CS*	5	3.9	2.7-5.3
% of RDW who received at least one postnatal check-up	54	75.1	69.1-79.9
% of RDW who received at least three postnatal check-ups		13.1	9.8-17.1
% of RDW who had three postnatal check-ups as per protocol[1]		6	3.7-9.4

*LF Indicator

[1]First PNC check-up within 24 hours of delivery, second within 72 hours of delivery, and third within seven days of delivery

Table 0.7: Newborn and child health

	NDHS 2011	HHS 2012	95% CI
		%	
% of women who delivered in the last year who did not bathe their infant in first 24 hours	26.1**	64.7	59.5-69.6
% of women who delivered in the last year who breastfed their infant within an hour of birth*	44.5**	48.5	43.7-63.3
% of infants exclusively breastfed for the first five months*	70	65.9	61.2-70.3
% of infants delivered in a facility in the last year who had a check-up before discharge	NA	77.8	72.9-82.1
% of women who delivered in the last year aware of at least three newborn danger signs	NA	49.7	44.1-54.5
% of WRA (15-49) aware of at least three newborn danger signs*	NA	44.9	40.6-49.4
% of children aged 6-59 months that have received vitamin A supplements*	90	90.0	88.3-91.5
% of children under five who had diarrhoea in the last two weeks	13.8	11.5	9.7-13.9
% of children under five who had diarrhoea in the last two weeks treated with ORS	5	47.9	40.5-55.3
% of children under five who had diarrhoea in the last two weeks treated with zinc	6.2	29.1	24.3-38.2
% of children under five who had diarrhoea in the last two weeks treated with ORS and zinc*	5.2	23.7	17.8-30.7
Average number of days given zinc (children under five who had diarrhoea in the last two weeks treated with zinc)	NA	6	
% of children under five who had an Acute Respiratory Infection (ARI)*** in the last two weeks	4.6	6.4	5.1-7.9
% of children under five who had ARI in the last two weeks and sought care	NA	84.0	76.9-88.9
% of children under five who had ARI in the last two weeks treated with antibiotics	NA	26.6	19.9-34.8
% of children under five who had fever in the last two weeks	18.7	19.1	16.5-21.9
% of children under five who had fever in the last two weeks treated with antimalarials	0.6	0.9	0.4-2.1
% of children under five who had fever in the last two weeks treated with antibiotics	31.6	20.0	16.5-24.9

*LF Indicator; **Data from the NDHS reflect the two years preceding the survey; ***Symptoms of ARI include a cough accompanied by short, rapid breathing that is chest-related and/or by difficult breathing that is chest-related

Table 0.8: Inpatient and outpatient care

	NDHS 2011	HHS 2012	95% CI
		%	
% of residents who sought outpatient care in the last year		26.9	24.6-29.2
% of residents who sought inpatient care in the last year		2.1	1.8-2.5
% of outpatients who sought care in a government facility		39.2	34.3-44.7
% of inpatients who sought care in a government facility		29.3	24.5-34.7
% of outpatients citing poor quality of care as a reason for not utilising government services		62.3	58.3-66.0
% of inpatients citing poor quality of care as a reason for not utilising government services		49.9	44.3-55.3
% of outpatients at government facilities satisfied with their health care		90.0	85.9-93.1
% of inpatients at government facilities satisfied with their health care		94.9	90.5-97.3
% of outpatients at government facilities who would recommend the facility to a friend		82.7	77.8-86.7
% of inpatients at government facilities who would recommend the facility to a friend		84.6	77.3-89.5
% of outpatients at government facilities who were scolded by a provider		3.7	2.7-5.3
% of inpatients at government facilities who were scolded by a provider		7.7	4.5-13.1
% of inpatients at government facilities who experienced difficulties prior to arrival		66.9	59.5-73.5
% of outpatients at government facilities who experienced difficulties prior to arrival		48.6	44.7-58.1
% of inpatients at a government facility who experienced difficulties while seeking care		61.0	52.7-68.7
% of outpatients at a government facility who experienced difficulties while seeking care		54.0	46.1-61.7
% of outpatients unable to pay who returned from a government facility without care/only received partial care		21.2	6.4-35.0
% of inpatients unable to pay who returned from a government facility without care/only received partial care		10.0	3.1-26.1

CHAPTER ONE: INTRODUCTION

This report presents the findings from the Household Survey 2012 (HHS 2012), which was conceived to assess progress by the Second Nepal Health Sector Programme (NHSP-2). The survey was led by the Ministry of Health and Population (MoHP), Government of Nepal (GoN), with technical support from the Nepal Health Sector Support Programme (NHSSP), and executed by the Health Research and Social Development Forum (HERD). Data were collected between 2 August and 11 September 2012, from 180 clusters within 13 districts of Nepal (one district from each sub-region). The survey included a nationally representative sample of 10,260 households and an additional sample of 402 households (ensuring all deliveries in government hospitals during the last year within the selected clusters were assessed), thus covering a total sample size of 10,662 households. This introductory chapter provides a general overview of the NHSP-2, the rationale for the survey, and its objectives.

1.1 NEPAL HEALTH SECTOR PROGRAMME

GoN introduced a National Health Policy (NHP) in 1991 that aimed to improve the health status of the population through increasing access to primary health care services. Following this, various sub-sector health policies, strategies, and plans were developed and implemented within the health sector. The Health Sector Strategy: An Agenda for Reform was introduced in 2003, with the intention of moving the health sector towards strategic planning and a Sector-wide Approach (SWAp). The First Nepal Health Sector Programme (NHSP-1), from 2004-2009, was the first health SWAp in Nepal. Building on the foundations laid by the NHSP-1 and its success, the government formulated the NHSP-2, for 2010-2015. The best practices and lessons learned in the course of implementing NHSP-1 were capitalised upon and used in developing NHSP-2. NHSP-2 is a national guiding document for the health sector, and focuses on meeting the health-related Millennium Development Goals (MDGs): 1 (partly)[2], 4[3], 5[4], and 6[5]. NHSP-2 offers a strong foundation upon which to scale up cost-effective and evidence-based health programmes, delivering successful results. It has a greater focus on increasing access to and utilisation of Essential Health Care Services (EHCS) components, particularly among women, the poor, and excluded groups.

1.1.1 Goals and objectives

The health sector goal, as stated in the NHSP-2, is to improve the health and nutritional status of all Nepali citizens, especially of the poor and excluded. It intends to contribute to poverty reduction by providing equal opportunities for all to receive high-quality and affordable health care services. In order to achieve the expected results of improved health status, the following objectives were set for NHSP-2:

- To increase access to and utilisation of quality EHCS.
- To reduce harmful cultural practices and cultural and economic barriers to accessing health care services in partnership with non-state actors.

[2]Eradicate extreme poverty and hunger
[3]Reduce child mortality
[4]Improve maternal health
[5]Combat HIV/AIDS, malaria and other diseases

- To improve the health system to achieve universal coverage of EHCS.

1.1.2 Logical Framework

To monitor the success of the NHSP-2, a Results Framework (RF) was created in 2010. The original RF was subsequently revised in 2012, and is now called the Logical Framework (LF). The LF consists of 12 goal-level indictors, 14 purpose-level indicators, 19 outcome-level indicators, and 42 output-level indicators. HHS 2012 is the source of data for 20 of the NHSP-2 LF indicators (six purpose-level, ten outcome-level, and four output-level) (Table 1).

Table 1: NHSP-2 LF indicators monitored by HHS 2012

NHSP-2 LF code	NHSP-2 LF indicator
P1	% of infants breastfed within one hour of birth
P2	% of infants exclusively breastfed for 0-5 months
P4	% of children aged 6-59 months that have received vitamin A supplements
P7	Contraceptive Prevalence Rate (CPR) (modern methods) (disaggregated by urban/rural, wealth quintile, and caste/ethnicity)
P8	% of pregnant women attending at least four Antenatal Care (ANC) visits
P10	% of deliveries conducted by a Skilled Birth Attendant (SBA) (disaggregated by urban/rural, wealth quintile and caste/ethnicity)
OC1.1	% of population living within 30 minutes' travel time to a Health Post (HP) or Sub-Health Post (SHP) (disaggregated by urban/rural)
OC1.2	% of population utilising outpatient services at SHP, HP, Primary Health Care Centre (PHCC) and district hospitals (disaggregated by sex and caste/ethnicity)
OC1.3	% of population utilising inpatient services at district hospitals (all levels of hospitals) (disaggregated by sex and caste/ethnicity)
OC1.6	% of deliveries by Caesarean Section (CS)
OC2.1	% of children under 5 with diarrhoea treated with zinc and Oral Rehydration Salts (ORS)
OC2.2	% of children under 5 with pneumonia who received antibiotics
OC2.4	% of deliveries in institutions (disaggregated by urban/rural, wealth quintile, and caste/ethnicity)
OC2.6	% of clients satisfied with their health care at public facilities (disaggregated by caste/ethnicity)
OC3.1	% of children under 5 years who slept under a Long-lasting Insecticide-treated Bed Net (LLIN) the previous night in high-risk areas
OC3.4	% of households with Hand-washing (HW) facilities with soap and water nearby the latrine
OP4.10	% of households with at least one LLIN per two residents in all high-risk areas
OP5.1	% of Women of Reproductive Age (WRA) (15-49) aware of safe abortion sites
OP5.2	% of WRA (15-49) who know at least three pregnancy-related danger signs
OP5.3	% of WRA (15-49) giving birth in the last two years aware of at least three danger signs of newborns

1.2 RATIONALE FOR THE HHS 2012

There is increasing demand for nationally-representative information on health indicators to aid the design and monitoring of national health programmes. The Nepal Demographic Health Survey (NDHS) is conducted every five years, and routine health information systems, such as the Health Management Information System (HMIS), are operational; however, these do not currently meet all the data requirements for assessing the impact of NHSP-2. Hence, within NHSP-2, a HHS is planned for every two years to meet the additional needs. The HHS is an important means of monitoring the impact of health programmes at the household level, as there are differences in health outcomes

and their determinants between population groups that are often defined by social, economic, demographic, and environmental attributes of the household and household members. Greater understanding of health outcomes, and of access to and utilisation of health services, among populations is important for decision making, and provides an expanded evidence base for policy development within the Nepal's health sector.

1.3 HHS 2012 AIM AND OBJECTIVES

The main aim of the HHS 2012 was to monitor the implementation of key health care programmes under NHSP-2, peoples' perspectives, and utilisation of health care. The objectives of the HHS 2012 were to monitor:

1. indicators in the NHSP-2 LF
2. the implementation of the Aama Programme (including the Four Antenatal Care Visits Programme (4ANC)) and free care
3. household expenditure on health
4. knowledge, participation, and perceptions relating to health service governance
5. decision making surrounding access to and utilisation of services.

1.4 STRUCTURE OF REPORT

This report consists of ten chapters. Chapter One provides a brief description of NHSP-2 and the rationale and objectives of the HHS 2012. Chapter Two describes the methodology of the HHS 2012 in detail (survey design, tool design, selection and training of data collection team, data collection, data management, analysis and limitations of the survey). Chapter Three presents the background characteristics of the households and household members. Chapters Four to Ten present the main findings from the survey: Chapter Four presents the findings for Demand-side Financing (DSF) (Aama Programme, ANC incentives, free care, and emergency funds); Chapter Five presents governance and accountability, including the social audit mechanism; Chapter Six presents reproductive health; Chapter Seven presents maternal health – awareness, service utilisation, barriers, and satisfaction; Chapter Eight presents child health and newborn care; Chapter Nine presents outpatient and inpatient care – service utilisation, barriers, and satisfaction; and Chapter 10 presents progress against the NHSP-2 LF indicators. Each chapter contains an introduction, results, and key findings.

CHAPTER TWO: METHODOLOGY

2.1 SURVEY DESIGN

The HHS 2012 is a nationally representative cross-sectional survey, designed to provide population estimates relating to health indicators across the country.

2.2 SAMPLE DESIGN

Ecological and urban-rural stratification were considered in the sampling for the HHS. Ecologically, the country is divided into three ecological zones: mountain, hill, and Terai. The country's administrative division contains 75 districts divided into Village Development Committees (VDCs) and municipalities, which in turn are divided into wards (each VDC has nine wards, while the number of wards in municipalities varies according to population, ranging from ten to 35). Each ward was classified as urban (located in a municipality) or rural (located in a VDC). The number of households for each ward was taken from the National Population and Housing Census 2011 (Central Bureau of Statistics).

The sampling strategy in the HHS 2012 used a stratified three-stage cluster design:

- In the first stage of sampling, one district was randomly selected from each of 13 sub-regions. Therefore, the districts are the Primary Sampling Units (PSUs), and one PSU was selected per sub-stratum (sub-region). This resulted in three districts bring selected from the mountain zone, five from the hill zone, and five from the Terai.
- In the second stage, the clusters or Enumeration Areas (EAs) from the selected districts were pooled and then some were randomly selected using Probability Proportionate to Size (PPS).
- In the third stage, the households were systematically sampled following a listing and mapping exercise, with the same number sampled in each cluster. Within the sampled households different respondents were interviewed: the household head was asked core questions relating to the household, one WRA was randomly selected to answer reproductive health questions, all women who had delivered in the past one year answered maternal health questions, and those who had been outpatients in the last month or inpatients in the last year answered the respective relevant questions.

Additional households (that met the criteria) within the selected clusters were also interviewed to obtain a sufficient sample of women who had delivered in government facilities in the past 12 months.

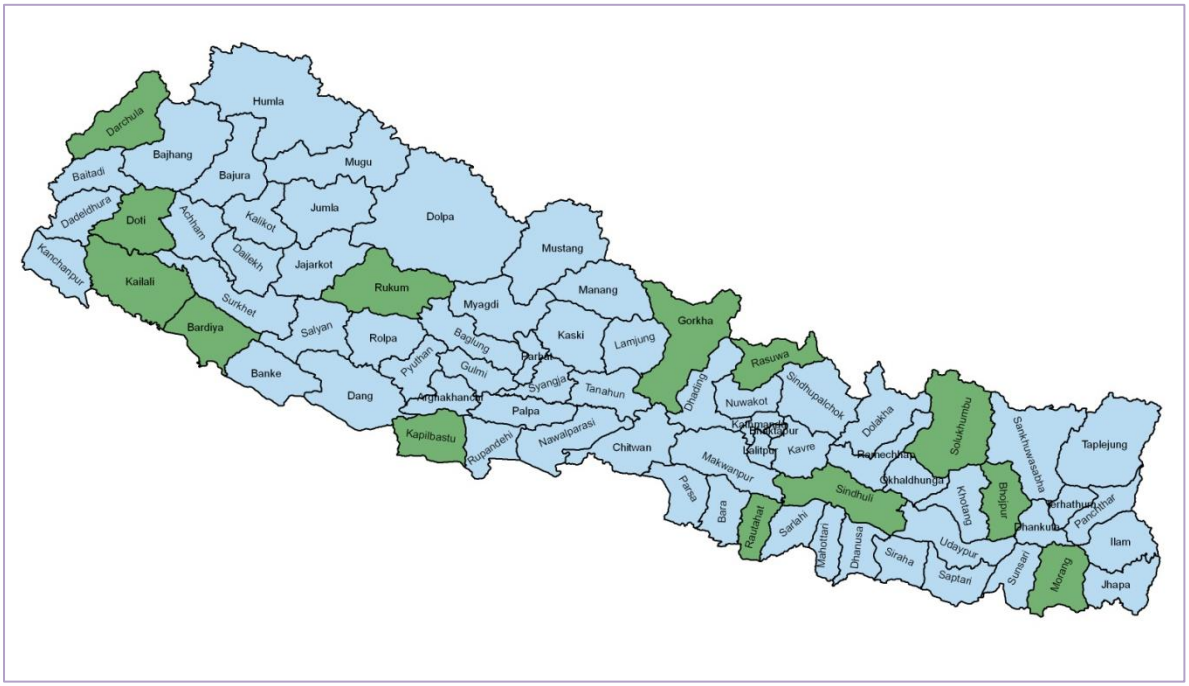
2.2.1 District selection

The same districts were selected for both the HHS 2012 and the Service Tracking Survey (STS) 2012. In the NDHS 2011 Nepal was divided by the three ecological zones and five development regions into 13 sub-regions (the mountain districts in the Western, Mid-western, and Far-western are combined into one sub-region owing to their relatively small populations). For the HHS 2012, one district was randomly selected from each of these 13 sub-regions (Table 2.1).

Table 2.1: Districts selected for HHS within the 13 sub-regions (selected districts 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 Terai (5)	Jhapa, **Morang**, Saptari, Siraha, Sunsari
Central Terai (7)	Bara, Chitwan, Dhanusha, Mahottari, Parsa, **Rautahat**, Sarlahi
Western Terai (3)	**Kapilbastu**, Nawalparasi, Rupandehi
Mid-western Terai (3)	**Bardiya**, Banke, Dang
Far-western Terai (2)	**Kailali**, Kanchanpur

Figure 1: Map of districts selected for HHS 2012



2.2.2 Cluster selection

A database was created listing the 13 selected districts in order from east to west, with VDCs/municipalities in alphabetical order, and wards in ascending numerical order. For each ward, the number of households was listed, as per Census 2011. Where wards had more than 250 households they were divided into sub-wards, and where they had fewer than 150 households they were merged with neighbouring wards. This created 4,499 clusters with between 150 to 250 households. One hundred and eighty of these clusters were then sampled using PPS, where size refers to the number of households.

2.2.3 Household selection

Representative sample

A minimum of 10,244 households was required (See Annex 1). From each cluster, 57 households were enrolled for the study, to obtain 10,260 households using systematic sampling. The interval in each cluster was determined by dividing the total number of households in the cluster by 57.

Prior to systematic sampling, district and cluster supervisors visited the 180 selected clusters, and a detailed mapping exercise was undertaken in consultation with key informants (including Female Community Health Volunteers (FCHVs), health facility in-charges, Village Health Workers (VHWs), chairs of VDCs, Ward Committees, Tole Committees, local shopkeepers, school teachers, and other residents who had a good understanding of the local context). The key informants helped the district and cluster supervisors to draw a detailed map of each cluster showing the number and location of the households. If the difference between the number of households recorded in the census and the number in the local mapping was more than 50, then the mapping estimate was taken as the number of households in the cluster and the interval calculated accordingly. This was necessary in a small number of clusters. The key informants also identified the location of any households in the selected clusters in which women had delivered in the last 12 months.

Additional sample (women who delivered in government institution in last year)

The survey was designed not just to have a representative household sample, but to collect information on the experiences of a sufficient number of women who had delivered in a government institution. All women in the selected clusters who had delivered in a government institution in the last 12 months were identified during the mapping process.

Given that the *expected* number of women from a sample of 10,250 who would have delivered in a government institution in the last year was 285 (see Annex 2), the sample was not deemed to be sufficient. Therefore, in addition to those already selected using systematic sampling, every household in the selected clusters with a woman who had delivered in a government institution in the last 12 months was also visited. This was expected to provide a total sample size of 1,001 (see Annex 2). The *actual* number of women from the sample of 10,260 households who had delivered in the last year was 1,498; of these, 468 had delivered in a government institution. The number of additional women from the purposive sample who had delivered in a government institution identified was 405. Table 2.2 shows the population, number of clusters, number of households, and number of women interviewed who had delivered in a government institution in the last 12 months.

Table 2.2: Cluster, household, and respondent selection, by district

District	Population	Number of clusters		Number of households			Number of women interviewed who had delivered in a government institution in last 12 months	
		Total	Select-ed	Total	Selected clusters	Selected for interview	Representative	Additional
Solukh-umbu	106,772	115	4	25,367	930	228	0	2
Rasuwa	43,798	48	2	9,942	445	114	5	6
Darchula	133,464	123	5	25,802	1,111	285	18	26
Bhojpur	183,918	207	8	40,720	1,688	456	18	14
Sindhuli	294,621	274	11	58,270	2,453	627	19	9
Gorkha	269,388	311	13	67,204	2,866	741	39	17
Rukum	210,878	208	8	42,333	1,580	456	7	29
Doti	211,827	198	8	42,414	1,777	456	41	37
Morang	964,709	1,025	40	220,851	8,900	2,280	104	62
Rautahat	696,221	510	21	109,976	4,499	1,197	9	43
Kapilbastu	570,612	427	17	94,571	4,078	969	27	23
Bardiya	426,946	387	16	84,207	3,618	912	95	40
Kailali	770,279	678	27	146,431	6,047	1,539	86	97
Total	**4,883,433**	**4,511**	**180**	**968,088**	**39,992**	**10,260**	**468**	**405**

2.3 QUESTIONNAIRE DESIGN

The final draft of the questionnaire was agreed in a workshop including various stakeholders from government and External Development Partners (EDPs). The HHS 2012 questionnaire was designed around six sections, and the desired respondent varied depending on the section (Table 2.3).

Table 2.3: Sections covered in questionnaire and desired respondent

Section	Heading	Desired respondent
1	Background characteristics	Head of household
2	DSF	Head of household
3	Governance and accountability	Head of household
4	Reproductive, maternal, and child health	WRA (15-49 years) (randomly selected if more than one in household)
5	Maternal health care	Women who delivered in the past 12 months
6	Out-of-pocket expenditure on outpatient and inpatient care	Accessed outpatient care in the last one month or accessed inpatient care in last 12 months (ideally interview person who paid for care or patient)

2.3.1 Questionnaire translation

Forward (Nepali translation) and backward (English Translation) translation of the questionnaire was undertaken prior to data collection. To ensure consistency between the English and Nepali versions, two translators were utilised: one for forward and one for backward translation. A panel of experts reviewed the translated tool to assess its accuracy and cultural sensitivity.

2.3.2 Pre-testing

In order to check the validity of the tool, appropriateness of the translation, and the design of the database, a thorough pre-testing process was performed in Melamchi VDC of Sindhupalchowk District. Six teams, each comprising three interviewers and one supervisor, with considerable experience in surveys and interviewing, conducted a total of 100 interviews during the pre-testing. After the pre-testing, a one-day workshop was held to address the issues that arose during pre-testing. The tools underwent additional field-testing during the training and any further revisions were incorporated.

2.4 SELECTION OF SUPERVISORS AND ENUMERATORS

Supervisors and enumerators were selected from experienced research assistants, all of whom have an academic background in public health. Supervisors and enumerators were interviewed by a panel of experts. Nineteen cluster supervisors and 66 enumerators were recruited through a rigorous written and oral interview process.

2.4.1 Selection of supervisors

Two levels of supervisors were utilised in this survey: district- and cluster-level. Thirteen District Supervisors (DSs) were selected, with more than 20 years of experience in data collection and a Master of Public Health degree. Cluster supervisors were identified based on their previous experience, qualifications, leadership qualities, and team mobilisation skills.

2.4.2 Selection of enumerators

Enumerators were selected by the panel of experts, who assessed their academic background, previous experience, motivation, and ability to travel over difficult terrain and work under difficult conditions.

2.5 ORIENTATION AND TRAINING

2.5.1 Supervisors and enumerators

A Training Manual was produced to aid training and provide a point of reference during data collection. District and cluster supervisors received one day's orientation on the tool, mapping process, and sampling procedures before joining the enumerators for a more in-depth six-day training event (22-27 July 2012) in Kathmandu.

During the six-day training event, a total of 98 people were trained on the questionnaire and data collection procedures. The training included both theoretical and practical sessions, small group mock interviews, and practising in the community. Lectures on subjects covered in the questionnaire, led by experts from different divisions within MoHP, were given during the training to increase the participants' understanding. The main focus of the training was on clarity of content,

skip instructions within the questionnaire, sequencing and phrasing of questions in local language, and practice in interviewing techniques. Exercises were also performed to ensure participants had a clear understanding of the cluster mapping process and of selecting households using systematic sampling. They also discussed the practical difficulties that may arise during data collection, and how to tackle these difficulties. The tools were field-tested during the training and any necessary revisions were incorporated.

2.5.2 Data entry clerks

A two-day training session was organised for 20 data entry clerks. They were oriented in the use of the Census and Survey Processing System (CSPro) database and how to maintain consistency in data entry. Possible areas where errors might occur during data entry were highlighted.

2.6 DATA COLLECTION

Thirteen data collection teams were formed (one for each district), comprised of one DS, one to four cluster supervisors, and two to 11 enumerators (depending upon the number of households sampled in each district). There were no cluster supervisors in three districts: Solukhumbu (four clusters), Darchula (five clusters), and Rasuwa (two clusters). All supervisors and enumerators were provided with a bag, raincoat, torch, jacket, and a first aid kit with essential medicine.

Data collection was undertaken from 2 August to 11 September 2012. It took between 16 to 39 days to complete data collection in each district, depending upon the sample size and terrain. Before the enumerators arrived, co-ordination meetings were held by the district and cluster supervisors with the respective District (Public) Health Offices (D(P)HOs), District Development Committees (DDCs), municipalities, and others (as relevant), and approval was received. Enumerators and cluster supervisors then co-ordinated with key people, local health workers, and FCHVs in each selected ward to conduct the mapping of the cluster. It took between four to eight days to complete each cluster, depending upon the size and terrain of cluster, and the distance between sampled households. District and cluster supervisors oversaw the mapping and sampling procedures and data collection process, provided support as and when required, and supervised the editing, correction, collection, and transportation of questionnaires to the central office.

2.7 SUPERVISION AND SUPPORT

A consolidated supervision plan was prepared for data collection supervision and monitoring. All questionnaires were checked by cluster and district supervisors. Any missing, unclear, or irregular information on the questionnaires was first clarified with the relevant enumerator, and, if required and practical, the enumerator would return to the household to clarify the data. District (Public) Health Officers (D(P)HOs), and representatives from MoHP, HERD, and NHSSP also made supervision visits to ensure the quality of data collection.

2.8 QUALITY ASSURANCE

A robust training session for supervisors and enumerators was designed to ensure a high-quality approach from the outset. A communication desk was established in Kathmandu to ensure any data collection issues could be picked up and addressed rapidly and consistently. The data entry clerks

were routinely supervised by the data manager. All data were double entered and then systematically cleaned to ensure that the data analysed were of robust quality.

2.9 ETHICAL CONSIDERATIONS

Before data collection began, ethical approval was sought from the Nepal Health Research Council (NHRC), and formal approval from the selected districts and ward offices was requested with an authorised letter from MoHP. Before starting an interview, enumerators informed all household respondents of the purpose of the survey; showed authorisation letters from MoHP and the D(P)HO; and informed respondents that they were under no obligation to participate in the survey, and that if they did choose to participate, all responses would remain confidential. The enumerators subsequently requested verbal consent from the respondents to begin the interview. Confidentiality was maintained by assigning a unique number to each questionnaire. Responses were only linked to personal information through this unique number, which was kept secure by the survey team. The unique numbers were entered into the database, not the names of respondents. The names of respondents and individual answers will not appear in any reports or publications.

2.10 DATA MANAGEMENT

2.10.1 Database design, coding, entry, and cleaning

The database was designed in CSPro. Manual checking and coding of data were undertaken to clean the data and ensure consistency before data entry commenced. The coded data were then double entered in the CSPro database and inconsistencies were addressed. The data entry was closely supervised by a data manager. Once entered, the data were checked for any anomalies; any necessary checks with the original questionnaires were undertaken and data corrected before the analysis began.

2.10.2 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 key socio-demographic and economic characteristics (such as caste/ethnicity, ecological zone, and wealth quintiles). Wealth quintiles were computed using the same methodology as the Nepal Adolescent and Youth Survey (MoHP, 2012) (see Annex 3).

Representative and additional samples

Most of the tables present nationally representative data, hence the additional sample of women who delivered in a government facility in the last year was excluded from the analysis. For the tables relating to women who delivered in a government facility in the last year, those who were picked up in the representative sample (who met the criteria), along with all those from the additional sample, were included in the analysis.

Weighting

- In order to obtain nationally representative results from this survey it was necessary to calculate appropriate weights based on the sample design (see Annex 4). The weighting has eliminated any bias related to the different first-stage probabilities of selecting one district in each sub-region. Without weighting, the characteristics of the larger sub-regions, with more districts, are under-represented and the characteristics of the smaller sub-regions, with fewer districts, are over-represented. Specifically, the data were post-stratified, so that the data from each district are weighted in proportion to the number of households in each region from which the district was sampled, taking data from the National Population and Housing Census 2011.
- These district-level weights were applied to each household in the representative sample for household analyses, and to each household member for analysis of household members.
- Weights were computed separately for those who delivered in a government institution. These 'target' women were weighted so that wards contribute equally within districts. The sampling design for these women meant that women in bigger wards were more likely to be sampled. Across the wards in each district the average number of these target women participating was calculated per ward. Then a weight was calculated for each ward that was equal to the average number of women divided by the number of target women participating in the ward in question. This weight was multiplied by the district-level weight already calculated for the representative sample to produce a final weight for these target women.
- When the analysis was undertaken in SPSS the weighting was applied for all analyses.

Significance tests

The sampling design involved the selection of only one PSU (district) within each sub-region (stratum), 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 zone (mountain, hill, and Terai). We acknowledged the weighting of the data, the approximate stratification, and the two-level clustering (districts as PSUs and wards as Secondary Sampling Units (SSUs)) while computing statistical tests and confidence intervals, using the complex survey functions of SPSS.

- We have used the complex survey adaptations of the chi-squared test for the categorical variables and independent t-test and one-way Analysis of Variance (ANOVA), which were applied for the numerical variables where the assumptions were met.
- 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.

2.10.3 Presenting the results

- Given the volume of data presented in many of the tables, just the percentages are presented, along with the total sample size, i.e. the denominator from which the percentages were calculated.
- One decimal place is used to report the percentages in the tables and no decimal places are included when referring to the data in the text.
- For small sample sizes, any results where the denominator is smaller than 30 the results are presented in italics in the tables.

2.10.4 Comparability of findings from the HHS with NDHS

- The HHS 2012 was based on a stratified three-stage sample design with 13 PSUs (districts) selected at the first sampling stage, whereas the NDHS 2011 was based on a stratified two-stage sample design (Table 2.4).
- The categories used for classification of variables in the analysis of the HHS data are largely comparable to those in the NDHS, for example: ecological zones, urban/rural residence, education, and age, and the reporting formats are similar.
- One important distinction between the NDHS and HHS data is that the NDHS collects information on births occurring in the five years preceding the survey, whereas the HHS uses a one-year reference period. The use of the five-year reference period enables the NDHS to compute mortality rates, which would otherwise require a larger sample size. However, the one-year period utilised within the HHS gives a more accurate picture of the current situation for indicators that are changing relatively quickly, such as deliveries within an institution.
- Once weighted, the national-level HHS estimates are comparable to the corresponding national-level results from the NDHS, taking into account the respective sampling probabilities.

Table 2.4: Comparison of methodology employed for NDHS 2011 and HHS 2012

	HHS 2012	NDHS 2011
Sampling approach	Three-stage stratified cluster sampling	Two-stage stratified cluster sampling
No. of districts	13	72
No. of clusters	180 (25 urban and 155 rural)	289 (95 urban and 194 rural)
No. of clusters per district	2-40	1-16
No. of households per cluster	57 households in each EA	35 households in each urban EA and 40 households in each rural EA
Total no. of households	10,260 in representative sample, 402 in additional sample	10,826
No. of households per district (range)	114-2,280	80-585
Duration of data collection	1.5 months	4 months

2.11 LIMITATIONS OF THE SURVEY

The main limitations of the HHS 2012 were as follows:

- The HHS is a cross-sectional survey and hence provides information at one point of time.
- The survey was designed to produce nationally representative estimates, but not sub-regional or district estimates.

- Some of the questions relied on the perspective of clients and so their answers may be biased by subjective interpretations.
- Only descriptive findings and associations have been reported, and no causal relationships have been deduced between data.
- The GoN decided not to include impact-level indicators in the survey (such as Total Fertility Rate (TFR) and Infant Mortality Rate (IMR)).

CHAPTER THREE: BACKGROUND CHARACTERISTICS

3.1 INTRODUCTION

This chapter describes the geographic, socioeconomic, and demographic characteristics of the households and household members surveyed in the representative sample of the HHS 2012. For the households this includes information on assets, amenities, water, and sanitation, and for the household members it includes information on age, sex, education, occupation, migration, and experience of chronic and mental illness. In the HHS 2012, a household was defined as *"a person or group of related and/or unrelated persons who usually live together in the same dwelling unit(s) or in connected premises, who acknowledge one adult member as the head of the household, and who have common cooking and eating arrangements."*

3.2 RESULTS

	NDHS 2011	HHS 2012	
		%	95%CI
% of households with floors made from earth, sand, or dung	66	82.5	78.3-86.5
% of households with an improved source of drinking water	89	83.3	78.9-87.7
% of households with an improved toilet facility	40	46.8	40.2-52.3
% of households with a HW station with soap and water	48		
% of households with a HW facilities with soap and water nearby the latrine*		18.4	15.0-22.5
% of households with at least one LLIN (in endemic districts)		14.5	13.0-17.6
% of children under five who slept under an LLIN last night (in endemic districts)		10.4	6.2-14.6
% of households with at least one migrant		46.6	40.1-53.2
% of households with at least one migrant living overseas		27.0	
% of households that reported at least one member suffering from a chronic illness		7.5	6.1-11.4
% of households that reported at least one member suffering from a mental illness		1.1	0.8-1.6
% of population living within 30 minutes' travel time to a HP or SHP*		34.6	29.6-40.6

** LF indicator*

3.2.1 Geographic location

District

The wide variation in the population size of each of the 13 sampled districts (Table 3.1) is reflected in the number of households sampled from each district for the HHS, ranging from 114 in Rasuwa to 2,280 in Morang (Table 3.1).

Urban/rural

The Census 2011 revealed that 83% of the population in Nepal lived in rural areas and 17% in urban areas. Reflecting this national split, a similar percentage of the households sampled in the HHS 2012 were from rural areas (88%). The percentage of households sampled from rural areas varied by district, ranging from 75% in Morang to 100% in Bhojpur, Rukum, Darchula, Solukhumbu, and Rasuwa (Table 3.1).

Table 3.1: District-wise distribution of households

Districts	Urban (weighted) (%)	Rural (weighted) (%)	Total	
			Number (N) (unweighted)	% (weighted)
Morang	25.0	75.0	2,280	14.7
Bhojpur	0.0	100.0	456	6.4
Solukhumbu	0.0	100.0	228	1.6
Sindhuli	18.2	81.8	627	18.7
Rasuwa	0.0	100.0	114	2.3
Rautahat	4.8	95.2	1,197	15.2
Gorkha	15.4	84.6	741	12.5
Kapilvastu	5.9	94.1	969	7.1
Rukum	0.0	100.0	456	6.1
Bardiya	12.5	87.5	912	5.4
Doti	12.5	87.5	456	3.0
Kailai	22.2	77.8	1,539	4.1
Darchula	0.0	100.0	285	2.9
All (%)	**12.1**	**87.9**	**100.0**	
Total households (N)	**1,244**	**9,016**	**10,260**	

Ecological zone

Just under half of the households were located in the Terai districts (47%), and just under half were from the hill districts (47%), with only 7% located in the mountain districts (Table 3.2). The HHS 2012 sampled a similar percentage of households by ecological zone as that observed in the Census 2011.

Table 3.2: Household distribution by ecological zone

Ecological zone	Total (%)
Mountain	6.7
Hill	46.7
Terai	46.6
Total households (N)	**10,260**

3.2.2 Sociodemographic characteristics

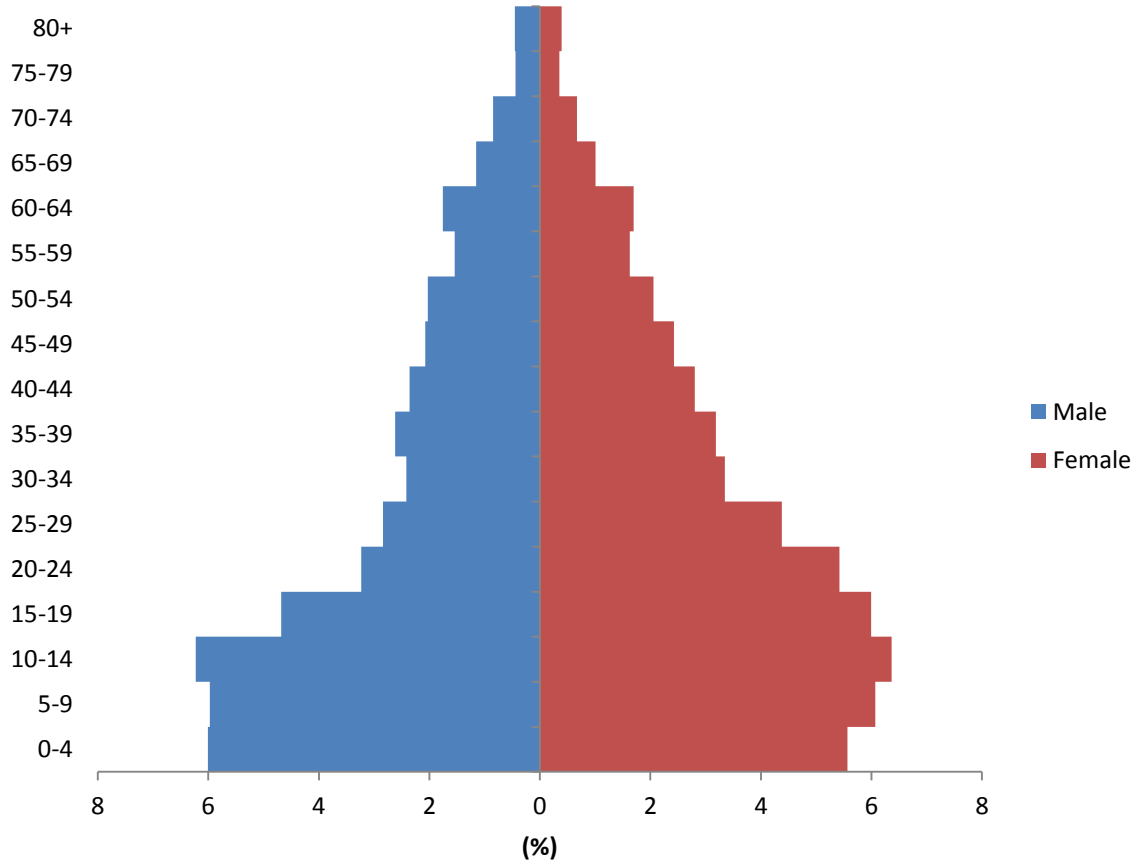
Age and sex

The age and sex distribution of household members in the HHS 2012 is shown in Table 3.3 by five-year age groups, broken down by urban/rural residence. Fifty-three percent of the 10,260 household members successfully interviewed in the HHS 2012 were female and 47% male. As shown in Table 3.1 above, most household members lived in rural areas (88%). There was no difference in the percentage of males living in urban areas and the percentage of females living in urban areas (11% for each): overall, 11% lived in urban areas. A large proportion of the population were under 15 (36%), and this was higher in rural (37%) than urban areas (31%). This is consistent with the NDHS 2011, which recorded that 37% of the population was aged under 15. The proportion of children under five in the HHS (12%) was also consistent with the NDHS 2011 (11%). Figure 3.1 presents a population pyramid of the age structure of household members. The pyramid illustrates evidence of tapering at the younger ages, with fewer children in the 0-4 and 5-9 age groups than the 10-14 age group. This reflects the decline in fertility over the last ten years. The higher percentage of boys (13%) than girls (10%) in the 0-4 age group suggests that sex-selective abortion may be occurring. The higher percentage of females in the 15-24 age range reflects the greater out-migration of males in this age group.

Table 3.3: Age and sex composition of household members

Age (years)	Urban			Rural			Total		
	Male (%)	Female (%)	Total (%)	Male (%)	Female (%)	Total (%)	Male (%)	Female (%)	Total (%)
All ages	5.1	5.8	11.0	41.5	47.5	89.0	46.6	53.4	100
0-4	10.8	8.4	9.6	13.1	10.7	11.8	12.9	10.4	11.6
5-9	10.5	9.7	10.1	13.1	11.6	12.3	12.8	11.4	12.0
10-14	11.9	10.9	11.4	13.5	12.1	12.7	13.4	11.9	12.6
15-19	10.3	11.1	10.7	10.0	11.2	10.7	10.0	11.2	10.7
20-24	8.4	12.0	10.3	6.7	9.9	8.4	6.9	10.2	8.7
25-29	7.0	9.8	8.5	6.0	8.0	7.1	6.1	8.2	7.2
30-34	6.5	6.4	6.4	5.0	6.3	5.7	5.2	6.3	5.8
35-39	5.9	7.4	6.7	5.6	5.8	5.7	5.6	6.0	5.8
40-44	6.1	5.1	5.6	4.9	5.3	5.1	5.1	5.2	5.2
45-49	5.4	4.4	4.9	4.3	4.6	4.5	4.4	4.5	4.5
50-54	4.2	4.1	4.1	4.4	3.8	4.1	4.4	3.9	4.1
55-59	3.5	2.6	3.0	3.3	3.1	3.2	3.3	3.1	3.2
60-64	4.0	3.2	3.6	3.7	3.2	3.4	3.8	3.2	3.4
65-69	2.4	1.8	2.1	2.5	1.9	2.2	2.5	1.9	2.2
70-74	1.6	1.1	1.3	1.8	1.3	1.5	1.8	1.3	1.5
75-79	0.5	1.0	0.7	1.0	0.6	0.8	0.9	0.7	0.8
80+	1.0	0.9	0.9	1.0	0.7	0.8	1.0	0.7	0.8
Total household members (N)	**2,764**	**3,145**	**5,909**	**22,342**	**25,574**	**47,916**	**25,106**	**28,719**	**53,825**

Figure 3.1: Population pyramid of household members



Marital status

The marital status of household members interviewed is shown in Table 3.4. Most males under the age of 20 (98%) had never been married; however, among those aged 20-24, 53% were married, as were 84% of those aged 25-29, suggesting that most men were currently marrying in their twenties. One per cent of females aged under 15 were married, despite this being against the law, and over a quarter (27%) of those aged 15-19 were married, showing that there is still a strong tendency for females to marry relatively young. Just one per cent of men reported being in a polygamous marriage, and this was more likely among those aged over 35, suggesting it is becoming less common or that a second spouse is taken at a later age. (The survey recorded whether men had more than one wife (polygyny) or whether women had more than one husband (polyandry), hence women living with a husband with more than one wife are underrepresented in the polygamous category.) Divorce without subsequent marriage was very low for men (0.2%) and women (0.4%). Women (6%) were twice as likely to report being widowed than men (3%), and for both sexes the likelihood increased with age.

Table 3.4: Marital status of household members

Age	Never married (%)	Married (monogamous) (%)	Married (polygamous) (%)	Widowed (%)	Divorced/separated (%)	Total household members (N)
Males	46.0	49.7	1.3	2.9	0.2	**21,897**
<15	99.9	0.1	0.0	0.0	0.0	6,569
15-19	92.7	7.3	0.0	0.0	0.0	2,518
20-24	46.8	52.7	0.2	0.2	0.1	1,739
25-29	14.9	84.0	0.4	0.5	0.2	1,528
30-34	4.4	93.5	1.2	0.6	0.4	1,299
35-39	0.8	95.1	2.3	1.3	0.6	1,410
40-44	1.1	94.6	2.6	1.5	0.2	1,269
45-49	1.0	93.3	3.1	2.2	0.5	1,117
50+	0.5	83.5	3.4	12.3	0.4	4,424
Don't know	*39.4*	*53.4*	*0.0*	*7.1*	*0.0*	*24*
Females	38.1	55.6	0.0	5.9	0.4	**25,750**
<15	99.4	0.6	0.0	0.0	0.0	6,692
15-19	72.7	27.2	0.0	0.1	0.0	3,226
20-24	21.3	78.2	0.0	0.3	0.2	2,919
25-29	4.3	95.0	0.0	0.5	0.2	2,356
30-34	1.7	96.3	0.0	1.2	0.7	1,802
35-39	1.2	96.5	0.0	1.9	0.4	1,713
40-44	0.7	95.1	0.0	3.6	0.6	1,507
45-49	0.3	89.5	0.0	9.1	1.1	1,305
50+	0.4	68.6	0.0	29.9	1.0	4,202
Don't know	*36.5*	*49.3*	*0.0*	*14.2*	*0.0*	*28*

Note: The italic figures are based on an unweighted sample size of <30)

Educational attainment

Education is a key determinant of the lifestyle and societal status an individual enjoys. Studies have consistently shown that educational attainment is strongly associated with health-related behaviours, attitudes, and outcomes. Primary education is compulsory in Nepal, and in order to meet MDG targets, Nepal is committed to ensuring that by 2015 all children, in particular girls, children in difficult situations, and children from ethnic minority groups, have access to a complete, free, good-quality primary education (United Nations Children's Fund (UNICEF), 2006). Table 3.5 presents data on educational attainment for male and female household members aged five and above. The data on educational attainment show an increase in school attendance over time (excluding those aged 5-9 who may be yet to start school), as the younger the age group the more likely they are to have been to school. This is true for both males and females. However, females were less likely than males to have attended school across all age groups, and males were more likely to have progressed further in education.

Table 3.5: Educational attainment of household members

Age	Illiterate – never attended school (%)	Literate – never attended school (%)	Primary incomplete (%)	Completed primary (%)	Completed secondary (%)	More than secondary (%)	Don't know (%)	Total household members (N)
Male	6.7	22	25.1	28.8	9.3	7.9	0.1	**21,897**
5-9	0.1	6.6	93.3	0.0	0.0	0.0	0.0	3,215
10-14	0.0	4.3	41.3	54.4	0.0	0.0	0.0	3,353
15-19	0.7	6.9	5.6	57.7	20.5	8.6	0.1	2,518
20-29	2.9	12.9	8.1	33.2	18.0	24.8	0.1	3,267
30-39	8.3	23.3	8.1	31.9	15.7	12.6	0.1	2,709
40+	16.5	47.3	7.2	15.8	7.6	5.4	0.2	6,811
Don't know	*2.7*	*59.5*	*0.0*	*3.1*	*3.9*	*0.0*	*30.8*	*24*
Female	7.1	38.2	20.2	23.1	6.1	5.2	0.1	**25,750**
5-9	0.0	7.7	92.3	0.0	0.0	0.0	0.0	3,267
10-14	0.2	7.4	37.1	55.3	0.0	0.0	0.0	3,425
15-19	1.4	12.2	5.5	52.7	19.9	8.2	0.1	3,226
20-29	7.2	30.2	6.6	27.0	11.8	17.0	0.1	5,275
30-39	15.6	52.2	6.0	16.6	5.9	3.7	0.1	3,515
40+	12.1	78.5	2.3	4.9	1.5	0.6	0.0	7,013
Don't know	*1.0*	*49.8*	*7.1*	*4.4*	*16.3*	*0.0*	*21.3*	*28*

Note: The italic figures are based on an unweighted sample size of <30)

Occupation

Table 3.6 shows the occupation of household members. Most males (88%) and females (81%) under the age of 20 were students. Men over the age of 20 were most likely to work in agriculture (56%), and most of those not engaged in agriculture were either employed in waged labour (13%), working for a small business (10%), or not working or in unpaid work (7%). Nearly half (48%) of females over the age of 20 were housewives, and just over a third (37%) worked in agriculture. There was not much difference between the proportion of males (9%) and females (8%) who were not working or in unpaid work; however, males (3%) were more likely than females (1%) to work for government or non-government organisations.

Table 3.6: Occupation of household members

Age group	Not working/ unpaid work (%)	Govern-ment (%)	Non-govern-ment (%)	Agri-culture (%)	Small business (%)	Waged labour (%)	Student (%)	Housewife (%)	Foreign employ-ment (%)	Don't know (%)	Total household members (N)
Male	8.5	2.5	2.4	34.5	5.4	7.4	39.1	0.0	0.2	0.1	**21,897**
<15	6.2	0.0	0.1	1.3	0.0	0.3	92.0	0.0	0.0	0.1	6,569
15-19	4.2	0.2	0.9	10.4	1.8	6.7	75.6	0.0	0.1	0.3	2,518
20-24	6.5	1.9	5.2	35.3	6.8	14.6	29.3	0.0	0.4	0.1	1,739
25-29	5.4	5.4	7.1	46.8	12.5	16.4	5.9	0.0	0.5	0.0	1,528
30-34	4.0	6.9	7.6	51.0	13.3	16.4	0.6	0.0	0.2	0.0	1,299
35-39	1.8	5.3	4.4	58.8	14.2	15.1	0.0	0.0	0.3	0.1	1,410
40-44	2.6	7.1	4.1	62.8	11.4	11.6	0.0	0.0	0.5	0.0	1,269
45-49	4.8	7.6	3.5	62.9	8.1	12.6	0.0	0.0	0.5	0.0	1,117
50+	22.0	2.3	1.2	64.8	5.0	4.6	0.0	0.0	0.1	0.0	4,424
Don't know	*6.2*	*0.0*	*0.1*	*1.3*	*0.0*	*0.3*	*92.0*	*0.0*	*0.0*	*0.1*	*24*
Female	8.3	0.6	0.7	23.8	1.8	1.0	33.5	30.2	0.0	0.1	**25,750**
<15	9.2	0.0	0.1	1.2	0.0	0.1	89.1	0.2	0.0	0.1	6,692
15-19	6.5	0.2	0.2	10.9	0.5	0.8	64.2	16.5	0.0	0.0	3,226
20-24	3.7	1.0	1.8	26.3	3.1	1.3	17.7	45.0	0.1	0.0	2,919
25-29	1.8	2.0	2.0	30.8	3.1	1.6	2.8	55.9	0.0	0.0	2,356
30-34	1.3	1.3	1.5	35.4	4.0	2.1	0.5	53.9	0.0	0.0	1,802
35-39	1.2	1.3	0.8	39.5	4.0	1.7	0.0	51.6	0.0	0.0	1,713
40-44	1.5	1.0	0.8	45.0	3.2	1.7	0.0	46.8	0.0	0.0	1,507
45-49	3.3	0.5	0.3	45.1	2.6	1.5	0.0	46.6	0.1	0.0	1,305
50+	24.4	0.4	0.1	38.7	1.1	1.0	0.0	34.2	0.0	0.1	4,202
Don't know	*44.6*	*0.0*	*0.0*	*5.1*	*0.0*	*0.0*	*21.7*	*14.4*	*0.0*	*14.2*	*28*

Note: The italic figures are based on an unweighted sample size of <30)

Caste/ethnicity

Nepal is an ethnically diverse country and there is an increasing appreciation by government and civil society that the effects of caste and ethnicity on health outcomes need to be better understood. There is wide disparity in the health status and health service utilisation between different caste and ethnic groups. The Census 2011 reported 125 caste/ethnic groups, up from 103 in 2001. The HHS classified 115 caste ethnic groups into seven groups (see Annex 5).[6] The largest caste/ethnic groups were Janajati (39%), Brahmin/Chhetri (27%), and Terai/Madhesi other castes (14%) (Table 3.7).

Religion

Hinduism was by far the predominant religion (81%), with Buddhism (12%) and Islam (4%) the next most common. These figures are similar to those reported in the Census 2011, which showed that, nationally, 81% of the population were Hindu, 9% Buddhist, and 4% Muslim.

[6]Bennett, L., Dahal, D. and Govandasamy, P., 2008. *Caste Ethnicity and Regional Identity in Nepal: Further Analysis of the 2006 Nepal Demographic and Health Survey*. Calverton, Maryland, USA: Macro International Inc.

Table 3.7: Distribution of households by caste/ethnicity and religion

	Total (%)
Caste/ethnicity:	
Janajati	38.9
Brahman/Chhetri	26.6
Terai/Madhesi other castes	14.1
Dalit	12.3
Muslim	3.5
Newar	2.9
Others	1.8
Religion:	
Hindu	80.5
Buddhist	12.0
Muslim	3.5
Kirat	2.8
Christian	1.2
Total households (N)	**10,260**

3.2.3 Household environment

Building material

Table 3.8 presents information on the type of flooring material, roof material, and wall material used in the construction of each household. The type of material used for flooring is an indicator of the economic standing of the household as well as an indicator of potential exposure to disease-causing agents. Overall, 83% of the residences had floors made of earth, sand, or dung, while just 17% of respondents were reported to live in houses with finished floors, made of materials such as cement or wooden panels. Earth or dung flooring was most common in rural areas (89%).

Table 3.8: Floor, roof, and wall materials of households

	Urban (%)	Rural (%)	Total (%)
Floor material:			
Dung	20.3	52.3	48.4
Earth/sand	18.2	36.3	34.1
Cement	56.6	11.2	16.7
Carpet	3.5	0.1	0.6
Ceramic tiles	1.4	0.1	0.3
Roof material:			
Tiles/stone	32.6	41.3	40.2
Galvanised sheet	21.4	25.6	25.1
Thatch/palm leaf	3.6	24.3	21.8
Cemented	38.7	7.9	11.6
Calamine/cement fibre	3.6	0.6	1.0
Tent	0.1	0.0	0.0
Wall material:			
Stone with mud	17.8	51.3	47.3
Bamboo with mud	18.7	28.1	27.0
Brick and cement	35.3	7.3	10.7
Cement	12.8	4.0	5.1
Reused wood	1.7	3.7	3.4
Cane/palm/trunks	1.0	2.3	2.1
Stone with lime/cement	5.8	1.1	1.6
Cement blocks	6.0	0.3	1.0
Brick and mud	0.2	1.1	1.0
Plywood	0.0	0.0	0.1
Total households (N)	**1,244**	**9,016**	**10,260**

Number of rooms

The number of rooms used for sleeping provides an indication of the extent of overcrowding in households. Overcrowding increases the risk of contracting infectious diseases, such as acute respiratory infections and skin diseases, which particularly affect children and the elderly. In both urban (79%) and rural areas (75%), most households used at least two rooms for sleeping (Table 3.9).

Cooking fuel

Wood was the most common fuel used for cooking (82%) (Table 3.9). Rural households were nearly twice as likely to use wood (87%) as a source of fuel in comparison to urban households (44%). Use of Liquid Petroleum Gas (LPG) was much more common in urban (50%) than rural (5%) areas. Use of coal, lignite, kerosene, or charcoal was shown to be very limited.

Table 3.9: Number of rooms used for sleeping and type of cooking fuel

	Urban (%)	Rural (%)	Total (%)
Rooms used for sleeping:			
One	21.4	24.9	24.5
Two	32.3	34.6	34.4
Three or more	46.2	40.4	41.1
Cooking fuel:			
Wood	44.2	87.3	82.1
LPG	50.0	4.7	10.2
Biogas	3.7	3.7	3.7
Animal dung	1.7	3.3	3.1
Straw/shrubs/grass	0.3	0.9	0.8
Kerosene	0.1	0.1	0.1
Coal, lignite	0.0	0.0	0.0
Charcoal	0.0	0.0	0.0
Total households (N)	**1,244**	**9,016**	**10,260**

Assets

Respondents were asked about their household's ownership of particular durable goods and access to electricity. In addition to providing an indicator of economic status, ownership of these goods and access to electricity provide measures of other aspects of life. Ownership of a radio or television is a measure of access to mass media; ownership of a refrigerator indicates a capacity for more hygienic food storage; and ownership of a bicycle, motorcycle, or car reflects means of transport, which can be important for seeking emergency medical care or taking advantage of employment opportunities. Ownership of a telephone opens up communication with other users. The ownership of these items is presented in Table 3.10.

Overall, three-quarters of households were reported to have electricity (75%), including almost all households in urban areas (95%), and almost three-quarters of households in rural areas (72%). This high proportion in rural areas can be partially attributed to the rural electrification programmes implemented in recent years, including decentralised small hydropower plants, micro-hydropower plants, and solar energy and biomass sources.[7,8] However, it should be noted that the tool did not record for how much of the day electricity was available.

More than half of the households surveyed owned a radio (53%), and only slightly less (39%) own a television. A much greater proportion of those in urban areas own a television (76%) than those in rural areas (34%). Ownership of a mobile telephone is high (83%); however, only 6% of households have a landline telephone. Bicycles are the most common means of transport owned by households

[7]International Technical Cooperation (ITECO), 2011. *Developing Small Scale Hydropower in Nepal.* Affoltern, Switzerland: ITECO Engineering Limited.

[8] Rai, K., 2000. Rural electrification in Nepal: Experiences of an integrative social contextual approach. *Boiling Point,* 45, pp.29-31.

(36%). Ownership of motorised transport is rare: only 8% of households have either a car or a motorcycle or both, and ownership is substantially lower in rural areas (6%) than urban areas (22%). Urban households are more likely than rural households to own each of the items listed (except for carts).

Table 3.10: Household assets

	Urban (%)	Rural (%)	Total (%)
Mobile phone	92.2	81.8	83.1
Electricity	94.5	72.1	74.8
Radio	56.7	52.2	52.7
Television	76.3	33.7	38.9
Bicycle rickshaw	45.1	34.8	36.0
Fan	61.1	25.7	30.0
Cupboard	58.4	22.3	26.7
Motorcycle scooter	20.4	5.2	7.1
Sofa	26.9	4.5	7.2
Non-mobile phone	18.2	3.9	5.6
Refrigerator	22.8	2.8	5.3
Computer	18.2	2.1	4.0
Cart	2.4	2.8	2.7
Car/truck/bus	1.6	0.3	0.5
Tempo taxi	0.8	0.1	0.2
Total households (N)	1,244	9,016	10,260

3.2.4 Water and sanitation

Drinking water

Piped water and water drawn from protected wells and deep boreholes are more likely to be free from fatal water-borne diseases (such as typhoid, cholera, and dysentery); unprotected wells and surface water (rivers, streams, ponds, and lakes) are more likely to carry disease-causing agents.

Table 3.11 presents the distribution of households, according to urban or rural setting, by source of drinking water. The results show that, overall, the vast majority of households were using an improved source of drinking water (83%), a smaller proportion than that reported in the NDHS 2011 (89%). The HHS found that of the households using an improved source, 56% was from piped water (private or public), and 44% from a tube well, protected well, or protected spring. There was no significant difference between the proportions of urban (46%) and rural households (47%) with access to piped water, although a greater proportion of those living in urban areas had water piped directly to their dwelling, yard, or plot (17% in urban areas versus 13% in rural areas). This was in contrast to the NDHS 2011, which reported that 43% of households in urban areas and 19% in rural areas had access to piped water. However, these findings are similar to the Census 2011, which reported that tap/piped water was the main source of drinking water for 48% of households and that tube well/hand pump was the main source of drinking water for about 35% of households.

Table 3.11: Source of household drinking water

	Urban (%)	Rural (%)	Total (%)
Use an improved source:	84.2	83.2	83.3
Piped into dwelling	9.2	1.7	2.6
Piped to yard/plot	8.1	11.0	10.6
Public tap/standpipe	28.7	34.2	33.5
Tube well/bore hole	32.3	30.6	30.8
Protected well	1.3	0.5	0.6
Protected spring	4.6	5.3	5.2
Use non-improved source:	15.8	16.8	16.7
Unprotected well	1.0	0.1	0.2
Unprotected spring	1.5	7.1	6.4
Surface water (river/dam/lake/pond/stream/canal/irrigation channel)	3.0	3.2	3.1
Stone tap/dhara	10.3	6.4	6.9
Total households (N)	**1,244**	**9,016**	**10,260**

Sanitation

Modern sanitation facilities were still not available to a large proportion of Nepali households (Table 3.12). The use of traditional pit latrines was relatively common, particularly in rural areas. Almost half of all respondents (47%) had no toilet facilities. This proportion is slightly higher than that reported in the Census 2011, which noted that 38% of households did not have toilet facilities. This problem was more common in rural areas, where 51% of the households had no toilet facilities, compared with (a still high) 17% in urban areas. The NDHS 2011 reported slightly lower levels of households using a non-improved toilet facility (43%) compared with the HHS (57%), and a lower proportion of households using a bush or open field for defecation (36% compared with 47%).

Table 3.12: Household sanitation facilities

	Urban (%)	Rural (%)	Total (%)
Improved facility:	79.4	42.3	46.8
Flush to piped sewer system	5.2	0.3	0.9
Flush to septic tank	58.4	12.1	17.8
Flush to pit latrine	3.7	10.0	9.2
Flush to somewhere else	0.2	0.8	0.7
Flush, don't know where	0.4	0.4	0.4
Ventilated improved pit latrine	2.7	3.3	3.3
Pit latrine with slab	9.3	15.6	14.8
Composting latrine	0.1	0.9	0.8
Non-improved facility:	20.6	57.7	53.2
Pit latrine without slab/open pit	2.7	5.7	5.4
Bucket latrine	0.4	0.1	0.2
No facility/bush/field	17.0	50.7	46.7
Total households (N)	1,244	9,016	10,260

Hand Washing

HW, which provides protection against communicable diseases, is promoted by the GoN, and included in the framework of the NHSP-2.[9] Less than two-thirds of households (59%) had access to a HW station, and just over half had a HW station with a water supply (55%) (Table 3.13). However, less than one-third of households (30%) had a HW station with soap, and just over a quarter (27%) had one within ten paces of a latrine. Less than one-fifth of households (18%) had a HW station with water, soap, and within ten paces of a latrine. The NDHS reported a higher percentage of households with soap and water at the place where the household washed their hands (48%), although the proximity to the latrine was undefined, and this was limited to households where HW was directly observed.

Urban households (80%) were more likely to have a HW station than rural households (56%). Nearly three-quarters of households in the Terai had a designated HW station (70%), compared to less than half of households in the mountain (49%) and hill (50%) districts. Brahmin/Chhetri and Newar respondents were most likely to have access to a HW station with water, soap, and within ten paces of a latrine (33%), and Muslim and Dalit respondents were least likely (9%). Those in the highest quintile were most likely to have a HW station (90%), and were most likely to have one with water (89%), soap (72%), and within ten paces of a latrine (64%). The NDHS 2011 reported that 89% of households in the highest wealth quintile where HW was observed had soap and water, compared with only 10% of those in the lowest wealth quintile. This latter finding is similar to the HHS, which found that 11% of households in the lowest wealth quintile had a HW station with water, soap, and within 10 paces of the latrine.

[9]Ministry of Health and Population (MoHP), 2010a. The Second Nepal Health Sector Programme Implementation Plan (NHSP-2 IP, 2010-15). Kathmandu, Nepal: MoHP.

Table 3.13: HW station with soap and water

Characteristics	HW station (%)	HW station with water (%)	HW station with soap (%)	HW station within 10 paces of latrine (%)	HW station with water, soap, and within 10 paces of latrine (%)
All	59.0	54.9	30.2	26.5	18.4
Residence:					
Urban	80.2	78.2	61.3	56.0	50.6
Rural	56.0	51.6	25.9	22.5	14.0
Ecological zone:					
Mountain	48.7	44.5	28.1	24.1	15.9
Hill	49.5	42.5	25.0	27.4	17.5
Terai	69.9	68.8	35.7	26.0	19.7
Wealth quintile:					
First	52.1	48.9	22.3	16.9	10.7
Second	47.6	42.9	16.9	15.3	8.6
Third	47.8	41.6	17.3	15.7	7.4
Fourth	64.8	60.3	32.9	29.3	18.3
Fifth	90.3	89.4	71.8	64.2	55.8
Caste/ethnicity:					
Brahmin/Chhetri	68.0	63.7	44.9	42.2	32.5
Terai/Madhesi other castes	58.6	57.5	28.1	17.4	13.4
Dalit	53.0	47.8	17.4	15.7	8.8
Newar	72.0	67.9	47.0	43.2	32.8
Janajati	53.9	48.8	23.8	21.9	12.7
Muslim	50.2	49.5	16.5	11.1	8.8
Others	74.3	72.7	56.7	44.3	34.9
Total households (N)	10,260				

3.2.5 Bed nets

The ownership and use of mosquito nets, ideally LLINs, is a key prevention strategy for reducing malaria transmission in affected areas. In Nepal, areas with a high incidence of malaria were identified, and 12 priority districts in the forest area, foothills, and inner Terai were targeted for focused initiatives under the Roll Back Malaria strategy. Furthermore, malaria control activities are currently in place in 65 endemic districts (out of the country's 75 districts)[10] and the MoHP has established a programme to distribute LLINs through various channels. Eleven of our 13 districts fall within these endemic districts.

[10]Ministry of Health and Population (MoHP), 2012. Annual report: Department of Health Services (DoHS) 2067/68 (2010/11). Kathmandu, Nepal: MoHP.

Availability of bed nets

The HHS collected data on the number of mosquito nets available in each household in the endemic districts (Table 3.14). Over two-fifths of households had no bed nets available (42%) and 86% did not have a LLIN. Fewer households in rural areas had access to a bed net (55%) than those in urban areas (81%). Urban households (68%) were also more likely to have two or more bed nets in the household than rural households (44%). However, rural households (15%) were more likely to have LLINs than urban households (10%).

Table 3.14: Number of bed nets available in households in endemic districts

	Urban (%)	Rural (%)	Total %
Number of bed nets available:			
0	19.0	45.0	41.8
1	12.8	11.3	11.5
2	26.2	16.7	17.9
3	18.7	13.3	14.0
4+	23.3	13.6	14.8
Number of LLINs available:			
0	89.5	84.9	85.5
1	6.7	4.9	5.1
2	2.7	3.8	3.6
3	0.9	3.4	3.1
4+	0.2	3.0	2.7
Total households (N)	1,244	8,625	9,869

Dalit households (46%) were least likely to have bed nets available and Terai/Madhesi other castes were most likely (80%) (Table 3.15). However, Terai/Madhesi other castes (10%) were least likely to have LLINs.

Table 3.15: Availability of bed nets in endemic districts, by caste and ethnicity

	Brahmin/ Chhetri (%)	Terai/ Madhesi other caste (%)	Dalit (%)	Newar (%)	Janajati (%)	Muslim (%)	Others (%)	Total (%)
Number of bed nets available								
0	42.3	20.2	54.0	40.9	46.5	31.2	46.3	41.8
1	9.0	14.8	13.3	10.9	11.1	17.2	10.2	11.5
2	17.4	26.1	15.5	14.2	15.4	23.0	22.5	17.9
3	14.2	19.7	9.8	16.3	13.3	13.1	7.2	14.0
4+	17.1	19.2	7.4	17.8	13.7	15.5	13.7	14.8
Number of LLINs available								
0	83.3	90.4	88.3	92.1	82.9	90.2	89.6	85.5
1	5.4	1.0	2.6	3.6	8.0	1.5	2.4	5.1
2	4.4	2.2	2.7	2.3	4.3	2.7	1.4	3.6
3	4.0	2.8	3.0	.9	2.9	2.6	2.1	3.1
4+	3.0	3.6	3.4	1.1	1.9	3.0	4.5	2.7
Total households (N)	**2,672**	**1,443**	**1,247**	**291**	**3,674**	**357**	**184**	**9,869**

Those in the highest wealth quintile were most likely to have bed nets available (79%); however, less than one-quarter of the highest wealth quintile (22%) had at least one LLIN (Table 3.16). Availability of bed nets amongst the other wealth quintiles was lower, with more than half (53%) of households in the middle wealth quintile having no bed net, and 89% having no LLIN.

Table 3.16: Availability of bed nets in endemic districts, by wealth quintile

	First (%)	Second (%)	Third (%)	Fourth (%)	Fifth (%)	Total (%)
0	39.0	52.6	53.4	36.6	21.3	41.8
1	11.6	11.3	11.5	12.4	10.7	11.5
2	17.4	15.4	15.5	20.3	22.2	17.9
3	16.2	11.5	10.1	14.1	19.9	14.0
4+	15.7	9.3	9.5	16.6	25.9	14.8
Number of LLINs available						
0	84.3	87.3	88.9	86.6	78.4	85.5
1	7.0	5.0	4.2	4.5	5.3	5.1
2	3.1	2.6	3.0	3.4	6.7	3.6
3	2.9	2.3	2.3	3.1	5.3	3.1
4+	2.7	2.8	1.7	2.4	4.3	2.7
Total households (N)	**1,832**	**2,185**	**2,206**	**1,972**	**1,673**	**9,869**

Use of bed nets

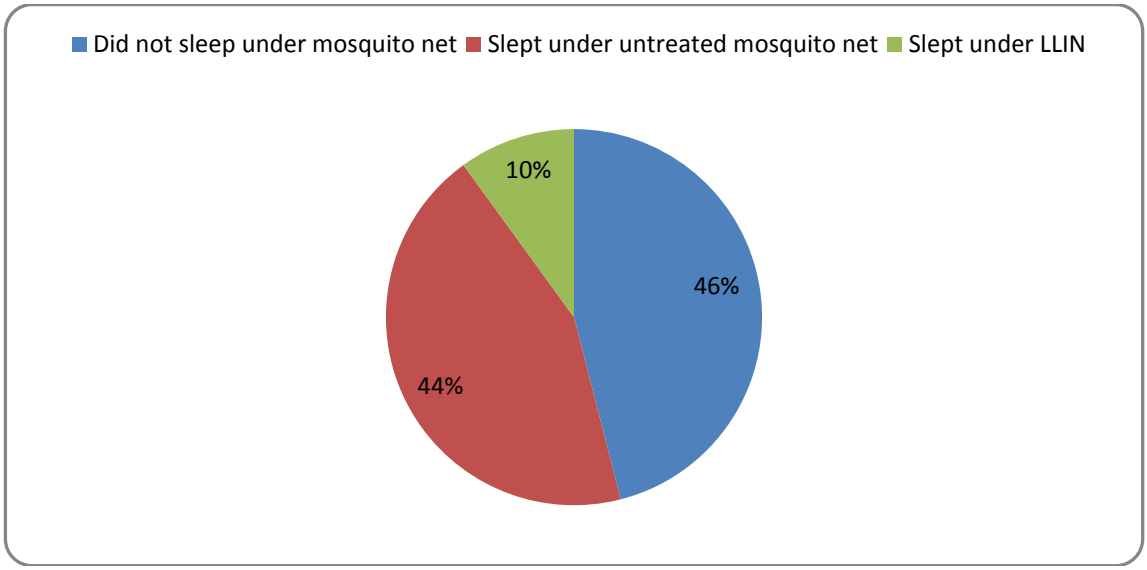
Nearly a half of household members (46%) had not slept under a bed net the previous night, while 44% had slept under a non-impregnated net, and just 10% under an LLIN (Table 3.17). Those aged between 20 and 50 were most likely to have slept under a bed net, with 47% of under-fives not sleeping under one.

Table 3.17: Use of mosquito nets in endemic districts by household members

	Did not sleep under mosquito net (%)	Slept under untreated mosquito net (%)	Slept under LLIN (%)	Total household members (N)
All	45.5	44.2	10.3	51,915
Age group:				
<5	46.6	43.0	10.4	5,996
5-20	49.0	41.4	9.6	18,288
20-30	40.9	47.8	11.3	8,240
30-40	42.8	46.4	10.8	6,044
40-50	42.7	46.5	10.8	6,082
>50	45.5	44.4	10.2	7,214
Don't know (age unknown)	29.4	66.9	3.7	52
Sex:				
Male	44.9	45.1	10.0	24,224
Female	46.0	43.4	10.6	27,691
Marital status:[&]				
Never married	48.5	42.0	9.5	19,112
Married (monogamous)	42.3	46.8	10.9	24,333
Married (polygamous)	50.9	35.7	13.4	271
Widowed	50.5	39.3	10.2	2,072
Divorced/separated	55.5	37.0	7.5	131
Educational status:[##]				
Never attended school	47.6	42.2	10.2	21,095
Completed primary	47.8	42.5	9.7	20,699
Completed secondary	33.1	55.2	11.7	3,510
Further education	29.9	56.6	13.5	3,009
Don't know	31.0	60.5	8.5	58

[&]marital status was not enquired after in children under five; [##]educational status was not enquired after in children under three

Figure 3.2: Use of bed nets the previous night in endemic districts



3.2.6 Migration

Migration may be seasonal, temporary, semi-permanent, or permanent; its nature often depends on the reason for migration.[11] Migration can create significant changes to both the origin and destination. In Nepal migration is highly prevalent, both urban to rural migration within Nepal and migration overseas. Table 3.18 shows that almost half (47%) of households had at least one migrant (migrating either inside or outside the country). One in ten households (10%) had two migrants, 5% of households had three migrants, and 7% had four or more migrants. There was little difference in the percentage of households in urban (46%) and rural (47%) areas with at least one migrant. However, rural households (8%) were more likely to have four or more migrants than their urban counterparts (5%).

Table 3.18: Households with migrants

	Urban (%)	Rural (%)	Total (%)
Have no migrants	54.2	53.2	53.4
Have at least one migrant	45.8	46.8	46.6
Have one migrant	25.1	24.3	24.4
Have two migrants	10.6	9.5	9.6
Have three migrants	5.2	5.3	5.3
Have four or more migrants	5.0	7.6	7.3
Total households (N)	**1,244**	**9,016**	**10,260**

[11]KC, B.K., 2003. Internal migration in Nepal. *Population Monograph*, Vol.1. Kathmandu, Nepal: Central Bureau of Statistics.

Characteristics of migrants

Most of the migrants from the selected households were from rural areas (89%) (Table 3.19). Migrants were almost three times as likely to be males (72%) than females (28%), with a similar split seen in urban and rural areas. The peak age for male migrants was within the age groups 20-29; for females it was 20-24. Among males, migrants were most likely to be aged 15-39, while among females, migrants were most likely to be aged 15-29.

Table 3.19: Age and sex distribution of migrants

Age group	Rural			Urban			Total		
	Male (%)	Female (%)	Total (%)	Male (%)	Female (%)	Total (%)	Male (%)	Female (%)	Total (%)
All	72.2	27.8	100	70.4	29.6	100	72.0	28.0	100
0-4	3.5	8.3	4.8	2.8	4.7	3.3	3.4	7.9	4.7
5-9	4.1	9.2	5.5	2.9	3.9	3.2	3.9	8.6	5.2
10-14	4.3	7.1	5.1	5.3	4.5	5.1	4.4	6.8	5.1
15-19	12.3	15.4	13.2	9.6	19.2	12.5	12.1	15.9	13.1
20-24	20.9	21.4	21.1	15.6	15.4	15.5	20.4	20.7	20.5
25-29	19.8	14.9	18.4	21.2	16.2	19.8	19.9	15.1	18.6
30-34	12.9	8.7	11.8	17.2	9.1	14.8	13.4	8.8	12.1
35-39	8.8	5.4	7.8	9.3	6.8	8.6	8.8	5.5	7.9
40-44	5.5	2.6	4.7	3.9	4.0	4.0	5.3	2.7	4.6
45-49	2.8	0.6	2.2	4.8	3.2	4.3	3.0	0.9	2.4
50-54	1.9	1.2	1.7	1.9	3.7	2.4	1.9	1.5	1.8
55-59	0.9	0.8	0.9	1.6	1.5	1.6	1.0	0.9	1.0
60-64	1.2	1.1	1.2	1.6	2.0	1.7	1.2	1.2	1.2
65-69	0.4	1.0	0.5	0.5	1.4	0.8	0.4	1.0	0.6
70-74	0.3	0.4	0.3	0.6	1.9	1.0	0.3	0.6	0.4
75-79	0.2	0.2	0.2	0.4	0.0	0.3	0.2	0.2	0.2
80+	0.0	0.2	0.1	0.2	0.4	0.2	0.1	0.2	0.1
Don't know	0.3	1.5	0.6	0.7	2.1	1.1	0.3	1.5	0.7
Total migrants (N)	**6,469**	**2,488**	**8,957**	**750**	**316**	**1,066**	**7,220**	**2,803**	**10,023**

Figure 3.3: Population pyramid of migrants

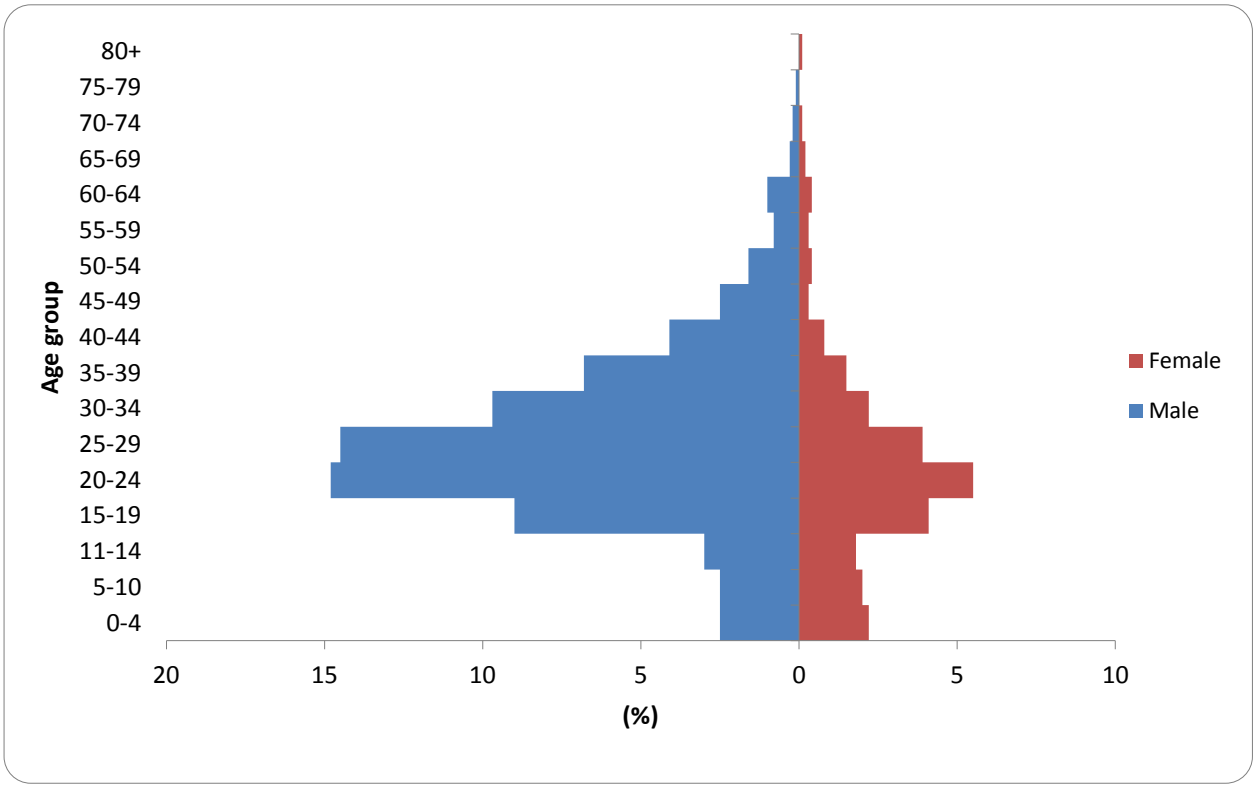


Table 3.20 shows the characteristics of migrants from the households surveyed. Most migrants were under 40: more than a quarter (28%) were under 20, and nearly two-fifths were aged 20-29. Just 12% were over 40. Migrants were almost three times as likely to be male (72%) than female (28%). Most of the study population were married and from rural areas; however, compared to non-migrants, migrants were slightly more likely to be married (59% compared to 53%). Similar proportions of migrants and non-migrants live in rural and urban areas (89%).

Table 3.19: Characteristics of migrant and non-migrant household members

	Migrants (%)	Non-migrants (%)	Total (%)
All	16.7	83.3	100
Age group:			
<20	28.1	46.8	43.9
20-39	39.0	15.9	19.5
30-39	20.0	11.6	12.9
40-49	7.0	9.6	9.2
>50	5.2	16.0	14.3
Don't know	0.7	0.1	0.2
Residence:			
Rural	89.4	11.0	23.3
Urban	10.6	89.0	76.7
Sex:			
Male	72.0	46.6	50.6
Female	28.0	53.4	49.4
Total household members (migrants and non-migrants) (N)	10,671	53,229	63,900
Marital status:			
Never married	39.5	41.7	41.3
Married (monogamous)	58.5	52.9	53.9
Married (polygamous)	0.7	0.6	0.6
Widowed	1.0	4.5	3.9
Divorced/separated	0.3	0.3	0.3
Total household members (migrants and non-migrants) (N)	9,556	47,648	57,204

Reasons for migration

Table 3.21 shows the reasons for and place of migration. Most migrants moved for employment reasons (59%), and this was true in both urban (53%) and rural (60%) areas. Migration for study was the second most prominent reason for those in urban areas (17%), while for those in rural areas, study (12%) and visiting relatives (12%) were the next most commonly given reasons for migration.

Place of migration

Internal and external migration were both widely prevalent. Over one-quarter (27%) of households had at least one migrant living overseas, with 6% of households having at least two migrants overseas, and 2% having at least three (Table 3.21). Rural households (27%) were slightly more likely to have a migrant living overseas than urban households (24%). Among Married Women of Reproductive Age (MWRA), 18% had a husband who was currently living overseas. This was more common among MWRA in rural areas (19%) than urban (12%). One-fifth of the households (20%) had at least one migrant living inside the country.

Table 3.20: Reason for and place of migration

	Urban (%)	Rural (%)	Total (%)
Reason for migration:			
Employment	52.5	59.6	58.9
Study	17.4	11.5	12.2
Visit to relative	12.5	11.5	11.6
Gone with family members	5.8	10.8	10.3
Tour/journey	1.0	0.9	0.9
Gone away for agriculture and livestock	1.3	0.9	0.9
Treatment	1.7	0.9	1.0
Business	0.5	0.8	0.8
Household purpose	6.1	2.0	2.4
Education for children	0.3	0.3	0.3
Others	0.3	0.1	0.1
Don't know	0.7	0.6	0.6
Total number of migrants (N)	1,066	8,957	10,023
Households with at least 1 internal migrant	21.7	19.4	19.6
Households with migrants overseas:			
Households have at least 1 migrant overseas	24.1	27.4	27.0
Households have 1 migrant overseas	18.4	21.0	20.7
Households have 2 migrants overseas	3.3	4.4	4.2
Households have at least 3 migrants overseas	2.4	2.1	2.1
Total number of households (N)	1,244	9,016	10,260
MWRA with husband living overseas	12.2	19.3	18.4
Total MWRA (N)	**1,734**	**11,203**	**12,937**

3.2.7 Illness

Suicide was found to be the leading cause of death among WRA in Nepal,[12] and chronic and mental illness are key contributory factors.[13]

Chronic illness

Nearly one in ten households (8%) had at least one member suffering from a chronic illness, with 1% of households having at least two members suffering (Table 3.22). Urban households (14%) were almost twice as likely as rural households (8%) to report at least one member suffering from a chronic illness, and twice as likely to report having two or more (2% compared to 1%). The likelihood of suffering from a chronic illness increased with age from less than 1% for those aged under 20 to 6% among those aged over 50 (Table 3.23). There was no difference by sex.

[12] Pradhan A., Suvedi B.K., Barnett S., Sharma S.K., Puri M., Poudel P., Chitrakar S.R., KC N.P. and Hulton L., 2010. *Nepal Maternal Mortality and Morbidity Study 2008/09.* Kathmandu, Nepal: Family Health Divison, Department of Health Services, Ministry of Health and Population, Government of Nepal.

[13] Pradhan, A., Poudel, P., Thomas, D. and Barnett, S., 2010. A review of the evidence: suicide among women in Nepal. London: Options Consultancy Services.

Mental illness

Just 1% of households reported that a member suffered from a mental illness (Table 3.22), with more urban households (2%) than rural (1%) reporting that a member suffered. The sample size for those suffering from mental illness is small: findings need to be interpreted with caution. The findings suggest that those aged less than 20 are less likely to experience mental illness, but after 20 there is little variation by age (Table 3.24). There was no difference by sex.

Table 3.21: Households with members suffering from a mental or chronic illness

	Urban (%)	Rural (%)	Total (%)
Number of members in household with a chronic illness:			
None	86.6	92.3	91.6
1	11.7	7.0	7.5
2+	1.8	0.7	0.9
Number of members in household with a mental illness:			
None	98.5	98.9	98.8
1	1.5	1.1	1.1
2+	0.1	0.1	0.1
Total households (N)	1,244	9,016	10,260

Table 3.22: Demographic characteristics of household members with a chronic or mental illness

	Has a chronic illness (%)	Has a mental illness (%)	Total (N)
Age group:			
<20	0.3	0.1	28,050
20-30	0.5	0.3	12,453
30-40	1.0	0.3	8,229
40-50	2.4	0.2	5,898
50+	6.4	0.3	9,150
Don't know	1.2	0.2	120
Sex:			
Male	1.5	0.2	32,350
Female	1.5	0.2	31,550
Total household members (N)	1.5	0.2	63,900

3.2.8 Access to health facilities

Many factors prevent people from getting medical advice or treatment when they are sick, and from utilising preventive services. Distance and time taken to health facilities are often cited as reasons influencing decision making in seeking health services, and information on this is important in understanding and addressing the barriers people may face in seeking care. According to the Nepal Living Standards Survey (NLSS) 1995/96, 45% of households had access to a health facility within a walking distance of 30 minutes or less, which increased to 62% in NLSS 2010/11.

Table 3.24 shows accessibility to health facilities for the households surveyed. The closest health facility to households in both urban (63%) and rural areas (72%) was more likely to be a government one than a non-government one. In rural areas, households were most likely to be closest to a HP or SHP (65%), whereas urban households were most likely to be closest to a government hospital (53%). It should be noted that services at lower-level facilities are limited. Households in urban areas were more likely to have a health facility within a short distance (<3km) (72%) compared to those in rural areas (59%), and it was quicker for urban households to reach a facility: four out of five households (80%) were less than 30 minutes away. In rural areas, however, just over a half of households (53%) could reach a health facility in less than 30 minutes. Further, 6% households in rural areas were more than two hours from the closest government health facility.

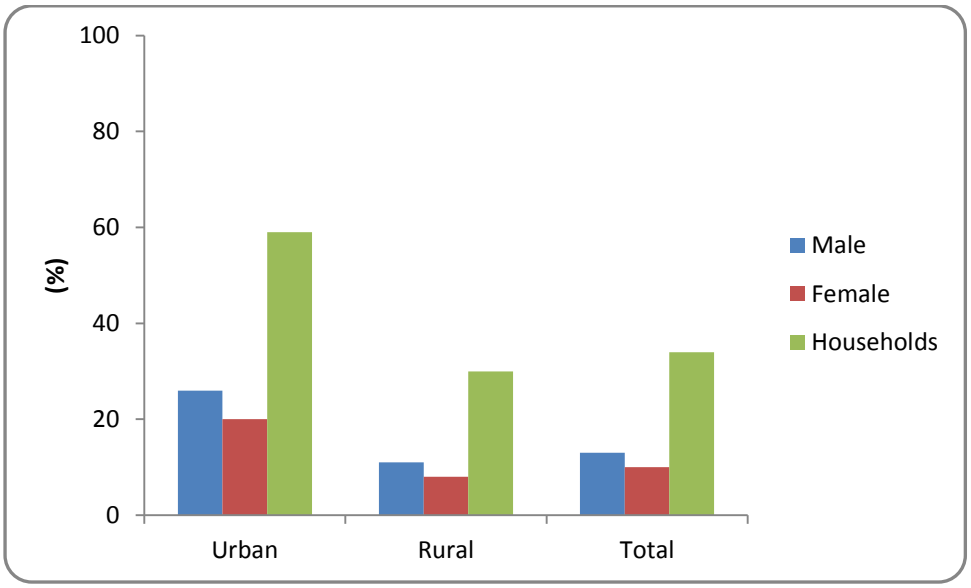
Table 3.23: Accessibility to health facilities

	Urban (%)	Rural (%)	Total (%)
Nearest heath facility			
Government:			
Government hospital	52.6	2.3	8.4
PHCC	0.3	4.8	4.2
HP	2.7	25.5	22.8
SHP	5.6	39.2	35.2
Ayurvedic clinic	1.4	0.5	0.6
Any government facility	62.6	72.3	71.2
Non-government:			
Private hospital	13.7	1.0	2.5
Private clinic	13.8	9.2	9.8
Pharmacy	9.7	16.2	15.4
Medical college/teaching hospital	0.2	0.0	0.0
Mission/Non-governmental Organisation (NGO) hospital/community hospital	0.0	1.3	1.1
Other	0.1	0.0	0.0
Any non-government	37.5	27.7	28.8
Time taken to reach nearest government health facility			
≤30 minutes	80.3	53.2	56.5
31-60 minutes	17.0	23.2	22.4
61-90 minutes	1.7	9.8	8.8
91-120 minutes	0.5	8.3	7.4
>120 minutes	0.6	5.5	4.9
Distance to nearest government health facility			
<3 Km	72.2	58.8	60.4
3-5 Km	26.1	24.7	24.8
>5 Km	1.7	16.6	14.8
Total households (N)	**1,244**	**9,016**	**10,260**

3.2.9 Access to bank accounts

In just over one-third of households (34%), at least one member had a bank account (Figure 3.4); bank account ownership was twice as prevalent in urban areas (59%) than rural areas (30%). Men (13%) were more likely to have a bank account than women (10%), and this was true in both urban (26% compared to 20%) and rural areas (11% compared to 8%).

Figure 3.4: Percentage of males, females, and households with access to bank accounts



N= 10,260 households, 19,613 male household members, 19,249 female household members
Percentage of bank account holders is derived from those aged >17 years

3.3 KEY FINDINGS

Sociodemographic characteristics

- The age-sex structure of household members shows a decrease in the percentage in younger age groups (reflecting a reduction in fertility); however, the greater percentage of boys in group aged 0-4 suggests that sex-selective abortion may be occurring.
- Over one-quarter (27%) of females aged 15-19 were married, showing that there is still a strong tendency for females to marry relatively young, whereas men were most likely to marry in their twenties.
- There has been an increase in school attendance over time for both males and females.

Household characteristics

- Three-quarters of households had electricity (75%), including most households in urban areas (95%).
- Most households were using an improved source of drinking water (83%).
- Less than one-fifth of households (17%) had floors finished with wood/cement/carpets, with earth or dung flooring most common, especially in rural areas (89%).
- Almost half (47%) of all households had no toilet facilities. Where toilet facilities existed, the use of traditional pit latrines was relatively common, particularly in rural areas.
- Less than one-fifth of households (18%) had a HW station with water, soap, and within ten paces of a latrine.

Bed nets

- Many households in malaria-endemic districts had no bed nets available (42%) and 86% did not have an LLIN. Households in rural areas were less likely to have a bed net (55%) than those in urban areas (81%).

- Just one in ten household members had slept under a LLIN the previous night. Less than half had slept under a non-impregnated net (44%) and 46% had not slept under any bed net.

Migration

- Almost half (47%) of households had at least one migrant, with households in rural areas more likely to have migrants. Most migrants moved for employment reasons (59%), and this was true in both urban (53%) and rural (60%) areas.
- Migrants were almost three times as likely to be male (72%) than female (28%). The peak age range for male migrants was 20-29, and for females it was 20-24.

Health

- Nearly one in ten households (8%) had at least one member suffering from a chronic illness, and 1% reported that at least one member suffered from a mental illness. Urban households were twice as likely to report that at least one member suffered from a chronic or mental illness as rural households.
- The closest health facility to households in both urban (63%) and rural areas (72%) was most likely to be a government one. Households in urban areas tended to be closer to a health facility, and the closest facility was most likely to be a government hospital. In rural areas, most households (65%) could reach a health facility in less than 30 minutes, but it was likely to be a HP/SHP, and a small percentage (6%) were more than two hours from the closest government health facility.

CHAPTER FOUR: DEMAND-SIDE FINANCING AND FREE CARE

4.1 BACKGROUND

The Interim Constitution of Nepal, 2007, which considers health to be a fundamental right, introduced free health care for the people of Nepal. This was done in several stages:

- *2006*: the poor, people living with disabilities, senior citizens, and FHCVs became eligible for free emergency and inpatient services in district hospitals (up to 25 beds) and PHCCs.
- *2008*: all citizens became eligible for free health care at HPs and SHPs.
- *2009*: all citizens became eligible for selected essential drugs and delivery care. Targeted population groups (poorer people, poor/destitute/helpless people, people living with disabilities, senior citizens, and FCHVs) became eligible for all services at district hospitals (up to 25 beds) free of charge.

In addition to the provision of free care, several DSF schemes have been adopted by the GoN in order to address the financial barriers that limit access to health care services. These include the Aama Programme, 4ANC Programme, and Multidrug-resistant Tuberculosis (MDR-TB), Kala Azar (KA), and Uterine Prolapse (UP) programmes. These schemes consist of a combination of output-based payments to service providers and demand-side payments to the consumers accessing health services.

This chapter presents the findings of the HHS 2012 for three DSF schemes, namely, 4ANC, the Aama Programme, and free care. Findings are disaggregated by urban/rural residence, ecological zone, education, wealth quintile, and caste/ethnicity where appropriate. Any observed differences are tested to see if they are significant.

4.2 RESULTS

	HHS 2012	95% CI
% aware of 4ANC incentive payments	34.9	31.0-38.0
% aware that women need to have four ANC check-ups to receive the 4ANC incentive	20.5	15.5-21.2
% aware that women receive the 4ANC incentive after the first Postnatal Care (PNC) visit	15.0	12.6-17.8
% of women who had received ANC from a formal provider in the last year who were informed about 4ANC incentive payments by the provider	31.0	25.7-36.8
% of women who had delivered in the last year who had received the 4ANC incentive payment	11.0	7.9-15.2
% of women who were entitled to the 4ANC incentive payment in the last year who had received it	50.7	40.7-59.9
% aware of the Aama Programme	69.8	65.6-73.6
% aware that the Aama Programme includes a transport incentive	55.5	51.0-59.9
% aware that the Aama Programme includes free care for normal deliveries	62.7	57.4-67.7
% aware that the Aama Programme includes free care for assisted vaginal deliveries	23.3	19.8-27.1
% aware that the Aama Programme includes free care for CS	15.2	12.8-17.8
% aware of Aama incentive payments to facilities for each delivery	7.8	6.1-10.1
% aware of Aama incentive payments to trained health workers for each facility delivery	7.3	5.7-9.2
% aware of Aama incentive payments to trained health workers for each home delivery	6.9	5.1-9.4
% of respondents who had seen a list of Aama beneficiaries displayed	4.7	3.8-5.8
% of those entitled to the Aama transport incentive who had received it	90.8	85.2-93.9
% of those entitled to the Aama transport incentive who had received it as per guidelines	85.7	79.8-90.1
% who had received delivery care free of charge	86.8	82.0-92.5
% aware of free care	76.2	69.4-81.8
% aware of free registration fees	57.4	51.5-63.2
% aware of free consultation fees	68.0	61.4-73.9
% aware of free essential drugs	56.1	50.0-62.0
% aware that everyone is eligible for free outpatient care at district hospitals	38.9	34.2-43.7
% aware of FCHV funds	10.6	8.7-12.8
% utilising FCHV funds*	0	NA

*LF indicator

4.2.1 ANC incentive (4ANC)

The 4ANC incentive scheme was introduced in July 2009. The intention is to encourage women to complete the recommended programme of four ANC check-ups (at the fourth, sixth, eighth, and ninth months of pregnancy), to promote the continuum of care, and to reduce low birth weight among newborns. Each woman receives 400 Nepalese Rupees (NPR) as an incentive if she completes the four visits in the specified months, delivers at an institution, and has one PNC check-up. At the time of delivery, she should possess a completed ANC card (Family Health Division (FHD), 2010b).

Procedures related to the recording, reporting, and payment are similar to those of the Aama Programme.

Awareness of 4ANC

The HHS 2012 assessed the levels of awareness of 4ANC incentive payments among household heads (Table 4.1). Overall levels of awareness were low, with just over one-third of respondents (35%) aware of 4ANC incentive payments. This dropped to just over one-fifth for those aware of how many times a woman should attend ANC in order to receive the incentive (21%), reducing further to 15% for those aware of when women should receive the 4ANC incentive. Awareness of 4ANC incentive payments, and the need to attend four check-ups in order to receive the incentive, were significantly associated with ecological zone, education, and caste/ethnic group of respondents. Respondents in mountain (43%) and hill (41%) districts were likely to have greater awareness of the 4ANC incentive than those in Terai districts (28%). The same pattern was seen for awareness of the need to have four check-ups. Awareness of 4ANC was highest among Brahmins/Chhetris (44%) and Newars (42%) and lowest among Muslims (24%) and Terai/Madhesi other castes (24%).

Table 4.1: Awareness of 4ANC payments and conditions

	Aware of 4ANC incentive payment (%)	Aware that women need to have four ANC check-ups to receive incentive (%)	Aware that women receive 4ANC incentive after first PNC visit (%)	Total respondents (N) †
All	34.9	20.5	15.0	10,260
Residence:	(0.705)	(0.706)	(0.648)	
Urban	36.9	17.4	13.4	1,244
Rural	34.6	21.0	15.2	9,016
Ecological zone:	**(0.003)**	**(0.012)**	(0.398)	
Mountain	43.2	23.9	14.4	689
Hill	41.0	25.3	16.6	4,791
Terai	27.7	15.2	13.5	4,781
Education:	**(<0.001)**	**(<0.001)**	**(<0.001)**	
Never attended school	29.6	15.8	11.5	5,668
Primary	37.1	22.6	15.4	1,268
Secondary	41.3	26.4	19.0	2,493
Further education	49.0	32.3	26.4	831
Wealth quintile:	(0.760)	(0.502)	(0.831)	
Lowest	35.1	22.2	15.8	1,928
Second	36.0	21.9	15.7	2,283
Third	34.9	20.0	13.9	2,306
Fourth	35.1	19.5	14.7	2,060
Highest	33.1	18.7	15.1	1,683
Caste/ethnicity:	**(<0.001)**	**(0.002)**	**(<0.001)**	
Brahmin/Chhetri	43.5	27.7	20.6	2,725
Terai/Madhesi other castes	23.8	9.6	10.6	1,443
Dalit	35.2	18.8	15.8	1,261
Newar	42.2	24.0	17.0	300
Janajati	32.7	20.1	12.5	3,989
Muslim	23.5	10.1	7.5	358
Others	52.2	37.0	27.7	184

Notes: †One respondent selected per household (ideally household head)
The figures in parentheses indicate p-value; those in bold are statistically significant

Sources of information on 4ANC

Table 4.2 shows the sources of information on 4ANC for those who were aware of the incentive. Overall, friends or neighbours were the most likely source of information (53%): they were a key source of information regardless of location, wealth, caste/ethnicity, or education. Other key sources of information were family/relatives (25%), FCHVs (31%), government staff (29%) and FM/radio (25%). Those in the highest wealth quintile were more likely than other respondents to have heard about 4ANC through FM/radio (46%) and government facility staff (37%). Those in the Terai districts were less likely to have heard about 4ANC on the radio than those in the mountain and hill districts. Those who had never been to school or had only attended primary school were more likely to have heard about 4ANC through the newspaper than those with higher levels of education. Muslims, Terai/Madhesi other castes, and Dalits were least likely to have heard about 4ANC through the radio.

Table 4.2: Sources of information on 4ANC

	Family/ relative (%)	Friend/ peer/ neigh-bour (%)	FCHV (%)	Tradit-ional Birth Atten-dant (TBA) (%)	Govern-ment facility/ staff (%)	Private facility/ staff (%)	NGO facility/ staff (%)	Commu -nity meet-ing (%)	Wo-men's group (%)	FM/ radio (%)	Televis-ion (%)	News-paper (%)	Poster/ informa -tion leaflet (%)	Facility notice board (%)	Other (%)	Total respon-dents who had heard about ANC incentive (N)*
All	25.0	52.9	31.4	0.6	28.5	1.2	2.0	1.2	2.6	25.1	3.7	2.3	0.9	0.5	0.4	3,583
Residence:	(0.376)	(0.206)	(0.066)	(0.508)	(0.628)	(0.113)	**(0.015)**	**(<0.001)**	(0.236)	(0.851)	(0.114)	(0.252)	(0.804)	(0.123)		
Urban	21.7	47.4	18.5	0.4	30.6	2.2	0.3	0.1	1.5	24.0	5.8	3.8	0.8	1.2	0.4	459
Rural	25.4	53.8	33.3	0.6	28.2	1.1	2.2	1.4	2.8	25.3	3.4	2.1	0.9	0.4	0.4	3,124
Ecological zone:	**(0.039)**	**(0.909)**	(0.248)	**(0.029)**	(0.618)	(0.051)	(0.214)	(0.734)	(0.155)	**(<0.001)**	(0.258)	**(0.040)**	(0.290)	**(0.007)**		
Mountain	13.1	50.8	32.7	0.5	31.9	2.8	0.0	1.7	0.8	22.0	1.3	1.4	1.9	1.6	0.0	297
Hill	25.4	53.4	28.4	0.3	29.3	0.8	3.2	1.2	3.3	35.3	4.1	3.2	0.9	0.6	0.4	1,963
Terai	26.9	52.7	35.5	1.1	26.5	1.4	0.5	1.0	2.0	10.7	3.7	1.2	0.7	0.1	0.4	1,323
Education:	(0.057)	(0.175)	(0.573)	(0.383)	**(<0.001)**	**(<0.001)**	**(0.018)**	**(0.007)**	(0.483)	**(<0.001)**	**(<0.001)**	**(<0.001)**	**(<0.001)**	**(0.003)**		
Never attended school	26.7	56.5	38.4	0.7	27.9	1.0	3.2	1.3	3.3	29.6	1.3	3.0	1.2	0.7	0.5	677
Primary	28.0	53.8	37.9	0.5	28.8	1.5	4.4	1.4	5.0	30.2	1.2	3.3	0.8	0.4	0.4	822
Secondary	21.2	52.6	28.8	0.3	26.1	1.0	0.6	0.9	1.3	21.9	4.4	0.2	0.9	0.2	0.2	804
Further education	25.3	52.2	29.7	1.0	29.1	0.5	0.7	1.1	1.5	18.3	3.9	1.7	0.9	0.1	0.1	723
Wealth quintile:	(0.136)	(0.407)	**(<0.001)**	(0.585)	(0.667)	(0.171)	**(<0.001)**	(0.811)	**(0.004)**	**(0.036)**	**(<0.001)**	(0.050)	(0.919)	(0.082)		
Lowest	23.2	48.9	19.4	0.6	31.5	2.2	0.5	1.4	1.6	25.9	9.1	3.7	0.8	1.3	0.8	557
Second	26.5	55.3	31.0	0.6	23.6	0.4	0.5	0.5	2.4	18.6	2.6	0.4	0.2	0.0	0.1	1,675
Middle	19.4	50.5	31.3	0.3	30.5	1.1	0.0	0.7	2.1	24.1	2.7	0.3	0.9	0.1	0.1	471
Fourth	26.0	51.9	33.3	0.5	32.2	1.9	2.9	2.4	2.5	28.0	3.8	2.3	0.8	1.0	0.8	1,030
Highest	22.3	49.0	28.3	1.1	37.3	3.1	7.8	1.7	4.2	46.2	9.4	12.2	4.3	1.5	0.7	407
Caste/ ethnicity:	(0.622)	(0.599)	(0.326)	(0.616)	(0.192)	(0.700)	**(0.006)**	(0.652)	(0.071)	**(<0.001)**	**(0.01)**	**(<0.001)**	(0.825)	(0.944)		
Brahmin/ Chhetri	26.7	54.9	33.6	0.3	29.3	1.1	2.5	1.7	4.4	31.9	6.1	4.5	1.0	0.5	0.6	1,184
Terai/ Madhesi other castes	25.4	49.2	25.9	1.1	39.8	2.1	1.0	0.6	1.9	11.4	2.0	0.6	1.4	0.0	0.2	344

	Family/ relative (%)	Friend/ peer/ neigh-bour (%)	FCHV (%)	Tradit-ional Birth Atten-dant (TBA) (%)	Govern-ment facility/ staff (%)	Private facility/ staff (%)	NGO facility/ staff (%)	Commu -nity meet-ing (%)	Wo-men's group (%)	FM/ radio (%)	Televis-ion (%)	News-paper (%)	Poster/ informa -tion leaflet (%)	Facility notice board (%)	Other (%)	Total respon-dents who had heard about ANC incentive (N)[†]
Dalit	26.9	55.2	28.8	0.6	32.9	0.5	1.6	1.0	1.4	14.3	1.5	0.3	0.3	0.7	0.0	444
Newar	21.0	38.9	17.3	0.0	23.5	1.4	0.0	1.1	1.1	33.4	4.2	1.4	1.4	0.0	0.0	127
Janajati	23.8	52.4	34.1	0.7	23.3	1.3	0.9	0.9	1.8	23.2	2.5	1.3	0.9	0.7	0.4	1,304
Muslim	20.7	52.5	15.2	2.4	30.4	0.0	0.0	1.7	3.1	9.6	4.1	0.9	0.0	0.0	0.0	84
Others	17.0	59.1	33.0	0.0	33.7	2.0	20.0	1.4	1.4	70.3	6.1	6.7	1.4	0.0	0.3	96

Note:

[†]One respondent selected per household, ideally household head

The figures in parentheses indicate p-value; those in bold are statistically significant

Aware of others receiving 4ANC

Among all women who delivered in the last year, less than one-sixth (14%) of respondents were aware of someone outside their household who had received the 4ANC incentive payment, and 12% were aware of someone inside their household who had (Table 4.3). Those residing in hill districts were most likely to be aware of someone from within their household who had received the incentive payment (18%). Terai/Madhesi other castes (2%) and Muslims (3%) were least likely to be aware of someone within the household who had received the incentive. Awareness of someone within the household receiving the incentive payment increased with increasing education. Similarly, not knowing anyone who had received ANC incentive was associated with ecological zone, educational level, and caste group.

Informed about 4ANC by providers

Less than one-third (31%) of those who had received ANC from a formal provider in the last year were informed about 4ANC incentive payments by a formal provider. Those in hill (47%) and mountain districts (35%) were more likely to have been informed about the 4ANC incentive payment than those in Terai districts (17%). Those with secondary (36%) and further education (41%) were more likely to have been informed than those with primary (24%) or no education (27%). Brahmins/Chhetris (43%) were the caste/ethnic group most likely to have been informed.

Table 4.3: Aware of others who had received 4ANC and whether clients were informed about 4ANC by providers

	Aware of …				Informed about 4ANC incentive by a formal provider (%)	Total respondents who received ANC from formal provider in the last year (N)
	Someone within household who had received 4ANC incentive (%)	Someone outside household who had received 4ANC incentive (%)	No one inside or outside household who had received 4ANC incentive (%)	Total women who had delivered in the last year (N)		
All	11.9	13.7	74.4	1,543	31.0	1,194
Age group:	(0.358)	(0.381)	(0.779)		(0.175)	
<20	15.7	12.2	72.4	196	32.9	152
20-34	11.1	14.3	74.5	1,220	31.0	965
35-49	13.4	10.2	76.4	127	26.9	78
Residence:	(0.078)	(0.706)	(0.127)		(0.534)	
Urban	18.4	14.7	66.9	137	26.8	123
Rural	11.2	13.7	75.1	1,407	31.5	1,071
Ecological zone:	**(0.002)**	(0.346)	**(0.003)**		(**<0.001**)	
Mountain	13.0	14.8	71.6	109	34.7	95
Hill	18.2	16.1	65.8	659	46.8	496
Terai	6.4	11.6	82.1	775	17.4	604
Education:	**(<0.001)**	(0.417)	**(<0.001)**		**(0.005)**	
Never attended school	5.9	12.1	82.1	730	26.5	471
Primary	9.6	14.2	76.1	218	23.8	185
Secondary	19.9	14.8	65.3	458	36.2	412
Further education	21.0	18.1	60.9	137	40.9	127
Wealth quintile:	(0.173)	(0.507)	(0.171)		(0.426)	
Lowest	10.1	14.0	75.9	286	29.5	227
Second	8.7	14.6	76.7	343	33.6	262
Middle	12.4	14.5	73.1	372	35.7	249
Fourth	12.0	10.6	77.4	341	24.2	264
Highest	18.3	16.3	65.3	202	32.1	193

	Aware of …				Informed about 4ANC incentive by a formal provider (%)	Total respondents who received ANC from formal provider in the last year (N)
	Someone within household who had received 4ANC incentive (%)	Someone outside household who had received 4ANC incentive (%)	No one inside or outside household who had received 4ANC incentive (%)	Total women who had delivered in the last year (N)		
Caste/ethnicity:	**(<0.001)**	**(0.015)**	**(<0.001)**		**(<0.001)**	
Brahmin/Chhetri	19.9	18.6	61.5	301	43.3	270
Terai/Madhesi other castes	2.4	8.2	89.3	291	7.2	223
Dalit	12.4	9.6	78.3	217	27.3	161
Newar	*15.8*	*26.3*	*57.9*	*19*	*52.6*	*19*
Janajati	13.2	15.6	71.2	608	35.4	460
Muslim	3.4	7.9	88.8	89	18.2	44
Others	16.7	27.8	55.6	*18*	*70.6*	*17*

Note:
The italic figures are based on an unweighted sample size of <30
The figures in parentheses indicate p-value; those in bold are statistically significant

Receipt of 4ANC incentive payments

Of those women who had delivered in the last year and were entitled to the 4ANC incentive payment, only 51% had actually received it (Table 4.4). There was no significant difference in the receipt of the payment by age, between urban and rural residents, by ecological zone, or by wealth quintile. However, the likelihood of receiving the incentive reduced with increasing education.

Table 4.4: Receipt of 4 ANC incentives by women who had delivered in the last year

	Received 4ANC incentive (%)	Did not receive 4ANC incentive (%)	Don't know if received incentive (%)	Total women who were entitled to 4ANC incentives[#] (N)	*p*
All	50.7	48.6	0.7	276	
Age group:					
<20	51.5	48.5	0.0	33	0.707
20-34	50.9	48.3	0.9	230	
35-49	*38.5*	*61.5*	*0.0*	*13*	
Residence:					
Urban	61.9	38.1	0.0	42	0.391
Rural	48.3	50.9	0.9	234	
Ecological zone:					
Mountain	*25.9*	*74.1*	*0.0*	*27*	0.141
Hill	56.3	43.7	0.0	142	
Terai	48.1	50.0	1.9	108	
Education:					
Never attended school	66.1	33.9	0.0	59	**0.002**
Primary	42.4	57.6	0.0	33	
Secondary	53.2	45.2	1.6	124	
Further education	32.8	67.2	0.0	61	
Wealth quintile:					
Lowest	45.7	50.0	4.3	46	0.116
Second	53.3	46.7	0.0	60	
Middle	43.7	56.3	0.0	71	
Fourth	54.3	45.7	0.0	46	
Highest	54.7	45.3	0.0	53	
Caste/ethnicity:					
Brahmin/Chhetri	51.3	48.7	0.0	115	**0.007**
Terai/Madhesi other castes	*43.8*	*56.2*	*0.0*	*16*	
Dalit	51.6	48.4	0.0	31	
Newar	*71.4*	*28.6*	*0.0*	*7*	
Janajati	49.0	49.0	2.0	98	
Muslim	*33.3*	*66.7*	*0.0*	*3*	
Others	*66.7*	*33.3*	*0.0*	*6*	

Note: The italic figures are based on an unweighted sample size of <30; p-values in bold are stastically significant;
[#]Women who had received four ANC check-ups in months 4, 6, 8, and 9, and had had a government facility delivery

4.2.2 Aama Programme

In 2005, the GoN introduced a scheme to provide financial incentives to women and health workers to deliver in a health facility/with a SBA through the Safe Delivery Incentive Programme (SDIP). In 2009, user fees were removed for all types of delivery in public health facilities across the country. Together, these two initiatives are now known as the Aama Surakshya Programme (Aama Programme), which includes both consumer-led demand-side payments and provider payments. All public hospitals, PHCCs, and HPs are required to implement the Aama Programme. SHPs can choose to opt into the Aama Programme if they meet certain criteria and are approved by the FHD. Health staff receive NPR 200 per home delivery assisted, health facilities with up to 25 beds receive NPR 1,000 per delivery, and facilities with more than 25 beds receive NPR 1,500 for each normal delivery. For complicated deliveries and CSs, facilities receive NPR 3,000 and NPR 7,000 respectively. From the funds provided, health facilities are expected to provide all services, drugs, and equipment related to delivery free of cost. However, consumers who receive services from private cabins (beds and space allocated for those willing and able to pay) must still pay for services (FHD, 2010).

Awareness of Aama Programme

There were high levels of awareness of the Aama Programme (Table 4.5): nearly three-quarters of respondents (70%) were aware of the Aama Programme, with many aware that this included free care for normal deliveries (63%) and a transport incentive (56%). However, few were aware that it also included free care for assisted vaginal deliveries (23%) and CSs (15%).

Those in Terai (20%) and mountain (19%) districts were more aware of free care for CSs than those in hill districts (10%), while those in the Terai had the lowest levels of awareness of transport incentives (50% compared to 59% in hill districts and 66% in mountain districts). Awareness of the Aama Programme and its components was consistently higher among those in the highest wealth quintile than the less wealthy. In common with awareness of the 4ANC scheme, Terai/Madhesi other castes (57%) and Muslims (39%) were the groups least likely to be aware of the Aama Programme, compared to 82% of Brahmins/Chhetris.

Table 4.5: Awareness of Aama Programme

	Aware of …					Total respondents† (N)
	Aama Programme (%)	Free care for normal deliveries (%)	Free care for assisted vaginal deliveries (%)	Free care for CSs (%)	Transport incentive for institutional delivery (%)	
All	69.8	62.7	23.3	15.2	55.5	10,260
Residence:	(0.132)	(0.708)	(0.468)	(0.089)	(0.538)	
Urban	75.6	64.5	27.1	21.1	58.7	1,244
Rural	69.0	62.4	22.7	14.3	55.1	9,016
Ecological zone:	(0.394)	(0.947)	(0.075)	**(<0.001)**	**(0.046)**	
Mountain	69.0	65.0	28.9	19.0	65.6	689
Hill	72.6	62.2	19.1	9.5	59.2	4,791
Terai	67.0	62.8	26.6	20.2	50.3	4,781
Education:	**(<0.001)**	**(<0.001)**	**(<0.001)**	**(<0.001)**	**(<0.001)**	
Never attended school	62.8	53.1	18.4	10.3	48.3	5,668
Primary	74.2	70.1	25.9	16.9	57.6	1,268
Secondary	79.3	74.0	30.0	21.9	65.6	2,493
Further education	82.4	82.9	32.6	25.4	70.8	831
Wealth quintile:	**(<0.001)**	**(0.004)**	**(<0.001)**	**(<0.001)**	**(0.001)**	
Lowest	66.9	59.4	17.2	10.2	52.5	1,928
Second	68.1	61.2	20.0	11.1	53.0	2,283
Middle	64.8	58.3	21.0	12.3	50.7	2,306
Fourth	70.7	64.9	25.6	17.4	57.5	2,060
Highest	81.0	71.9	35.1	27.5	66.3	1,683
Caste/ethnicity:	**(<0.001)**	**(<0.001)**	**(<0.001)**	**(0.001)**	**(<0.001)**	
Brahmin/Chhetri	82.1	73.1	31.2	20.6	69.4	2,725
Terai/Madhesi other castes	57.4	54.0	20.8	14.6	39.2	1,443
Dalit	66.2	63.4	25.4	15.0	51.9	1,261
Newar	81.4	71.7	28.0	16.3	71.3	300
Janajati	68.4	60.1	18.6	12.3	54.3	3,989
Muslim	38.5	35.8	15.1	7.3	24.0	358
Others	78.3	65.2	20.7	13.6	62.0	184

Note:
†One respondent selected per household, ideally household head
The figures in parentheses indicate p-value; those in bold are statistically significant

Source of information on Aama

Most respondents, regardless of place of residence, ecological zone, wealth, caste/ethnicity, or education, had received information on the Aama Programme from a friend, peer, or neighbour (63%). Following this, family members or relatives were most likely to be the source of information (34%). Those in rural areas (25%) were over twice as likely to have received information on the Aama Programme from FCHVs as those in urban areas (10%). Those in the highest quintile were least likely to have heard about Aama from an FCHV (13%). Respondents were least likely to have had as their source of information either TBAs, facility notice boards, posters/leaflets or private facilities (less than 1% each).

Table 4.6: Source of information on Aama Programme

	Family/ Relat-ives (%)	Friend/ peer/ neigh-bour (%)	FCHV (%)	TBA (%)	Gover-nment facility/ staff (%)	Private facility/ staff (%)	NGO facility/ staff (%)	Comm-unity meeting (%)	Wo-men's group (%)	FM/ radio (%)	Telev-ision (%)	News-paper (%)	Poster/ inform-ation leaflet (%)	Facility notice board (%)	Other (%)	Total respond-ents aware of Aama Programme (N)
All	33.7	62.9	23.1	0.2	24.7	0.9	1.4	1.1	1.8	20.0	3.2	1.6	0.5	0.3	0.3	7,158
Residence:	(0.566)	(0.572)	**(0.015)**	(0.318)	**(0.042)**	(0.070)	(0.603)	(0.472)	(0.959)	(0.889)	**(<0.001)**	**(0.011)**	(0.292)	(0.261)		
Urban	28.8	55.1	10.2	0.5	29.0	1.5	1.0	0.8	1.6	17.9	6.8	3.3	0.9	0.7	0.9	941
Rural	34.4	64.1	25.1	0.2	24.1	0.8	1.5	1.2	1.8	20.3	2.7	1.4	0.5	0.3	0.2	6,218
Ecological zone:	(0.458)	(0.423)	(0.175)	(0.336)	(0.230)	**(0.024)**	**(0.038)**	(0.094)	**(0.001)**	**(<0.001)**	(0.328)	(0.200)	(0.120)	**(0.013)**		
Mountain	33.2	68.4	35.7	0.0	36.7	0.5	0.4	1.1	1.3	27.4	1.9	0.7	0.8	1.2	0.1	475
Hill	30.0	63.1	23.0	0.0	24.3	0.5	2.3	1.5	2.7	29.1	2.7	2.1	0.7	0.4	0.3	3,478
Terai	37.9	61.8	21.5	0.4	23.5	1.3	0.7	0.7	0.9	9.0	4.0	1.3	0.3	0.1	0.4	3,205
Education:	**(0.002)**	**(0.000)**	**(<0.001)**	(0.603)	**(<0.001)**	**(<0.001)**	**(<0.001)**	**(0.042)**	(0.442)	**(<0.001)**	**(<0.001)**	**(<0.001)**	**(<0.001)**	**(<0.001)**		
Never attended school	34.1	64.9	21.7	0.2	19.9	0.5	0.5	0.8	1.8	16.1	2.0	0.2	0.1	0.0	0.0	3,557
Primary	33.4	62.4	24.7	0.2	28.4	0.7	0.6	1.4	1.7	18.6	1.6	0.7	0.2	0.1	0.0	941
Secondary	33.8	61.7	24.7	0.1	29.2	1.2	2.3	1.5	1.6	22.5	4.4	1.9	0.7	0.6	0.6	1,976
Further education	31.7	56.4	24.2	0.2	31.8	2.0	5.2	1.6	2.7	34.7	8.9	9.4	3.0	1.3	1.6	685
Wealth quintile:	(0.442)	(0.219)	**(<0.001)**	(0.185)	**(0.014)**	(0.209)	**(0.010)**	(0.163)	(0.050)	**(0.001)**	**(<0.001)**	**(0.006)**	(0.279)	(0.390)		
Lowest	35.4	68.2	29.0	0.3	23.1	1.0	2.8	1.1	2.1	25.1	1.5	1.9	0.9	0.5	0.1	1,289
Second	33.6	61.9	31.0	0.1	24.5	0.6	2.5	1.7	3.1	26.8	0.5	1.9	0.4	0.4	0.1	1,555
Middle	33.5	62.8	22.5	0.3	22.8	0.6	0.4	1.5	1.4	16.2	1.8	0.3	0.3	0.2	0.5	1,494
Fourth	33.7	63.7	19.9	0.1	26.4	1.1	0.5	0.6	1.3	15.0	4.0	1.0	0.4	0.1	0.1	1,456
Highest	32.5	58.2	12.9	0.1	27.0	1.2	1.0	0.7	0.9	16.9	8.9	3.1	0.8	0.5	0.9	1,364

	Family/ Relat-ives (%)	Friend/ peer/ neigh-bour (%)	FCHV (%)	TBA (%)	Gover-nment facility/ staff (%)	Private facility/ staff (%)	NGO facility/ staff (%)	Comm-unity meeting (%)	Wo-men's group (%)	FM/ radio (%)	Telev-ision (%)	News-paper (%)	Poster/ inform-ation leaflet (%)	Facility notice board (%)	Other (%)	Total respond-ents aware of Aama Programme (N)
Caste/ ethnicity:	(0.298)	**(<0.001)**	**(<0.001)**	(0.456)	**(0.001)**	(0.395)	**(0.006)**	(0.704)	**(0.001)**	**(<0.001)**	**(<0.001)**	**(<0.001)**	(0.637)	(0.900)		
Brahmin/ Chhetri	32.9	61.8	25.6	0.0	27.0	0.9	1.6	1.3	3.1	28.9	6.2	3.0	0.8	0.3	0.4	2,238
Terai/ Madhesi other castes	41.7	60.8	16.6	0.9	28.5	1.6	1.3	1.1	0.5	6.4	2.2	1.3	0.7	0.1	0.4	829
Dalit	33.7	65.9	22.1	0.0	29.0	0.4	1.3	0.8	0.9	12.8	1.6	0.4	0.0	0.5	0.1	835
Newar	27.9	62.9	8.4	0.0	23.9	0.7	0.0	0.0	1.3	22.5	3.8	0.7	0.7	0.0	0.0	245
Janajati	32.5	63.3	24.8	0.2	20.3	0.7	0.8	1.2	1.5	17.5	1.6	0.7	0.5	0.4	0.4	2,731
Muslim	45.5	61.5	16.6	0.4	22.3	1.5	0.4	1.4	0.5	8.4	4.3	1.7	0.0	0.0	0.5	138
Others	23.0	68.5	29.0	0.0	31.6	1.1	14.5	1.0	1.9	56.0	1.8	7.5	1.0	0.0	0.2	144

Note:

†One respondent selected per household, ideally household head

The figures in parentheses indicate p-value; those in bold are statistically significant

Aware of Aama incentive payments to health workers

Very few respondents were aware of incentive payments to health workers and facilities (Table 4.7): just 8% were aware that facilities receive a payment for each delivery. Similarly, 7% of the respondents were aware that trained health workers receive a payment for each facility delivery, and 7% were aware that trained health workers receive a payment for home deliveries. There was no significant difference in awareness between those in urban and those in rural areas, or by ecological zone. Awareness of the three incentive payments increased with level of education, and those in the highest wealth quintile were most likely to be aware of the Aama Programme incentive payments to health workers. Brahmins/Chhetris (11%) and Terai/Madhesi other castes (12%) were the castes/ethnicities most likely to be aware that facilities receive a payment.

Table 4.6: Aware of Aama Programme incentive payments to health workers and facilities

	Aware that …			Total respondents† (N)
	Facilities receive a payment for each delivery (%)	Trained health workers receive a payment for each facility delivery (%)	Trained health workers receive a payment for each home delivery (%)	
All	7.8	7.3	6.9	10,262
Residence:	(0.699)	(0.530)	(0.748)	
Urban	7.2	6.4	8.0	1,244
Rural	7.9	7.4	6.8	9,017
Ecological zone:	(0.139)	(0.098)	(0.216)	
Mountain	7.3	8.0	7.3	688
Hill	6.1	5.6	5.1	4,791
Terai	9.6	8.9	8.8	4,781
Education:	**(<0.001)**	**(<0.001)**	**(0.002)**	
Never attended school	5.5	5.6	5.9	5,668
Primary	6.9	5.7	6.2	1,268
Secondary	10.4	9.2	8.4	2,493
Further education	17.6	15.6	11.0	831
Wealth quintile:	(0.124)	**(0.004)**	**(0.008)**	
Lowest	6.5	5.2	4.8	1,928
Second	8.2	7.1	5.7	2,283
Middle	6.8	6.3	6.8	2,306
Fourth	7.9	8.0	8.0	2,059
Highest	10.3	10.4	10.2	1,684
Caste/ethnicity:	**(0.002)**	**(0.002)**	(0.277)	
Brahmin/Chhetri	10.9	10.1	8.2	2,725
Terai/Madhesi other castes	12.3	9.4	8.7	1,443
Dalit	7.6	8.2	8.8	1,261
Newar	9.0	9.6	7.6	301
Janajati	3.9	3.9	4.9	3,990
Muslim	7.3	6.1	6.1	358
Others	14.1	14.1	6.5	184

Note: †One respondent selected per household, ideally household head; the figures in parentheses indicate p-value; those in bold are statistically significant

Awareness that government hospitals, PHCCs, and HPs provide free care

Over two-thirds (69%) of respondents were aware that government hospitals now provide free delivery care (Table 4.8). However, fewer were aware that PHCCs (51%) and HPs (57%) also offer this service. Those in urban areas were more likely to be aware that government hospitals provide free care. Those in mountain and hill districts were more likely to be aware that HPs provide free delivery care. Awareness of free care at all three levels increased with increasing level of education. Those in the highest wealth quintile were the most likely to be aware of free care at hospitals. Brahmins/Chhetris were the caste/ethnic group most likely to be aware that government hospitals, PHCCs, and HPs provide free delivery.

Table 4.7: Awareness that government hospitals, PHCCs, and HPs provide free delivery

	Facility reported by respondents to provide free delivery			Total respondents†(N)
	Government hospital (%)	PHCC (%)	HP (%)	
All	68.6	50.6	56.7	10,262
Residence:	**(0.006)**	(0.413)	(0.144)	
Urban	79.7	49.2	50.0	1,244
Rural	67.1	50.8	57.6	9,017
Ecological zone:	(0.091)	(0.145)	**(<0.001)**	
Mountain	68.0	49.9	79.1	688
Hill	68.9	52.1	60.1	4,791
Terai	68.4	49.3	50.1	4,781
Education:	**(<0.001)**	**(<0.001)**	**(<0.001)**	
Never attended school	60.3	41.9	48.7	5,668
Primary	72.4	55.3	62.4	1,268
Secondary	79.5	61.8	66.9	2,493
Further education	86.6	69.9	72.0	831
Wealth quintile:	**(<0.001)**	**(0.002)**	(0.097)	
Lowest	68.0	55.1	58.0	1,928
Second	68.6	50.7	57.8	2,283
Middle	61.9	44.2	52.6	2,306
Fourth	68.8	49.2	58.1	2,059
Highest	78.0	56.0	57.7	1,684
Caste/ethnicity:	**(<0.001)**	**(<0.001)**	**(<0.001)**	
Brahmin/Chhetri	79.2	62.1	69.9	2,725
Terai/Madhesi other castes	65.7	42.6	40.5	1,443
Dalit	70.7	52.2	56.5	1,261
Newar	64.3	50.7	58.1	301
Janajati	63.9	46.7	55.4	3,990
Muslim	42.9	29.3	30.3	358
Others	77.2	58.7	66.3	184

Note: †One respondent selected per household, ideally household head; the figures in parentheses indicate p-value; those in bold are statistically significant

Awareness that government hospitals, PHCCs, and HPs provide transport incentives

Respondents' awareness of transport incentives followed a similar pattern to their awareness of free care: nearly three-quarters (74%) of respondents were aware that government hospitals provide transport incentive payments to women who deliver there (Table 4.9), but just over half were aware that PHCCs (51%) and HPs (55%) also do so. Those in urban areas were more likely to be aware that government hospitals provide transport incentives. Those in mountain districts were more likely to be aware that HPs provide transport incentives. By caste/ethnicity, Brahmin/Chhetri respondents (86%) were the most likely to be aware that government hospitals, PHCCs, and HPs provide incentive payments.

Table 4.8: Awareness that government hospitals, PHCCs, and HPs provide transport incentive payments

	Facility reported by respondents to provide transport incentive			Total respondents† (N)
	Government hospital (%)	PHCC (%)	HP (%)	
All	73.7	51.2	54.6	10,260
Residence:	**(<0.001)**	(0.505)	(0.274)	
Urban	87.5	47.6	48.5	1,244
Rural	71.8	51.7	55.5	9,017
Ecological zone:	(0.089)	**(0.018)**	**(<0.001)**	
Mountain	68.8	46.9	73.5	688
Hill	74.6	54.7	59.0	4,791
Terai	73.6	48.3	47.5	4,781
Education:	**(<0.001)**	**(<0.001)**	**(<0.001)**	
Never attended school	65.7	43.5	47.2	5,668
Primary	77.8	56.1	60.9	1,268
Secondary	84.2	61.4	64.0	2,493
Further education	90.0	66.1	67.1	831
Wealth quintile:	**(<0.001)**	**(0.003)**	(0.066)	
Lowest	72.6	57.1	56.6	1,928
Second	74.3	52.6	56.0	2,283
Middle	66.4	44.8	50.4	2,306
Fourth	72.6	47.5	54.3	2,059
Highest	85.4	56.0	56.5	1,684
Caste/ethnicity:	**(<0.001)**	**(<0.001)**	**(<0.001)**	
Brahmin/Chhetri	85.6	64.9	68.8	2,725
Terai/Madhesi other castes	67.9	39.2	36.9	1,443
Dalit	73.0	51.0	52.4	1,261
Newar	72.3	57.5	61.8	301
Janajati	69.9	47.6	53.4	3,990
Muslim	45.7	27.1	27.4	358
Others	86.4	58.7	67.9	184

Note: †One respondent selected per household, ideally household head
The figures in parentheses indicate p-value; those in bold are statistically significant

Awareness of others who have received Aama incentive

Overall, 40% of respondents were aware of someone from outside their household who had received a transport incentive payment, and 36% were aware of someone from outside their household who had received free delivery care (Table 4.10). A lower proportion of respondents reported that they were aware of someone from the same household who had received a transport incentive payment (12%) or received free delivery care (12%).

Urban residents were more likely to report awareness of someone within their household having received the transport incentive (21%) than rural residents (11%). The likelihood of reporting knowing someone in the household who had received either the transport incentive or free care also increased with level of education. Those in the top wealth quintile were also more likely to be aware of someone within the household who had received the transport incentive or free care. Muslims were the caste/ethnic group least likely to be aware of someone from either inside or outside the household who had received either the transport incentive or free delivery care.

Seen list of Aama beneficiaries

Only one in twenty respondents (5%) reported that they had seen a list of Aama beneficiaries displayed. Urban respondents were twice as likely to report having seen list of Aama beneficiaries displayed (8%) as rural respondents (4%). The likelihood of respondents reporting that they had seen a list of beneficiaries increased with education: those with the highest level of education were 12 times as likely to have seen a list than those who had never attended school. By wealth quintile, those in the highest quintile were most likely to have seen a list (8%), over twice as likely as those in the lowest three quintiles.

Table 4.9: Awareness of others who have received a transport incentive payment or free delivery care, and observation of list of beneficiaries

	Aware of someone who received the transport incentive payment ...				Aware of someone who received free delivery care …				Seen list of Aama beneficiaries displayed (%)	Total respondents† (N)
	From same household (%)	From outside household (%)	Not aware of anyone inside or outside household (%)	*p*	From same household (%)	From outside household (%)	Not aware of anyone inside or outside household (%)	*p*		
All	12.1	39.5	48.4		11.7	36.2	52.1		4.7	10,260
Residence:									**(0.008)**	
Urban	20.7	42.3	37.1	**<0.001**	18.2	34.6	47.2	0.081	8.0	1,244
Rural	10.9	39.1	50.0		10.8	36.4	52.8		4.2	9,016
Ecological zone:									**(0.007)**	
Mountain	12.4	45.6	42.0	0.648	13.1	46.9	40.0	0.089	3.8	689
Hill	11.7	37.5	50.8		11.3	34.7	54.0		5.4	4,791
Terai	12.4	40.6	47.0		11.9	36.1	52.0		4.1	4,781
Education:									**(<0.001)**	
Never attended school	8.7	36.5	54.8	**<0.001**	8.4	32.9	58.7	**<0.001**	1.1	5,668
Primary	12.4	42.9	44.7		12.4	40.7	46.9		6.7	1,268
Secondary	17.4	43.9	38.7		16.6	40.6	42.8		8.8	2,493
Further education	18.9	40.7	40.4		18.4	38.1	43.5		13.5	831
Wealth quintile:									**(0.011)**	
Lowest	7.6	41.1	51.3	**<0.001**	7.6	37.9	54.5	**0.008**	3.1	1,928
Second	10.0	38.4	51.6		9.9	36.8	53.3		3.7	2,283
Middle	10.5	37.8	51.7		10.2	36.3	53.5		3.6	2,306
Fourth	14.1	39.7	46.2		13.8	35.1	51.1		5.4	2,060
Highest	19.7	41.1	39.2		18.2	34.3	47.5		8.4	1,683
Caste/ethnicity:										
Brahmin/Chhetri	14.9	45.1	40.0	**0.001**	14.5	41.5	44.0	**0.008**	8.1	2,725
Terai/Madhesi other castes	8.7	40.2	51.1		8.1	35.3	56.6		2.4	1,443
Dalit	12.1	40.5	47.4		11.3	37.0	51.7		3.6	1,261
Newar	20.6	42.9	36.5		19.6	39.2	41.2		10.7	300
Janajati	11.3	36.6	52.1		11.2	33.8	55.0		3.2	3,989
Muslim	5.0	21.0	73.9		5.0	19.3	75.7		1.1	358
Others	13.6	35.9	50.5		12.0	38.3	49.7		10.3	184

Note: †One respondent selected per household, ideally household head; the figures in parentheses indicate p-value; those in bold are statistically significant

4.2.3 Transport incentives

All women who deliver in a facility implementing the Aama Programme are entitled to a cash payment after delivery. The amount received varies by ecological zone: NPR 1,500 in mountain districts, NPR 1,000 in hill districts, and NPR 500 in Terai districts. Of those entitled to receive the transport incentive payment, almost all (91%) had received it, and over four-fifths (86%) had been paid as per the guidelines (Table 4.11). There were no significant differences by age, urban/rural residence, level of education, caste/ethnicity, or level of facility as to whether the incentive had been received, or whether it had been paid as per the guidelines. Those living in mountain districts were less likely to be paid as per the guidelines.

Table 4.10: Received transport incentive payments[#]

	Received transport incentive payment (%)	Received incentive payment as per guidelines (%)	Total women entitled to payment† (N)
All	90.8	85.7	750
Age group:	(0.655)	(0.602)	
<20	91.9	90.6	86
20-34	90.8	85.1	619
35-49	84.8	82.6	46
Residence:	(0.693)	(0.897)	
Urban	92.1	85.1	101
Rural	90.4	85.8	649
Ecological zone:	(0.253)	**(0.015)**	
Mountain	82.6	69.6	69
Hill	89.4	81.6	331
Terai	93.4	92.6	350
Education:	(0.564)	(0.320)	
Never attended school	94.2	92.3	207
Primary	89.0	88.1	118
Secondary	88.4	81.8	318
Further education	91.7	81.5	108
Caste/ethnicity:	(0.344)	(0.363)	
Brahmin/Chhetri	86.7	80.6	248
Terai/Madhesi other castes	88.2	86.2	93
Dalit	95.2	94.0	83
Newar	*100.0*	*100.0*	*10*
Janajati	92.8	86.4	293
Muslim	*100.0*	*91.7*	*11*
Others	*100.0*	*81.8*	*11*
Level of facility:	(0.217)	(0.059)	
Government hospital	90.0	82.2	458
PHCC	98.9	97.6	94
HP	88.9	88.3	162
SHP	86.1	87.0	36

Note: †One respondent selected per household, ideally household head
[#]Sample includes both representative sample and additional sample of those who had delivered in government facility
The italic figures are based on an unweighted sample size of <30
The figures in parentheses indicate p-value; those in bold are statistically significant

Reasons for delayed/non-payment of transport incentive

The number of women who had experienced a delay in receiving or had not received their transport incentive payment represented 14% of those eligible for a payment. Nearly 86% had received payment as per the guidelines, and few did not know if they had received it. Where there was delayed or non-payment of the transport incentive, the primary reason given by staff was that the money was unavailable at that time, so claimants should return at a later point (59%) (Table 4.12). The second most common reason was that the responsible member of staff was unavailable (19%). No reason was given to clients in 17% of cases.

Table 4.11: Reason given by staff for delayed/non-receipt of transport incentive payments*

	Total (%)
Return later – money unavailable at that time	58.5
Return later – staff responsible for payment not available at that time	19.4
Need to show ANC card	2.5
Did not complete all antenatal requirements	0.2
Other	2.7
No reason given	16.7
Total women who experienced delayed/non-receipt of incentive payment (N)	103

**Sample includes both representative sample and additional sample of those who had delivered in government facility*

Payment for delivery care

Delivery care should be free for all women who deliver in a facility implementing the Aama Programme, irrespective of the mode of delivery. Nearly nine out of ten women who had delivered in a government institution (87%) had received the services free of charge (Table 4.13). Over twice as many had paid in cash (10%) as in kind (4%), and less than 1% had paid both in cash and in kind.

The likelihood of receiving free care was highest in the lowest wealth quintile (95%). Of those who had paid for delivery care, an average of NPR 1,081 was paid, with amounts ranging from NPR 100 to NPR 6,000.

Table 4.12: Payment for delivery care†

	Received free of charge (%)	Paid in cash only (%)	Paid in kind only (%)	Paid in cash and kind (%)	Total women who had delivered in facility (N)	*p*
All	86.8	9.4	3.5	0.3	750	
Residence:						
Urban	84.2	12.9	2.0	1.0	101	0.231
Rural	87.2	9.1	3.5	0.2	649	
Ecological zone:						
Mountain	90.0	8.6	1.4	0.0	70	0.091
Hill	81.9	12.4	5.7	0.0	331	
Terai	90.9	7.1	1.4	0.6	350	
Education:						
Never attended school	88.9	5.8	4.8	0.5	208	0.378
Primary	87.3	9.3	2.5	0.8	118	
Secondary	87.4	9.7	2.5	0.3	318	
Further education	78.7	17.6	3.7	0.0	108	
Wealth quintile:						
Lowest	94.5	3.4	2.1	0.0	145	**0.025**
Second	87.6	5.9	6.5	0.0	153	
Middle	79.0	19.7	1.3	0.0	157	
Fourth	87.9	7.9	3.6	0.6	165	
Highest	86.2	10.8	2.3	0.8	130	
Type of facility:						
Hospital	86.7	10.7	2.2	0.4	459	0.290
PHCC	86.2	4.3	9.6	0.0	94	
HP	84.6	11.1	4.3	0.0	162	
SHP	100.0	0.0	0.0	0.0	35	

Notes: †Sample includes both representative sample and additional sample (delivered in government facility); the figures in bold are statistically significant

Reasons for clients' expenditure outside the facility

The main reasons given for buying drugs and supplies outside the facility were that drugs (51%) or supplies (73%) were not available, and that the health provider had told the client to purchase drugs (46%) or supplies (22%) outside (Table 4.14). The most common reason for paying for tests outside the facility was that tests from outside were perceived to be of higher quality (36%); other comparatively common reasons cited were that there was no laboratory in the facility (21%) and, as with drugs and supplies, that the clients were told to do so by the provider (21%).

Table 4.13: Reasons for buying drugs/supplies and for paying for tests for delivery care outside the health facility

		Total respondents* (%)
Reason for buying drugs for delivery care outside the health facility[#]	Drugs not available	51.2
	Health provider told me to purchase outside	45.6
	Better quality outside	9.5
	Pharmacy in facility was closed	2.3
	Don't know	0.4
	Total women who delivered in facility and bought drugs outside health facility (N)	**273**
Reason for buying supplies for delivery care outside the health facility[#]	Supplies not available	72.7
	Health provider told me to purchase outside	21.6
	Health facility far from home	4.3
	Pharmacy was closed	2.2
	Better quality outside	0.9
	Don't know	2.6
	Total women who delivered in facility and bought supplies outside health facility (N)	**91**
Reason for paying for test(s) for delivery care outside the health facility[#]	Better quality outside	36.3
	Health provider told me to obtain test outside	21.3
	No laboratory in the facility	21.1
	Authorised person/lab technician at the facility was absent	14.7
	Laboratory does not perform the required test	6.9
	Laboratory was closed	1.0
	Don't know	2.5
	Total women who delivered in facility and paid for test(s) outside health facility (N)	**76**

**One respondent selected per household, ideally household head; [#]Sample includes both representative sample and additional sample of those who had delivered in government facility*

Person paid during delivery

Of those women who had delivered in a government facility, 10% had paid a provider (either in cash or in kind or both) during their delivery care (Table 4.15). Nurses were twice as likely to have been paid in cash (8%) than doctors (4%).

Table 4.14: Person paid during delivery care* #

	Received free of charge (%)	Paid in cash only (%)	Paid in kind only (%)	Paid in cash and in kind (%)	Main person who assisted during delivery (N)
Any	86.5	9.4	3.5	0.6	750
Doctor	93.5	4.0	1.6	0.8	123
Nurse/midwife	90.4	8.0	1.3	0.2	593
Health Assistant/Senior Auxiliary Health Worker (SAHW)/Auxiliary Health Worker (AHW)	72.7	6.0	21.2	0	33
Mother and Child Health Worker (MCHW)	*0.0*	*100*	*0.0*	*0.0*	*2*

 # Sample includes both representative sample and additional sample of those who had delivered in government facility
**Among RDW who delivered in government health facility and paid*
The italic figures are based on an unweighted sample size of <30

Costs incurred during delivery care

Clients who paid for their delivery spent an average of NPR 700, with an Interquartile Range (IQR) between NPR 462 and NPR 1,500 (Table 4.16).

Table 4.15: Amount paid for delivery at government health facilities†

	Amount paid for delivery (NPR)
Median	700
Inter-quartile range	462-1,500
Number of women who had delivered in facility and paid for delivery (N)	79

†Sample includes both representative sample and additional sample of those who had delivered in government facility

Of those who had delivered in a government health facility, no one reported having had to pay administration fees, consultation fees, or for drugs, supplies, or tests inside the facility (Table 4.17). However, clients reported that they had incurred costs outside the facility for supplies (median of NPR 500), drugs (median of NPR 500), tests (median of NPR 500), and consultation fees (median of NPR 225). Further, clients reported they had incurred costs inside the facility for unofficial payments (median of NPR 350) and food (median of NPR 500), and for transport (median of NPR 1,000), lodging (median of NPR 500), and food (NPR 400) outside the facility.

Table 4.16: Costs incurred at government health facilities for delivery care†

	Cost	First quartile (NPR)	Median (NPR)	Third quartile (NPR)
Costs incurred at government health facilities for delivery care†	Administrative fee	0	0	0
	Consultation fee	0	0	0
	Unofficial payments (gifts)	200	350	500
	Drugs	0	0	0
	Supplies	0	0	0
	Tests	0	0	0
	Food	200	500	1,000
Costs outside the government health facility for delivery care†	Administrative fee	0	0	0
	Consultation fee	100	225	350
	Unofficial payments (gifts)	0	0	0
	Drugs	300	500	1,000
	Supplies	300	500	1,000
	Tests	150	500	800
	Food	200	400	900
	Transport	300	1,000	2,200
	Lodging	290	500	1,000

†*Sample includes both representative sample and additional sample of those who had delivered in government facility*

Source of funding

Table 4.18 details the source of funding for those respondents who had to pay for delivery-related health care. Nearly two-thirds of respondents used household savings (62%) to pay for health care, 30% used their own savings, 16% took out a loan, and less than 1% sold assets. Friends, relatives, or neighbours were the most likely source of a loan (87%); however, over 7% used a money lender. FCHV funds or other emergency funds were not utilised by anyone.

Table 4.17: Source of funding for health care and source of loan for delivery care

		Total (%)
Means of payment for delivery care†	Household savings	62.3
	Own savings	29.6
	Loan	15.8
	Don't know	1.6
	Sold assets	0.2
	Total women who delivered in a health facility and paid for health care (N)	**746**
Source of loan for delivery care†	Friends/relatives/neighbours	86.6
	Money lender	7.3
	Co-operative association	2.3
	Bank/Microfinance Initiative (MFI)	3.7
	Total women who delivered in a facility and took a loan during last delivery (N)	**118**

†*Sample includes both representative sample and additional sample of those who had delivered in government facility*

4.2.4 Free care

Under the free care policy, district hospitals, PHCCs, HPs, and SHPs should all provide outpatient care and selected essential drugs free of charge. Emergency and inpatient care are only available for free for selected groups (very poor/poor, destitute/helpless, elderly/senior citizens, FCHVs).

4.2.4.1 Awareness of free care

Most respondents had heard of free care (76%), and most respondents were aware that the consultation fee was free (68%), with 57% aware that registration fees were free, and 56% aware that essential drugs were free (Table 4.19). However, almost 35% of respondents thought that all drugs were included in the scheme, though only a small percentage (5%) incorrectly thought that x-rays or laboratory services were included.

Awareness of free care increased with increasing education. Those in rural areas were more likely than those in urban areas to be aware that registration and consultation fees were free. Muslims and Terai/Madhesi other castes were least likely to know that registration and consultation fees were free. Those in mountain districts were more likely to report incorrectly that x-rays and laboratory services were free.

Table 4.18: Awareness of free health care

	Aware of free care (%)	Reporting of services that citizens are entitled to receive under free health care						Total respondents† (N)
		Correct			Incorrect			
		Registration fee (%)	Consultation fee (%)	Essential drugs (partial) (%)	All drugs (%)	X-rays (%)	Laboratory services (%)	
All	76.2	57.4	68	56.1	34.6	4.5	4.6	10,260
Residence:	(0.278)	**(<0.001)**	**(<0.001)**	(0.128)	(0.026)	(0.317)	(0.484)	
Urban	67.4	31.8	51.4	43.1	18.8	2.9	3.3	1,244
Rural	77.4	61.0	70.3	57.9	36.7	4.7	4.8	9,016
Ecological zone:	(0.359)	(0.163)	(0.099)	(0.221)	(0.156)	**(0.023)**	**(0.014)**	
Mountain	88.7	70.8	79.8	74.5	41.4	11.5	12.5	689
Hill	75.4	59.7	69.6	53.9	29.8	2.2	2.3	4,791
Terai	75.1	53.2	64.6	55.7	38.4	5.8	5.7	4,781
Education:	**(<0.001)**	**(0.013)**	(0.056)	(0.404)	(0.309)	(0.156)	(0.126)	
Never attended school	70.1	53.3	62.5	50.8	31.2	3.5	3.6	5,668
Primary	81.2	62.9	74.4	61.3	37.3	5.0	5.0	1,268
Secondary	84.0	63.5	75.1	62.4	40.0	5.8	6.0	2,493
Further education	86.5	59.2	74.1	65.6	36.7	6.3	6.4	831
Wealth quintile:	(0.199)	**(<0.001)**	**(0.010)**	(0.551)	**(0.007)**	**(0.047)**	(0.061)	
Lowest	71.3	54.3	63.7	51.7	29.9	3.3	3.4	1,928
Second	74.3	59.6	67.9	53.2	39.5	3.5	3.5	2,283
Middle	75.8	58.4	68.5	57.1	33.6	3.9	4.1	2,306
Fourth	81.7	63.0	73.3	61.7	37.0	5.7	5.6	2,060
Highest	77.8	50.0	65.7	57.0	31.6	6.7	6.8	1,683
Caste/ethnicity:	(0.062)	**(0.012)**	**(0.034)**	(0.200)	**(0.001)**	**(0.021)**	**(0.042)**	
Brahmin/Chhetri	81.9	62.1	72.3	60.7	36.9	5.7	5.8	2,725
Terai/Madhesi other castes	70.5	45.9	59.2	49.5	38.1	5.8	5.4	1,443
Dalit	79.7	62.3	71.8	55.3	42.8	7.0	7.1	1,261
Newar	83.3	67.3	78.3	64.0	28.0	4.0	1.7	300
Janajati	73.7	56.7	67.1	56.6	28.9	2.6	3.0	3,989
Muslim	56.7	40.2	48.9	34.9	29.6	3.1	3.9	358
Others	90.2	79.3	85.9	62.5	58.2	4.9	5.4	184

Note:†One respondent selected per household, ideally household head
The figures in parentheses indicate p-value; those in bold are statistically significant

Sources of information

As was found with the Aama Programme, informal networks, i.e. a friend/neighbour (63%) or relative (40%), were the most commonly cited sources of information on free care (Table 4.20). Government facilities were also good sources of information (37%), particularly in mountain districts (52%). Of the media sources, FM/radio (15%) was more common than television (3%) and newspapers (2%) to have been the source of information about free care. More than one-third of respondents (37%) with further education had obtained information from the radio, far higher than for those who were less educated.

Table 4.19: Source of information about free health care (note: multiple responses possible)

	Family/ relative (%)	Friend/ peer/ neigh-bour (%)	FCHV (%)	TBA (%)	Govern-ment facility/ staff (%)	Private facility /staff (%)	NGO facility/ staff (%)	Comm-unity meeting (%)	Women's group (%)	FM/ radio (%)	Tele-vision (%)	News-paper (%)	Poster/ inform-ation leaflet (%)	Facility notice board (%)	Total respond-ents who had heard about free care (N)
All	40.4	63.1	20.8	0.2	36.5	0.8	1.2	1.3	1.3	15.0	3.2	1.6	0.6	0.4	7,814
Residence:	**(0.008)**	**(0.037)**	(0.089)	(0.270)	(0.315)	(0.390)	**(0.031)**	(0.739)	(0.395)	(0.525)	**(<0.001)**	**(0.014)**	(0.241)	(0.269)	
Urban	28.2	53.3	13.8	0.5	33.9	1.3	9.4	1.2	1.0	19.7	19.7	3.8	1.1	1.0	838
Rural	41.8	64.3	21.6	0.1	36.8	0.8	1.3	1.3	1.4	14.4	14.4	1.4	0.6	0.4	6,976
Ecological zone:	(0.239)	(0.846)	(0.073)	(0.183)	**(0.009)**	(0.210)	(0.050)	(0.086)	**(0.002)**	**(<0.001)**	(0.761)	(0.850)	(0.057)	**(<0.001)**	
Mountain	39.7	59.4	31.8	0.0	51.8	1.6	0.6	1.1	1.0	19.1	19.1	1.7	1.1	1.4	611
Hill	36.8	63.5	19.8	0.1	37.4	0.5	1.9	1.7	2.1	21.6	21.6	1.7	0.7	0.6	3,614
Terai	44.1	63.4	19.9	0.3	32.9	1.0	0.6	0.9	0.6	7.6	7.6	1.5	0.5	0.1	3,589
Education:	**(0.032)**	**(0.013)**	**(<0.001)**	(0.496)	**(<0.001)**	**(0.004)**	**(<0.001)**	**(<0.001)**	**(0.039)**	**(<0.001)**	**(<0.001)**	**(<0.001)**	**(<0.001)**	**(0.002)**	
Never attended school	43.2	65.1	19.2	0.2	34.7	0.6	0.4	0.8	1.2	9.4	9.4	0.2	0.0	0.2	3,971
Primary	42.5	64.2	22.9	0.3	35.7	0.7	0.5	1.3	0.8	13.5	13.5	0.6	0.6	0.7	1,029
Secondary	37.3	61.3	22.7	0.1	39.9	1.0	1.8	2.0	1.3	18.8	18.8	1.6	0.8	0.6	2,095
Further education	30.6	55.9	20.9	0.1	37.9	1.6	4.9	2.2	2.7	36.8	36.8	11.0	3.4	1.2	719
Wealth quintile:	(0.174)	(0.262)	**(<0.001)**	(0.103)	(0.413)	(0.870)	**(<0.001)**	(0.574)	(0.292)	**(0.026)**	**(<0.001)**	**(0.003)**	(0.153)	(0.393)	
Lowest	45.2	69.3	25.7	0.2	34.0	0.8	2.0	1.6	1.8	18.2	18.2	1.6	0.7	0.6	1,374

	Family/ relative (%)	Friend/ peer/ neigh-bour (%)	FCHV (%)	TBA (%)	Govern-ment facility/ staff (%)	Private facility /staff (%)	NGO facility/ staff (%)	Comm-unity meeting (%)	Women's group (%)	FM/ radio (%)	Tele-vision (%)	News-paper (%)	Poster/ inform-ation leaflet (%)	Facility notice board (%)	Total respond-ents who had heard about free care (N)
Second	42.5	63.5	26.4	0.0	38.7	0.6	2.5	1.7	2.0	18.2	18.2	1.9	0.8	0.2	1,697
Middle	40.7	61.9	19.5	0.4	36.6	0.9	0.4	1.0	1.2	10.8	10.8	0.5	0.4	0.4	1,748
Fourth	40.0	64.1	18.3	0.2	35.7	0.8	0.5	1.4	0.7	12.0	12.0	1.0	0.3	0.3	1,684
Highest	32.6	56.6	13.3	0.0	37.2	1.0	0.5	0.9	0.8	16.7	16.7	3.6	1.1	0.8	1,310
Caste/ethnicity	(0.545)	(0.393)	**(0.030)**	(0.418)	**(0.015)**	(0.209)	**(0.001)**	(0.215)	**(<0.001)**	**(<0.001)**	**(<0.001)**	**(0.002)**	(0.359)	(0.406)	
Brahmin/ Chhetri	36.7	61.7	24.7	0.1	39.6	0.6	1.5	1.4	2.7	23.7	23.7	3.5	0.9	0.6	2,232
Terai/ Madhesi other castes	50.6	64.3	18.0	0.5	33.2	0.8	0.7	0.8	0.3	4.3	4.3	0.9	0.5	0.1	1,017
Dalit	41.4	65.7	21.0	0.0	38.0	0.8	0.8	1.2	0.4	12.3	12.3	0.2	0.3	0.3	1,005
Newar	36.2	62.2	10.4	0.6	41.5	0.7	0.0	0.6	1.3	13.1	13.1	0.7	1.5	1.2	250
Janajati	39.7	62.8	19.6	0.1	34.8	0.8	0.8	1.2	0.9	12.5	12.5	1.1	0.6	0.4	2,941
Muslim	52.9	68.1	16.5	2.0	27.1	3.6	0.4	3.3	0.7	4.3	4.3	0.0	0.0	0.0	203
Others	24.6	59.6	26.5	0.0	39.0	0.8	12.4	2.7	1.7	38.5	38.5	2.2	1.0	0.2	166

Note:
The figures in parentheses indicate p-value; those in bold are statistically significant

Awareness of free care by level of facility

Just under two-thirds of respondents were aware that government hospitals with fewer than 25 beds (61%), HPs (64%), and SHPs (62%) provided free care, with just 50% aware that PHCCs do so (Table 4.21). Those in rural areas had greater awareness that HPs and SHPs provide free care than those in urban areas. Awareness increased with level of education. By caste/ethnicity, Muslims were the group least aware.

Table 4.20: Awareness of free care by level of facility

	District hospital (<25 beds) (%)	PHCC (%)	HP (%)	SHP (%)	Any government facility (%)	Total respondents† (N)
All	61.2	50.1	63.8	61.6	74.4	10,260
Residence:	(0.873)	(0.066)	**(<0.001)**	**(0.001)**	(0.282)	
Urban	62.6	39.2	45.7	44.1	65.5	1,244
Rural	61.0	51.6	66.3	64.0	75.6	9,016
Ecological zone:	(0.894)	(0.131)	(0.354)	(0.079)	(0.335)	
Mountain	63.1	48.5	81.0	58.5	87.4	689
Hill	59.8	47.2	62.8	64.1	73.6	4,791
Terai	62.4	53.1	62.4	59.6	73.3	4,781
Education:	**(<0.001)**	**(0.001)**	**(<0.001)**	**(<0.001)**	**(<0.001)**	
Never attended school	53.3	41.3	56.1	54.5	68.0	5,668
Primary	66.2	55.4	71.0	67.7	79.9	1,268
Secondary	70.9	60.9	73.7	70.7	82.5	2,493
Further education	78.7	69.3	76.4	73.5	85.1	831
Wealth quintile:	(0.225)	**(0.001)**	(0.075)	(0.079)	(0.266)	
Lowest	59.9	53.1	62.6	60.0	69.7	1,928
Second	59.7	59.7	63.1	62.2	72.9	2,283
Middle	57.2	57.2	62.1	60.4	74.2	2,306
Fourth	64.3	64.3	68.3	64.9	79.3	2,060
Highest	66.5	66.5	63.2	60.4	76.0	1,683
Caste/ethnicity:	**(0.001)**	**(0.026)**	(0.072)	(0.115)	(0.054)	
Brahmin/Chhetri	69.7	58.6	71.1	69.3	79.8	2,725
Terai/Madhesi other castes	62.4	47.7	53.6	52.3	68.7	1,443
Dalit	65.5	55.4	66.4	65.3	78.0	1,261
Newar	62.0	52.0	69.7	64.0	82.0	300
Janajati	53.8	43.9	62.2	59.4	72.2	3,989
Muslim	46.6	38.3	45.3	45.0	53.9	358
Others	83.2	59.2	80.4	70.7	89.1	184

Note:†One respondent selected per household, ideally household head
The figures in parentheses indicate p-value; those in bold are statistically significant

Awareness that everyone is eligible for free outpatient care at district hospitals

Just two-fifths (39%) of respondents were aware that everyone is eligible for free outpatient care at district hospitals (Table 4.22). People were most likely to report that care is free for very poor/poor (50%), destitute/helpless (49%), and elderly/senior citizens (49%). Awareness increased with education, from 34% amongst those who had never attended school to 53% of those who had received further education. By caste/ethnicity, Brahmin/Chhetri respondents (46%) were the group most aware, and Janajati (31%) the least.

Table 4.21: Awareness of who is eligible for free outpatient care at district hospitals (note: everyone is eligible)

	Everyone (%)	Very poor/poor (%)	Destitute/helpless (%)	Elderly/senior citizens (%)	FCHV (%)	Facility staff (%)	Women (%)	Total respondents† (N)
All	38.9	49.6	49.0	48.8	43.6	42.9	40.5	10,260
Residence:	(0.155)	(0.483)	(0.492)	(0.562)	(0.083)	(0.100)	(0.211)	
Urban	29.1	46.5	45.8	45.3	32.9	32.6	31.2	1,244
Rural	40.2	50.1	49.5	49.3	45.1	44.3	41.7	9,016
Ecological zone:	(0.773)	(0.635)	(0.646)	(0.760)	(0.403)	(0.558)	(0.466)	
Mountain	46.6	56.2	54.6	52.4	52.1	52.1	46.6	689
Hill	37.0	47.4	47.0	47.9	40.3	40.2	37.5	4,791
Terai	39.6	51.0	50.2	49.2	45.6	44.2	42.5	4,781
Education:	**(<0.001)**	**(<0.001)**	**(<0.001)**	**(<0.001)**	**(<0.001)**	**(<0.001)**	**(<0.001)**	
Never attended school	33.8	41.7	40.8	40.7	37.2	36.5	35.0	5,668
Primary	40.9	54.4	53.2	53.9	45.8	45.6	43.2	1,268
Secondary	44.7	58.8	58.7	57.9	50.9	50.1	46.4	2,493
Further education	52.7	68.8	69.2	69.2	62.1	60.0	56.0	831
Wealth quintile:	(0.946)	**(0.008)**	**(0.002)**	**(0.002)**	(0.276)	(0.507)	(0.487)	
Lowest	37.2	50.5	49.8	48.3	43.9	42.3	40.7	1,928
Second	38.1	47.7	46.3	46.5	41.7	40.8	38.4	2,283
Middle	37.9	45.8	45.1	45.1	41.5	41.0	39.4	2,306
Fourth	42.0	51.5	50.9	50.7	46.2	46.4	42.6	2,060
Highest	39.4	54.4	54.8	55.3	45.6	44.6	41.8	1,683
Caste/ethnicity:	**(<0.001)**	**(<0.001)**	**(<0.001)**	**(<0.001)**	**(<0.001)**	**(<0.001)**	**(<0.001)**	
Brahmin/Chhetri	46.4	58.7	58.9	60.0	52.9	52.0	47.6	2,725
Terai/Madhesi other castes	42.0	52.9	52.1	48.4	46.6	45.5	45.4	1,443
Dalit	42.5	51.7	50.2	49.3	46.0	45.2	43.0	1,261
Newar	41.7	52.3	53.3	53.3	43.0	43.7	42.7	300
Janajati	31.3	41.8	40.8	41.0	35.5	34.8	32.8	3,989
Muslim	34.4	38.8	38.8	39.1	38.0	37.7	35.8	358
Others	46.2	64.1	62.5	63.6	53.3	54.9	48.4	184

Note:†One respondent selected per household, ideally household head
The figures in parentheses indicate p-value; those in bold are statistically significant

Awareness of who is eligible for free inpatient care at district hospitals

Less than one-third of respondents were aware that the very poor/poor, destitute/helpless, elderly/senior citizens (each 31%) were eligible for free inpatient care at district hospitals; a quarter were aware that FCHVs were also eligible (25%) (Table 4.23). A significant proportion incorrectly thought that everyone (19%), facility staff (25%), and all women (21%) were eligible. The likelihood of reporting a correct response increased with increasing education levels, but so did the likelihood of reporting incorrect responses. By caste/ethnicity, Brahmins/Chhetris were the group most likely to report correct responses, but again Brahmins/Chhetris (along with Terai/Madhesi other castes) were also more likely than other groups to report incorrect responses.

Table 4.22: Awareness of who is eligible for free inpatient care at district hospitals

	Which groups are eligible for free inpatient care at district hospitals?								Total respondents† (N)
	Correct				Incorrect				
	Very poor/ poor (%)	Destitute/ helpless (%)	Elderly/ senior citizens (%)	FCHVs (%)	Everyone (%)	Facility staff (%)	All women (%)	Others (%)	
All	31.4	30.9	30.5	25.3	18.8	24.8	21.4	0.6	10,260
Residence:	(0.213)	(0.143)	(0.153)	(0.277)	(0.421)	(0.521)	(0.582)	**(0.025)**	
Urban	31.6	31.4	30.4	19.9	15.0	20.4	17.5	1.8	1,244
Rural	31.3	30.9	30.5	26.1	19.4	25.4	21.9	0.5	9,016
Ecological zone:	(0.209)	(0.220)	(0.415)	**(0.049)**	**(0.029)**	**(0.030)**	**(0.009)**	**(0.035)**	
Mountain	48.3	46.6	43.4	38.2	32.2	40.9	32.8	0.0	689
Hill	27.2	26.9	27.6	19.3	13.3	18.7	14.6	1.1	4,791
Terai	33.2	32.7	31.4	29.5	22.4	28.7	26.6	0.3	4,781
Education:	**(<0.001)**	**(<0.001)**	**(<0.001)**	**(<0.001)**	**(0.002)**	**(<0.001)**	**(<0.001)**	(0.453)	
Never attended school	24.4	23.5	23.5	20.2	16.1	19.7	17.7	0.6	5,668
Primary	33.4	33.4	32.6	26.3	18.3	26.6	21.8	0.3	1,268
Secondary	39.4	39.8	38.4	31.3	22.4	30.8	26.0	0.9	2,493
Further education	51.9	51.6	50.5	40.8	27.4	39.4	32.0	1.0	831
Wealth quintile:	**(<0.001)**	**(<0.001)**	**(<0.001)**	**(0.001)**	(0.100)	**(0.002)**	**(0.006)**	**(0.012)**	
Lowest	35.6	35.2	33.2	29.6	19.8	28.1	24.9	0.3	1,928
Second	30.5	29.2	28.4	23.1	17.7	22.5	19.1	0.5	2,283
Middle	25.8	25.0	24.9	20.9	16.1	20.5	18.1	0.4	2,306
Fourth	30.9	31.0	31.0	25.3	19.6	25.8	21.5	0.8	2,060
Highest	35.8	36.5	37.1	29.5	22.0	28.9	25.0	1.5	1,683
Caste/ethnicity:	**(<0.001)**	**(<0.001)**	**(<0.001)**	**(<0.001)**	**(<0.001)**	**(<0.001)**	**(<0.001)**	**(0.027)**	
Brahmin/Chhetri	39.8	40.0	40.6	32.6	23.1	31.6	25.5	1.0	2,725
Terai/Madhesi other castes	36.4	35.1	32.1	31.9	26.3	31.3	30.5	0.5	1,443
Dalit	34.4	32.3	31.1	28.5	22.8	28.6	24.8	1.2	1,261
Newar	34.7	36.7	36.0	24.3	18.3	24.0	20.7	0.7	300
Janajati	23.0	22.9	22.7	17.1	12.0	16.7	14.3	0.2	3,989
Muslim	17.3	17.0	17.6	16.8	11.7	16.5	14.8	1.1	358
Others	50.5	47.3	48.4	40.8	31.5	40.8	34.8	1.6	184

Note:†One respondent selected per household, ideally household head
The figures in parentheses indicate p-value; those in bold are statistically significant

Aware everyone is eligible for free care at PHCCs/HPs/SHPs

Nearly two-thirds (64%) of respondents were aware that everyone is eligible for free care at PHCCs/HPs/SHPs (Table 4.24). Those in rural areas (68%) were almost twice as likely to be aware as those in urban areas (37%).

Table 4.23: Awareness of who is eligible for free care at PHCCs/HPs/SHPs (note: everyone is eligible)

	Everyone (%)	Very poor/poor (%)	Destitute/ helpless (%)	Elderly/ senior citizens (%)	FCHVs (%)	Facility staff (%)	Women (%)	Total respondents† (N)
All	64.1	68.0	67.2	67.0	65.5	64.9	64.2	10,260
Residence:	**(<0.001)**	**(<0.001)**	**(<0.001)**	**(<0.001)**	**(<0.001)**	**(<0.001)**	**(<0.001)**	
Urban	37.0	45.7	44.5	42.9	39.5	39.4	38.9	1,244
Rural	67.8	71.0	70.4	70.3	69.1	68.4	67.7	9,016
Ecological zone:	(0.207)	(0.783)	(0.543)	(0.347)	(0.545)	(0.384)	(0.700)	
Mountain	74.6	79.4	79.5	77.4	75.9	75.2	73.7	689
Hill	65.9	68.0	67.5	67.9	66.1	65.9	64.7	4,791
Terai	60.7	66.3	65.2	64.5	63.3	62.3	62.2	4,781
Education:	**(0.013)**	(0.080)	(0.113)	(0.073)	(0.176)	(0.146)	(0.080)	
Never attended school	59.7	62.4	61.5	61.6	60.4	59.5	59.2	5,668
Primary	70.2	75.0	74.2	73.9	71.9	71.8	71.2	1,268
Secondary	69.4	74.4	74.0	72.8	71.5	71.3	70.0	2,493
Further education	68.6	75.9	75.0	75.1	72.3	72.0	70.4	831
Wealth quintile:	**(<0.001)**	**(<0.001)**	**(<0.001)**	**(0.003)**	**(0.001)**	**(0.002)**	**(0.003)**	
Lowest	61.4	64.6	64.3	64.2	62.2	61.2	61.5	1,928
Second	64.4	67.4	66.5	66.2	64.7	63.8	63.3	2,283
Middle	65.8	69.0	68.3	67.7	66.8	66.3	65.7	2,306
Fourth	69.4	73.8	72.7	72.4	71.5	71.2	69.4	2,060
Highest	57.8	64.1	63.3	63.5	61.3	60.8	60.0	1,683
Caste/ethnicity:	(0.635)	(0.551)	(0.511)	(0.130)	(0.561)	(0.661)	(0.686)	
Brahmin/Chhetri	68.6	72.9	72.4	72.9	71.0	70.6	68.6	2,725
Terai/Madhesi other castes	56.5	61.4	60.4	58.0	57.8	57.3	57.0	1,443
Dalit	68.4	72.8	70.3	69.4	68.3	67.7	67.2	1,261
Newar	70.3	73.7	73.3	73.3	72.3	72.7	71.3	300
Janajati	63.0	66.4	66.1	66.1	64.4	63.4	63.4	3,989
Muslim	46.1	48.9	47.2	48.6	47.2	47.2	46.6	358
Others	74.5	75.0	75.0	75.0	74.5	74.5	73.9	184

Note: †One respondent selected per household, ideally household head
The figures in parentheses indicate p-value; those in bold are statistically significant

Aware of others in receipt of free care

Table 4.25 details respondents' awareness of someone who has received free care. Overall, 42% of respondents were aware of someone in their household who had received free care, and one-fifth were aware of someone outside their household (20%) who had done so. Those in mountain districts were more likely to have been aware of someone who had received free care from within the household (61%) than those in hill (46%) and Terai districts (35%).

Table 4.24: Awareness of others who have received free care

	Aware of someone in household who has received free care (%)	Aware of someone outside household who has received free care (%)	Not aware of anyone in household or outside who has received free care (%)	Total respondents† (N)	*p*
All	41.8	19.9	38.3	10,260	
Residence:					
Urban	28.5	20.2	51.3	1,244	0.154
Rural	43.6	19.9	36.5	9,016	
Ecological zone:					
Mountain	61.1	17.6	21.3	689	
Hill	45.6	16.2	38.2	4,791	**0.012**
Terai	35.2	23.9	40.9	4,781	
Education:					
Never attended school	39.3	16.9	43.8	5,668	
Primary	47.0	21.1	31.9	1,268	**0.048**
Secondary	44.7	24.4	30.8	2,493	
Further education	41.9	25.0	33.1	831	
Wealth quintile:					
Lowest	33.3	22.2	44.5	1,928	
Second	44.3	18.0	37.6	2,283	
Middle	45.0	17.5	37.6	2,306	**0.003**
Fourth	46.9	20.5	32.5	2,060	
Highest	37.3	22.3	40.3	1,683	
Caste/ethnicity:					
Brahmin/Chhetri	43.0	23.8	33.1	2,725	
Terai/Madhesi other castes	28.1	23.4	48.5	1,443	
Dalit	46.2	18.9	35.0	1,261	
Newar	57.7	12.0	30.3	300	**0.001**
Janajati	44.1	17.6	38.3	3,989	
Muslim	27.4	11.5	61.2	358	
Others	51.6	21.2	27.2	184	

Note:
†One respondent selected per household, ideally household head

4.2.4.2 Expenditure on outpatient care

Of those who had received outpatient care in government facilities, 48% had spent money at other facilities prior to their care in government facilities. Of these, more than one-third (38%) had spent money at a pharmacy (Table 4.26).

Table 4.25: Places where outpatients spent money prior to care in government health facilities^

	%
Pharmacy	38.1
Private clinic	8.2
Private hospital	2.5
Traditional healer	2.4
Medical college/teaching hospital	0.7
Mission/NGO/community hospital	0.2
Quack	0.1
Did not spend	52.0
Total outpatients who had received care in a government health facility and had spent money outside the facility prior to care (N)	**1,472**

^multiple response

Reasons for buying drugs and supplies outside

Overall, 48% of outpatients treated at a government facility had purchased drugs and supplies from outside, and 46% had purchased tests. The main reason given for purchasing drugs was that the drugs were not available in the facility (64%), with 30% reporting that the provider told them to purchase the drugs outside (Table 4.27). For supplies, the main reason given was that the pharmacy was closed (62%), and nearly one-fifth (19%) reported that the required supplies were not available in the facility. The main reason for paying for tests outside the facility was that the testing facility was closed (80%).

Table 4.26: Reasons for outpatients buying drugs or supplies, and for paying for tests outside the health facility

		%
Reason for outpatients buying drugs outside the health facility	No drugs at the facility	64.3
	Health provider told me to purchase outside	30.3
	Better quality drugs outside	8.5
	Pharmacy was closed	3.4
	Don't know	0.9
	Total outpatients who purchased drugs outside (N)	707
Reason for outpatients buying supplies outside the health facility	Pharmacy was closed	61.8
	No supplies at the facility	18.5
	Health provider told me to purchase outside	9.3
	Better supplies outside	3.9
	Don't know	9.3
	Total outpatients who spent money on supplies outside facility (N)	707
Reason for outpatients paying for tests outside the health facility	Testing facilities were closed	80.0
	No laboratory at the facility	5.5
	Health provider told me to obtain test outside	4.9
	Better tests outside	3.8
	Don't know	7.3
	Total outpatients who spent money on tests outside facility (N)	677

Sum of percentages may exceed 100 as a result of multiple responses

Management of the cost of outpatient care

Of those who had taken out a loan, most had borrowed money from friends/relatives/neighbours (84%); however, more than one in ten (12%) had borrowed from a money lender (Table 4.28).

Table 4.27: Management of cost of outpatient care

	%
Means of payment:	
Household savings	53.4
Own savings	32.5
Sold assets	0.6
Loan	19.0
Health insurance	0.2
Other	5.3
Don't know	0.2
Total outpatients (N)	**3,739**
Source of loan:	
Bank/MFI	3.0
Money lender	11.8
Friends/relatives/neighbours	83.7
Cooperative/association	2.8
Other	0.7
Don't know	1.2
Total outpatients who took loan (N)	**715**
Assets sold to repay loan:	
Fixed asset (land, building)	*19.6*
Livestock	*39.8*
Grains	*43.9*
Jewellery	*3.8*
Don't know	
Total outpatients who sold assets (N)	***18***

Sum of percentages may exceed 100 as a result of multiple responses

4.2.4.3 Expenditure on inpatient care

Of those who had received inpatient care in government facilities, 68% had spent money prior to their care in government facilities. Of these, more than half (54%) had spent money at a pharmacy (Table 4.29).

Table 4.28: Places where inpatients spent money prior to care in government health facilities^

	%
Pharmacy	54.0
Did not spend	31.7
Food and lodging	22.2
Laboratory	17.9
Private clinic	12.8
Traditional healer	0.6
Total inpatients treated in government facility who spent money outside (N)	305

^Multiple responses

Reasons for buying drugs and supplies outside

Despite essential drugs and all supplies being covered by the free health care policy, some respondents reported having to purchase these from outside the health facility (Table 4.30). Nearly one-third of inpatients who had bought drugs outside the health facility reported that it was due to no drugs being available (60%) at the facility. Just less than half (44%) stated that it was because the health provider had told them to purchase them outside. Most commonly, respondents reported buying supplies outside because there was no supply at the facility (30%); the next most frequent reason given was that the health provider had told them to purchase supplies outside (24%). Of those paying for tests outside the health facility, nearly half (45%) reported that the health provider had told them to obtain a test outside, and 19% stated that tests outside were better.

Table 4.29: Reasons for inpatients buying drugs and supplies, and for having tests outside the health facility^

		%
Reason for inpatients buying drugs outside the health facility	Pharmacy was closed	5.3
	No drugs at the facility	60.3
	Better quality outside	4.4
	Health provider told me to purchase outside	43.5
	Don't know	2.1
	Total inpatients who spent money on drugs (N)	**151**
Reason for inpatients buying supplies outside the health facility	Pharmacy was closed	2.0
	No supplies at the facility	30.1
	Better quality outside	3.8
	Health provider told me to purchase	24.3
	Don't know	40.3
	Total inpatients who spent money on supplies (N)	**151**
Reason for inpatients having tests outside the health facility	Testing facilities were closed	5.1
	No laboratory at facility	9.5
	Better tests outside	19.0
	Health provider told me obtain test outside	45.0
	Don't know	17.4
	Total inpatients who spent money on tests (N)	**55**

^Multiple responses

Management of the cost of inpatient care

Of those who had paid for care, 42% had used their household savings to pay for their inpatient care, and 44% had taken out a loan to cover the costs of their inpatient care (Table 4.31). Of those who had taken out a loan, most had borrowed money from family, relatives, or neighbours (80%), but 15% had borrowed money from a money lender (known for their high interest rates). To repay the loan, 62% stated that they would be able to use their regular income, but 25% had to sell assets. Of those who sold assets for inpatient care, 48% sold fixed assets, 42% sold livestock, 8% sold grains, and 6% sold their jewellery.

Table 4.30: Management of cost of inpatient care

	%
Means of payment:	
Loan	43.8
Household savings	41.7
Own savings	22.2
Sold assets	4.7
Gift and contribution from family and friends	2.6
Health insurance	0.2
Don't know	1.1
Total inpatients (N)	1,040
Source of loan:	
Friends/relatives/neighbours	79.7
Money lender	14.8
Cooperative/association	5.8
Bank/MFI	4.5
Other fund	2.8
Other	0.7
Means to repay loan:	
Regular income	61.6
Selling assets	25.0
Reducing household expenditure	8.8
More borrowing	1.4
Other	0.6
Don't know	3.3
Total inpatients who took loan (N)	456
Assets sold to repay loan:	
Fixed asset (land, building)	48.4
Livestock	41.9
Grains	8.2
Jewellery	6.3
Total inpatients who sold assets (N)	49

Sum of percentages may exceed 100 as a result of multiple responses

4.2.5 Emergency funds

In 2008, the MoHP approved a FCHV fund, which is administered by FCHVs to provide access to micro-credit funds. From this FCHV fund, FCHVs can borrow money for income-generating activities, and support the community in accessing health care services by enabling quick access to the necessary funds.

Awareness of FCHV funds

Overall, there was low awareness of the FCHV emergency fund (11%) (Table 4.32). Likewise, awareness of what the fund could be used for was low, and it was most commonly known that the fund could be used to cover treatment (6%) and medicine costs (6%). Fewer respondents were aware that it could also be accessed to provide funds to feed children when parents are away (2%).

Awareness of FCHV funds was highest among residents in mountain districts (15%), and increased with increasing education. Awareness that it can be used to cover transport costs also increased with increasing education. Those in rural areas were most aware that it could be used to cover medicine costs.

Table 4.31: Awareness of FCHV fund

	Aware of FCHV fund (%)	Aware that the FCHV fund can be used for:					Total respondents† (N)
		Treat-ment costs (%)	Paying off loan taken for the treat-ment (%)	Transport costs (%)	Feeding children when parents are away (%)	Covering medicine costs (%)	
All	10.6	5.9	4.4	3.4	1.7	5.6	10,260
Residence:	(0.963)	(0.572)	(0.648)	(0.605)	(0.381)	**(0.046)**	
Urban	10.7	5.6	4.7	3.1	1.4	4.3	1,244
Rural	10.6	5.9	4.3	3.4	1.7	5.8	9,016
Ecological zone:	**(0.020)**	(0.377)	(0.194)	(0.776)	(0.892)	(0.707)	
Mountain	15.4	7.3	5.2	4.1	2.3	6.8	689
Hill	12.8	7.0	5.8	4.1	2.1	6.9	4,791
Terai	7.7	4.6	2.8	2.5	1.2	4.2	4,781
Education:	**(<0.001)**	(0.302)	(0.479)	**(0.013)**	(0.056)	(0.307)	
Never attended school	6.9	3.9	2.7	1.7	0.9	3.8	5,668
Primary	12.0	6.2	5.0	3.9	1.5	6.5	1,268
Secondary	14.9	7.9	6.0	4.7	2.7	7.2	2,493
Further education	20.9	13.1	10.1	9.5	4.5	12.3	831
Wealth quintile:	(0.097)	(0.392)	(0.660)	(0.552)	(0.056)	(0.434)	
Lowest	9.9	6.2	4.3	3.4	2.0	5.8	1,928
Second	11.4	6.4	5.2	3.8	1.6	6.5	2,283
Middle	8.6	4.2	3.3	2.3	1.0	4.1	2,306
Fourth	10.5	5.8	4.0	3.1	1.4	5.5	2,060
Highest	13.1	7.5	5.3	4.6	2.9	6.5	1,683
Caste/ethnicity:	**(0.001)**	(0.542)	**(0.038)**	**(<0.001)**	(0.180)	(0.348)	
Brahmin/Chhetri	14.9	8.3	7.3	6.1	2.9	8.0	2,725
Terai/Madhesi other castes	6.7	4.2	2.6	1.9	0.9	3.8	1,443
Dalit	10.2	6.4	4.3	3.6	1.3	6.6	1,261
Newar	13.0	7.3	5.7	1.7	1.0	6.3	300
Janajati	9.2	4.8	3.1	2.1	1.4	4.4	3,989
Muslim	5.9	2.0	0.3	0.6	0.3	1.7	358
Others	17.4	9.8	9.2	7.6	4.3	10.9	184

Note: †One respondent selected per household, ideally household head
The figures in parentheses indicate p-value; those in bold are statistically significant

Utilisation of FCHV fund

Among those respondents who were aware of the FCHV fund, 12% were aware of someone within their household who had used the fund, 37% were aware of someone outside the household who had done so, and 34% were not aware of anyone who had used the fund. Those in the lowest wealth quintile were most likely to know someone from outside their household (43%) who had utilised the fund.

Table 4.32: Awareness of use of the FCHV fund

	From household (%)	From outside household (%)	No one (%)	Don't know (%)	Total respondents aware of FCHV fund (N)	*p*
All	12.1	37.2	33.9	16.8	1,088	
Residence:						
Urban	14.8	36.3	32.6	16.3	133	0.903
Rural	11.6	37.3	34.2	16.9	955	
Ecological zone:						
Mountain	16.8	35.5	31.8	15.9	106	0.609
Hill	11.9	34.0	36.4	17.7	614	
Terai	10.9	43.1	30.5	15.5	367	
Education:						
Never attended school	14.9	41.0	29.5	14.6	391	**0.040**
Primary	8.5	42.5	30.7	18.3	152	
Secondary	13.5	34.0	35.8	16.7	371	
Further education	5.2	30.6	43.4	20.8	174	
Wealth quintile:						
Lowest	14.7	42.6	33.2	9.5	190	**0.010**
Second	10.0	33.0	46.0	11.1	261	
Middle	15.1	36.7	27.1	21.1	199	
Fourth	8.3	35.9	32.7	23.0	217	
Highest	13.1	39.4	27.6	19.9	221	
Caste/ethnicity:						
Brahmin/Chhetri	8.9	38.2	32.5	20.4	406	0.488
Terai/Madhesi other castes	8.3	49.0	32.3	10.4	96	
Dalit	14.7	39.5	31.0	14.7	129	
Newar	15.0	40.0	40.0	5.0	39	
Janajati	14.8	33.2	35.6	16.4	365	
Muslim	*22.7*	*22.7*	*31.8*	*22.7*	*21*	
Others	12.5	34.4	40.6	12.5	32	

Note: †One respondent selected per household, ideally household head
The figures in parentheses indicate p-value; those in bold are statistically significant
The italic figures are based on <30 unweighted cases

4.3 KEY FINDINGS

Awareness of 4ANC

- Levels of awareness of 4ANC were low: just over one-third (35%) of respondents were aware of incentive payments, less than one-quarter were aware of how many times a woman should attend ANC in order to receive the incentive (21%), and just 15% were aware of when women should receive the 4ANC incentive. Friends or neighbours were the most likely source of information (53%) on 4ANC. Less than one-third (31%) of those who had received ANC from a formal provider in the last year had been informed about 4ANC incentive payments by the provider. Less than one-fifth of respondents were aware of someone outside their household who had received the 4ANC incentive payment (14%), and 12% were aware of someone inside their household who had.

Receipt of 4ANC incentive payments

- Of those women who had delivered in the last year and were entitled to the 4ANC incentive payment, only 51% had received it.

Awareness of Aama

- There was greater awareness of Aama, with nearly three-quarters of respondents (70%) aware of the programme, nearly two-thirds aware that it includes free care for normal deliveries (63%), and over half (56%) aware that it included a transport incentive. However, fewer were aware that it also included free care for assisted vaginal deliveries (23%) and CSs (15%). Most of those who were aware of Aama had received information on the programme from a friend, peer, or neighbour (63%).
- Very few respondents (less than one in ten) were aware of Aama incentive payments to facilities, trained health workers conducting facility deliveries, or trained health workers conducting home deliveries.
- Over two-thirds (69%) of respondents were aware that government hospitals provide free delivery care, but fewer were aware that PHCCs (51%) and HPs (57%) also do so. Likewise, almost three-quarters (74%) were aware that government hospitals provide transport incentive payments, but fewer were aware that PHCCs (51%) and HPs (55%) also do so.
- Only one in twenty respondents (5%) reported that they had seen a list of Aama beneficiaries displayed.

Receipt of Aama transport incentive payments and free delivery care

- Of those entitled to the transport incentive payment, almost all (91%) had received the incentive, and the great majority (86%) had received it as per the guidelines. However, 14% of those eligible had experienced a delay in receiving, or had not received, their payment. The main reasons given were that the money was unavailable (59%), or that the responsible member of staff was unavailable (19%).
- Around nine out of ten women who had delivered in a government institution (87%) had received the services free of charge.

Awareness of free care

- Most respondents had heard of free care (76%), and more than two-thirds were aware that the consultation fee (68%), registration fee (57%), and essential drugs (56%) were free. However, almost 35% of respondents thought that all drugs were included in the scheme, though only a small percentage (5%) incorrectly thought that x-rays or laboratory services were included. As with the Aama Programme, informal networks were the most common source of information about free care.
- Approximately two-thirds of respondents were aware that district hospitals with fewer than 25 beds (61%), HPs (64%), and SHPs (62%) provided free care, with fewer aware that PHCCs also do so (50%). Just 39% of respondents were aware that everyone is eligible for free care at district hospitals. Less than one-third of respondents were aware that the very poor/poor (31%), destitute/helpless (31%), elderly/senior citizens (31%), and FCHVs (25%) are eligible for free inpatient care at district hospitals. Nearly two-thirds (64%) of respondents were aware that everyone is eligible for free care at PHCCs/HPs/SHPs.
- Overall, 42% of respondents were aware of someone in their household who had received free care, and one-fifth were aware of someone outside their household (20%) who had done so.

Emergency funds

- There was low awareness (11%) of the FCHV emergency fund and its uses. It was most commonly known that the fund could be used to cover treatment (6%) and medicine costs (6%).
- Among those respondents who were aware of the FCHV fund, 12% were aware of someone within their household who had used the fund, and 37% were aware of someone outside the household who had done so.

Inequalities

- There was little difference between urban and rural residents' awareness of 4ANC and the Aama Programme. However, urban residents were more likely to be aware that government hospitals provide free delivery care and transport incentives at government hospitals, and were more likely to have seen a list of Aama beneficiaries. FCHVs were more commonly a source of information on the Aama Programme in rural areas. Those in rural areas were more likely to correctly identify which aspects of were included in free care, and more likely to be aware that everyone is eligible for free care at HPs/SHPs.
- Those in the hill and mountain districts were more likely to be aware, compared to those in the Terai, of the 4ANC incentive, of the details of the scheme, and of someone who had received the 4ANC incentive payment; they were also more likely to have been informed by a provider about the 4ANC incentive. They were also more likely to be aware that HPs provide free delivery care and transport incentives. Those in the hill districts were most likely to have received the incentive, among those entitled.
- Awareness of free care, at all levels, and knowledge that everyone is eligible for free care at district hospitals, increased with increasing level of education. The likelihood of respondents reporting that they had seen a list of Aama beneficiaries increased with level of education.
- Those in the highest wealth quintile were most likely to be aware of the Aama Programme, its components, and the Aama incentive payments to health workers.

- For many of the awareness questions related to DSF, awareness was highest among Brahmins/Chhetris and Newars and lowest among Muslims and Terai/Madhesi other castes. Terai/Madhesi other castes and Muslims were also least likely to be aware of someone who has received the 4ANC incentive, the transport incentive, or free delivery care.

CHAPTER FIVE: GOVERNANCE AND ACCOUNTABILITY

5.1. BACKGROUND

MoHP is in the process of establishing a downward accountability mechanism for health planning and management, using participatory planning with local stakeholders and promoting the use of social audits. The move towards more decentralised management aims to increase community ownership, which in turn should improve access to health services for local people, especially the poor and excluded. The Local Self-Governance Act, 1999 authorises local bodies (DDCs, 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, the MoHP produced a Governance and Accountability Action Plan (GAAP), which incorporates measures to make health services more client-focused and accountable, with a particular focus on the poor and excluded. However, a lack of clarity surrounding the GAAP activities and how they should be implemented hampers the Monitoring and Evaluation (M&E) of the GAAP. A revision of the GAAP indicators is planned.

This chapter explores the exposure of household heads to three governance and accountability mechanisms: social audits, Citizen's Charters, and suggestion/complaint procedures. The HHS 2012 measured respondents' awareness and experience of using these mechanisms. Where appropriate, findings are disaggregated by urban/rural residence, ecological zone, wealth quintile, and caste/ethnicity. Any observed differences are tested to see if they are significant.

5.2. RESULTS

	HHS	
		95%CI
% aware of social audits	12.6	10.5-15.1
% participated in social audit in last year	2.5	1.9-3.2
% aware that all government facilities should have a Citizen's Charter	26.7	23.5-30.1
% of those visiting a health facility in the last year who saw a Citizen's Charter	14.8	12.9-17.0
% of those who saw the Citizen's Charter who experienced difficulties receiving services displayed in it	15.1	12.3-18.4
% aware of suggestion/complaint mechanism at health facilities	44.1	40.0-48.3
% who made a suggestion/complaint at health facility in the last year	9.3	7.9-10.8

5.2.1 Social audits

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 still to be fully implemented. In 2009, the FHD, Department of Health Services (DoHS), developed a social audit model linked to the Aama Programme; in the same year, the Management Division, DoHS, also developed a social audit with broader scope, covering all health service provision. The DoHS, under the leadership of the Primary Health Care Revitalisation Division (PHCRD), has recently harmonised the two sets of social audit guidelines and developed a comprehensive guideline for the whole health sector that specified that health facilities from SHPs to district hospitals and urban health clinics should undertake social audits. The new guideline was piloted in two districts and implemented in an additional 20 in 2011/12; it is now in the process of

final approval from the MoHP. D(P)HOs are expected to develop action plans to ensure social audits are operational in 30% of the health facilities in their district by 2015.

Awareness

Awareness of the social audit process among households was low (13%), and among those who were aware of the process many were unaware of its components (Table 5.1). For those aware of the social audit, the most commonly recognised component was the requirement that health services be publicly displayed (32%), followed by the public display of financial records (27%); the least commonly recognised components were the declaration/action plan (9%) and analysis of records (11%).

Among caste/ethnic groups, Brahmins/Chhetris had the highest level of awareness of social audits (16%), while Muslims had the lowest level of awareness, with only 5% aware. Those in the highest wealth quintile were more likely to be aware of social audits than those in the other quintiles.

Table 5.1: Awareness of social audits and components of social audits

	Aware of social audits (%)	Total respon-dents† (N)	Aware of these components of social audits:									Total respon-dents aware of social audit (N)†
			Display of financial records (%)	Display of services (%)	Community discussions (%)	Declara-tion/action plan (%)	Ana-lysis of records (%)	Score services (%)	Feed-back to community (%)	Public hearings (%)	Don't know (any component of social audits) (%)	
All	12.6	10,260	27.1	31.7	17.5	8.9	10.7	20.2	10.9	20.6	34.5	1,297
Residence:	(0.742)		(0.685)	(0.960)	(0.217)	(0.259)	(0.578)	(0.111)	(0.194)	**(0.016)**	(0.913)	
Urban	11.9	1,243	25.2	31.9	22.0	12.4	9.2	14.3	15.1	10.5	35.2	148
Rural	12.7	9,016	27.4	31.7	16.9	8.5	10.9	21.0	10.3	21.8	34.4	1,149
Ecological zone:	(0.396)		(0.080)	(0.484)	(0.525)	(0.628)	**(0.034)**	(0.068)	(0.101)	(0.485)	(0.977)	
Mountain	15.7	689	17.5	39.1	20.1	6.3	8.3	17.6	13.0	21.8	33.0	108
Hill	13.5	4,791	33.7	29.0	15.9	8.1	14.2	25.4	8.2	22.9	35.0	648
Terai	11.3	4,781	21.2	33.4	19.0	10.5	7.0	14.7	13.6	17.5	34.2	542
Wealth quintile:	**(0.019)**		(0.222)	(0.107)	(0.629)	(0.349)	(0.077)	(0.056)	(0.155)	(0.574)	(0.499)	
Lowest	11.8	1,928	31.6	31.1	13.6	7.3	12.5	26.8	11.0	25.7	34.3	228
Second	11.5	2,283	32.9	34.5	16.9	7.1	14.3	25.9	7.6	20.0	31.8	262
Middle	11.1	2,306	26.8	26.1	18.9	7.4	8.3	16.6	8.6	18.8	37.7	257
Fourth	13.0	2,060	20.5	27.9	18.8	9.5	5.2	14.9	12.0	20.8	38.9	267
Highest	16.9	1,684	25.0	38.1	18.8	12.9	13.2	18.0	14.8	18.2	30.2	284
Caste/ethnicity:	**(0.005)**		**(0.014)**	(0.107)	(0.563)	(0.277)	**(0.025)**	**(0.013)**	(0.080)	(0.086)	**(0.005)**	
Brahmin/ Chhetri	16.1	2,724	32.7	38.7	19.2	8.8	15.3	25.4	15.1	22.3	30.0	439
Terai/Madhesi other castes	8.9	1,444	23.3	33.0	22.8	12.9	5.6	13.9	13.4	20.9	28.4	129
Dalit	9.2	1,262	18.9	27.9	15.3	6.3	4.1	14.0	7.2	16.9	43.9	116
Newar	12.0	301	31.9	28.6	22.7	18.7	13.4	33.0	0.0	51.1	7.9	36
Janajati	13.3	3,990	23.2	25.5	15.2	8.4	8.0	16.5	8.6	17.3	41.5	532
Muslim	*4.5*	*357*	*16.7*	*40.7*	*17.0*	*9.2*	*25.8*	*8.3*	*6.3*	*35.6*	*10.9*	*16*
Others	16.3	184	66.3	46.1	14.5	2.1	26.4	53.7	7.5	19.9	11.0	30

Notes: †*One respondent selected per household (ideally household head);*
The figures in parentheses indicate p-value; those in bold are statistically significant; the italic figures are based on <30 unweighted cases

Participation

Overall, only 3% of respondents had participated in a social audit in the last 12 months (Table 5.2). Brahmins/Chhetris (3%), Newars (3%), and Janajatis (3%) were most likely to have participated. Residents in rural areas (3%) were also more likely to have participated than those in urban areas (1%), and residents from mountain districts (6%) were more likely to have participated than hill (3%) and Terai (2%) residents. There were no significant differences by wealth quintile.

Table 5.2: Participation in social audits

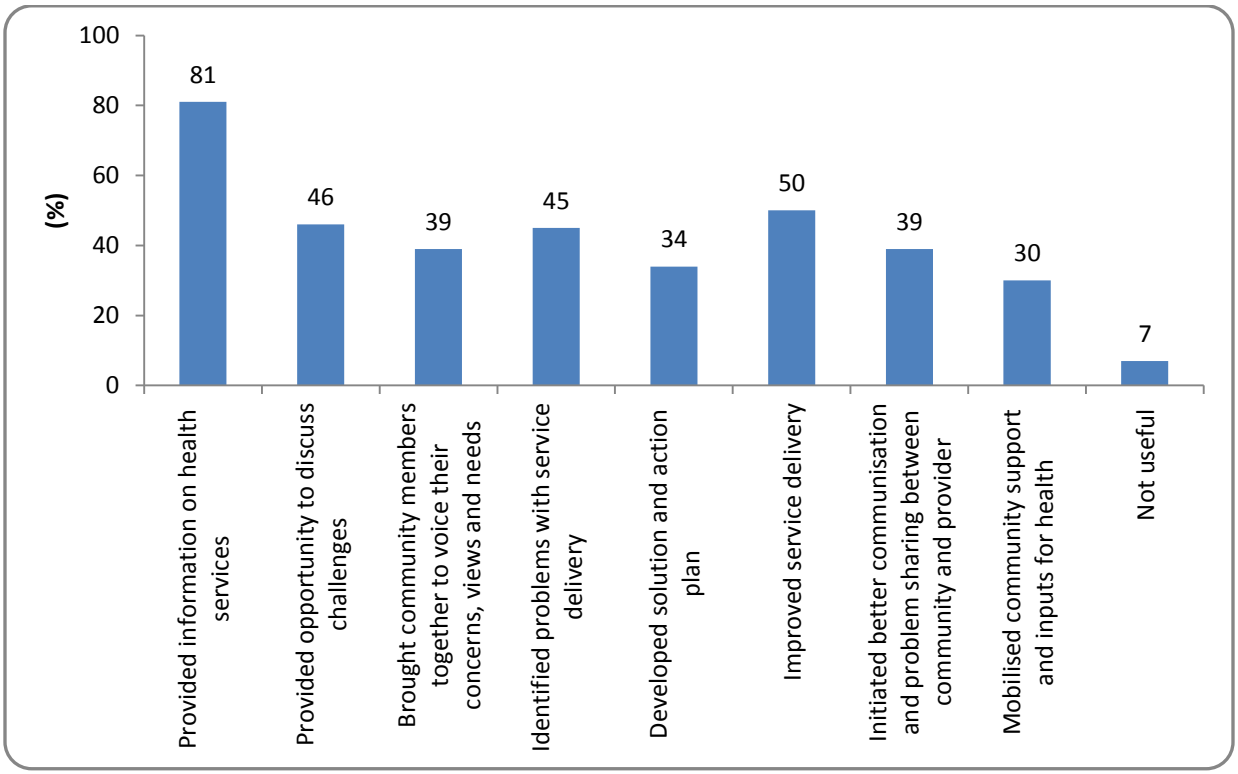
	Participated in social audit in last year (%)	Total respondents (N)[†]	*p*
All	2.5	10,260	
Residence:			
Urban	1.3	1,243	**0.006**
Rural	2.7	9,016	
Ecological zone:			
Mountain	5.7	689	**0.050**
Hill	2.6	4,791	
Terai	1.9	4,781	
Wealth quintile:			
Lowest	2.1	1,928	0.564
Second	2.4	2,283	
Middle	2.4	2,306	
Fourth	2.5	2,060	
Highest	3.2	1,684	
Caste/ethnicity:			
Brahmin/Chhetri	3.3	2,724	**0.027**
Terai/Madhesi other castes	1.0	1,444	
Dalit	1.0	1,262	
Newar	3.3	301	
Janajati	2.9	3,990	
Muslim	1.4	357	
Others	3.3	184	

Notes:
[†]*One respondent selected per household (ideally household head); the figures in bold are statistically significant*

Perceived benefits

Of those who had participated in a social audit, the most commonly perceived benefit was the provision of information on available health services (81%), followed by improvements in service delivery (50%); (7%) felt there were no perceived benefits (Figure 5.1).

Figure 5.1: Perceived benefits of social audits



5.2.2 Citizen's Charter

As per the Good Governance (Management and Operation) Act, 2064 (2008), all government offices responsible for delivering a public service or involved in public relations should maintain a Citizen's Charter in a prescribed format and ensure it is visible to the public. Citizen's Charters inform citizens about their public service entitlements, service availability, opening hours, service-related costs, procedures, and client 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 are entitled to. 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's Charters, especially for women, the poor, and excluded.

Awareness

Just over one-quarter (27%) of respondents were aware that all government health facilities should have a Citizen's Charter (Table 5.3), and just under one-sixth had seen a Citizen's Charter (15%). Of those respondents who had seen a Citizen's Charter, most were aware that the charter should display the opening hours (85%) and types of services available (83%) (Table 5.4). Fewer than half were aware that the charter should also display the contact person (46%) or the cost of services (43%), and just a quarter were aware that the charter should also display the complaints procedure (25%) and the person responsible for listening to complaints (23%).

A greater proportion of those in urban areas (43%) were aware of Citizen's Charters compared to those in rural areas (25%) (Table 5.3). Awareness was higher in mountain districts (41%) than in Terai (28%) and hill districts (23%). Brahmins/Chhetris (40%) and Newars (30%) had greater levels of awareness than other castes/ethnic groups, and those in the highest wealth quintile (52%) were more likely to be aware of Citizen's Charters than other wealth quintiles. Those in urban areas (26%) were more likely to have seen a Citizen's Charter than those in rural areas (13%). Likewise, those in the highest wealth quintile (34%) were more likely to have seen a Citizen's Charter than other wealth quintiles, and Brahmins/Chhetris (23%) and Newars (21%) were more likely to have seen a Citizen's Charter than other caste/ethnic groups.

Table 5.3: Awareness of Citizen's Charter

	Aware all government facilities must have a Citizen's Charter (%)	Seen a Citizen's Charter (%)	Total respondents (N)[†]
All	26.7	14.8	10,260
Residence:	**(<0.001)**	**(0.009)**	
Urban	42.6	26.2	1,244
Rural	24.5	13.3	9,017
Ecological zone:	**(0.018)**	(0.133)	
Mountain	41.0	20.8	688
Hill	22.9	13.5	4,791
Terai	28.4	15.3	4,781
Wealth quintile:	**(<0.001)**	**(<0.001)**	
Lowest	20.5	9.5	1,928
Second	21.1	10.1	2,282
Middle	19.5	10.5	2,306
Fourth	26.4	14.5	2,059
Highest	51.5	33.6	1,684
Caste/ethnicity:	**(<0.001)**	**(<0.001)**	
Brahmin/Chhetri	39.7	23.1	2,724
Terai/Madhesi other castes	20.4	11.1	1,443
Dalit	21.9	10.1	1,261
Newar	29.7	21.3	300
Janajati	22.0	12.1	3,989
Muslim	13.7	6.2	357
Others	38.0	18.5	184

Notes:
[†]One respondent selected per household (ideally household head)
The figures in parentheses indicate p-value; those in bold are statistically significant

Table 5.4: Awareness of contents of Citizen's Charter

Contents displayed on Citizen's Charter	%
Opening hours	84.6
Services available	83.1
Contact person	46.3
Cost of services	42.5
Did not understand content	41.7
Do not remember content	34.1
Complaints procedure	25.0
Person responsible for suggestions/complaints	23.3
Total respondents seen Citizen's Charter displayed at health facility in last year (N)	1,521

Availability of services on Citizen's Charter

Of those who had seen the Citizen's Charter displayed in a health facility, fewer than half reported that the services displayed were available (45%), nearly one-quarter (24%) reported that services were unavailable, and almost one-third (31%) were not sure whether services were available or not (Table 5.5). Reporting of displayed services being available was significantly associated with ecological zone, wealth quintile, and caste/ethnicity.

Table 5.5: Availability of displayed services on Citizen's Charter

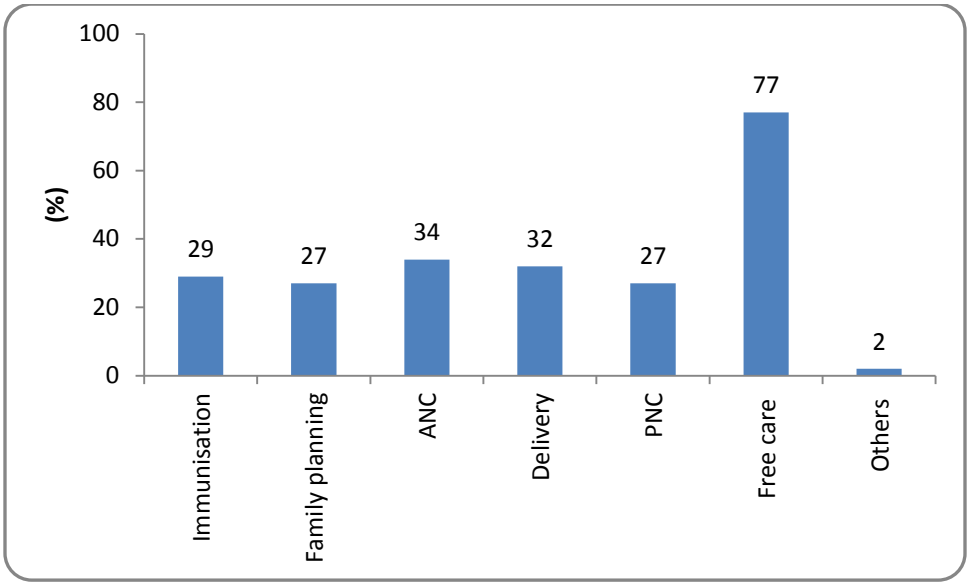
	Displayed services available (%)	Displayed services unavailable (%)	Don't know (if displayed services were available) (%)	Total respondents† who saw Citizen's Charter (N)	*p*
All	45.3	23.8	30.9	1,523	
Residence:					
Urban	41.4	29.1	29.4	326	0.343
Rural	46.3	42.4	31.3	1,196	
Ecological zone:					
Mountain	42.3	20.4	37.3	142	
Hill	39.0	20.8	40.2	649	**0.004**
Terai	51.5	27.3	21.2	730	
Wealth quintile:					
Lowest	48.9	26.6	24.5	184	
Second	40.4	16.5	43.0	230	
Middle	43.9	18.9	37.3	244	**0.006**
Fourth	50.8	21.7	27.4	299	
Highest	43.8	29.2	27.0	566	
Caste/ethnicity:					
Brahmin/Chhetri	44.1	26.8	29.0	630	
Terai/Madhesi other castes	55.0	26.2	18.8	160	
Dalit	48.4	25.8	25.8	128	
Newar	50.0	18.8	31.2	64	**0.027**
Janajati	42.6	19.2	38.2	484	
Muslim	*59.1*	*18.2*	*22.7*	*22*	
Others	31.4	28.6	40.0	35	

Notes: †One respondent selected per household (ideally household head); The figures in bold are statistically significant; the italic figures are based on <30 unweighted cases

Difficulties receiving services on Citizen's Charter

Of those who had seen the Citizen's Charter, 15% experienced difficulties in receiving the services displayed (data not shown). In particular, of those who reported difficulties in receiving services displayed, over three-quarters (77%) reported difficulties in receiving free care (Figure 5.2).

Figure 5.2 Experience of difficulties in receiving a service listed on a Citizen's Charter



5.2.3 Suggestion/complaint procedures

As per the Good Governance (Management and Operation) Act, 2064 (2008), every government health facility is required to keep a suggestion/complaint box in a visible place to address any grievances relating to the facility management or quality of care. One member of staff is responsible for opening the box every three days in the presence of other officials. If the suggestions/grievances are reasonable, necessary steps should be taken to address these, and, if necessary, grievances can be passed to a higher level of authority or a more relevant body. Details of the corrective action taken should be published on the relevant notice board.

Awareness and use

Almost half of the respondents (44%) were aware of the suggestion/complaint mechanisms at health facilities, and nearly one in ten (9%) had ever made a suggestion/complaint (Table 5.6). Awareness of these mechanisms was greatest among the highest wealth quintile (61%) and this group was the most likely to have made a complaint or suggestion (12%). Residents in urban areas (53%) were more likely to be aware of the suggestion/complaint mechanism than rural residents (43%). Muslims (22%) were the least likely to be aware of the suggestion/complaint mechanism and the least likely to have made a suggestion/complaint (5%).

Table 5.6: Awareness and use of suggestion/complaint mechanism

	Aware of suggestion/complaint mechanism (%)	Ever made suggestion/ complaint (%)	Total respondents (N)[†]
All	44.1	9.3	10,260
Residence:	**(0.049)**	(0.233)	
Urban	53.3	11.2	1,244
Rural	42.9	9.0	9,016
Ecological zone:	(0.473)	(0.153)	
Mountain	47.2	12.0	689
Hill	42.5	10.1	4,791
Terai	45.3	8.0	4,780
Wealth quintile:	**(<0.001)**	**(0.007)**	
Lowest	39.5	9.3	1,928
Second	37.9	7.8	2,282
Middle	39.0	7.1	2,306
Fourth	46.9	10.6	2,059
Highest	61.5	12.4	1,683
Caste/ethnicity:	**(<0.001)**	**(<0.001)**	
Brahmin/Chhetri	53.7	12.4	2,725
Terai/Madhesi other castes	36.3	7.7	1,443
Dalit	41.8	8.2	1,262
Newar	52.3	8.6	301
Janajati	41.8	8.0	3,990
Muslim	22.3	5.3	358
Others	59.5	19.0	184

Notes:
[†]One respondent selected per household (ideally household head);
The figures in parentheses indicate p-value; those in bold are statistically significant; the italic figures are based on <30 unweighted cases

Reasons for suggestions/complaints

The most common reasons for making a suggestion or complaint were the lack of availability of drugs (62%), staff behaviour (27%), and staff unavailability (26%). The lack of drugs was less likely to result in a suggestion/complaint among the highest quintile (38%). Staff behaviour was the reason behind more suggestions/complaints in the Terai (34%) than in the hill (22%) and mountain (20%) districts. Opening hours were more of a concern for the lowest quintile (21%), while only 4% of those in the highest quintile who had made a suggestion/complaint had done so about this issue. However, a greater proportion of the highest quintile complained about staff incompetence (30%) than of those from the lowest quintile (9%).

Process used

The most common method used for making a suggestion/complaint was to speak directly to the responsible person (98%). The use of other mechanisms was limited, with just 1% using the suggestion/complaint box, and 1% the phone.

Table 5.7: Reasons for making suggestion/complaint

	Staff behaviour (%)	Staff incompetence (%)	Staff unavail-able (%)	Lack of function-al equip-ment (%)	Lack of drugs (%)	Payment (%)	Wait-ing time (%)	Referral (%)	Lack of transp-ort (%)	Opening hours (%)	Other (%)	Total respondents† who made complaint/ suggestion (N)
All	26.9	16.6	26.2	6.7	62.1	12.3	9.9	1.9	2.2	8.3	4.0	949
Residence:	(0.380)	**(<0.001)**	(0.236)	(0.664)	**(<0.001)**	**(0.042)**	(0.663)	(0.784)	(0.100)	**(0.002)**	(0.178)	
Urban	31.3	35.5	31.5	4.7	31.0	5.1	11.4	1.4	0.5	1.4	5.9	139
Rural	26.1	13.3	25.3	7.1	67.4	13.6	9.6	2.0	2.5	9.5	3.7	810
Ecological zone:	**(0.039)**	(0.535)	(0.414)	**(0.004)**	(0.087)	(0.569)	**(0.001)**	(0.815)	(0.418)	(0.473)	(0.156)	
Mountain	20.1	11.6	35.4	5.0	66.4	8.5	7.9	1.3	3.4	8.4	1.3	83
Hill	22.0	17.1	26.0	2.6	67.7	11.0	5.0	1.8	1.3	5.7	3.6	482
Terai	34.3	16.9	24.6	12.4	54.1	14.9	16.5	2.1	3.1	11.6	5.2	384
Wealth quintile:	(0.455)	**(0.001)**	(0.270)	(0.169)	**(<0.001)**	(0.057)	(0.069)	**(0.002)**	(0.121)	**(0.035)**	(0.063)	
Lowest	32.8	9.4	31.7	13.5	75.8	23.5	18.7	5.6	5.2	20.8	1.6	179
Second	20.4	9.6	24.5	6.5	68.8	15.7	8.5	1.7	2.2	7.5	1.9	177
Middle	22.3	16.4	29.4	1.8	70.0	7.6	6.2	0.5	0.6	6.0	3.7	164
Fourth	27.2	15.2	20.0	5.9	62.7	10.0	6.5	1.6	0.7	4.9	6.8	219
Highest	30.4	30.3	27.1	6.2	37.8	6.1	10.0	0.3	2.4	3.8	5.4	209
Caste/ethnicity:	(0.630)	(0.588)	(0.460)	(0.125)	**(0.007)**	(0.174)	(0.047)	(0.837	(0.501)	(0.113)	(0.057)	
Brahmin/Chhetri	22.4	17.6	23.3	2.3	60.5	9.3	9.5	2.1	0.6	6.3	4.3	337
Terai/Madhesi other castes	36.1	12.6	35.5	25.0	68.3	28.9	23.6	2.4	5.9	27.7	5.0	111
Dalit	30.6	18.7	20.2	8.0	68.9	18.5	6.3	0.7	4.6	8.6	5.3	103
Newar	*34.6*	*10.3*	*14.9*	*6.7*	*67.1*	*23.3*	*9.2*	*5.5*	*6.7*	*18.5*	*6.7*	*26*
Janajati	25.8	15.8	29.3	4.6	60.1	8.6	7.9	1.9	1.8	3.8	1.9	320
Muslim	*27.5*	*9.3*	*29.8*	*7.0*	*67.3*	*7.0*	*7.0*	*0.0*	*0.0*	*7.0*	*9.3*	*19*
Others	32.5	28.2	21.7	8.9	49.8	0.0	0.8	0.0	0.0	0.0	8.9	35

Notes:

The italic figures are based on <30 unweighted cases

†One respondent selected per household (ideally household head)

^multiple response

The figures in parentheses indicate p-value; those in bold are statistically significant

The italic figures are based on <30 unweighted cases

5.3 KEY FINDINGS

Social audits

- There was low awareness of the social audit process (13%). Of those who were aware, few knew about the components of the social audit process, with respondents most likely to be aware that health services (32%) and financial records (27%) should be publicly displayed.
- Only 3% of respondents had participated in a social audit in the last 12 months.
- Of those who had participated in a social audit, the most commonly perceived benefit was the provision of information on available health services (81%), followed by improvements in service delivery (50%). However, 7% felt there were no perceived benefits.

Citizen's Charter

- Fewer than one-third of respondents (27%) were aware that all government health facilities should have a Citizen's Charter; 15% had seen a Citizen's Charter displayed. Of those who had seen a Citizen's Charter, most were aware that the charter should display the opening hours (85%) and types of services available (83%).
- Of those who had seen the Citizen's Charter displayed, fewer than half reported that the services displayed were available (45%), nearly one-quarter (24%) reported that services were unavailable, and almost one-third (31%) were not sure whether services were available or not.
- Of those who had seen the Citizen's Charter, 15% had experienced difficulties in receiving the services it displayed. In particular, there were difficulties in receiving free care reported by over three-quarters of the respondents (77%).

Suggestion/complaint mechanism

- Fewer than half of the respondents (44%) were aware of the suggestion/complaint mechanisms at health facilities. Fewer than one in ten (9%) had ever made a complaint.
- The most common reasons for making a suggestion/complaint were the lack of availability of drugs (62%), staff behaviour (27%), and staff unavailability (26%).
- The most common method used for making a suggestion/complaint was to speak directly to the responsible person (98%). The use of other mechanisms was limited.

Inequalities

- There was greater awareness of Citizen's Charters and complaints/suggestion boxes among those living in urban areas than those in rural areas. Urban residents were also more likely to have made a suggestion/complaint, and to have seen a Citizen's Charter, while rural residents who had seen the charter were more likely to report that the displayed services were available.
- Those in mountain districts were most likely to be aware of the Citizen's Charter and the suggestion/complaint mechanism. Mountain residents were also more likely to have made a complaint. Those residing in Terai districts were most likely to report that services displayed on the Citizen's Charter were unavailable.

- Brahmins/Chhetris were the group most likely to be aware of social audits, Citizen's Charters, and suggestion/complaint mechanisms, with Muslims having the lowest awareness. Brahmins/Chhetris were also most likely to have participated in social audits, and Muslims least likely to have made a suggestion/complaint.
- Those in the highest wealth quintile were more likely to be aware of social audits, Citizen's Charters, and suggestion/complaint mechanisms than those in the other quintiles. They were also most likely to have seen a Citizen's Charter and most likely to have made a suggestion or complaint. However, the lack of drugs, payment issues, opening hours, and waiting times were more likely to result in a suggestion/complaint from the lower quintiles.

CHAPTER SIX: REPRODUCTIVE HEALTH

6.1 BACKGROUND

The CPR in Nepal increased by 2% per year between the NDHS 1996 and NDHS 2006. During this period, the use of modern contraceptive methods increased from 26% in 1996 to 44% in 2006 (an increase of 69%), but then stalled between 2006 and 2011, (44% and 43% respectively), while the use of traditional methods increased from 4% in 2006 to 7% in 2011. Between 1986 and 2006, the TFR halved, from 6.0 to 3.1, and, in contrast to the CPR, it continued to fall after 2006, declining to 2.6 in 2011. Possible reasons for the continued decline in fertility include an increase in the age at first marriage, an increased desire for a smaller family size, increased literacy and education, increased spousal separation owing to migration, and improved economic conditions. The legalisation and increased provision of Safe Abortion Services (SAS) is another possible contributing factor. Abortion was legalised in Nepal in March 2002, under the following circumstances:

- For any pregnancy up to 12 weeks' gestation
- In the case of incest/rape, up to 18 weeks' gestation
- If the physical or mental health of the mother is at risk (with recommendation from an authorised medical practitioner), at any duration of pregnancy
- If the foetus is deformed, at any duration of pregnancy.

However, although abortion was legalised in 2002, the GoN did not officially begin to provide SAS until March 2004. At the time of data collection for the HHS 2012, SAS were available in all 75 districts of Nepal.[14] As of June 2012, 575 facilities in the country were legally allowed to provide SAS[15].

This chapter explores the current use of family planning, of both modern and traditional methods, among WRA (aged 15-49), MWRA, and (given the high level of migration in Nepal) MWRA living with their husbands. It then looks specifically at the methods of family planning currently being used by MWRA. WRA's awareness of where they can access SAS, of the legality of abortion in Nepal, and of the circumstances under which abortion is legal are assessed. All findings are disaggregated by age group, urban/rural residence, ecological zone, education, wealth quintile, and caste/ethnicity. Associations were tested to see if they are significant. Findings are compared to the NDHS 2011; similar wording was used in the HHS questionnaire to the NDHS questionnaire.

[14]KC, N.P., Basnett, I., Sharma, S.K., Bhusal, C.L., Parajuli, R.R. and Andersen, K.L., 2011. Increasing access to safe abortion services through auxiliary nurse midwives trained as skilled birth attendants. *Kathmandu Univ Med J (KUMJ),* 9(36), pp.260-266.
[15]Ministry of Health and Population (MoHP), 2013. *Annual Report, Department of Health Services, 2068/69 (2011/12).* Kathmandu, Nepal: Department of Health Services.

6.2 RESULTS

	NDHS 2011 (%)	HHS 2012	
		%	95% CI
% of WRA (15-49) using a modern family planning method	33.2	37.3	34.9-39.7
CPR (modern methods) among MWRA *	43.2	41.4	38.7-44.1
% of MWRA living with husband using a modern family planning method	52.9	47.9	44.8-51.0
% of WRA (15-49) using only a traditional family planning method	5.0	2.8	2.2-3.5
% of MWRA using only a traditional family planning method	6.5	3.1	2.5-3.8
% of MWRA living with husband using only a traditional family planning method	9.1	3.4	2.7-4.2
% of WRA (15-49) not using any family planning method	61.8	59.9	57.5-62.3
% of MWRA not using any family planning method	50.3	55.5	52.9-58.2
% of MWRA living with husband not using any family planning method	38.0	48.7	45.6-51.9
% of MWRA using permanent modern family planning method (male/female sterilisation)	23.0	18.7	16.5-21.1
% of MWRA using long-term modern family planning method (IUCD/implant)	2.5	2.2	1.7-2.9
% of MWRA using short-term modern family planning method (pill/injectable/condom)	17.6	20.4	18.2-22.8
% of MWRA, who had previously given birth, who did not want to become pregnant at the time of their last pregnancy	-	10.0	7.9-13.1
% of women currently pregnant who did not want to become pregnant at that time	-	15.0	11.0-19.6
% of WRA (15-49) aware of safe abortion sites*	58.8	28.2	24.5-32.1
% of WRA (15-49) aware that abortion is legal in Nepal	37.8	36.7	32.9-40.9
% of WRA aware of all of the circumstances under which abortion is legal in Nepal	-	1.2	0.8-1.9

** LF indicator*

6.2.1 Family planning

6.2.1.1 Use of family planning

Among WRA, 40% were using family planning; the proportion among those who were married increased to 45%, rising further to 51% among MWRA living with their husbands (Table 6.1). Most were using modern rather than traditional methods: among WRA, 37% compared to 3% respectively; among MWRA, 41% compared to 3%; and among MWRA living with husbands, 48% compared to 3%. Those using family planning only used one method of family planning.

The use of family planning, especially of modern methods, by WRA and MWRA was most common between the ages of 35-44, when women are most likely to want to stop (rather than delay or space) childbearing. When restricted to MWRA living with husbands, the age range for peak use also included the 30-34 age group. The same pattern is not seen for traditional methods, where the peak age range is far younger: 15-24 for MWRA and MWRA living with husbands. Women who want children in the future, but not at that time, may avoid using modern methods for the following reasons: fear of side effects and

health concerns (NDHS 2006, NDHS 2011), objections from husbands or other family members,[16] distance to health facilities, unavailability of a given desired method, and being too shy to visit a health facility and request contraception.[17]

Those in the highest wealth quintile were more likely to use family planning than those in other wealth quintiles. This pattern was seen for all methods, modern methods, and among WRA, MWRA, and MWRA living with husbands. Similarly, use of traditional methods also increased with wealth quintile, and this applied to WRA, MWRA, and MWRA living with husbands. By caste/ethnicity the highest use of modern methods was seen amongst Newars, and lowest use was seen amongst Muslims. This was seen for WRA, MWRA, and MWRA living with husbands.

Given that access to education has increased over time, age group needs to be taken into account when looking at the relationship between education and use of family planning (Table 6.2). Among MWRA and MWRA living with husbands aged 20-24, contraceptive use increased with increasing education.

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[16] Bangaarts, J., Cleland, J., Townsend, J.W., Bertrand, J.T. and Gupta, M.D., 2012. *Family Planning Programs for the 21st Century: Rationale and Design.* New York: Population Council.

[17] Ministry of Health and Population (MoHP), Unites States Agency for International Development (USAID), and Center for Research on Environment Health and Population Activities (CREHPA), 2012. *Family Planning Needs of Migrant Couples in Nepal*. Kathmandu, Nepal: Ministry of Health and Population, USAID, and CREHPA.

Table 6.1: CPR for all, modern, and traditional methods among WRA (aged 15-49), MWRA, and MWRA living with husbands

	WRA				MWRA				MWRA living with husband			
	All methods (%)	Modern methods (%)	Traditional methods (%)	Total WRA (N)	All methods (%)	Modern methods (%)	Traditional methods (%)	Total MWRA (N)	All methods (%)	Modern methods (%)	Traditional methods (%)	Total MWRA living with husband (N)
All	40.1	37.3	2.8	9,323	44.5	41.4	3.1	8,403	51.3	47.9	3.4	6,203
Age group:	**(<0.001)**	**(<0.001)**	**(<0.001)**		**(<0.001)**	**(<0.001)**	**(<0.001)**		**(<0.001)**	**(<0.001)**	**(<0.001)**	
15-19	11.3	8.6	2.7	875	22.8	17.3	5.5	434	24.8	19.1	5.7	297
20-24	26.4	22.0	4.3	1,856	30.4	25.4	5.0	1,611	38.1	31.9	6.2	1,017
25-29	39.4	36.4	3.0	1,838	40.5	37.4	3.1	1,789	49.5	46.2	3.4	1,199
30-34	49.1	46.1	3.0	1,532	50.4	47.3	3.1	1,491	57.2	53.7	3.5	1,118
35-39	55.9	54.3	1.6	1,394	57.2	55.6	1.6	1,362	62.5	60.8	1.7	1,096
40-44	48.7	49.7	1.7	1,079	53.3	51.7	1.7	1,039	56.8	54.9	1.9	880
45-49	11.3	43.3	1.7	749	49.9	47.9	1.9	675	50.8	48.5	2.2	596
Residence:	(0.486)	(0.316)	(0.422)		(0.189)	(0.110)	(0.479)		(0.265)	(0.139)	(0.260)	
Urban	42.0	40.0	1.9	1,108	48.4	46.2	2.2	959	54.9	52.7	2.2	725
Rural	39.8	36.9	2.9	8,215	44.0	40.7	3.2	7,443	50.8	47.3	3.5	5,477
Ecological zone:	(0.074)	(0.343)	**(0.025)**		(0.092)	(0.377)	**(0.026)**		(0.260)	(0.210)	**(0.021)**	
Mountain	46.4	41.6	4.9	614	53.0	47.4	5.6	538	58.4	53.0	5.2	422
Hill	37.5	35.7	1.8	4,242	42.3	40.2	2.0	3,768	51.9	49.7	2.2	2,492
Terai	41.6	38.2	3.4	4,466	45.4	41.6	3.7	4,097	49.9	45.9	4.0	3,287
Wealth quintile:	**(0.018)**	**(0.094)**	**(0.007)**		**(0.008)**	**(0.043)**	**(0.007)**		**(0.002)**	**(0.014)**	**(0.002)**	
Lowest	39.7	37.7	1.9	1,752	44.4	42.3	2.1	1,564	49.4	47.4	2.0	1,220
Second	39.0	36.9	2.1	2,080	43.1	40.8	2.3	1,881	50.0	47.3	2.7	1,385
Middle	37.1	34.5	2.7	2,070	41.0	38.0	2.9	1,876	47.3	44.1	3.2	1,354
Fourth	40.9	37.4	3.5	1,896	45.0	41.1	3.8	1,721	52.4	48.3	4.1	1,259
Highest	45.0	41.0	4.1	1,526	50.6	46.0	4.6	1,359	59.5	54.4	5.1	985

	WRA				MWRA				MWRA living with husband			
	All methods (%)	**Modern methods (%)**	**Traditional methods (%)**	**Total WRA (N)**	**All methods (%)**	**Modern methods (%)**	**Traditional methods (%)**	**Total MWRA (N)**	**All methods (%)**	**Modern methods (%)**	**Traditional methods (%)**	**Total MWRA living with husband (N)**
Caste/ethnicity:	**(<0.001)**	**(<0.001)**	(0.745)		**(<0.001)**	**(<0.001)**	(0.716)		**(<0.001)**	**(<0.001)**	(0.603)	
Brahmin/Chhetri	40.9	37.7	3.2	2,417	46.0	42.4	3.6	2,153	56.6	52.3	4.2	1,409
Terai/Madhesi other castes	39.8	37.3	2.6	1,368	41.7	39.1	2.7	1,307	44.2	41.6	2.6	1,155
Dalit	37.3	34.4	2.8	1,160	41.1	37.9	3.1	1,053	46.1	42.6	3.5	748
Newar	51.1	49.6	1.5	268	59.6	57.8	1.7	230	68.6	66.5	2.3	176
Janajati	41.8	39.0	2.8	3,602	47.1	44.0	3.1	3,196	55.7	52.3	3.4	2,341
Muslim	12.2	9.6	2.6	344	13.1	10.3	2.8	320	14.6	11.6	3.3	275
Others	51.2	50.3	1.2	164	58.3	57.3	1.4	144	63.6	62.6	2.0	99

Note:

The figures in parentheses indicate p-value; those in bold are statistically significant

Table 6.2: CPR by age group/education

Age group	WRA				MWRA				MWRA living with husband			
	All methods (%)	Modern methods (%)	Traditional methods (%)	Total WRA (N)	All methods (%)	Modern methods (%)	Traditional methods (%)	Total MWRA (N)	All methods (%)	Modern methods (%)	Traditional methods (%)	Total MWRA living with husband (N)
All	40.1	37.3	2.8	9,323	44.5	41.4	3.1	8,403	51.3	47.9	3.4	6,203
15-19	**(0.011)**	**(0.010)**	(0.494)		(0.509)	(0.473)	(0.432)		(0.633)	(0.690)	(0.551)	
Never attended school	18.7	16.1	2.4	124	22.3	19.2	2.9	103	27.3	23.4	3.9	76
Primary	20.2	17.2	3.0	99	29.4	25.0	4.4	68	21.1	18.4	2.7	37
Secondary	9.7	6.7	3.2	568	22.4	15.4	7.3	247	25.4	18.0	7.5	173
Further education	1.2	1.2	0.0	85	*5.9*	*5.9*	*0.0*	*17*	*10.0*	*10.0*	*0.0*	*11*
20-24	(0.637)	(0.440)	(0.796)		(**0.036**)	(0.070)	(0.375)		(**0.005**)	(**0.012**)	(**0.025**)	
Never attended school	24.6	19.8	4.8	545	25.5	20.6	4.9	526	30.3	24.2	6.0	383
Primary	26.6	22.9	3.7	297	28.7	24.7	4.0	275	36.7	32.1	4.2	168
Secondary	28.5	24.5	3.9	661	32.9	28.4	4.6	571	43.2	38.2	4.7	338
Further education	25.4	20.4	5.1	353	37.5	30.0	7.5	240	50.4	37.8	12.6	127
25-29	(0.741)	(0.903)	(0.393)		(0.947)	(0.984)	(0.434)		(0.149)	(0.400)	(**0.048**)	
Never attended school	39.6	36.9	2.8	868	40.0	37.2	2.8	861	45.7	43.3	2.4	619
Primary	41.4	37.6	3.8	266	42.5	38.6	3.9	259	55.6	52.0	3.5	172
Secondary	39.8	36.0	3.8	525	40.9	37.0	3.9	511	54.3	48.4	5.9	304
Further education	34.5	33.3	1.1	177	39.1	37.8	1.3	157	48.5	46.6	2.0	102
30-34	(**0.003**)	(**0.005**)	(0.832)		(**0.003**)	(**0.006**)	(0.812)		(**<0.001**)	(**<0.001**)	(0.807)	
Never attended school	45.8	43.1	2.8	961	46.9	44.0	2.9	941	52.4	49.1	3.3	726
Primary	59.6	55.8	3.5	199	60.2	56.6	3.6	195	69.1	65.5	3.6	138
Secondary	54.7	51.6	3.1	318	57.0	53.8	3.3	306	68.1	64.8	3.2	216
Further education	35.2	31.5	3.7	54	38.0	34.0	4.0	50	41.7	36.1	5.6	36
35-39	(0.097)	(0.148)	(**0.040**)		(**0.048**)	(0.081)	(**0.035**)		(**0.006**)	(**0.017**)	(**0.015**)	
Never attended school	53.8	52.6	1.3	1,033	54.9	53.6	1.3	1,013	59.4	58.2	1.2	812
Primary	63.9	60.5	3.4	119	68.5	64.9	3.6	111	77.4	73.1	4.3	93
Secondary	61.9	60.5	1.0	195	62.8	61.5	1.0	191	70.7	68.9	1.4	147
Further education	56.5	52.2	4.3	46	56.5	52.2	4.3	46	60.5	54.5	4.7	43
40-44	(0.580)	(0.631)	(0.063)		(0.523)	(0.536)	(0.063)		(0.535)	(0.557)	(0.144)	

Age group	WRA				MWRA				MWRA living with husband			
	All methods (%)	Modern methods (%)	Traditional methods (%)	Total WRA (N)	All methods (%)	Modern methods (%)	Traditional methods (%)	Total MWRA (N)	All methods (%)	Modern methods (%)	Traditional methods (%)	Total MWRA living with husband (N)
Never attended school	50.6	49.4	1.2	840	52.7	51.4	1.2	807	55.9	54.4	1.5	680
Primary	49.4	46.5	2.4	86	50.6	47.6	2.4	83	54.2	51.4	2.8	71
Secondary	55.7	51.1	4.6	131	57.5	52.8	4.7	128	61.3	56.8	4.5	111
Further education	*62.5*	*62.5*	*0.0*	*24*	*68.2*	*68.2*	*0.0*	*22*	*72.2*	*72.2*	*0.0*	*18*
45-49	(0.284)	(0.119)	(0.245)		(0.340)	(0.128)	(0.184)		(0.144)	(0.057)	(0.236)	
Never attended school	44.9	43.1	1.9	648	53.4	47.9	2.1	581	50.6	48.2	2.3	514
Primary	47.6	47.6	0.0	42	50.0	48.8	0.0	40	46.2	46.2	0.0	38
Secondary	49.1	48.1	1.9	52	48.8	52.1	2.0	49	61.5	60.0	2.5	40
Further education	*14.3*	*0.0*	*14.3*	*6*	*53.1*	*0.0*	*20.0*	*5*	*20.0*	*0.0*	*20.0*	*5*

Note:
The figures in parentheses indicate p-value; those in bold are statistically significant
The italic figures are based on <30 unweighted cases

6.2.1.2 Family planning methods

Modern methods

MWRA were most likely to be using short-term family planning methods (20%) or permanent methods (19%), with very few (2%) using a long-acting family planning method (Table 6.3).

Permanent methods: The most common individual method was female sterilisation (14%), which was nearly three times more common than male sterilisation (5%). The likelihood of using female sterilisation increased with age, and was more common in Terai (22%) than hill (5%) or mountain districts (11%). It was more common among those who had never been to school (but this is likely to reflect the higher use among older women who were less likely to have attended school). As with female sterilisation, the use of male sterilisation increased with age, and there was higher use among those who had never attended school (again linked to age). And, in contrast to findings about female sterilisation, those residing in mountain or hill districts were more likely to have used male sterilisation.

Long-acting methods: Use of both long-acting methods, implants and Intrauterine Contraceptive Devices (IUCDs), was very low, at just 1% each. Those who had completed further education were more likely to use an IUCD than those who had never been to school or had only completed primary or secondary education. Use of implants increased slightly for each age group to a peak among those aged 35-39, and then decreased again. Those living in mountain and hill distrcts (2%) were more likely to use implants than those in the Terai (1%).

Short-term methods: Injectables were the second most commonly used method (14%) of contraception overall, but use of other short-term methods was low: oral contraceptive pills were used by 4% of respondents, condoms by 3%. Those aged 20-44 were more likely to use injectables than those in the lowest (15-19) or highest (45-49) age groups. MWRA living in mountain or hill districts were more likely to use injectables than those living in Terai districts. Use of the oral contraceptive pill was most common amongst those aged 20-39. Those who had never attended school were less likely to use contraceptive pills than those who had attended school. Condom use was more common among younger age groups (15-29), and among those who lived in the Terai and mountain districts compared to those in hill districts. Those who had attended school were more likely to use condoms than those who had not, and among those who attended school, use increased with level of education.

Traditional methods

Amongst the traditional methods of family planning, breastfeeding was most common (2%); all other methods (abstinence, withdrawal, rhythm, and herbal) were used by less than 1%. Breastfeeding, as a method of family planning, was most common among the younger age groups (15-24), those living in mountain districts, those who attended school, and those in the third, fourth, and highest wealth quintiles. Abstinence was most common among the oldest age groups (40-49).

Table 6.3: Use of family planning methods among MWRA

	Modern methods							Traditional methods					Not currently using any method (%)	Total MWRA (N)	*p*
	Female sterilisation (%)	Male sterilisation (%)	IUCD (%)	Injectable (%)	Implants (%)	Oral pills (%)	Condom (%)	Abstinence (%)	Withdrawal (%)	Rhythm (%)	Breastfeeding (%)	Herbal contraceptive (%)			
All	13.8	4.9	1.0	13.7	1.2	3.7	3.0	0.4	0.6	0.3	1.7	0.0	55.5	8,402	
Age group:															
15-19	0.0	0.0	0.9	8.5	0.9	1.4	5.8	0.7	0.5	0.5	4.1	0.0	76.7	434	
20-24	1.7	0.3	1.1	13.3	0.4	4.7	4.0	0.1	0.6	0.4	3.7	0.1	69.6	1,611	
25-29	9.4	2.1	0.9	15.2	0.8	5.0	3.9	0.1	0.4	0.2	2.4	0.0	59.5	1,789	
30-34	15.9	5.0	1.3	16.4	2.0	4.2	2.5	0.4	1.0	0.4	1.1	0.1	49.6	1,492	**<0.001**
35-39	22.2	9.3	1.1	14.8	2.3	3.1	2.6	0.3	0.7	0.2	0.4	0.1	42.8	1,362	
40-44	23.4	10.0	0.6	12.2	1.1	2.7	1.7	0.6	0.6	0.5	0.2	0.0	46.5	1,039	
45-49	26.8	9.2	1.5	7.7	0.4	1.6	0.6	1.3	0.4	0.1	0.0	0.1	50.1	675	
Residence:															
Urban	17.5	7.3	1.7	13.3	0.3	2.9	3.1	0.1	0.9	0.1	1.1	0.0	51.5	959	0.086
Rural	13.3	4.6	1.0	13.7	1.3	3.8	3.0	0.4	0.6	0.4	1.8	0.1	56.1	7,443	
Ecological zone:															
Mountain	10.8	8.9	0.7	17.3	1.9	4.1	3.9	0.4	2.8	0.0	2.4	0.0	46.8	538	
Hill	5.1	7.6	1.0	18.4	1.7	4.1	2.2	0.0	0.2	0.1	1.7	0.0	57.7	3,768	**<0.001**
Terai	22.2	1.8	1.1	8.8	0.7	3.4	3.7	0.7	0.7	0.6	1.6	0.1	54.6	4,097	
Education:															
Never attended school	18.3	5.6	0.9	12.3	1.2	2.8	2.2	0.5	0.4	0.3	1.2	0.1	54.2	4,831	
Primary	9.7	3.9	1.1	17.4	1.2	4.8	3.1	0.4	0.7	0.2	2.4	0.0	54.9	1,033	**<0.001**
Secondary	7.8	4.3	0.9	14.8	1.5	5.0	4.0	0.3	0.9	0.6	2.4	0.1	57.7	2,000	
Further education	3.7	2.1	2.6	14.4	0.2	5.6	6.5	0.2	1.1	0.6	2.8	0.0	60.3	536	
Wealth quintile:															
Lowest	14.1	4.9	0.8	12.5	1.3	3.6	5.1	0.2	0.4	0.2	1.3	0.1	55.6	1,564	
Second	11.4	4.8	1.1	14.6	1.7	4.4	2.8	0.3	0.4	0.3	1.3	0.1	56.8	1,881	
Middle	14.3	3.9	0.6	13.0	1.1	3.6	1.4	0.4	0.3	0.3	2.0	0.1	59.0	1,876	0.067
Fourth	14.9	4.4	1.2	14.5	1.0	3.1	2.0	0.5	0.6	0.4	2.2	0.1	55.0	1,721	
Highest	14.6	6.9	1.5	13.6	0.8	3.8	4.6	0.4	1.5	0.7	1.9	0.0	49.4	1,359	

Note: The figures in bold are statistically significant

6.2.2 Pregnancy wantedness

Just 5% of MWRA interviewed were pregnant at the time of the survey. Among these, 82% had wanted to become pregnant at that time, 11% would have preferred to delay until later, and 4% had not wanted any more children. Most of the MWRA interviewed (93%) had given birth (Table 6.4). When asked whether their last child had been wanted, most (87%) reported that they had wanted to become pregnant at that time; however, 4% would have preferred to wait until later, and 6% had not wanted to have any more children. Younger women were more likely to have preferred to delay their pregnancy (12% of those aged 15-19 compared to 2% of those aged 35-49). In contrast, those who would have preferred to stop childbearing were more likely to be older (9% of those aged 35-49 compared to 1% of 15-24-year-olds). Nearly one in ten women over 35 (9%) had become pregnant when they did not want any more children, which is especially concerning given the high rates of maternal mortality in older age groups in Nepal.[18] Women in mountain districts were more likely to have had an unwanted pregnancy (22%) than women in hill (10%) or Terai districts (9%).

[18]Pradhan, A. et al., 2010.

Table 6.4: Pregnancy wantedness among MWRA

	Ever given birth (%)	Total MWRA (N)	*p*	When pregnant the last time …				Total women ever given birth (N)	*p*
				Wanted to become pregnant (%)	Would have preferred to delay until later (%)	Had not wanted want any more children (%)	Don't know (%)		
All	92.8	8,578		87.2	3.9	6.1	2.8	7,962	
Age group:									
15-19	56.1	435	**<0.001**	82.8	11.5	1.6	4.1	244	**<0.001**
20-24	84.3	1,622		89.0	7.7	1.1	2.1	1,368	
25-29	96.5	1,796		88.5	4.8	4.2	2.5	1,733	
30-34	97.9	1,519		87.2	2.8	6.9	3.1	1,487	
35-39	97.6	1,388		85.8	1.9	9.4	2.9	1,356	
40-44	97.7	1,070		85.7	1.4	9.1	3.7	1,045	
45-49	97.6	748		86.2	1.8	9.2	2.9	730	
Residence:									
Urban	93.4	983	0.562	87.6	3.8	8.0	0.7	918	0.491
Rural	92.7	7,595		87.1	4.0	5.8	3.2	7,044	
Ecological zones:									
Mountain	93.1	551	0.557	78.0	9.2	12.5	0.4	513	**0.001**
Hill	93.2	3,857		86.1	3.9	5.6	4.3	3,595	
Terai	92.4	4,169		89.3	3.3	5.6	1.8	3,854	
Education:									
Never attended school	96.3	4,963	**<0.001**	86.3	3.0	7.3	3.4	4,777	**<0.001**
Primary	92.8	1,049		86.4	4.7	6.2	2.7	973	
Secondary	87.3	2,021		88.6	5.5	4.0	2.0	1,765	
Further education	82.0	543		91.0	6.5	1.1	1.3	445	
Wealth quintile:									
First	90.9	1,594	**0.003**	89.2	3.7	3.7	3.5	1,449	**<0.001**
Second	93.4	1,921		86.5	3.8	5.5	4.2	1,795	
Third	93.3	1,914		84.4	4.2	7.7	3.8	1,785	
Fourth	94.7	1,766		86.3	4.2	7.7	1.8	1,673	
Fifth	91.0	1,383		90.8	3.7	5.1	0.5	1,259	
Caste/ethnicity:									
Brahmin/ Chhetri	92.5	2,210	0.808	86.1	5.1	5.7	3.2	2,045	**0.002**
Terai/Madhesi other castes	93.2	1,322		86.3	3.2	8.6	1.9	1,232	
Dalit	92.7	1,084		82.0	6.2	9.8	2.1	1,005	
Newar	94.5	237		84.8	4.5	7.6	3.1	224	
Janajati	92.7	3,254		91.0	2.2	4.1	2.7	3,016	
Muslim	94.4	323		81.3	6.9	3.3	8.5	305	
Other	91.2	148		81.3	8.2	9.7	0.7	135	

Note: The figures in in bold are statistically significant

6.2.3 Awareness of abortion legality and safe services

Awareness of availability of SAS

Less than one-third of WRA (28%) were aware of where women could go for SAS (Table 6.5). Urban residents (42%) were more likely to be aware of SAS than rural residents (26%). Those living in mountain areas (46%) were more likely to be aware than those in hill or Terai districts (both 27%). Those who had never attended school were the least likely to be aware of SAS availability (17%), and among those who had attended school awareness increased with level of education. Awareness was also highest in the highest wealth quintile (48%), and among Brahmins/Chhetris (48%).

Awareness of abortion legality

Overall, just over one-third (37%) of WRA were aware that abortion is legal. The patterns seen for the disaggregated data were similar to those for awareness of SAS. Those living in urban areas (49%) were more likely to be aware that abortion is legal than those living in rural areas (35%). Those living in mountain districts (44%) were more likely to be aware than those in Terai (38%) and those in hill districts (35%). Less than one-quarter (24%) of women who had never attended school were aware of the legality of abortion; among those who had attended school, awareness increased with level of education. Those in the highest wealth quintile (59%) were more likely to be aware than those in the lower quintiles, and Brahmins/Chhetris (53%) had a higher level of awareness than the other caste/ethnic groups.

Awareness of circumstances under which abortion is legal

Of those WRA who were aware that abortion is legal, only 1% were aware of all of the circumstances under which abortion is legal. These WRA were most likely to be aware that abortion was legal for any pregnancy up to 12 weeks gestation (48%), followed by: any pregnancy up to 18 weeks' gestation in the case of rape or incest (23%); a pregnancy of any duration if the mother's physical or mental health is at risk, with a recommendation from an authorised practitioner (16%); and, lastly, a pregnancy of any duration if the foetus is deformed (13%). WRA were least aware of the circumstances related to abortion at later stages of pregnancy.

Table 6.5: Awareness of SAS and abortion legality among WRA

	Aware of SAS (%)	Aware abortion is legal (%)	Total WRA (N)	Aware of circumstances for legal abortion^					WRA aware abortion is legal (N)
				Up to 12 weeks' gestation (%)	Up to 18 weeks' gestation in the case of rape or incest (%)	Physical or mental health of mother at risk – any duration (%)	Foetus is deformed – any duration (%)	Aware of all circumstances (%)	
All	28.2	36.7	9,320	47.6	22.9	15.5	12.5	1.2	3,417
Age group:	(**<0.001**)	(**<0.001**)		(0.732)	(0.113)	(0.956)	(0.346)	(0.569)	
15-19	27.5	41.7	875	46.3	26.9	15.6	13.6	1.4	365
20-24	35.6	43.1	1,855	50.7	23.3	15.1	12.2	1.4	800
25-29	28.8	38.2	1,838	45.9	23.6	15.6	14.1	0.7	702
30-34	27.3	35.1	1,531	45.6	25.0	15.4	14.0	0.9	538
35-39	24.0	32.6	1,394	48.4	20.3	15.6	10.1	1.5	455
40-44	25.3	34.4	1,080	47.8	19.2	15.8	10.6	1.4	371
45-49	22.8	25.1	749	46.3	26.9	15.6	13.6	1.4	188
Residence:	(**0.004**)	(**0.012**)		(**0.029**)	(0.276)	(0.901)	(0.524)	(0.566)	
Urban	42.4	48.9	1,108	42.1	25.9	14.8	14.8	1.5	542
Rural	26.3	35.0	8,214	48.7	22.4	15.6	12.0	1.1	2,876
Ecological zone:	(**0.006**)	(**<0.001**)		(**0.003**)	(**0.014**)	(**0.008**)	(**0.001**)	(**<0.001**)	
Mountain	46.0	43.6	614	63.5	17.0	8.1	9.7	0.7	268
Hill	27.1	34.5	4,242	53.7	19.2	13.2	8.4	1.4	1,465
Terai	26.8	37.7	4,467	39.9	27.2	18.6	16.5	1.0	1,686
Education:	(**<0.001**)	(**<0.001**)		(**0.002**)	(**<0.001**)	(**<0.001**)	(**0.001**)	(**0.008**)	
Never attended school	17.2	23.9	5,019	43.7	16.4	11.1	9.2	0.8	1,199
Primary	28.2	38.3	1,106	42.0	18.6	15.5	12.3	1.2	424
Secondary	40.3	51.2	2,448	48.0	25.7	16.9	13.9	0.8	1,253

	Aware of SAS (%)	Aware abortion is legal (%)	Total WRA (N)	Aware of circumstances for legal abortion^					WRA aware abortion is legal (N)
				Up to 12 weeks' gestation (%)	Up to 18 weeks' gestation in the case of rape or incest (%)	Physical or mental health of mother at risk – any duration (%)	Foetus is deformed – any duration (%)	Aware of all circumstances (%)	
Further education	62.1	72.7	746	60.1	34.5	21.7	16.6	3.1	543
Wealth quintile:	(**<0.001**)	(**<0.001**)		(0.084)	(**0.029**)	(0.066)	(**0.048**)	(0.367)	
Lowest	25.4	33.7	1,752	48.8	26.8	16.7	11.6	1.0	590
Second	23.7	31.8	2,080	44.5	21.3	14.8	10.2	0.6	661
Middle	20.7	28.1	2,070	49.9	18.4	11.4	11.1	1.4	581
Fourth	28.2	36.6	1,895	47.5	20.1	13.9	12.2	0.9	693
Highest	47.7	58.6	1,525	47.9	26.7	19.1	16.0	1.9	894
Caste/ethnicity:	(**<0.001**)	(**<0.001**)		(**0.002**)	(0.151)	(**0.026**)	(0.594)	(**<0.001**)	
Brahmin/Chhetri	48.0	52.6	2,417	55.9	25.7	14.9	12.9	1.2	1,272
Terai/Madhesi other castes	12.8	23.8	1,368	34.1	18.5	10.3	11.1	0.0	325
Dalit	24.8	30.5	1,159	43.6	18.9	12.0	9.9	0.8	353
Newar	32.5	42.9	268	58.6	19.2	15.9	8.0	1.8	115
Janajati	23.3	34.6	3,601	42.9	23.3	17.9	13.7	1.1	1,245
Muslim	5.8	9.6	344	41.1	8.1	8.9	11.9	0.0	33
Others	35.4	45.4	163	51.5	21.8	26.5	10.9	8.1	74

Note: The figures in bold are statistically significant
^ multiple response

6.3 KEY FINDINGS

Family planning

- Use of family planning methods among WRA was relatively low (40%), but increased when restricted to just MWRA (45%), and again when restricted to just MWRA living with husbands (51%).
- Most of those using family planning were using modern methods: 48% of MWRA living with husbands were using modern family planning methods, compared to just 3% using traditional methods.
- MWRA were most likely to be using short-term (20%) or permanent (19%) family planning methods, with very few (2%) using a long-acting family planning method. The most common methods used were female sterilisation (14%) and injectables (14%). Use of all other methods was very low.
- Age affected choice of method. Short-term methods were more common among younger clients: condom use peaked for the 15-29 age group, for oral contraceptive pills it was slightly older at 20-39, and injectables were common for those aged 20-44. Long-term and permanent methods, however, were more common among older age groups: the peak age range for implants was 35-39, while the likelihood of using male or female sterilisation increased with age.
- Amongst the traditional methods of family planning, breastfeeding was most common (2%) with all other methods (abstinence, withdrawal, rhythm and herbal) used by less than 1%.

Pregnancy wantedness

- Most MWRA (87%) who had previously given birth reported that they had wanted to become pregnant at that time; however, 4% would have preferred to wait until later, and 6% had not wanted to have any more children. Among those currently pregnant, pregnancy wantedness was lower: 11% stated they would have preferred to delay until later, and 4% had not wanted any more children.

Abortion

- Only 37% of WRA were aware that abortion is legal in Nepal, with just 1% of these aware of all of the conditions under which it is legal.
- These WRA were most likely to be aware that abortion was legal for any pregnancy up to 12 weeks' gestation, and least likely to know about the circumstances in which abortion was legal at a later stage (where the foetus is deformed or the physical or mental health of the mother is at risk).
- Just over one-quarter of WRA are aware of where women can go to access SAS (28%).
- Awareness of where to access SAS and of the legality of abortion was better among those residing in urban areas. Awareness was also greatest in the highest wealth quintile, and among Brahmins/Chhetris.

Inequalities

- Use of modern family planning methods was most common between the ages of 30-44, when women are most likely to want to stop, rather than delay or space, childbearing. Use of traditional methods was more common among younger women. Use of modern methods was highest amongst Newars and lowest amongst Muslims.
- The likelihood of using female sterilisation increased with age, and was more common among those residing in Terai and compared to mountain and hill districts. The use of male sterilisation also increased with age but was more common among those residing in mountain or hill districts.
- In terms of unwanted pregnancies, younger women were more likely to have preferred to delay their pregnancy, while older women were more likely to have preferred to stop childbearing. Nearly one in ten women over 35 had become pregnant when they had not wanted any more children. Women in the mountain districts were more likely to have had an unwanted pregnancy.
- Regarding awareness of SAS and abortion legality, urban residents and those living in mountain districts had greater levels of awareness. Awareness was also highest in the highest wealth quintile, and among Brahmins/Chhetris.

CHAPTER SEVEN: MATERNAL HEALTH

7.1 INTRODUCTION

In NHSP-2 the strategic focus of maternal health is on supporting the delivery of quality and integrated Maternal, Newborn, and Child Health (MNCH) services, and, in particular, reaching the underserved. Activities to achieve this within NHSP-2 include: strengthening the capacity of the National Health Training Centre (NHTC), improving and expanding Comprehensive Emergency Obstetric and Neonatal Care (CEONC) services, ensuring all original and recently upgraded HPs function as birthing centres, and increasing the accessibility of SBA services in remote locations and for the underserved. NHSP-2 is also strengthening community- and institution-based PNC arrangements, and the referral system. Close coordination between the FHD, Child Health Division (CHD) and PHCRD is an integral part of achieving these improvements in quality and provision of care.

This chapter presents data from both the representative and additional samples included in the HHS 2012. One resident WRA was randomly selected from each household included in the representative sample (if one was present), producing a sample of 9,411 WRA (i.e. 849 households in the representative sample did not have a WRA). Within the representative sample of households there were 1,498 RDW (having given birth in the last year), 467 of whom had delivered in a government facility. In addition to those in the representative sample, a further 406 women were identified within the selected clusters as having delivered in a government facility in the last year; they were included as an additional sample where relevant. Therefore, in total, 873 women who had delivered in a government institution in the last year were interviewed. Further information about the sampling is provided in Chapter 2. This chapter presents the findings related to awareness of danger signs in the antenatal, intrapartum, and postpartum periods; uptake of ANC, delivery care, and PNC; experience of complications and associated care-seeking; and barriers to care and care-seeking. Where relevant, findings are disaggregated by age group, urban/rural residence, ecological zone, education, wealth quintile, caste/ethnicity, travel time to facility, and place of delivery. Associations were tested to see if they are significant. Findings were compared to the NDHS 2011; similar wording was used in the HHS questionnaire to the NDHS questionnaire.

7.2 RESULTS

	NDHS 2011 (%)	HHS 2012	
		%	95%CI
% of WRA (15-49) who know at least three pregnancy-related danger signs*		52.2	47.7-56.7
% of RDW aware of at least three danger signs during pregnancy		61.4	56.0-66.5
% of WRA aware of at least three danger signs during labour/delivery		40.2	36.1-44.5
% of RDW aware of at least three danger signs during labour/delivery		41.8	37.0-46.6
% of WRA aware of at least three danger signs during postnatal period		24.4	21.3-27.8
% of RDW aware of at least three danger signs during postnatal period		28.9	24.8-33.4
% of pregnant women attending at least four ANC visits*	50	43.2	37.6-48.9
% of RDW who had an ANC check-up during the fourth, sixth, eighth, and ninth months		21.0	17.2-25.4
% of RDW who had ANC who had at least one ANC check-up in a government facility		85.8	81.4-89.5
% of RDW who planned to deliver in a facility		91	44.2-56.2
% of deliveries in institutions*	35	49.6	30.9-42.3
% of RDW who delivered in a government facility	26	36.5	21.2-31.2
% of deliveries conducted by a SBA*	36	25.9	33.6-45.0
% of deliveries by CS*	5	39.1	2.7-5.3
% of RDW who received at least one postnatal check-up	54	3.9	69.1-79.9
% of RDW who received at least three postnatal check-ups		75.1	9.8-17.1
% of women who had three postnatal check-ups as per protocol[19]		13.1	3.7-9.4

** LF indicators*

7.2.1 Awareness of danger signs

Throughout pregnancy, childbirth, and the immediate postnatal period, women's awareness of symptoms that could indicate a serious health issue are important in securing timely and appropriate care, and optimal health outcomes. Therefore, increasing awareness of danger signs is a key intended output from NHSP-2.

During pregnancy

WRA were asked about their awareness of any health problems, which, if experienced during pregnancy, might present a potential danger to mother or unborn child. Overall, there was moderate awareness of the danger signs that might occur during pregnancy (Table 7.1, Figure 7.1), with 52% of WRA being aware of at least three pregnancy-related danger signs. Severe abdominal pain (56%), fits/convulsions/seizures (40%), feeling weak/faint/anaemic (30%), and having swollen hands/face (27%) were the danger signs that women were most commonly aware of. Blurred vision (6%) and high blood pressure (5%) were the least commonly known. The same question about awareness of pregnancy-related danger signs was also asked to RDW (Table 7.2, Figure 7.1). The awareness of at least three

[19]First within 24 hours of delivery, second within 72 hours of delivery, and third within seven days of delivery.

danger signs during pregnancy was higher amongst those who had recently delivered (61%) than for WRA (52%, Figure 7.1). The danger signs that RDW were most commonly aware of were consistent with those identified by the WRA group: severe abdominal pain (55%) and fits/convulsions/seizures (45%) (Table 7.2).

Significant differences in awareness of at least three danger signs were observed between all subgroups in the disaggregated analysis for WRA, except for wealth quintiles and urban/rural residence (Table 7.1).

Women in Terai districts (63%) were more likely to have awareness of at least three danger signs than those in hill (40%) or mountain districts (56%). This suggests that geographic location plays a key role in determining awareness of pregnancy-related danger signs. Among RDW, significant differences were observed between ecological zones and wealth quintiles (Table 7.2). The pattern by ecological zone was similar to that for WRA.

Figure 7.1: Awareness of at least three danger signs among WRA and RDW during pregnancy, labour/delivery, and postnatal period

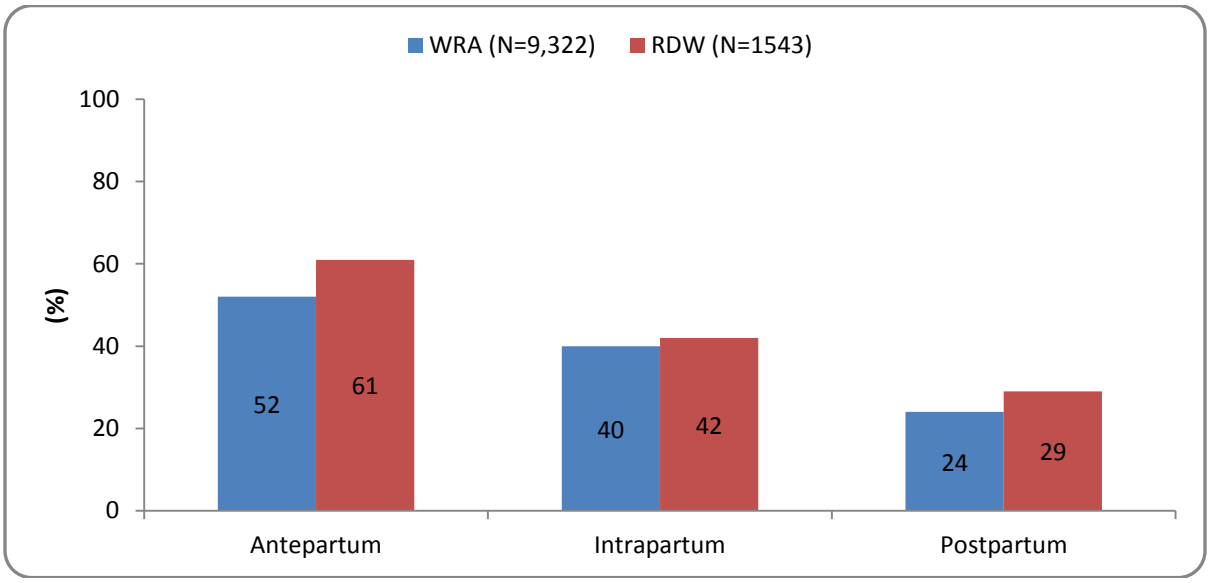


Table 7.1: Awareness of danger signs during pregnancy among WRA

	Aware of the following danger signs during pregnancy …												Total WRA (N)
	Vaginal bleeding (%)	Ante-partum Haem-orrhage (APH) (%)	Fits/ convulsions/ seizures (%)	Feel weak/ faint/ anaemic (%)	Fever (%)	Foul-smelling vaginal discharge (%)	Swollen hands/ face (%)	Blurred vision (%)	High blood pressure (%)	Severe abdomi-nal pain (%)	Severe head-ache (%)	Aware of at least three danger signs (%)	
All	26.3	12.2	40.1	30.2	26.3	12.5	27.4	6.4	4.8	55.5	21.5	52.2	9,322
Age group:	**(<0.001)**	**(0.046)**	(0.150)	**(<0.001)**	(0.469)	**(0.018)**	(0.316)	(0.109)	**(0.001)**	**(<0.001)**	**(0.001)**	**(<0.001)**	
<20	26.2	10.8	37.1	24.4	24.3	9.2	24.7	4.6	3.0	53.7	19.4	45.5	875
20-34	28.4	13.1	41.0	32.2	26.6	13.5	27.6	6.6	5.4	58.0	23.3	55.4	5,225
35-49	22.8	11.2	39.3	28.3	26.5	11.9	27.9	6.5	4.4	51.9	19.0	48.9	3,222
Residence:	(0.058)	(0.627)	**(0.038)**	(0.146)	(0.149)	(0.454)	(0.502)	(0.147)	(0.324)	**(0.015)**	**(0.047)**	(0.054)	
Urban	32.8	10.8	30.0	22.0	22.1	10.7	30.7	4.3	6.5	47.7	14.7	41.5	1,108
Rural	25.4	12.4	41.4	31.3	26.9	12.8	27.0	6.7	4.6	56.5	22.4	53.7	8,214
Ecological zone:	**(0.003)**	(0.062)	**(<0.001)**	**(<0.001)**	(0.562)	**(0.020)**	**(<0.001)**	**(<0.001)**	**(<0.001)**	(0.185)	(0.227)	**(<0.001)**	
Mountain	17.6	13.8	45.3	28.7	31.0	15.7	13.1	1.9	6.1	63.9	25.6	56.0	613
Hill	31.9	9.4	27.5	16.0	26.8	9.7	17.5	3.6	1.8	52.8	18.9	40.3	4,242
Terai	22.1	14.7	51.3	43.8	25.2	14.8	38.7	9.7	7.5	56.9	23.4	63.0	4,467
Education:	**(<0.001)**	(0.080)	(0.368)	**(0.020)**	**(0.018)**	**(0.001)**	(0.121)	(0.069)	**(<0.001)**	(0.229)	(0.975)	**(0.007)**	
Never attended school	18.4	10.3	40.6	32.7	24.9	11.2	26.3	7.1	3.8	53.7	21.5	50.4	5,018
Primary	30.4	13.9	37.0	27.5	29.1	12.8	26.5	5.9	5.0	57.5	20.7	51.1	1,107
Secondary	34.8	13.9	39.7	26.3	26.2	13.5	28.4	5.3	5.7	57.3	21.8	53.2	2,448
Further education	44.9	17.3	42.1	29.9	32.1	18.3	32.6	6.0	8.3	58.4	21.6	62.5	747
Wealth quintile:	**(<0.001)**	(0.092)	(0.565)	(0.294)	**(0.001)**	**(0.033)**	**(0.002)**	**(0.038)**	**(<0.001)**	(0.702)	**(0.003)**	(0.228)	
Lowest	21.6	12.2	41.8	33.2	29.2	12.0	26.5	8.4	4.8	53.3	24.9	53.2	1,752
Second	25.4	11.7	39.8	28.2	30.8	12.0	24.5	5.7	3.8	55.7	23.8	53.4	2,080
Middle	22.9	10.6	37.1	27.3	24.7	10.5	23.9	4.9	3.9	54.8	20.6	47.0	2,070

	Aware of the following danger signs during pregnancy …												Total WRA (N)
	Vaginal bleeding (%)	**Ante-partum Haem-orrhage (APH) (%)**	**Fits/ convulsions/ seizures (%)**	**Feel weak/ faint/ anaemic (%)**	**Fever (%)**	**Foul-smelling vaginal discharge (%)**	**Swollen hands/ face (%)**	**Blurred vision (%)**	**High blood pressure (%)**	**Severe abdomi-nal pain (%)**	**Severe head-ache (%)**	**Aware of at least three danger signs (%)**	
Fourth	27.3	11.9	41.7	32.6	24.9	13.1	29.2	6.8	4.4	56.8	21.1	53.4	1,895
Highest	36.1	15.6	40.5	30.1	21.0	16.0	34.9	6.8	8.1	56.9	15.9	55.2	1,525
Caste/ethnicity:	**(<0.001)**	(0.059)	**(<0.001)**	**(<0.001)**	(0.452)	**(<0.001)**	**(<0.001)**	**(<0.001)**	(0.238)	(0.09)	(0.648)	**(<0.001)**	
Brahmin/Chhetri	31.2	15.6	38.1	28.3	28.6	15.4	24.3	7.6	6.0	57.9	21.5	53.9	2,417
Terai/Madhesiother castes	14.6	8.3	55.0	59.6	22.3	16.7	41.6	10.1	5.1	52.3	24.5	64.8	1,368
Dalit	19.3	11.0	42.2	36.9	25.7	14.1	30.9	6.8	3.9	57.7	21.7	55.8	1,160
Newar	38.8	14.6	33.6	17.6	23.3	15.1	27.4	1.8	3.7	49.2	13.7	45.5	268
Janajati	29.9	12.1	34.2	18.4	26.0	8.3	22.0	4.2	4.6	53.4	20.6	44.6	3,601
Muslim	10.6	9.5	49.6	41.3	31.9	10.4	38.5	10.5	3.7	68.5	20.4	64.8	344
Others	31.2	8.9	47.7	20.1	33.0	17.5	24.5	1.2	1.0	60.4	26.7	50.9	163

Note: the figures in parentheses indicate p-value; those in bold are statistically significant

Table 7.2: Awareness of danger signs during pregnancy among RDW

	Aware of the following danger signs during pregnancy …												Total RDW (N)
	Vaginal bleeding (%)	APH (%)	Fits/ convuls-ions/ seizures (%)	Feel weak/ faint/ anaemic (%)	Fever (%)	Foul-smelling vaginal dis-charge (%)	Swollen hands/ face (%)	Blurred vision (%)	High blood pressure (%)	Severe abdom-inal pain (%)	Severe head-ache (%)	Aware of at least three danger signs (%)	
All	23.4	15.0	45.0	35.1	28.6	7.0	33.4	8.1	4.1	55.2	28.1	61.4	1,543
Age group:	**(0.007)**	(0.095)	(0.381)	(0.778)	(0.355)	(0.858)	(0.451)	(0.509)	(0.125)	(0.327)	(0.755)	(0.609)	
<20	17.9	11.2	45.0	34.4	27.1	8.0	33.5	7.3	4.2	60.6	30.4	63.8	196
20-34	26.7	15.9	44.3	35.1	29.5	6.9	32.8	8.5	4.4	53.9	27.6	61.6	1,220
35-49	11.7	12.4	50.8	36.5	22.7	6.1	39.3	5.3	0.7	59.4	29.2	56.7	127
Residence:	(0.055)	(0.571)	**(0.019)**	(0.765)	(0.987)	(0.553)	(0.695)	(0.115)	(0.069)	(0.313)	**(0.007)**	(0.351)	
Urban	34.9	12.9	30.8	34.3	28.7	5.6	30.8	5.6	7.5	48.3	13.5	54.0	137
Rural	23.3	15.2	46.3	35.2	28.6	7.1	33.7	8.4	3.7	55.9	29.5	62.1	1,407
Ecological zone:	**(<0.001)**	(0.488)	**(<0.001)**	**(<0.001)**	(0.075)	**(0.008)**	**(<0.001)**	**(<0.001)**	**(0.017)**	(0.457)	(0.865)	**(0.022)**	
Mountain	11.7	17.5	49.0	31.1	36.5	10.8	14.3	3.2	5.4	63.4	26.2	60.6	109
Hill	35.0	13.4	31.1	19.2	31.9	9.6	25.7	4.9	1.8	54.6	29.5	54.1	659
Terai	17.1	16.1	56.2	49.3	24.8	4.2	42.7	11.6	5.8	54.6	27.2	67.7	775
Education:	**(<0.001)**	(0.223)	(0.238)	**(0.003)**	**(0.046)**	**(0.020)**	(0.408)	(0.711)	(0.487)	(0.842)	(0.791)	(0.284)	
Never attended school	14.7	13.0	48.2	40.6	26.2	3.9	36.0	8.2	3.4	54.2	27.1	59.5	730
Primary	26.7	14.9	39.5	28.7	31.7	9.8	32.4	8.2	4.1	57.5	26.6	57.8	218
Secondary	33.4	18	43.2	29.7	27.5	8.9	30.3	7.2	5.4	55.0	29.5	63.5	458
Further education	42.1	15.9	41.6	34.4	40.4	12.4	31.8	10.6	2.9	58.1	31.0	70.1	137
Wealth quintile:	**(0.041)**	(0.384)	(0.359)	(0.334)	(0.231)	(0.949)	**(0.022)**	(0.371)	**(0.029)**	(0.705)	(0.427)	**(0.021)**	
Lowest	20.9	13.4	45.5	40.4	28.4	7.3	40.7	9.6	4.9	51.6	30.7	61.9	286
Second	21.0	14.1	48.1	35.3	34.8	6.2	33.5	5.9	3.7	57.4	30.9	67.9	343
Middle	22.3	12.8	39.2	32.4	25.2	7.0	27.1	6.2	2.5	53.4	27.3	51.9	372
Fourth	26.3	17.9	48.2	31.3	26.9	7.9	30.6	9.0	3.3	57	27.3	61.1	341
Highest	35.5	18.1	43.7	38.8	27.9	6.1	39.3	11.7	7.6	56.8	22.3	67.8	202
Caste/ethnicity:	**(0.001)**	(0.331)	**(0.001)**	**(<0.001)**	(0.643)	**(0.018)**	**(<0.001)**	**(0.001)**	(0.135)	(0.195)	(0.547)	(0.183)	
Brahmin/Chhetri	26.2	18.5	38.2	29.0	30.0	10.9	25.2	8.5	4.7	58.9	31.9	61.5	301

	Aware of the following danger signs during pregnancy …												Total RDW (N)
	Vaginal bleeding (%)	APH (%)	Fits/ convuls-ions/ seizures (%)	Feel weak/ faint/ anaemic (%)	Fever (%)	Foul-smelling vaginal dis-charge (%)	Swollen hands/ face (%)	Blurred vision (%)	High blood pressure (%)	Severe abdom-inal pain (%)	Severe head-ache (%)	Aware of at least three danger signs (%)	
Terai/Madhesi other castes	13.3	13.1	58.0	58.2	23.8	1.8	49.9	15.1	7.4	46.2	26.1	67.0	291
Dalit	16.4	14.3	50.1	44.1	29.5	7.0	35.4	7.6	1.6	60.6	29.5	65.0	217
Newar	*15.1*	*25.7*	*33.6*	*19.4*	*44.4*	*12.8*	*49.7*	*3.5*	*0.0*	*60.9*	*11.0*	*73.7*	*19*
Janajati	33.2	14.8	38.5	21.5	29.2	7.5	25.4	5.2	3.4	53.9	26.9	56.3	608
Muslim	11.3	9.1	63.6	57.9	27.5	5.1	58.4	6.1	2.9	65.7	26.5	71.9	89
Others	*45.2*	*23.5*	*19.9*	*19.9*	*45.2*	*7.8*	*7.8*	*7.8*	*0.0*	*60.6*	*48.5*	*33.3*	*18*

Note: the figures in parentheses indicate p-value; those in bold are statistically significant
The italic figures are based on an unweighted sample size of <30

During labour/delivery

WRA were asked to name any danger signs that might occur during labour or delivery which indicate potential danger to mother or baby. These results are shown in Table 7.3 and Figure 7.1, where 40% of WRA could name at least three danger signs during labour/delivery. Danger signs most commonly mentioned were: prolonged or obstructed labour (42%), haemorrhage (37%), fits, convulsions, or seizures (27%), and baby in breech or transverse position (26%). The danger signs of which women were least aware were: the premature rupture of the membrane (6%), cord prolapsed (7%), or high blood pressure (7%). The percentage of RDW who could name at least three danger signs during labour/delivery (42%) was similar to that of WRA (Table 7.4, Figure 7.1). The danger signs most commonly recognised by RDW included: prolonged or obstructed labour (41%), haemorrhage (36%), fits, convulsions, or seizures (32%), and swollen hands or face (31%).

No significant differences in awareness of at least three different danger signs were observed between the different wealth quintiles or urban/rural residence for WRA (Table 7.3). Some differences between the different caste/ethnic groups persisted: the Janajatis showed lower levels of awareness (34%) than Terai/Madhesi other castes (52%). For RDW (Table 7.4), urban (29%) residents had less awareness of at least three danger signs than their rural (43%) counterparts. Hill residents (28%) showed lower levels of awareness of at least three danger signs than their counterparts based in mountain (52%) and Terai districts (52%). As with WRA, Terai/Madhesi other castes (56%) were most likely to be aware of at least three danger signs.

Table 7.3: Awareness of danger signs during labour/delivery among WRA

	Aware of the following danger signs during labour/delivery …												Total WRA (N)
	Haemorr-hage (%)	Fits/ convulsions/ seizures (%)	High blood pressure (%)	Swollen hands/face (%)	Fever (%)	Prolonged/ obstructed labour (%)	Hand and foot prolapsed (%)	Cord prolapsed (%)	Baby in breech/ transverse position (%)	Premature rupture of membrane (%)	Retained placenta (%)	Aware of at least three danger signs (%)	
All	36.8	26.6	6.7	23.4	21.3	42.1	15.1	7.2	25.6	6.3	14.0	40.2	9,322
Age group:	**(<0.001)**	(0.064)	**(0.024)**	**(0.011)**	**(0.004)**	(0.490)	(0.220)	**(0.049)**	**(0.015)**	**(0.025)**	(0.456)	**(<0.001)**	
<20	35.9	23.7	4.2	18.1	16.1	39.6	14.7	5.2	21.1	4.5	12.9	33.3	875
20-34	39.6	27.6	7.2	24.2	21.6	42.6	15.8	7.6	26.2	6.8	14.6	42.5	5,225
35-49	32.5	25.9	6.6	23.5	22.2	41.9	14.0	7.1	25.9	5.9	13.3	38.3	3,222
Residence:	(0.153)	(0.111)	(0.674)	(0.334)	**(0.016)**	(0.174)	(0.484)	(0.158)	(0.408)	(0.381)	(0.367)	(0.064)	
Urban	33.9	19.5	7.6	18.2	14.0	34.3	13.8	5.4	23.3	7.5	11.4	30.2	1,108
Rural	37.2	27.6	6.6	24.1	22.3	43.1	15.2	7.5	25.9	6.1	14.3	41.5	8,214
Ecological zone:	(0.235)	**(<0.001)**	**(<0.001)**	**(<0.001)**	(0.253)	**(0.018)**	**(0.015)**	**(<0.001)**	**(0.007)**	**(<0.001)**	**(<0.001)**	**(<0.001)**	
Mountain	46.6	32.5	8.0	12.7	21.5	50.7	17.0	3.3	29.5	9.8	11.4	45.3	613
Hill	36.4	17.5	2.6	11.3	19.0	36.8	11.4	3.8	19.9	3.6	21.9	30.5	4,242
Terai	35.9	34.6	10.4	36.3	23.5	45.9	18.4	11.0	30.4	8.3	6.8	48.7	4,467
Education:	**(<0.001)**	**(0.001)**	**(0.005)**	**(<0.001)**	(0.183)	(0.794)	**(0.001)**	(0.443)	**(<0.001)**	**(<0.001)**	**(<0.001)**	**(<0.03)**	
Never attended school	29.2	29.5	6.0	27.5	22.1	41.4	13.5	7.1	22.6	4.8	10.9	38.4	5,018
Primary	41.1	23.6	6.9	18.5	22.7	43.3	12.5	6.7	28.2	7.2	20.5	39.9	1,107
Secondary	45.3	22.8	7.0	18.2	19.2	42.6	17.4	6.9	27.8	7.3	16.5	41.6	2,448
Further education	53.1	24.6	10.6	20.0	20.7	43.1	21.7	9.7	34.7	11.8	16.7	48.0	747
Wealth quintile:	**(0.003)**	**(0.011)**	**(0.004)**	**(0.002)**	**(<0.001)**	(0.442)	(0.099)	(0.168)	**(<0.001)**	**(<0.001)**	(0.762)	(0.404)	
Lowest	33.2	31.8	9.0	31.0	26.2	39.4	16.2	8.1	22.2	4.5	12.9	42.4	1,752
Second	36.1	27.8	5.7	24.1	23.8	43.4	14.1	6.5	22.8	4.8	13.3	39.8	2,080
Middle	33.7	26.0	4.8	20.1	19.2	40.6	13.0	5.6	21.8	5.0	15.5	36.6	2,070
Fourth	37.0	26.4	6.4	21.8	20.4	44.4	13.9	7.5	27.8	7.1	14.0	40.3	1,895
Highest	45.8	20.4	8.4	20.0	16.2	42.4	19.3	9.1	35.6	11	14.0	43.0	1,525
Caste/ethnicity:	**(<0.001)**	**(<0.001)**	**(0.030)**	**(<0.001)**	(0.141)	**(0.036)**	**(<0.001)**	**(0.011)**	(0.081)	**(<0.001)**	**(<0.001)**	**(0.002)**	
Brahmin/Chhetri	44.3	24.4	7.4	15.2	22.0	44.3	18.2	7.1	29.7	9.5	15.1	41.5	2,417

	Aware of the following danger signs during labour/delivery …												Total WRA (N)
	Haemorr-hage (%)	Fits/ convulsions/ seizures (%)	High blood pressure (%)	Swollen hands/face (%)	Fever (%)	Prolonged/ obstructed labour (%)	Hand and foot prolapsed (%)	Cord prolapsed (%)	Baby in breech/ transverse position (%)	Premature rupture of membrane (%)	Retained placenta (%)	Aware of at least three danger signs (%)	
Terai/Madhesi other castes	24.2	41.8	9.6	53.6	23.4	47.9	20.7	11.2	24.8	5.7	4.1	51.8	1,368
Dalit	32.8	29.8	7.3	28.1	21.8	43.0	15.7	10.2	27.9	6.1	12.0	43.0	1,160
Newar	42.6	16.3	5.3	15.1	18.2	45.4	12.8	6.0	26.3	7.7	16.6	35.4	268
Janajati	37.9	21.1	5.3	14.5	18.7	36.9	10.8	5.2	21.9	4.7	18.7	33.7	3,601
Muslim	18.9	36.3	6.5	44.5	34.1	48.4	11.0	6.0	24.1	3.8	3.5	44.2	344
Others	61.9	29.0	1.6	22.1	24.8	49.4	23.9	5.3	37.4	2.4	8.1	47.0	163

Note: the figures in parentheses indicate p-value; those in bold are statistically significant

Table 7.4: Awareness of danger signs during labour/delivery among RDW

	Aware of the following danger signs during labour/delivery …												
	Haemorr-hage (%)	Fits/con-vulsions/ seizures (%)	High blood pressure (%)	Swollen hands/ face (%)	Fever (%)	Prolonged/ obstructed labour (%)	Hand and foot prolapsed (%)	Cord prolapse (%)	Baby in breech/ trans-verse position (%)	Premature rupture of membrane (%)	Retained placenta (%)	Aware of at least three danger signs (%)	Total RDW (N)
All	36.4	32.3	6.7	31.3	25.4	41.1	18.3	8.5	7.0	5.9	14.3	41.8	1,543
Age group:	**(0.006)**	(0.697)	**(0.026)**	(0.520)	(0.684)	(0.474)	(0.561)	(0.563)	(0.707)	(0.837)	(0.822)	(0.690)	
<20	27.7	33.7	4.9	33.5	29.3	38.9	19.2	8.6	5.6	4.9	130.	38.6	196
20-34	39.1	31.7	7.8	35.2	26.9	41.8	18.7	8.2	7.1	6.1	14.7	42.4	1,220
35-49	25.4	35.2	3.7	39.7	38.2	39.0	14.9	11.9	8.4	5.7	13.8	40.9	127
Residence:	(0.313)	(0.177)	(0.722)	(0.383)	(0.093)	(0.102)	(0.174)	(0.242)	(0.708)	(0.076)	**(0.04)**	**(0.037)**	
Urban	41.4	24.7	8.9	29.8	21.1	30.1	12.2	5.4	3.5	10.1	8.1	29.2	137
Rural	36.0	33.0	6.9	35.9	28.8	42.2	19.0	8.9	7.3	5.5	15.0	43.0	1,407
Ecological zone:	(0.296)	**(<0.001)**	**(0.026)**	**(<0.001)**	(0.668)	(0.421)	(0.127)	(0.294)	(<0.001)	**(0.001)**	**(<0.001)**	**(0.001)**	
Mountain	48.4	44.6	9.9	24.9	20.5	48.0	23.3	5.1	16.8	10.3	13.0	51.8	109
Hill	37.5	16.4	3.2	18.2	29.1	42.9	14.0	7.2	4.0	2.5	24.9	28.4	659
Terai	34.0	44.0	10.0	51.4	28.4	38.7	21.5	10.2	8.2	8.1	5.7	51.7	775
Education:	**(<0.001)**	(0.096)	(0.311)	**(<0.001)**	(0.968)	(0.316)	(0.418)	(0.162)	(0.120)	**(0.001)**	**(0.004)**	(0.570)	
Never attended school	27.0	36.5	6.7	40.1	25.9	38.7	17.3	7.5	6.9	4.1	9.7	42.7	730
Primary	41.7	26.1	10.0	28.5	26.9	43.6	15.6	5.2	5.1	5.4	19.7	38.4	218
Secondary	45.5	29.3	5.8	26.8	28.0	41.0	20.0	10.6	6.5	6.9	18.3	40.2	458
Further education	48.2	29.3	6.1	31.4	31.9	49.9	22.7	12.6	12.3	12.9	17.1	47.4	137
Wealth quintile:	**(0.009)**	**(0.047)**	(0.532)	(0.055)	(0.610)	(0.510)	**(0.047)**	(0.881)	(0.071)	**(0.047)**	(0.567)	**(0.014)**	
Lowest	39.3	39.5	9.8	42.2	27.3	36.8	24.3	8.7	7.9	5.1	15.3	50.0	286
Second	32.1	34.8	7.3	38.6	30.3	42.2	19.8	9.3	10.3	4.3	14.3	41.8	343
Middle	32.3	24.3	5.7	30.1	28.1	38.6	13.9	7.5	4.2	4.4	16.0	33.1	372
Fourth	35.0	32.2	5.0	31.5	28.2	44.7	15.2	7.7	5.8	6.8	14.3	40.5	341
Highest	50.4	32.4	9.1	36.4	25.4	44.4	21.6	10.7	7.2	10.7	10.5	48.0	202
Caste/ethnicity:	**(0.005)**	**(<0.001)**	**(0.017)**	**(<0.001)**	(0.144)	(0.627)	**(0.001)**	(0.975)	(0.862)	**(0.020)**	**(<0.001)**	**(0.009)**	
Brahmin/Chhetri	36.6	28.1	5.2	22.4	33.1	44.2	19.3	8.4	7.4	10.2	15.7	37.7	301
Terai/Madhesi	30.7	47.5	11.4	57.7	24.5	35.3	26.2	8.7	8.2	7.3	4.0	56.2	291

	Aware of the following danger signs during labour/delivery …												
	Haemorr-hage (%)	**Fits/con-vulsions/ seizures (%)**	**High blood pressure (%)**	**Swollen hands/ face (%)**	**Fever (%)**	**Prolonged/ obstructed labour (%)**	**Hand and foot prolapsed (%)**	**Cord prolapse (%)**	**Baby in breech/ trans-verse position (%)**	**Premature rupture of membrane (%)**	**Retained placenta (%)**	**Aware of at least three danger signs (%)**	**Total RDW (N)**
other castes													
Dalit	26.8	37.7	12.3	42.8	31.4	40.7	20.5	10.1	7.1	4.2	13.2	43.1	217
Newar	*25.8*	*0.0*	*0.0*	*14.4*	*27.3*	*55.1*	*49.8*	*3.7*	*9.1*	*3.5*	*20.1*	*26.3*	*19*
Janajati	44.9	23.9	4.4	23.7	23.8	41.0	14.0	8.2	6.7	4.5	20.8	35.9	608
Muslim	20.0	49.7	8.1	75.8	39.2	50.9	10.8	8.6	3.3	0.3	1.9	50.6	89
Others	*53.7*	*19.9*	*0.0*	*13.7*	*56.4*	*34.0*	*7.8*	*7.8*	*4.3*	*7.8*	*12.1*	*33.3*	*18*

Note: the figures in parentheses indicate p-value; those in bold are statistically significant
The italic figures are based on an unweighted sample size of <30

Postnatal

Postnatal danger signs were less commonly recognised than pregnancy or labour/delivery danger signs. For WRA, just under one-quarter of women (24%) were aware of at least three postnatal danger signs (Table 7.5 and Figure 7.1). The most commonly mentioned danger signs during the postnatal period were: haemorrhage (41%), feeling weak, faint, or anaemic (32%), and fits, convulsions, or seizures (32%). Women were least aware of high blood pressure (8%) or foul-smelling vaginal discharge (12%) being danger signs during the postnatal period. For RDW, there was greater awareness of at least three postnatal danger signs than for WRA (29%), but the most commonly mentioned danger signs were the same: haemorrhage (43%), fits, convulsions, or seizures (37%), and feeling weak, faint, or anaemic (33%) (Table 7.6 and Figure 7.1).

Notably, among both WRA (Table 7.5) and RDW (Table 7.6), residents from hill districts were less likely to be aware of at least three postnatal danger signs as those in mountain and Terai districts. Terai/Madehsi other castes were more likely to be aware of at least three than other caste/ethnic groups.

Table 7.5: Awareness of danger signs during postnatal period among WRA

	Aware of the following danger signs for the mother during the postnatal period …								Total WRA (N)
	Haemorr-hage (%)	Fits/ convulsions/ seizures (%)	High blood pressure (%)	Swollen hands/ face (%)	Fever (%)	Foul-smelling vaginal discharge (%)	Feel weak/ faint/ anaemic (%)	Aware of at least three danger signs (%)	
All	41.0	32.0	7.8	25.9	26.1	11.8	31.5	24.4	9,322
Age group:	**(<0.001)**	(0.238)	**(0.012)**	**(0.015)**	**(<0.001)**	(0.200)	(0.256)	**(0.011)**	
<20	39.1	29.1	5.4	21.0	19.3	9.4	30.5	19.9	875
20-34	43.6	32.9	8.3	26.8	27.4	12.2	32.4	25.8	5,225
35-49	37.2	31.3	7.6	25.7	26.0	11.9	30.2	23.3	3,222
Residence:	(0.382)	(0.124)	(0.960)	(0.241)	(0.101)	(0.992)	**(0.017)**	(0.060)	
Urban	38.7	23.4	8.0	18.5	21.4	11.9	23.7	16.7	1,108
Rural	41.3	33.1	7.7	26.9	26.8	11.8	32.5	25.4	8,214
Ecological zone:	(0.643)	**(<0.001)**	**(<0.001)**	**(<0.001)**	(0.136)	**(0.001)**	(0.244)	**(<0.001)**	
Mountain	48.4	39.2	10.3	17.9	30.8	8.8	33.4	35.1	613
Hill	40.2	20.5	2.2	12.3	23.0	8.3	28.7	13.3	4,242
Terai	40.7	41.8	12.7	39.8	28.5	15.6	33.8	33.5	4,467
Education:	**(<0.001)**	**(0.019)**	**(0.028)**	**(<0.001)**	(0.221)	(0.147)	(0.589)	(0.111)	
Never attended school	32.6	34.5	7.4	29.6	25.5	12.1	31.4	24.5	5,018
Primary	45.3	28.0	7.5	22.2	27.5	10.1	31.4	21.8	1,107
Secondary	51.0	28.9	7.5	20.8	25.5	11.4	30.5	23.8	2,448
Further education	58.1	30.9	11.8	23.3	30.8	14.5	34.5	29.7	747
Wealth quintile:	**(<0.001)**	(0.117)	**(0.005)**	**(0.002)**	**(0.043)**	(0.484)	(0.312)	**(0.031)**	
Lowest	35.5	37.1	9.6	33.5	28.8	13.1	33.9	29.1	1,752
Second	40.1	33.1	6.2	27.4	28.7	12.2	30.9	25.3	2,080
Middle	36.0	30.0	5.8	22.3	23.0	10.5	29.4	19.6	2,070
Fourth	42.7	31.8	7.3	24.0	26.1	11.1	33.5	23.6	1,895
Highest	53.1	27.5	11.0	22.2	23.9	12.7	29.5	25.3	1,525
Caste/ethnicity:	**(<0.001)**	**(<0.001)**	**(<0.001)**	**(<0.001)**	(0.589)	**(0.010)**	(0.050)	**(<0.001)**	
Brahmin/Chhetri	52.6	30.9	8.4	17.5	28.0	9.7	33.4	25.0	2,417
Terai/Madhesi other castes	24.4	52.5	13.5	54.0	27.1	16.8	33.3	37.0	1,368
Dalit	36.0	35.8	8.3	29.4	25.6	14.0	32.8	27.2	1,160
Newar	51.4	20.0	5.0	17.1	24.9	12.8	23.7	15.3	268
Janajati	41.5	23.2	5.3	17.9	24.1	10.6	28.2	17.8	3,601
Muslim	22.5	39.9	9.9	51.4	31.6	9.3	41.7	32.8	344
Others	53.0	45.5	0.9	26.7	30.7	16.7	40.9	32.3	163

Note: the figures in parentheses indicate p-value; those in bold are statistically significant

Table 7.6: Awareness of danger signs during the postnatal period among RDW

	Aware of the following danger signs for the mother during the postnatal period …								Total RDW (N)
	Haemorr-hage (%)	Fits/ convulsions / seizures (%)	High blood pressure (%)	Swollen hands/face (%)	Fever (%)	Foul-smelling vaginal discharge (%)	Feel weak/ faint/ anaemic (%)	Aware of at least three danger signs (%)	
All	42.9	36.5	7.6	30.3	39.6	14.7	33.1	28.9	1,543
Age group:	(0.159)	(0.562)	**(0.007)**	(0.088)	**(0.008)**	(0.776)	(0.074)	(0.891)	
<20	42.8	39.6	4.0	29.3	30.5	12.6	28.7	27.0	196
20-34	43.9	35.7	8.6	29.4	30.7	15.0	33.0	29.1	1,220
35-49	32.9	39.0	4.3	40.6	16.6	15.2	40.9	29.7	127
Residence:	(0.606)	(0.621)	(0.869)	(0.209)	(0.299)	(0.158)	(0.525)	(0.800)	
Urban	46.3	33.3	8.1	21.9	22.5	20.8	28.6	27.7	137
Rural	42.6	36.8	7.6	31.2	30.2	14.1	33.5	29.0	1,407
Ecological zone:	(0.339)	**(< 0.001)**	**(0.002)**	**(<0.001)**	(0.601)	(0.099)	(0.328)	**(<0.001)**	
Mountain	49.4	42.0	11.4	20.7	29.1	9.3	28.4	33.9	109
Hill	47.2	21.5	3.7	14.1	27.6	12.3	30.0	17.0	659
Terai	38.3	48.4	10.5	45.5	31.2	17.5	36.4	38.3	775
Education:	**(<0.001)**	**(0.042)**	(0.713)	**(0.003)**	(0.158)	(0.109)	**(0.049)**	(0.563)	
Never attended school	31.9	41.1	7.0	36.8	26.9	13.1	37.7	30.0	730
Primary	43.7	33.8	7.6	23.8	28.1	13.8	28.9	26.0	218
Secondary	58.6	31.4	8.0	24.3	31.5	15.3	27.3	27.1	458
Further education	47.6	32.6	9.9	26.3	39.3	22.8	34.4	33.6	137
Wealth quintile:	(0.100)	**(0.009)**	**(0.035)**	**(0.006)**	(0.141)	(0.054)	(0.790)	**(0.006)**	
Lowest	38.2	47.0	10.8	39.8	31.8	19.6	31.1	36.7	286
Second	41.4	38.0	5.8	33.7	34.1	15.9	35.3	30.3	343
Middle	43.1	30.0	4.5	22.7	23.9	10.0	34.3	21.0	372
Fourth	40.8	34.0	7.6	27.3	31.1	13.9	33.4	26.4	341
Highest	55.3	34.8	12.2	30.3	26.1	15.8	29.1	34.2	202
Caste/ethnicity:	**(<0.001)**	**(<0.001)**	(0.132)	**(<0.001)**	(0.869)	**(0.008)**	(0.317)	**(<0.001)**	
Brahmin/Chhetri	50.0	29.0	9.4	21.5	33.4	10.5	31.5	26.9	301
Terai/Madhesi other castes	30.7	55.5	12.6	51.6	31.4	18.8	34.0	43.0	291
Dalit	44.6	43.2	6.6	37.0	26.7	13.9	38.8	30.9	217
Newar	*69.4*	*6.9*	*0.0*	*14.2*	*29.6*	*20.3*	*23.5*	*15.8*	*19*
Janajati	47.0	27.7	5.5	18.3	27.3	13.3	29.8	21.2	608
Muslim	15.8	50.3	5.8	61.3	30.6	20.5	47.1	39.3	89
Others	*68.9*	*29.3*	*0.0*	*19.9*	*37.4*	*42.7*	*25.1*	*27.8*	*18*

Note: the figures in parentheses indicate p-value; those in bold are statistically significant
The italic figures are based on an unweighted sample size of <30

7.2.2 Utilisation of maternal health care

7.2.2.1 ANC

The provision and uptake of quality and timely ANC is an essential element of efforts to improve health outcomes for women and newborn babies. ANC consultations assist in early identification and treatment of complications during pregnancy. Increasing the number of women who have had at least four ANC visits during their pregnancy is an indicator of the NHSP-2 goal to "Increase utilisation of health services, and improve health and nutritional behaviour of the people, especially by the poor and excluded".

Uptake

Guidelines stipulate that women should have a check-up in their fourth, sixth, eighth, and ninth months of pregnancy; the entitlement to the 4ANC incentive payment is based on this schedule. Table 7.7 shows the extent to which these guidelines have been met by women receiving ANC. Although 77% of RDW had at least one ANC check-up, less than half (43%) had received at least four ANC check-ups. The timing of check-ups as per the guidelines (i.e. during fourth, sixth, eighth, and ninth months) was rare: less than one-quarter (21%) of RDW had had an ANC check-up in each of these months.

Differences in the recommended number and timing care were evident among women with different educational levels. The likelihood of having at least one ANC check-up, at least four ANC check-ups, and having check-ups as per the guideline increased with increasing education, and was more common among those in the highest quintile and among Brahmins/Chhetris. It was least common among Muslims. Urban/rural residence did have some influence over the recommended number and timing of care received, as rural women were less likely to have at least four ANC check-ups and less likely to have check-ups as per guidelines. Those in the oldest age group (35-49) were less likely to have had at least one and/or at least four ANC check-ups than the younger age groups. This is of particular concern given older women are at higher risk during pregnancy.

Table 7.7: Number and timing of ANC check-ups among RDW

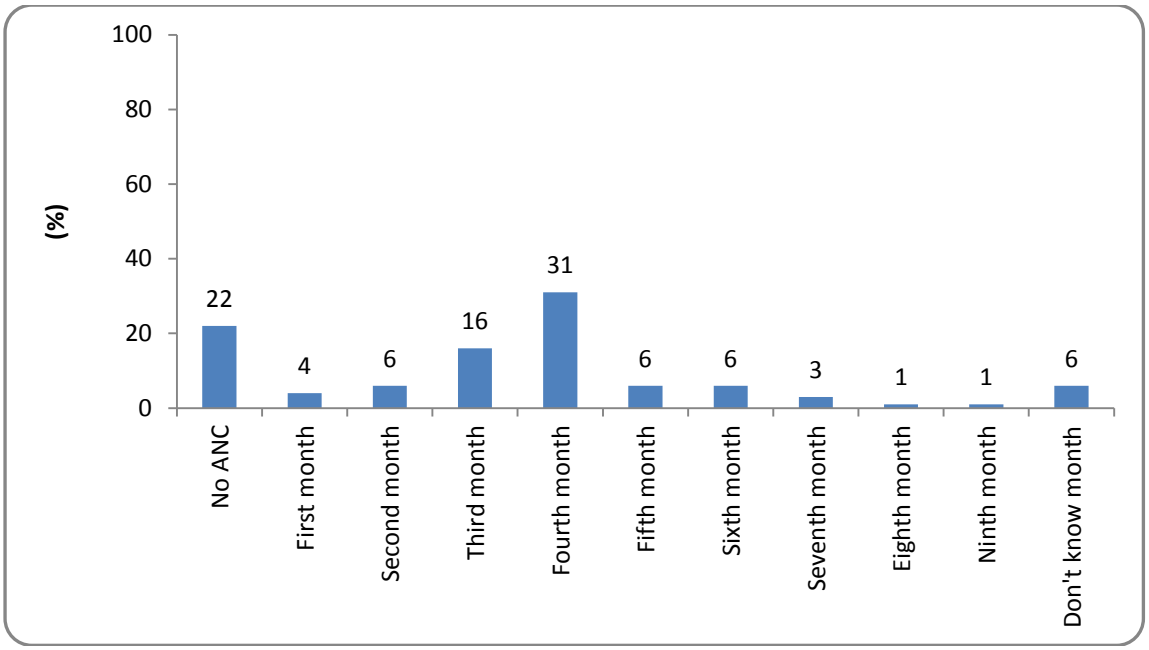
	RDW who had at least one ANC check-up (%)	RDW who had at least four ANC check-ups (%)	RDW who had ANC in fourth, sixth, eighth, and ninth month as per guidelines (%)	Total RDW (N)
All	77.3	43.2	21.0	1,543
Age group:	**(<0.001)**	**(0.001)**	(0.252)	
<20	77.6	38.3	17.9	196
20-34	79.1	45.5	21.9	1,220
35-49	60.6	28.9	17.2	127
Residence:	(0.079)	**(0.006)**	**(0.018)**	
Urban	89.8	64.7	33.3	137
Rural	76.2	41.1	19.8	1,406
Ecological zone:	(0.345)	(0.419)	**(0.047)**	
Mountain	87.2	47.7	29.1	109
Hill	75.1	46.2	24.9	659
Terai	77.9	39.9	16.6	775
Education:	**(<0.001)**	**(<0.001)**	**(<0.001)**	
Never attended school	64.5	25.4	10.7	730
Primary	84.4	42.2	19.7	218
Secondary	89.7	63.1	31.7	458
Further education	93.4	72.3	42.6	137
Wealth quintile:	**(<0.001)**	**(<0.001)**	**(0.001)**	
Lowest	79.4	36.8	17.9	286
Second	76.4	38.2	19.8	343
Middle	66.7	34.4	18.0	372
Fourth	77.4	46.0	19.3	341
Highest	95.5	71.3	36.1	202
Caste/ethnicity:	**(<0.001)**	**(<0.001)**	**(<0.001)**	
Brahmin/Chhetri	89.4	59.9	32.8	301
Terai/Madhesi other castes	77.0	31.2	9.6	291
Dalit	73.9	37.3	13.8	218
Newar	*100.0*	*100.0*	*52.6*	*19*
Janajati	75.7	45.1	23.6	608
Muslim	48.3	12.4	8.8	89
Others	*100.0*	*55.6*	*33.3*	*18*

Note: the figures in parentheses indicate p-value; those in bold are statistically significant
The italic figures are based on an unweighted sample size of <30

Timing of first ANC visit

Figure 7.2 shows the timing of the first ANC visit. The figure shows that the peak month for the first ANC visit is the fourth month of pregnancy: nearly one-third (31%) of RDW attended their first check-up in that month. Among RDW, over half (57%) had their first check-up within the first four months (consistent with NHSP-2 timing requirements).

Figure 7.2: Month of first ANC visit (N=1,543)



Those residing in mountain districts (64%) were more likely to have received their first ANC check-up in the first four months than those in Terai (56%) or hill districts (56%) (Table 7.8). The likelihood of having had an ANC check-up in the first four months increased with increasing levels of education, from 43% for those who had never attended school to 81% for those with further education. Muslims (35%) were least likely to have had an ANC check-up in the first four months. Uptake by Terai/Madhesi other castes (50%) and Dalits (49%) was also low.

Table 7.8: Month of first ANC check-up for RDW

	No ANC (%)	Month of first antenatal visit			Total RDW (N)	*p*
		One to four months (%)	Five to nine months (%)	Don't know month of visit (%)		
All	21.8	56.6	16.1	5.5	1,543	
Age group:						**0.001**
<20	23.0	55.6	16.8	4.6	196	
20-34	20.2	58.8	15.6	5.6	1,220	
35-49	36.2	36.3	20.5	7.1	127	
Residence:						0.313
Urban	10.2	66.4	21.1	2.2	137	
Rural	22.8	55.6	15.6	5.9	1,406	
Ecological zone:						**0.033**
Mountain	12.8	64.2	21.0	1.8	109	
Hill	23.8	56.0	16.6	3.6	659	
Terai	21.2	56.0	15.2	7.6	775	
Education:						**0.018**
Never attended school	34.9	42.9	17.2	5.1	730	
Primary	14.7	55.5	24.3	5.5	218	
Secondary	9.2	71.2	13.8	5.9	458	
Further education	6.6	81.1	5.1	7.3	137	
Wealth quintile:						0.177
Lowest	18.5	60.5	16.7	4.2	286	
Second	23.0	53.3	17.8	5.8	343	
Middle	32.5	48.2	13.7	5.6	372	
Fourth	22.0	53.3	18.4	6.2	341	
Highest	3.5	77.2	13.4	5.9	202	
Caste/ethnicity:						**0.006**
Brahmin/ Chhetri	9.6	73.4	12.2	4.7	301	
Terai/Madhesi other castes	22.7	49.7	18.1	9.3	291	
Dalit	25.2	48.6	22.1	4.1	218	
Newar	*0.0*	*94.8*	*5.3*	*0.0*	*19*	
Janajati	23.2	55.3	16.5	5.1	608	
Muslim	51.7	34.8	8.9	4.5	89	
Others	*0.0*	*94.5*	*5.6*	*0.0*	*18*	

Note:
The italic figures are based on an unweighted sample size of <30
The figures in bold are statistically significant

Timing of ANC visits

Figure 7.3 shows the percentage of women attending ANC check-ups in each month of pregnancy. 4ANC, which pays an incentive to women attending in the fourth, sixth, eighth, and ninth months of pregnancy, is clearly having an effect, with the highest percentages of women attending ANC being during these months (43%, 47%, 47%, and 45% respectively). Urban residents were more likely to have attended during these months than rural residents (Table 7.9). The likelihood of having attended ANC during the fourth, sixth, eighth, and ninth months of pregnancy increased by level of education, and levels of timely attendance were higher for those in the highest wealth quintile than the other quintiles. Muslims were least likely to have attended ANC during these months of pregnancy. There were no significant differences by ecological zone.

Figure 7.3: Percentage of women attending ANC in each month of pregnancy (N=1,543)

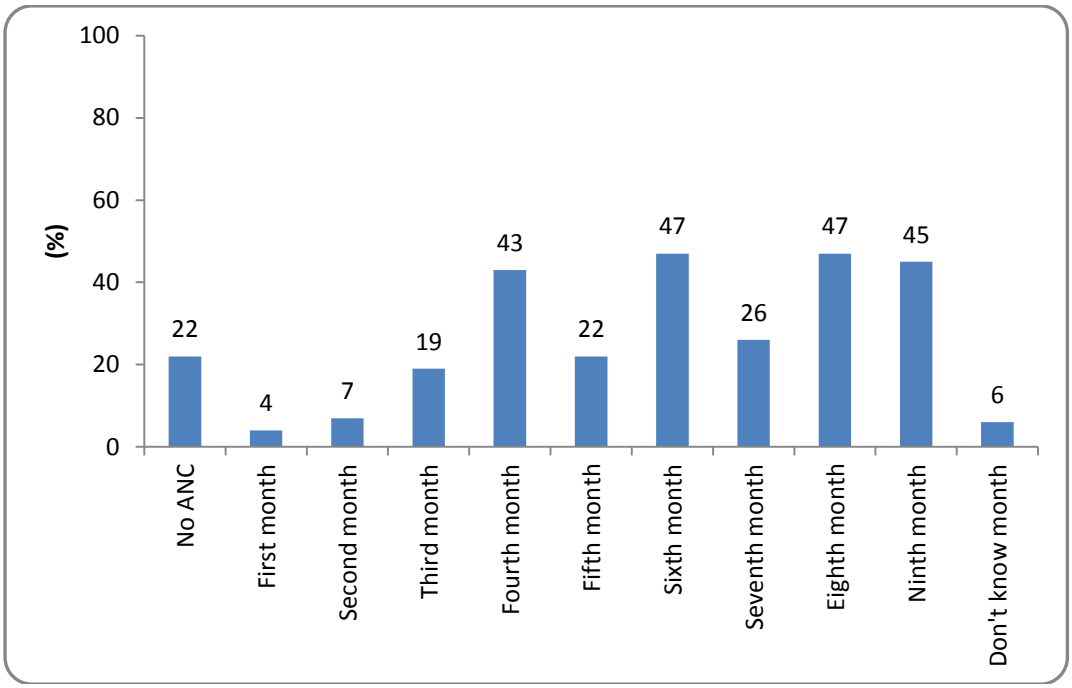


Table 7.9: Receipt of ANC check-ups by month of pregnancy for RDW

	No ANC (%)	Month of antenatal visit					Total RDW (N)
		Fourth month (%)	Sixth month (%)	Eighth month (%)	Ninth month (%)	Don't know (%)	
All	22.8	43.1	47.3	47.3	44.5	5.6	1,543
Age group:	**(<0.001)**	**(0.003)**	**(0.026)**	**(0.007)**	(0.114)		
<20	23.0	39.3	43.9	44.4	42.3	4.6	196
20-34	20.2	45.2	49.1	49.3	45.9	5.6	1,220
35-49	36.2	29.9	35.4	33.1	34.6	7.1	127
Residence:	(0.079)	**(0.030)**	**(0.009)**	**(0.012)**	**(0.004)**		
Urban	10.2	57.7	67.9	67.2	63.5	2.2	137
Rural	22.8	41.8	45.3	45.4	42.7	5.9	1,406
Ecological zone:	(0.345)	(0.398)	(0.249)	(0.326)	(0.158)		
Mountain	12.8	52.3	58.7	59.6	56.0	1.8	109
Hill	23.8	44.8	49.9	48.7	49.3	3.6	659
Terai	21.2	40.5	43.6	44.5	39.0	7.6	775
Education:	**(<0.001)**	**(<0.001)**	**(<0.001)**	**(<0.001)**	**(<0.001)**		
Never attended school	34.9	31.7	33.6	32.1	29.1	5.1	730
Primary	14.7	41.8	45.2	51.9	48.8	5.7	218
Secondary	9.2	56.0	62.0	63.1	60.7	5.8	458
Further education	6.6	64.0	75.1	68.6	66.1	7.0	137
Wealth quintile:	**(<0.001)**	**(<0.001)**	**(<0.001)**	**(<0.001)**	**(<0.001)**		
Lowest	18.5	43.0	46.2	45.5	39.9	4.2	286
Second	23.0	42.0	44.9	44.0	40.2	5.8	343
Middle	32.5	34.7	38.7	39.2	39.0	5.6	372
Fourth	22.0	40.2	48.4	48.4	45.7	6.2	341
Highest	3.5	65.8	67.3	68.3	66.8	5.9	202
Caste/ethnicity:	**(<0.001)**	**(<0.001)**	**(<0.001)**	**(<0.001)**	**(<0.001)**		
Brahmin/Chhetri	9.6	60.1	59.5	59.8	61.8	4.7	301
Terai/Madhesi other castes	22.7	30.9	36.1	35.7	31.3	9.3	291
Dalit	25.2	35.8	38.5	44.0	41.3	4.1	218
Newar	0.0	*94.7*	*89.5*	*89.5*	*78.9*	*0.0*	*19*
Janajati	23.2	45.1	52.0	49.7	45.7	5.1	608
Muslim	51.7	22.5	18.0	23.6	14.6	4.5	89
Others	0.0	*33.3*	*77.8*	*55.6*	*77.8*	*0.0*	*18*

Note:
The italic figures are based on an unweighted sample size of <30
The figures in parentheses indicate p-value; those in bold are statistically significant

Place of ANC care

Of those who had delivered in the year prior to the survey, 77% had received at least one ANC check-up. Table 7.10 shows the distribution of locations where ANC had been received; note that women may have had more than one provider or place of ANC. Most women had received some of their ANC from a government institution (86%), with 19% receiving care from non-government providers. The most common location of ANC was at a SHP (30%), followed by HP (27%), and government hospital (24%). Private hospitals were the most common non-government providers of ANC (10%).

Higher education levels were associated with a higher proportion of women receiving ANC from hospitals (government and private), whereas women with lower levels of education were more likely to utilise ANC services from SHPs. Women from rural areas were more likely to have received ANC (88%) from government institutions than those from urban areas (72%), while utilisation of ANC from non-government institutions was higher in urban (29%) than in rural areas (18%). Those in the highest wealth quintile were less likely to have utilised government services (79%) and more likely to have utilised services from non-government institutions (26%).

Table 7.10: Uptake and location of ANC among ANC users

	Government						Non-government						Total women who had received ANC (N)
	Govern-ment hospital (%)	PHCC (%)	HP (%)	SHP (%)	Out-reach clinic (%)	Any govern-ment (%)	Private hospital (%)	Private clinic (%)	Pharmacy (%)	Medical college/ teaching hospital (%)	Mission/NGO/ community hospital/ provider home (%)	Any non-govern-ment (%)	
All	23.6	7.2	26.5	30.1	2.7	85.8	9.5	5.1	0.7	1.1	2.9	18.7	1,206
Age group:	**(0.013)**	(0.737)	(0.072)	(0.970)	(0.157)	(0.360)	(0.407)	(0.648)	(0.777)	(0.648)	(0.295)	(0.360)	
<20	13.8	8.5	34.0	29.5	2.3	83.0	7.3	6.5	1.1	1.6	5.2	21.1	153
20-34	25.6	7.1	24.7	30.3	2.4	85.8	10.2	4.9	0.6	1.1	2.5	18.8	973
35-49	17.5	6.6	32.8	29.3	6.4	91.4	4.6	3.8	0.9	0.0	2.8	12.3	81
Residence:	**(<0.001)**	**(0.001)**	**(<0.001)**	**(0.003)**	**(0.002)**	**(0.011)**	(0.145)	**(0.016)**	(0.442)	(0.408)	(0.068)	**(0.011)**	
Urban	62.7	0.5	2.7	7.5	0.2	71.5	16.5	11.0	1.4	0.5	0.5	29.3	123
Rural	19.2	8.0	29.1	32.7	3.0	87.5	8.7	4.4	0.6	1.2	3.2	17.5	1,084
Ecological zone:	(0.490)	(0.088)	**(0.013)**	(0.557)	(0.197)	(0.223)	(0.600)	(0.148)	(0.58)	(0.394)	(0.489)	(0.223)	
Mountain	20.0	9.5	51.6	18.9	1.1	95.7	5.3	0.0	0.0	1.1	3.2	9.5	95
Hill	27.4	2.6	30.8	29.4	1.6	87.4	9.8	3.6	1.0	1.6	4.1	19.0	500
Terai	21.0	10.6	19.0	32.3	3.8	83.2	9.9	7.0	0.6	0.6	1.9	19.8	612
Education:	**(<0.001)**	(0.466)	(0.210)	**(<0.001)**	(0.404)	**(<0.001)**	**(<0.001)**	**(0.012)**	(0.551)	(0.270)	**(0.011)**	**(<0.001)**	
Never attended school	16.8	6.5	29.4	38.4	2.7	91.2	4.8	3.4	1.3	0.2	1.5	11.3	476
Primary	25.1	6.2	26.2	35.8	1.1	90.4	7.3	2.4	0.4	1.3	1.4	12.4	186
Secondary	24.5	9.0	25.7	23.3	2.8	80.5	11.3	7.4	0.6	1.8	5.3	25.4	416
Further education	43.1	5.2	18.1	13.4	4.3	77.3	23.5	7.4	0.0	1.6	2.4	33.6	128
Wealth quintile:	**(0.001)**	(0.763)	**(0.029)**	**(<0.001)**	(0.565)	**(0.039)**	**(0.001)**	(0.235)	(0.633)	(0.774)	(0.321)	**(0.039)**	
Lowest	20.7	7.0	24.8	37.7	2.6	88.0	3.4	5.8	0.0	1.2	4.0	14.2	233
Second	18.9	6.3	27.4	38.6	2.4	89.7	6.1	2.5	1.1	0.5	4.0	14.1	263
Middle	17.5	7.6	36.9	30.9	2.0	91.2	9.1	3.9	1.0	1.0	1.3	15.2	250
Fourth	23.9	6.1	24.2	27.3	4.1	80.1	13.9	6.5	0.9	1.8	3.0	24.7	267

	Government						Non-government						Total women who had received ANC (N)
	Govern-ment hospital (%)	PHCC (%)	HP (%)	SHP (%)	Out-reach clinic (%)	Any govern-ment (%)	Private hospital (%)	Private clinic (%)	Pharmacy (%)	Medical college/ teaching hospital (%)	Mission/NGO/ community hospital/ provider home (%)	Any non-govern-ment (%)	
Highest	40.8	9.6	16.8	12.3	2.0	78.9	15.9	7.0	0.4	1.0	2.0	26.3	194
Caste/ethnicity:	(0.150)	(0.478)	**(0.008)**	(0.240)	(0.590)	(0.369)	(0.241)	(0.094)	(0.133)	(0.311)	(0.371)	(0.369)	
Brahmin/Chhetri	29.3	7.5	28.6	23.4	2.0	86.0	10.4	4.9	0.6	1.2	3.5	19.9	271
Terai/Madhesi other castes	27.4	4.3	12.3	40.0	1.5	83.2	10.1	7.0	0.3	0.0	0.9	18.2	225
Dalit	22.6	11.5	28.4	27.8	2.0	88.3	7.3	0.8	3.3	0.0	3.7	13.5	163
Newar	*25.2*	*13.8*	*22.3*	*35.2*	*0.0*	*94.7*	*18.0*	*0.0*	*0.0*	*0.0*	*0.0*	*15.8*	*19*
Janajati	16.8	7.6	31.2	30.7	3.8	86.5	8.3	5.2	0.2	1.8	3.1	18.2	467
Muslim	42.0	0.0	17.5	27.2	6.0	81.8	6.7	13.8	0.0	0.0	0.0	20.9	43
Others	*29.5*	*0.0*	*56.6*	*14.1*	*0.0*	*83.3*	*34.9*	*1.6*	*0.0*	*7.8*	*15.7*	*61.1*	*18*

Note: the figures in parentheses indicate p-value; those in bold are statistically significant
The italic figures are based on an unweighted sample size of <30

ANC provider

Table 7.11 shows the different providers that provided ANC to RDW; note women may have visited more than one type of provider. Almost all women (99%) who had received ANC had received it from a formal provider; these formal providers included nurses or midwives (68%), doctors (23%), and other health workers (15%). The likelihood of using a doctor as a provider of ANC increased with woman's educational level, as 39% of women with further education had used a doctor, compared to 20% of women who had never attended school. Similar trends were observed across the wealth quintiles, with 35% of women in the wealthiest quintile having used doctors for at least some of their ANC, compared to 19% of those in the lowest wealth quintile.

Table 7.11: ANC provider among RDW

	Formal provider				Non-formal provider			Total women who had delivered last year and received ANC (N)
	Doctor (%)	Nurse/midwife (%)	Other health worker (%)	Any formal (%)	FCHV (%)	Pharmacist (%)	Any informal (%)	
All	23.4	68.0	14.6	99.3	1.2	0.2	1.4	1,206
Age group:	**(0.002)**	(0.693)	(0.122)	**(0.002)**	(0.164)	(0.770)	(0.180)	
<20	11.2	71.1	21.9	99.3	0.4	0.0	0.7	153
20-34	25.4	67.3	13.6	99.3	1.2	0.3	1.5	973
35-49	21.8	69.2	12.9	97.5	2.0	0.0	2.5	81
Residence:	**(0.006)**	(0.306)	**(0.032)**	(0.529)	(0.463)	(0.653)	(0.421)	
Urban	45.8	59.5	4.1	100.0	0.0	0.0	0.0	123
Rural	20.8	68.9	15.8	99.1	1.3	0.2	1.6	1,084
Ecological zone:	(0.063)	(0.039)	(0.602)	(0.742)	**(0.019)**	(0.903)	(0.084)	
Mountain	6.6	92.0	8.3	100.0	1.8	0.0	2.1	95
Hill	25.5	67.7	16.3	99.6	0.1	0.3	0.4	500
Terai	24.1	64.4	14.2	98.7	1.9	0.2	2.1	612
Education:	**(0.003)**	(0.798)	(0.207)	(0.682)	(0.681)	(0.488)	(0.923)	
Never attended school	19.9	69.4	15.0	98.9	0.0	0.0	1.5	476
Primary	19.8	66.0	18.2	98.8	1.7	0.0	1.6	186
Secondary	24.0	68.3	15.1	99.2	1.2	0.0	1.2	416
Further education	38.9	64.1	6.7	100.0	1.3	0.0	1.6	128
Wealth quintile:	**(0.004)**	(0.389)	**(<0.001)**	(0.176)	**(<0.001)**	(0.943)	**(0.024)**	
Lowest	18.9	63.4	24.5	97.4	3.5	0.0	3.4	233
Second	18.2	74.3	10.7	99.6	0.3	1.0	1.5	263
Middle	19.0	65.2	20.5	100.0	0.5	0.0	0.4	250
Fourth	28.0	66.9	11.3	99.6	0.9	0.0	0.7	267
Highest	35.0	69.6	5.0	99.5	0.8	0.0	0.5	194

	Formal provider				Non-formal provider			Total women who had delivered last year and received ANC (N)
	Doctor (%)	Nurse/midwife (%)	Other health worker (%)	Any formal (%)	FCHV (%)	Pharmacist (%)	Any informal (%)	
Caste/ethnicity:	(0.362)	(0.716)	(0.124)	(0.900)	(0.976)	(0.397)	(0.956)	
Brahmin/Chhetri	25.8	73.1	8.5	99.3	1.3	0.0	1.1	271
Terai/Madhesi other castes	27.0	63.5	11.8	99.6	1.1	0.0	1.3	225
Dalit	17.8	68.2	18.2	98.8	1.0	0.8	1.8	163
Newar	*34.1*	*57.8*	*35.2*	*100.0*	*0.0*	*0.0*	*0.0*	*19*
Janajati	20.4	67.1	17.9	99.1	1.4	0.0	1.5	467
Muslim	28.3	65.9	12.0	100.0	0.0	3.0	2.3	43
Others	*44.3*	*80.8*	*9.8*	*100*.0	0.0	0.0	*0.0*	*18*

Note: the figures in parentheses indicate p-value; those in bold are statistically significant
The italic figures are based on an unweighted sample size of <30

Experience of complications

Nearly one-third (29%) of RDW had experienced at least one complication during their pregnancy, with 18% experiencing multiple complications. The most common complications experienced by women were severe abdominal pain (56%), fits, convulsions, or seizures (28%), and swollen hands or face (24%) (Table 7.12). It should be noted that any complications that had led to termination or miscarriage were not included in this sample of RDW. It was observed that experience of swollen hands/face during pregnancy was significantly associated with ecological zone, educational status, and caste/ethnicity. Similarly, premature rupture of membrane was associated with ecological zone, with 22% of women from mountain districts reporting premature rupture of membrane.

Table 7.12: Complications experienced during pregnancy among RDW who had experienced complications

	Distribution of complications experienced during pregnancy													Total RDW who had experienced complications during pregnancy (N)
	Vaginal bleeding within 22 weeks of pregnancy (%)	APH (%)	Fits/ convulsions/ seizures (%)	Feel weak/ faint/ anaemic (%)	Fever (%)	Swollen hands/ face (%)	Blurred vision (%)	High blood pressure (%)	Severe abdominal pain (%)	Severe headache (%)	Loss of/ slow foetal movement (%)	Premature rupture of membranes (%)	Foul-smelling vaginal discharge (%)	
All	14.9	8.7	28.0	18.7	16.0	24.0	7.1	2.2	55.8	21.1	3.1	5.1	7.3	450
Age group:	(0.811)	(0.389)	(0.522)	(0.869)	(0.706)	(0.298)	(0.389)	(0.415)	(0.662)	(0.389)	(0.260)	(0.255)	(0.363)	
<20	8.5	15.6	31.6	20.6	12.1	15.0	7.9	0.0	61.8	16.7	1.9	0.0	8.7	55
20-34	16.8	7.9	26.5	18.8	16.7	24.3	6.7	2.6	54.7	22.1	2.6	5.2	8.0	355
35-49	7.5	6.8	34.9	15.7	14.9	32.0	10.2	0.7	56.0	16.9	10.3	11.0	0.0	40
Residence:	(0.082)	(0.834)	(0.583)	**(0.027)**	(0.366)	(0.675)	(0.275)	(0.797)	(0.601)	(0.450)	(0.397)	(0.850)	**(0.047)**	
Urban	21.9	6.1	31.7	35.6	10.3	23.0	7.0	1.8	50.5	16.6	2.5	5.7	2.3	53
Rural	14.0	9.1	27.4	16.5	16.7	24.0	7.2	2.2	56.4	21.6	3.3	5.0	8.0	398
Ecological zone:	(0.331)	(0.636)	(0.370)	(0.252)	(0.261)	**(0.044)**	(0.498)	(0.692)	(0.235)	(0.853)	(0.571)	**(<0.001)**	(0.459)	
Mountain	2.5	10.2	42.6	21.7	22.8	10.0	4.2	2.5	70.2	20.4	6.8	22.4	11.9	41
Hill	17.0	7.2	28.2	13.2	17.3	20.8	7.6	2.5	53.1	22.7	3.0	5.0	8.3	194
Terai	15.4	9.8	24.8	23.2	13.5	29.3	7.2	1.8	55.3	19.5	2.6	2.0	5.6	215
Education:	(0.133)	(0.629)	(0.281)	(0.809)	(0.084)	**(0.012)**	(0.622)	(0.062)	(0.532)	(0.669)	(0.715)	(0.730)	(0.109)	
Never attended school	13.9	9.9	26.6	19.6	18.6	27.9	9.4	2.3	55.9	22.9	4.4	5.0	4.4	202
Primary	12.4	5.3	22.5	13.1	22.6	35.4	5.7	0.0	63.9	19.3	1.8	5.9	12.7	58
Secondary	15.4	9.1	33.8	19.7	10.9	13.3	5.6	1.6	54.4	21.3	2.5	6.0	9.5	149
Further education	21.9	6.3	20.6	19.0	11.9	26.1	3.7	6.3	48.3	13.2	1.6	1.5	6.4	41
Wealth quintile:	(0.499)	(0.153)	(0.809)	(0.158)	**(<0.001)**	(0.917)	(0.173)	(0.099)	(0.110)	(0.058)	(0.161)	(0.549)	(0.639)	
Lowest	17.1	10.8	27.0	19.2	8.5	26.9	5.7	0.0	57.7	26.5	3.0	1.4	3.8	93
Second	8.1	5.8	33.1	8.6	30.4	25.4	3.8	0.3	44.7	23.1	3.0	6.2	9.4	88
Middle	21.7	14.4	22.8	16.5	14.4	22.8	10.8	3.3	53.7	26.4	0.3	4.9	5.1	93
Fourth	11.4	7.7	26.5	25.5	19.8	21.1	11.4	4.4	57.3	19.1	5.3	5.8	10.7	104
Highest	17.0	3.6	31.3	23.7	4.2	23.5	2.3	2.4	66.9	7.0	4.2	8.0	7.3	72
Caste/ethnicity:	(0.884)	(0.912)	(0.347)	(0.246)	(0.790)	**(<0.001)**	(0.788)	(0.661)	(0.397)	(0.387)	(0.659)	(0.720)	**(<0.001)**	
Brahmin/Chhetri	13.3	6.2	24.1	11.2	14.4	13.8	4.1	3.8	62.9	15.2	3.1	4.1	11.7	99
Terai/Madhesi other	17.8	10.7	19.2	29.4	16.5	44.8	6.6	1.6	44.6	17.9	3.3	1.6	4.0	83

	Distribution of complications experienced during pregnancy													Total RDW who had experienced complica-tions during pregnancy (N)
	Vaginal bleeding within 22 weeks of pregnancy (%)	APH (%)	Fits/ convuls-ions/ seizures (%)	Feel weak/ faint/ anaemic (%)	Fever (%)	Swollen hands/ face (%)	Blurred vision (%)	High blood pressure (%)	Severe abdom-inal pain (%)	Severe head-ache (%)	Loss of/ slow foetal move-ment (%)	Premature rupture of membranes (%)	Foul-smelling vaginal dis-charge (%)	
castes														
Dalit	13.4	10.2	27.3	24.8	14.8	28.2	11.6	4.4	50.9	19.2	4.1	5.9	0.9	75
Newar	*14.2*	*0.0*	*42.2*	*42.2*	*14.2*	*14.2*	*0.0*	*0.0*	*71.5*	*14.2*	*0.0*	*0.0*	*0.0*	*5*
Janajati	16.0	9.0	36.8	14.1	18.6	18.6	8.1	0.8	54.7	27.9	2.5	7.8	8.6	169
Muslim	*10.4*	*10.4*	*10.4*	*32.5*	*7.1*	*4.6*	*1.9*	*0.0*	*62.2*	*18.1*	*9.1*	*0.0*	*0.0*	*14*
Others	*0.0*	*0.0*	*0.0*	*0.0*	*0.0*	*50.0*	*0.0*	*0.0*	*50.0*	*0.0*	*0.0*	*0.0*	*50.0*	*6*

Note: the figures in parentheses indicate p-value; those in bold are statistically significant
The italic figures are based on an unweighted sample size of <30

Time taken to seek care

In total, 450 RDW had experienced a complication during pregnancy; nearly two-thirds of these (62%) had sought care for their primary complication (Table 7.13). Women were more likely to have sought care if they experienced conditions such as foul-smelling vaginal discharge (80%), blurred vision (67%), and severe abdominal pain (65%), and less likely for conditions such as bleeding in the first 22 weeks of pregnancy (50%) or severe headache (41%).

Table 7.13 also shows time taken to seek care after the onset of the primary complication (for those who had sought care); the median has been presented, as the data for these times are skewed. For most complications, the median shows that most women had waited two days before seeking care, although the quartile data show that many women waited much longer. The conditions for which women tended to seek care quickest were: bleeding in the first 22 weeks of pregnancy, feeling weak/anaemic, high blood pressure, or loss of foetal movement (all with a median of 24 hours). A quarter (25%) of women who had experienced swollen hands or face had waited longer than five days (120 hours) before seeking care.

Table 7.13: **Care-seeking and time taken to seek care after onset of primary complication, by type of complication, among RDW who had experienced a complication**

Type of complication	Women experiencing complication who sought care at facility (%)	Total RDW who had experienced a complication during pregnancy (N)	Time (hours) after onset of complication before care sought		
			First quartile	Median	Third quartile
Loss of/slow foetal movement	*100*	*9*	*24.0*	*24.0*	*43.7*
Waters break before labour pain (premature rupture of membranes)	*82.8*	*23*	*96.0*	*96.0*	*96.0*
Foul-smelling vaginal discharge	79.2	31	39.5	121.9	168.0
High blood pressure	*75.6*	*7*	*4.0*	*24.0*	*118.0*
Bleeding in first 22 weeks of pregnancy	68.0	31	2.5	24.0	76.2
Severe abdominal pain	64.3	248	24.0	48.0	120.0
Blurred vision	63.9	14	24.0	49.7	96.0
Fever	60.5	69	24.0	64.7	82.6
Weak/faint/anaemic	60.3	82	4.0	24.0	48.8
APH	*58.3*	*25*	*24.0*	*50.4*	*115.4*
Swollen hands/face	57.3	107	24.0	48.0	120.0
Fits/convulsions/seizures	51.8	125	24.0	48.0	72.0
Severe headache	39.6	91	72.0	176.2	360.0
Any complication	62.0	450			

Note:
The italic figures are based on an unweighted sample size of <30

Care-seeking for complications

Table 7.14 presents data on the locations where care was sought by women who had experienced complications during pregnancy; overall, most women had sought care at a government facility (63%). Most commonly, women with complications sought care at a private hospital or clinic (39%), government hospital (21%), or HP (22%).

Reasons for not seeking care

Of the women who had experienced a complication during their pregnancy, 38% had not sought care. The most common reasons for not seeking care were that they did not see a need (61%) or that the facility was too far away (30%) (Table 7.15).

Table 7.14: Location where care was sought, by type of primary complication, among RDW who had experienced a complication

	Government					Non-government				Total RDW who sought care after experiencing a complication (N)
	Government hospital (%)	PHCC (%)	HP (%)	SHP (%)	Any government facility (%)	Private hospital/ clinic (%)	Medical college/ teaching hospital (%)	Mission/NGO/ community hospital (%)	Any non-government facility (%)	
Any condition	21.1	9.7	21.5	12.9	63.4	37.3	1.1	0.7	39.1	279
Vaginal bleeding within 28 weeks of pregnancy	*26.3*	*20.6*	*23.5*	*0.0*	*70.5*	*26.4*	*3.2*	*0.0*	*29.5*	*21*
Vaginal bleeding after 28 weeks of pregnancy	*29.2*	*8.5*	*18.1*	*19.2*	*64.9*	*30.2*	*0.0*	*4.9*	*35.1*	*14*
Fits/convulsions/ seizures	14.4	11.6	24.1	17.1	67.1	31.9	2.1	1.0	35.0	65
Feel weak/faint/anaemic	16.0	9.8	22.3	10.0	58.1	44.0	0.0	0.0	44.0	50
Fever	14.7	16.4	14.5	14.5	60.0	36.2	5.1	0.0	41.3	42
Swollen hands/face	11.8	4.9	28.1	14.5	59.4	41.7	1.2	1.1	44.1	61
Blurred vision	*18.6*	*6.7*	*30.2*	*29.0*	*84.5*	*7.3*	*8.2*	*0.0*	*15.5*	*9*
High blood pressure	*47.3*	*17.9*	*0.0*	*0.0*	*65.2*	*55.8*	*0.0*	*0.0*	*55.8*	*5*
Severe abdominal pain	19.5	9.3	22.5	13.1	64.1	39.3	0.5	1.0	40.8	159
Severe headache	11.1	14.8	27.1	15.2	68.2	37.5	0.0	0.0	37.5	37
Loss of/slow foetal movement	*64.1*	*0.0*	*21.8*	*26.0*	*85.9*	*14.1*	*0.0*	*0.0*	*14.1*	*9*
Waters break before labour pain (premature rupture of membranes)	*43.0*	*10.0*	*25.3*	*7.2*	*85.6*	*15.9*	*3.9*	*0.0*	*19.9*	*19*
Foul-smelling vaginal discharge	*13.3*	*28.2*	*18.5*	*18.1*	*72.4*	*26.5*	*0.0*	*1.1*	*27.6*	*25*

Note: the figures in parentheses indicate p-value; those in bold are statistically significant
The italic figures are based on an unweighted sample size of <30

Table 7.15: Reason for not seeking care among RDW who had experienced a complication and had not sought care *(more than one reason possible)*

	Did not see a need (%)	Preferred to receive care at home/ in the comm-unity (%)	Providers unfriendly/ rude/ disrespectful (%)	Providers not comp-etent (%)	Providers often unavail-able (%)	Facility too far away (%)	Travel costs too expensive (%)	Treatment costs too expensive (%)	Not given permission by house-hold members (%)	No one available to accom-pany (%)	Total RDW who had experienced a complication and had not sought care (N)
All	61.0	5.8	3.5	2.9	7.6	29.7	1.2	3.5	3.5	5.2	172
Age group:	(0.824)	(0.585)	(0.758)	(0.441)	(0.578)	(0.960)	**(0.046)**	(0.856)	(0.752)	(0.432)	
<20	*63.3*	*5.3*	*4.9*	*0.0*	*4.9*	*27.9*	*0.0*	*2.3*	*4.9*	*9.1*	*27*
20-34	61.7	5.6	4.0	3.9	7.7	29.6	0.5	3.4	3.8	3.8	129
35-49	*52.5*	*10.8*	*0.0*	*0.0*	*12.3*	*32.3*	*6.5*	*4.7*	*0.0*	*8.6*	*16*
Residence:	(0.077)	(0.029)	**(0.022)**	(0.338)	(0.995)	(0.258)	(0.676)	(0.221)	**(<0.001)**	(0.474)	
Urban	*76.2*	*15.1*	*14.8*	*7.0*	*7.7*	*15.1*	*0.0*	*7.4*	*19.9*	*0.0*	*17*
Rural	59.4	5.0	2.5	2.5	7.7	31.2	1.1	2.9	1.8	5.7	154
Ecological zone:	(0.074)	(0.189)	**(0.024)**	(0.168)	**(0.012)**	**(<0.001)**	(0.074)	(0.285)	(0.062)	(0.184)	
Mountain	*49.3*	*0.0*	*0.0*	*0.0*	*0.0*	*60.9*	*6.1*	*6.1*	*0.0*	*8.3*	*17*
Hill	52.7	5.1	0.0	0.9	1.8	44.3	0.9	0.9	0.9	7.9	73
Terai	71.1	8.1	8.0	5.4	14.6	9.8	0.0	5.0	6.8	1.8	81
Education:	**(0.014)**	(0.463)	(0.680)	(0.890)	(0.171)	(0.530)	(0.655)	(0.485)	(0.366)	(0.766)	
Never attended school	51.5	8.5	4.7	2.7	11.2	33.4	1.1	3.6	3.7	5.2	95
Primary	*63.6*	*1.3*	*5.9*	*3.1*	*5.9*	*32.7*	*3.1*	*7.8*	*9.0*	*9.5*	*22*
Secondary	74.9	4.4	1.5	2.7	1.5	23.2	0.0	1.4	1.5	3.8	45
Further education	*85.9*	*0.0*	*0.0*	*6.5*	*6.5*	*14.7*	*0.0*	*0.0*	*0.0*	*0.0*	*9*
Wealth quintile:	(0.052)	(0.688)	(0.301)	(0.782)	(0.111)	(0.228)	(0.734)	(0.740)	(0.601)	(0.654)	
Lowest	66.5	7.1	8.4	4.1	16.8	22.0	0.0	1.3	0.0	2.9	47
Second	61.9	9.0	0.0	3.8	6.1	27.0	2.0	3.1	6.7	7.2	33
Middle	49.9	3.4	0.0	0.0	1.7	40.4	2.6	3.4	3.3	8.7	40
Fourth	53.8	5.8	5.5	3.5	4.1	40.2	0.0	5.8	5.4	2.1	35
Highest	*86.5*	*4.0*	*4.0*	*3.7*	*7.7*	*8.2*	*0.0*	*4.5*	*4.5*	*4.5*	*17*

	Did not see a need (%)	Preferred to receive care at home/ in the comm-unity (%)	Providers unfriendly/ rude/ disrespectful (%)	Providers not comp-etent (%)	Providers often unavail-able (%)	Facility too far away (%)	Travel costs too expensive (%)	Treatment costs too expensive (%)	Not given permission by house-hold members (%)	No one available to accom-pany (%)	Total RDW who had experienced a complication and had not sought care (N)
Caste/ethnicity:	**(0.034)**	(0.456)	(0.137)	(0.610)	**(<0.001)**	**(0.050)**	(0.700)	(0.737)	(0.114)	(0.741)	
Brahmin/Chhetri	88.2	4.4	0.0	0.0	0.0	39.0	3.4	2.2	0.0	2.5	31
Terai/Madhesi other castes	54.4	10.6	12.4	5.0	30.7	10.8	0.0	5.8	10.8	2.0	37
Dalit	49.5	6.1	4.7	7.2	4.9	20.3	2.4	6.5	8.2	7.4	28
Newar	*100.0*	*0.0*	*0.0*	*0.0*	*0.0*	*0.0*	*0.0*	*0.0*	*0.0*	*0.0*	*1*
Janajati	54.5	4.8	0.9	1.7	0.9	41.0	0.0	1.7	0.0	7.2	72
Muslim	*100.0*	*0.0*	*0.0*	*0.0*	*0.0*	*0.0*	*0.0*	*0.0*	*0.0*	*0.0*	*5*

Note: the figures in parentheses indicate p-value; those in bold are statistically significant
The italic figures are based on an unweighted sample size of <30

Preparations for delivery

RDW were asked about the preparations they had made before delivery (Table 7.16); 78% of women had made some sort of preparation (N=1,198). The most common preparation was saving money for the delivery (59%). Other commonly mentioned preparations were arranging clothing (56%), arranging food (46%), and discussing place of delivery (34%).

Table 7.16: Preparations made before delivery among RDW *(more than one preparation possible)*

	Saved money (%)	Arranged transport (%)	Arranged food (%)	Arranged clothing (%)	Found blood donor (%)	Contacted health worker to discuss assistance with delivery (%)	Bought safe delivery kit (%)	Discussed place of delivery (%)	Discussed who would accompany to facility (%)	Discussed who would be company on/ present at birth (%)	No preparation (%)	Total RDW (N)
All	58.6	20.2	45.5	56.4	4.9	22.2	15.2	33.9	23.6	22.5	22.4	1,543
Age group:	**(<0.001)**	(0.119)	(0.472)	(0.601)	(0.869)	(0.540)	(0.297)	(0.113)	(0.457)	**(0.047)**	**(0.019)**	
<20	54.3	20.0	44.1	55.8	5.7	18.7	11.9	30.4	23.9	18.6	23.4	196
20-34	61.2	21.0	46.6	57.0	4.8	22.6	16.0	35.3	24.1	23.9	21.0	1,220
35-49	39.7	11.9	37.0	51.7	4.6	22.6	12.0	25.6	18.2	14.6	33.6	127
Residence:	(0.079)	**(<0.001)**	(0.441)	**(0.050)**	**(<0.001)**	(0.414)	(0.340)	(0.157)	(0.116)	(0.092)	(0.268)	
Urban	66.1	45.6	41.5	69.0	12.9	18.2	11.1	41.6	33.4	31.9	17.3	137
Rural	57.8	17.6	45.9	55.2	4.2	22.5	15.6	33.1	22.6	21.6	22.8	1,407
Ecological zone:	(0.862)	(0.059)	(**0.002**)	(0.097)	(0.104)	(0.899)	(0.194)	(**0.004**)	(0.218)	(0.418)	(0.147)	
Mountain	57.8	10.8	72.1	71.0	2.9	22.5	18.6	26.3	23.7	19.0	11.0	109
Hill	59.8	16.5	49.4	58.3	3.3	23.0	11.7	42.7	27.4	25.2	21.1	659
Terai	57.6	24.5	38.4	52.8	6.6	21.3	17.7	27.4	20.3	20.7	25.0	775
Education:	**(<0.001)**	**(<0.001)**	**(<0.001)**	**(<0.001)**	**(<0.001)**	**(<0.001)**	(0.257)	**(<0.001)**	**(<0.001)**	**(<0.001)**	**(<0.001)**	
Never attended school	49.0	12.2	38.0	46.4	2.0	15.2	15.5	22.7	14.2	13.7	29.5	730
Primary	60.8	18.1	54.5	62.5	4.4	21.8	16.4	38.5	24.5	26.6	19.7	218
Secondary	66.5	27.4	49.3	63.2	7.1	29.5	12.3	43.1	33.0	30.0	16.4	458
Further education	79.1	41.1	58.4	77.2	14.2	35.0	20.9	55.5	40.8	37.7	8.3	137
Wealth quintile:	**(<0.001)**	**(<0.001)**	(0.681)	(0.098)	**(<0.001)**	(0.405)	(0.169)	(0.090)	**(<0.001)**	**(0.001)**	(0.190)	
Lowest	67.9	22.1	47.8	55.9	6.2	22.1	12.1	31.5	22.3	24.7	19.2	286
Second	55.5	15.2	45.9	54.3	2.4	21.1	19.2	32.9	17.4	17.4	25.0	343
Middle	56.1	15.0	45.6	57.1	2.2	20.7	14.7	33.0	21.7	20.4	22.7	372
Fourth	49.9	15.6	40.9	51.5	2.8	20.6	12.2	30.9	22.1	19.6	26.1	341
Highest	69.7	42.6	49.1	67.8	16.3	29.3	18.4	45.7	42.0	36.6	15.2	202

	Saved money (%)	Arranged transport (%)	Arranged food (%)	Arranged clothing (%)	Found blood donor (%)	Contacted health worker to discuss assistance with delivery (%)	Bought safe delivery kit (%)	Discussed place of delivery (%)	Discussed who would accompany to facility (%)	Discussed who would be company on/ present at birth (%)	No preparation (%)	Total RDW (N)
Caste/ethnicity:	(0.078)	**(0.019)**	**(0.022)**	(0.118)	**(<0.001)**	(0.051)	(0.761)	**(<0.001)**	**(<0.001)**	**(0.013)**	**(0.049)**	
Brahmin/Chhetri	63.5	28.3	48.2	60.6	10.5	31.6	17.3	49.1	40.0	34.2	17.2	301
Terai/Madhesi other castes	59.2	22.0	38.1	50.1	7.4	17.9	15.7	18.4	13.4	15.9	22.5	291
Dalit	56.4	14.6	44.3	55.5	1.2	19.3	17.8	31.6	24.7	21.8	24.7	217
Newar	*82.7*	*7.6*	*60.3*	*62.6*	*16.6*	*26.1*	*20.1*	*50.3*	*42.1*	*18.6*	*10.5*	*19*
Janajati	59.1	18.8	51.4	60.6	2.3	21.3	13.5	36.2	21.1	21.4	20.7	608
Muslim	36.4	8.2	19.4	35.5	2.2	12.5	10.5	15.6	7.6	12.0	44.9	89
Others	*56.6*	*37.4*	*49.5*	*55.3*	*9.4*	*37.4*	*12.1*	*52.3*	*42.9*	*33.1*	*34.9*	*18*

Note: the figures in parentheses indicate p-value; those in bold are statistically significant
The italic figures are based on an unweighted sample size of <30

7.2.2.2 Delivery

While most mothers experience normal deliveries, the delivery and labour period present significant risks for the health of the mother and child. A range of moderate to life-threatening complications can develop quickly and unexpectedly. Therefore, appropriate planning to give birth in a place with on-hand medical assistance is an important step in reducing the incidence and severity of adverse health outcomes for mother and child. The HHS asked women a number of questions about this delivery period, ranging from their plans for where to deliver and how to get there, to their experiences of labour and the associated health care that they were given.

Decision making

RDW were asked about the process that had been taken to decide upon the place where they would deliver, and who had been involved in that process. The person most commonly involved in the decision-making process was the husband, with 77% of women having the husband involved; this was followed by the woman herself (68%) and the woman's parents-in-law (35%) (Table 7.17). The husbands of women from Terai (78%) and hill (76%) districts were more likely to have been involved in the decision-making process than those from mountain districts (69%). Table 7.18 shows how women felt about the decision-making process and the final decisions for their delivery care. Most women were happy with both the decision and the process (62%), with very few women reporting that they were unhappy with both the process and outcome (7%).

Table 7.17: Persons involved in decision-making process about the place of delivery among RDW

	Self (%)	Husband (%)	Parents (%)	Parents-in-law (%)	Son/ daughter (%)	Brother/ sister (%)	Brother-/ sister-in-law (%)	Other relative (%)	FCHV (%)	Outreach health worker (%)	Other (%)	Total RDW (N)
All	67.7	76.6	12.1	35.3	0.6	3.0	2.2	3.7	2.1	0.2	6.3	1,543
Residence:	(0.115)	(0.124)	(0.415)	(0.977)	(0.636)	(0.489)	(0.445)	(0.115)	(0.256)	(0.267)	(0.455)	
Urban	60.3	83.4	9.3	35.4	1.0	4.5	3.2	1.9	0.9	0.5	3.7	137
Rural	68.4	75.9	12.4	35.2	0.6	2.9	2.1	3.9	2.2	0.1	6.5	1,407
Ecological zone:	(0.295)	**(0.003)**	**(0.039)**	(0.296)	(0.429)	(0.114)	(0.179)	**(0.034)**	**(0.010)**	(0.060)	**(<0.001)**	
Mountain	79.4	68.6	11.1	25.8	0.0	2.6	2.6	9.2	6.4	1.0	14.8	109
Hill	67.5	76.4	9.2	34.5	0.4	4.3	3.0	3.6	2.5	0.0	10.6	659
Terai	66.2	77.9	14.7	37.1	0.9	2.0	1.4	3.0	1.1	0.2	1.4	775
Education:	**(0.024)**	(0.382)	(0.191)	**(0.001)**	(0.281)	**(<0.001)**	(0.125)	(0.137)	(0.062)	(0.275)	(0.848)	
Never attended school	72.8	78.0	9.8	28.5	1.1	1.0	1.3	3.1	2.2	0.0	6.9	730
Primary	60.5	78.7	14.1	36.3	0.0	1.7	3.0	5.9	4.0	0.8	6.4	218
Secondary	63.9	72.6	14.2	43.8	0.3	6.9	3.3	3.1	1.4	0.2	6.0	458
Further education	65.0	79.4	13.9	40.7	0.0	2.7	1.5	5.8	0.4	0.0	4.1	137
Wealth quintile:	(0.274)	(0.353)	(0.503)	(0.059)	(0.557)	(0.132)	(0.059)	(0.054)	(0.434)	(0.140)	**(0.004)**	
Lowest	73.8	75.3	11.6	36.3	0.4	4.2	3.8	6.0	2.8	0.2	4.3	286
Second	70.2	75.2	10.8	40.6	1.3	1.8	3.7	4.7	1.0	0.0	2.8	343
Middle	65.5	74.1	10.6	29.5	0.4	1.4	0.9	1.2	2.9	0.0	8.9	372
Fourth	65.8	81.7	13.4	30.7	0.4	4.2	1.0	3.0	1.7	0.1	11.1	341
Highest	62.1	76.9	15.5	42.8	0.6	4.4	1.6	4.6	1.8	0.8	2.0	202
Caste/ethnicity:	(0.167)	**(0.026)**	**(0.007)**	(0.310)	(0.062)	(0.421)	(0.312)	(0.623)	(0.125)	(0.746)	**(0.009)**	
Brahmin/Chhetri	70.3	73.2	10.0	42.5	0.2	3.0	2.0	4.5	4.6	0.0	5.2	301
Terai/Madhesi other castes	72.3	79.0	19.8	34.5	0.9	0.9	1.6	2.4	0.3	0.2	0.2	291
Dalit	65.4	75.2	11.2	37.2	0.0	4.9	2.9	3.2	4.1	0.8	7.6	217
Newar	*33.1*	*68.0*	*14.5*	*45.2*	*0.0*	*0.0*	*11.3*	*0.0*	*0.0*	*0.0*	*16.1*	*19*
Janajati	66.1	76.0	9.5	32.3	0.4	3.8	2.3	4.9	1.3	0.0	9.7	608
Muslim	63.7	87.0	10.8	27.5	4.4	0.7	0.0	0.0	0.0	0.0	2.4	89
Others	*87.5*	*87.9*	*26.0*	*29.5*	*0.0*	*0.0*	*4.3*	*0.0*	*0.0*	*0.0*	*1.6*	*18*

Note: the figures in parentheses indicate p-value; those in bold are statistically significant
The italic figures are based on an unweighted sample size of <30

Table 7.18: RDW's feelings about process and outcome of decision making about their place of delivery

Person involved in decision-making process about place of delivery	Happy with process and outcome (%)	Happy with process (%)	Happy with outcome (%)	Happy with neither process nor outcome (%)	Total RDW (N)
All	62.2	13.7	17.3	6.9	1,543
Self	62.6	14.9	14.3	8.1	1,045
Husband	61.3	12.9	18.8	7.0	1,182
Parents	65.5	12.4	15.9	6.3	187
Parents-in-law	69.2	12.6	15.0	3.3	544
Son/daughter	*52.5*	*33.8*	*13.7*	*0.0*	*10*
Brother/sister	74.4	11.6	11.8	2.2	46
Brother-/sister-in-law	75.4	7.8	16.8	0.0	34
Other relative	81.5	9.4	5.0	4.1	57
FCHV	84.9	11.0	4.0	0.0	32
Outreach health worker	*76.5*	*0.0*	*23.5*	*0.0*	*3*
Other	40.6	9.2	41.2	9.0	97

Note:
The italic figures are based on an unweighted sample size of <30

Planned place of delivery

Equal proportions of women had planned to deliver in a facility (50%) and at home (50%) (Table 7.19). More women had planned to deliver in a government facility (39%) than a non-government facility (10%). Most of those planning to deliver in a government facility had planned for a delivery in a government hospital (24%). Women with lower levels of education were much more likely to choose a home delivery than women with higher levels of education. Women from rural areas were much more likely to have planned their delivery at home (52%) than urban women (25%).

Table 7.19: Planned place for delivery, among women who had delivered within the last year

	Government facility					Non-government facility								
	Governm-ent hosp-ital (%)	PHCC (%)	HP (%)	SHP (%)	Any gover-nment (%)	Private hospital (%)	Private clinic (%)	Medical college/ teaching hospital (%)	Mission/ NGO hospital/ communi-ty hospital (%)	Any non-governm-ent (%)	Home (%)	No planed place for delivery (%)	Total RDW (N)	*p*
All	24.1	3.5	9.3	2.5	39.4	6.9	0.6	0.8	1.9	10.2	49.6	0.6	1,543	
Age group:														
<20	20.0	2.1	13.3	3.1	38.5	6.2	0.5	0.5	2.1	9.3	52.3	0.0	195	0.231
20-34	25.9	4.2	8.8	2.4	41.3	6.9	0.6	0.9	2.0	10.4	47.9	0.6	1,220	
35-49	12.7	0.0	8.7	3.2	24.6	8.7	0.8	0.8	0.0	10.3	62.7	2.4	126	
Residence:														
Urban	56.2	0.0	0.7	0.0	56.9	14.6	2.9	0.7	0.0	18.2	24.8	0.0	137	**<0.001**
Rural	20.9	3.9	10.2	2.8	37.8	6.3	0.4	0.9	2.1	9.7	52.0	0.7	1,407	
Ecological zone:														
Mountain	20.2	8.3	11.9	3.7	44.1	0.0	0.0	0.0	3.7	3.7	52.3	0.0	109	**0.002**
Hill	26.2	2.0	14.4	4.1	46.7	4.2	0.0	0.8	2.9	7.9	44.1	1.4	660	
Terai	22.7	4.3	4.7	1.2	32.9	10.2	1.2	1.2	0.6	13.2	53.9	0.1	774	
Education:														
Never attended school	15.1	2.3	7.0	2.7	27.1	3.6	0.0	0.1	0.3	4.0	68.0	0.8	729	**<0.001**
Primary	24.7	5.9	13.7	3.7	48.0	2.7	0.0	0.5	1.8	5.0	47.0	0.0	219	
Secondary	31.5	3.9	11.8	2.4	49.6	11.4	1.5	1.3	3.9	18.1	31.3	0.9	457	
Further education	46.4	5.1	6.5	0.7	58.7	17.4	1.4	2.9	3.6	25.3	15.9	0.0	138	
Wealth quintile:														
Lowest	18.2	4.5	11.5	1.4	35.6	5.6	0.3	1.0	2.4	9.3	53.8	1.0	286	**<0.001**
Second	25.4	3.5	9.6	3.5	42.0	3.8	0.0	0.3	2.3	6.4	51.5	0.0	342	
Middle	18.5	4.3	11.6	4.3	38.7	5.6	0.3	0.3	1.1	7.3	53.0	1.1	372	
Fourth	22.9	2.1	6.2	1.8	33.0	5.6	0.9	0.6	2.1	9.2	57.1	0.9	340	

	Government facility					Non-government facility					Home (%)	No planed place for delivery (%)	Total RDW (N)	*p*
	Governm-ent hosp-ital (%)	PHCC (%)	HP (%)	SHP (%)	Any gover-nment (%)	Private hospital (%)	Private clinic (%)	Medical college/ teaching hospital (%)	Mission/ NGO hospital/ communi-ty hospital (%)	Any non-governm-ent (%)				
Highest	42.1	4.0	6.4	1.0	53.5	19.3	1.5	2.5	1.5	24.8	21.8	0.0	202	
Caste/ethnicity:														
Brahmin/Chhetri	32.2	5.0	14.6	1.7	53.5	11.3	1.0	1.7	2.3	16.3	30.2	0.0	301	**<0.001**
Terai/Madhesi other castes	22.3	0.7	1.7	0.3	25.0	8.2	1.4	0.7	0.3	10.6	64.4	0.0	292	
Dalit	25.7	4.1	9.6	3.7	43.1	3.7	0.0	0.0	2.3	6.0	50.9	0.0	218	
Newar	*29.4*	*5.9*	*5.9*	*0.0*	*41.2*	*17.6*	*0.0*	*5.9*	*5.9*	*29.4*	*29.4*	*0.0*	*17*	
Janajati	21.7	4.4	11.8	4.1	42.0	4.8	0.5	0.7	2.0	8.0	48.5	1.5	608	
Muslim	13.5	0.0	1.1	0.0	14.6	3.4	0.0	0.0	0.0	3.4	80.9	1.1	89	
Others	*23.5*	*0.0*	*0.0*	*0.0*	*23.5*	*35.3*	*0.0*	*5.9*	*17.6*	*58.8*	*17.6*	*0.0*	*17*	

Note:
The italic figures are based on an unweighted sample size of <30
The figures in bold are statistically significant

Preferred place of delivery

Table 7.20 compares the planned place of delivery with a woman's preferred place of delivery. In most cases, the planned place was the same as the preferred place (94%, N=1,444, data not shown); this was true for both the planned home deliveries and government facility deliveries. The table shows that for 94% of women who had had planned a government hospital delivery, a government hospital was their preferred place of delivery.

Table 7.20: Preferred place for delivery in comparison to planned place of delivery among women RDW

	Preferred place of delivery											Total RDW (N)
	Government facility					Non-government facility					At home (%)	
	Govern-ment hospital (%)	PHCC (%)	HP (%)	SHP (%)	Any govern-ment (%)	Private hospital (%)	Private clinic (%)	Medical college/ teaching hospital (%)	Mission/NGO hospital/ community hospital (%)	Any non-govern-ment (%)		
All	24.1	3.5	10.0	2.6	40.2	7.1	0.6	0.8	2.0	3.4	49.3	1,543
Government hospital	93.8	0.8	1.3	0.3	96.2	0.5	0.3	0.0	0.5	0.8	2.4	373
PHCC	1.8	82.1	5.4	0.0	89.3	3.6	0.0	0.0	0.0	0.0	7.1	56
HP	0.7	0.0	94.4	0.0	95.1	0.7	0.0	0.0	0.0	0.0	4.2	144
SHP	2.5	0.0	0.0	97.5	100.0	0.0	0.0	0.0	0.0	0.0	0.0	40
Private hospital	8.3	0.9	0.9	0.0	10.1	88.0	0.0	0.0	0.0	0.0	1.9	108
Private clinic	*0.0*	*0.0*	*0.0*	*0.0*	*0.0*	*0.0*	*88.9*	*0.0*	*0.0*	*88.9*	*11.1*	*9*
Medical college/teaching hospital	*0.0*	*0.0*	*0.0*	*0.0*	*0.0*	*7.7*	*0.0*	*84.6*	*0.0*	*84.6*	*7.7*	*13*
Mission/NGO hospital/community hospital	3.4	0.0	0.0	0.0	3.4	3.4	0.0	0.0	93.1	93.1	0.0	29
At home	1.3	0.5	0.8	0.0	2.6	0.9	0.1	0.1	0.3	0.5	95.9	763
Not planned	*0.0*	*0.0*	*30.0*	*0.0*	*30.0*	*10.0*	*0.0*	*0.0*	*0.0*	*0.0*	*60.0*	*10*

Note:
The italic figures are based on an unweighted sample size of <30

Place of delivery

More than six out of ten (61%) RDW had delivered in their home; women from rural areas (64%) were much more likely to have had a home delivery than their urban counterparts (35%) (Table 7.21). The likelihood of having a home delivery decreased with increasing education, and was least common in the highest wealth quintile. Just over one-quarter of women had delivered in a government facility (26%), the most commonly used of which was a government hospital (16%); the patterns for government facility deliveries showed the reverse of the trends observed for the home deliveries.

Table 7.21: Actual place of delivery for RDW

	Place of delivery													Total RDW (N)	*p*
	Government facility					Non-government facility					At home (%)	On the way (%)	Others (%)		
	Govern-ment hospital (%)	PHCC (%)	HP (%)	SHP (%)	Any govern-ment (%)	Private hosp-ital (%)	Private clinic (%)	Medical college/ teaching hospital (%)	Mission/NGO hospital/ community hospital (%)	Any non-gover-nment (%)					
All	15.7	2.5	6.5	1.2	25.9	5.6	1.2	1.8	2.0	10.6	61.2	1.6	0.8	1,543	
Age group:															
<20	14.4	2.6	7.7	1.0	25.7	7.2	1.0	1.5	3.6	13.3	59.0	1.5	0.5	195	0.865
20-34	16.6	2.5	6.2	1.1	26.4	5.4	1.2	1.8	1.8	10.2	60.8	1.6	0.9	1,219	
35-49	10.2	0.8	7.9	0.8	19.7	3.9	0.8	2.4	1.6	8.7	69.3	2.4	0.0	127	
Residence:															
Urban	41.6	0.0	0.0	0.0	41.6	17.5	1.5	2.2	0.7	21.9	35.0	0.7	0.7	137	**<0.001**
Rural	13.3	2.6	7.2	1.3	24.4	4.3	1.1	1.8	2.1	9.3	63.8	1.7	0.8	1,406	
Ecological zone:															
Mountain	15.6	4.6	6.4	0.0	26.6	0.9	0.0	0.0	2.8	3.7	66.1	1.8	1.8	109	0.106
Hill	16.8	0.8	10.0	1.1	28.7	4.5	1.5	0.3	2.4	8.7	59.9	2.0	0.8	661	
Terai	14.9	3.6	3.6	1.4	23.5	7.0	1.2	3.4	1.5	13.1	61.5	1.3	0.6	776	
Education:															
Never attended school	6.5	1.6	5.5	1.2	14.8	2.1	1.1	1.0	0.7	4.9	77.9	1.9	0.5	728	**<0.001**
Primary	14.6	3.7	6.4	1.4	26.1	4.1	0.0	1.8	1.4	7.3	66.2	0.5	0.0	219	
Secondary	25.7	2.6	8.7	1.3	38.3	9.2	1.5	2.6	3.9	17.2	42.0	1.3	1.1	459	
Further education	34.3	3.6	4.4	0.7	43.0	13.9	2.9	3.6	2.9	23.3	29.2	2.2	2.2	137	
Wealth quintile:															
Lowest	11.2	4.6	6.7	1.4	23.9	6.3	1.4	0.7	2.5	10.9	63.2	1.8	0.4	285	**<0.001**
Second	9.9	1.2	6.1	0.9	18.1	3.5	0.6	1.5	2.0	7.6	71.6	2.0	0.6	342	
Middle	12.6	1.9	7.8	1.9	24.2	2.4	1.1	0.3	0.3	4.1	69.1	1.6	1.1	372	
Fourth	17.4	2.6	7.6	1.2	28.8	3.2	1.5	2.4	2.4	9.5	59.4	1.2	1.2	340	
Highest	35.0	2.5	2.5	0.5	40.5	17.2	1.5	5.9	3.9	28.5	29.6	1.0	0.5	203	
Caste/ethnicity:															

	Place of delivery														
	Government facility					Non-government facility									
	Govern-ment hospital (%)	PHCC (%)	HP (%)	SHP (%)	Any govern-ment (%)	Private hosp-ital (%)	Private clinic (%)	Medical college/ teaching hospital (%)	Mission/NGO hospital/ community hospital (%)	Any non-gover-nment (%)	At home (%)	On the way (%)	Others (%)	Total RDW (N)	*p*
Brahmin/Chhetri	21.6	1.7	12.3	1.0	36.6	8.6	1.3	3.0	3.3	16.2	44.2	2.0	1.0	301	**<0.001**
Terai/Madhesi other castes	14.1	0.7	0.0	0.3	15.1	5.2	0.7	2.4	0.3	8.6	73.9	1.4	1.0	291	
Dalit	9.2	3.7	8.3	0.5	21.7	5.5	0.9	0.5	0.9	7.8	67.3	2.3	0.9	217	
Newar	*10.0*	*0.0*	*15.0*	*0.0*	*25.0*	*30.0*	*0.0*	*5.0*	*5.0*	*40.0*	*35.0*	*0.0*	*0.0*	*20*	
Janajati	17.6	3.4	6.6	2.1	29.7	3.9	1.6	1.6	2.3	9.4	59.1	1.1	0.5	609	
Muslim	7.9	0.0	0.0	0.0	7.9	3.4	0.0	0.0	0.0	3.4	84.3	3.4	1.1	89	
Others	*5.6*	*11.1*	*16.7*	*0.0*	*33.4*	*0.0*	*0.0*	*0.0*	*16.7*	*16.7*	*50.0*	*0.0*	*0.0*	*18*	

Note:
The italic figures are based on an unweighted sample size of <30
The figures in bold are statistically significant

Table 7.22 compares the planned place of delivery to the actual place of delivery. Just over half (53%) of women who had planned to deliver in a government facility had actually delivered in that place; the remainder had delivered in a range of different places, the most common of which was at home (39% of planned government hospital deliveries). Deliveries that had been planned to take place in the home were the most likely to have conformed to the plan and have taken place there (87% of planned home deliveries).

Overall, nearly two-thirds of women had had their delivery in the place where they had originally planned to have it (66%, N=1,026, data not shown). However, the picture is slightly different when looking only at those women who had planned a facility birth, 65% of whom had given birth in their planned place of delivery. For all women who had not given birth in their planned place (35%), the most common place to have given birth was at home (49% of all unplanned deliveries (N=254, data not shown)).

Table 7.22: Actual delivery place in comparison to planned place of delivery among RDW

Planned place for delivery	Actual place of delivery													Total RDW (N)
	Government facility					Non-government facility					At home (%)	On the way (%)	Others (%)	
	Govern-ment hospital (%)	PHCC (%)	HP (%)	SHP (%)	Any govern-ment (%)	Private hospital (%)	Private clinic (%)	Medical college/ teaching hospital (%)	Mission/ NGO hospital/ comm-unity hospital (%)	Any non-govern-ment (%)				
All	15.8	2.3	6.5	1.2	25.8	5.6	1.2	1.8	1.9	10.5	61.3	1.6	0.8	1,543
Government hospital	49.2	0.8	3.5	0.3	53.8	5.4	0.5	1.4	1.1	8.4	35.4	1.4	1.1	370
PHCC	5.5	45.5	5.5	1.8	58.3	3.6	0.0	0.0	0.0	3.6	36.4	1.8	0.0	55
HP	4.9	0.0	47.6	0.7	53.2	3.5	1.4	0.0	0.0	4.9	42.0	0.0	0.0	143
SHP	2.6	0.0	0.0	30.8	33.4	2.6	0.0	0.0	0.0	2.6	56.4	7.7	0.0	39
Any government	31.7	4.8	13.8	2.5	52.8	4.4	0.5	1.0	0.7	6.7	38.5	1.7	0.7	608
Private hospital	14.7	2.8	1.8	0.0	19.3	38.5	0.9	5.5	0.9	45.8	28.4	0.9	5.5	109
Private clinic	*0.0*	*0.0*	*0.0*	*0.0*	*0.0*	*12.5*	*62.5*	*0.0*	*0.0*	*75.0*	*12.5*	*0.0*	*12.5*	*8*
Medical college/ teaching hospital	*7.7*	*0.0*	*7.7*	*0.0*	*15.4*	*0.0*	*0.0*	*76.9*	*0.0*	*76.9*	*7.7*	*0.0*	*0.0*	*13*
Mission/NGO hospital/ community hospital	*10.3*	*0.0*	*0.0*	*0.0*	*10.3*	*0.0*	*0.0*	*0.0*	*62.1*	*62.1*	*27.6*	*0.0*	*0.0*	*29*
Any non- government	12.0	1.9	1.9	0.0	15.7	27.2	3.8	9.5	12.0	52.8	25.9	0.6	5.1	158
At home	4.1	0.7	1.3	0.4	6.5	2.0	1.2	0.8	0.9	4.9	86.8	2.0	0.0	765
Not planned	*0.0*	*0.0*	*30.0*	*0.0*	*30.0*	*0.0*	*0.0*	*0.0*	*0.0*	*0.0*	*60.0*	*0.0*	*10.0*	*10*

Note:
The italic figures are based on an unweighted sample size of <30

Time taken to reach facility

Women who had given birth in a government facility within the last year, including the additional sample of women who had given birth in a government facility (N=751), were asked how long it had taken to reach the facility (Table 7.23). Just over one-third of the women had taken less than one hour (36%), while over one in ten had had to travel for over two hours (12%). Women residing in urban areas were much more likely to have had travel times of less than one hour (59%), whereas women from rural areas were more likely to have had a longer travel time, with 14% travelling for over two hours.

Table 7.23: Time taken to reach the facility during last delivery for women who had delivered at a government facility within the last year†

	Time taken to reach facility			Total women who had delivered in the last year in a government facility (N)	*p*
	<1 hour (%)	1-2 hours (%)	>2 hours (%)		
All	36.1	51.9	12.0	751	
Residence:					
Urban	59.4	40.6	0.0	101	**0.019**
Rural	32.5	53.6	13.9	649	
Ecological zone:					
Mountain	47.1	41.4	11.4	70	0.850
Hill	31.2	47.3	21.5	330	
Terai	38.9	58.0	3.1	350	
Place of delivery:					
Government hospital	33.0	53.5	13.5	458	0.292
PHCC	31.6	56.8	11.6	95	
HP	48.8	41.4	9.9	162	
SHP	30.6	66.7	2.8	36	

Notes: †*Sample includes additional non-representative sample of women that had delivered in government facility (unweighted N=406)*

Mode of transport

Over one-quarter of women had travelled to the facility in which they had delivered by ambulance (26%), and an equal proportion walked (26%); these modes of transport were the most common means, with public transport (20%) the next most common (Table 7.24). Women in mountain (67%) and hill districts (39%) were much more likely to have walked compared to those in Terai districts (5%). Those in the Terai districts (22%) were most likely to have used a bull cart, while those in hill (20%) and mountain districts (14%) were more likely to have been carried by stretcher. Older women (35-49) were more likely to have used public transport (40%) or been carried in a doko (14%) than younger women. Urban residents were more likely to have used a private vehicle (17% compared to 10%) or an ambulance rickshaw (11% compared to 2%) than rural residents. Those in the lowest wealth quintile and those who had never been to school were most likely to have used a bull cart, while those in the highest wealth quintile were most likely to have used an ambulance rickshaw, and those with the highest level of education were most likely to have used an ambulance.

Table 7.24: Mode of transport to the facility for women who had delivered at a government facility within the last year †

	Ambul-ance (%)	Public trans-port (%)	Private vehicle (%)	Walking (%)	Carried on stret-cher (%)	Carried in doko (%)	Ambul-ance rickshaw (%)	Bull cart (%)	Other (%)	Total women who had delivered in the last year in a govern-ment facility (N)
All	26.4	20.1	10.7	25.6	10.4	2.1	3.2	10.3	7.1	750
Age group:	(0.562)	**(0.038)**	(0.147)	(0.882)	(0.597)	**(0.035)**	(0.335)	(0.102)	(0.314)	
<20	21.2	19.8	16.0	24.5	12.0	0.0	1.6	14.4	5.5	85
20-34	26.6	18.7	10.6	26.1	10.6	1.6	3.7	10.2	7.8	619
35-49	32.4	40.1	3.1	20.4	5.0	14.3	0.6	4.2	1.5	46
Residence:	(0.608)	(0.571)	**(0.018)**	(0.216)	(0.105)	(0.484)	**(<0.001)**	(0.126)	(0.280)	
Urban	24.1	31.4	17.2	11.4	0.2	0.0	11.0	4.7	11.3	101
Rural	26.7	18.4	9.7	27.8	12.1	2.5	2.0	11.2	6.5	649
Ecological zone:	(0.108)	(0.776)	**(0.002)**	**(<0.001)**	**(<0.001)**	(0.069)	(0.388)	**(<0.001)**	(0.208)	
Mountain	12.5	23.8	11.2	66.5	13.9	0.0	0.0	0.0	0.0	69
Hill	22.6	16.7	5.0	39.1	20.4	4.9	3.4	0.0	10.4	331
Terai	32.6	22.7	16.0	4.6	0.3	0.0	3.7	22.1	5.4	350
Wealth quintile:	(0.907)	(0.144)	(0.283)	(0.505)	(0.124)	**(0.037)**	**(0.001)**	**(<0.001)**	(0.887)	
Lowest	22.4	12.7	10.3	28.9	6.2	0.0	1.9	24.5	8.2	146
Second	24.1	23.3	5.9	28.6	17.1	8.4	0.5	8.9	9.0	153
Middle	29.0	12.1	11.4	32.7	16.5	2.3	0.9	6.7	5.9	157
Fourth	29.8	22.8	11.1	21.6	9.4	0.0	4.6	7.5	7.7	165
Highest	25.8	31.0	15.5	14.7	1.4	0.0	9.1	4.1	4.4	130
Education:	**(0.001)**	(0.860)	(0.271)	(0.487)	**(<0.001)**	(0.089)	(0.767)	**(0.031)**	(0.338)	
Never attended school	17.0	20.3	11.1	34	5.9	6.2	3.1	15.8	9.6	207
Primary	20.1	19.8	5.2	21.9	24.7	1.7	1.2	9.5	4.6	118
Secondary	28.9	19.5	11.2	24.4	11.1	0.5	3.9	8.7	8.5	318
Further education	43.8	22.1	14.6	16.8	1.7	0.0	3.8	5.7	1.3	108
Caste/ethnicity:	(0.113)	(0.355)	**(0.005)**	**(<0.001)**	**(0.004)**	(0.966)	(0.874)	**(0.050)**	(0.466)	
Brahmin/Chhetri	25.0	22.6	9.0	39.2	5.9	2.5	2.6	4.8	4.3	248
Terai/Madhesi other castes	26.4	28.3	25.5	1.3	0.0	0.0	4.4	14.5	9.4	94
Dalit	17.9	17.5	8.1	44.3	14.8	1.9	2.7	3.6	2.1	83
Newar	*2.3*	*0.0*	*42.1*	*4.9*	*50.7*	*0.0*	*0.0*	*0.0*	*0.0*	*10*
Janajati	31.6	15.6	7.9	18.6	13.5	2.9	3.6	15.9	10.3	294
Muslim	*10.3*	*49.7*	*0.0*	*5.0*	*7.2*	*0.0*	*7.2*	*20.6*	*7.2*	*12*
Others	*18.7*	*22.7*	*4.1*	*9.4*	*54.5*	*0.0*	*0.0*	*0.0*	*9.3*	*11*

Note:

†Sample includes additional non-representative sample of women that had delivered in government facility

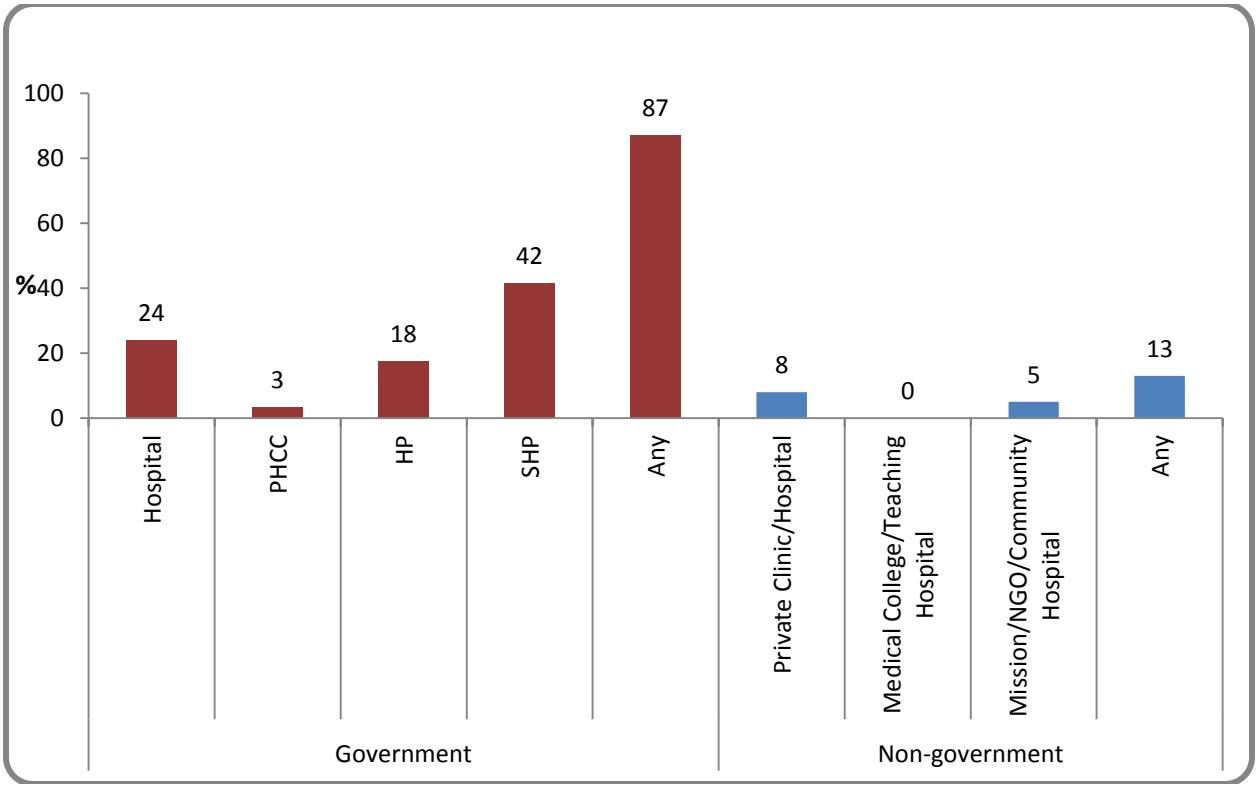
The figures in parentheses indicate p-value; those in bold are statistically significant

The italic figures are based on an unweighted sample size of <30

Referral

A total of 78 women who delivered in a government facility in the last year were referred there; Figure 7.4 shows the place from which these women were referred. Most were referred from government facilities (87%), commonly from SHPs (42%), government hospitals (24%), or HPs (18%).

Figure 7.4: Place referred from, for women who were referred to a facility for delivery within the last year† (N=78)



Note:
†Sample includes respondents from the additional non-representative sample of women that had delivered in a government facility and experienced complications (N=78)

Delivery Attendant

All women who had delivered within the last year were asked about the main person who had assisted them during their delivery. In Nepal, only doctors and nurses/midwives are allowed to conduct deliveries in facilities, and only these would be classified as SBAs. Over one-third of women who had delivered in the last year reported that they were attended to by a doctor or nurse/midwife (39%). Over half of women had had assistance provided by an informal heath provider (52%), such as a relative or friend (35%), or a TBA (10%); 2% did not receive any assistance.

Educational level was significant in determining the type of person assisting during delivery, with less educated women more likely to use informal sources, and those with a higher level of education more likely to use a nurse/midwife or doctor (Table 7.25). Those in the highest quintile were also most likely to have been attended to by a doctor or nurse/midwife.

Table 7.25: Person who assisted during delivery, among women who had delivered within the last year

	Formal health provider							Informal health provider					No one (%)	Total RDW (N)	*p*
	Doctor (%)	Nurse/ midwife (%)	Health Assistant/ SAHW/AHW (%)	MCHW (%)	VHW (%)	Any formal (%)	FCHV (%)	Relative/ friend (%)	TBA (%)	Quack (%)	Others (%)	Any informal (%)			
All	11.3	27.8	6.0	0.5	0.1	45.7	3.4	35.0	9.8	1.3	2.4	51.9	2.4	1,543	
Residence:															
Urban	21.3	44.9	0.7	0.7	0.0	67.6	0.7	22.1	6.6	0.7	2.2	32.3	0.0	136	0.114
Rural	10.5	26.0	6.4	0.4	0.1	43.4	3.6	36.2	10.2	1.4	2.4	53.8	2.6	1,406	
Ecological zone:															
Mountain	5.5	26.6	2.8	0.0	0.0	34.9	9.2	42.2	1.8	0.0	1.8	55.0	10.1	109	**<0.001**
Hill	8.8	30.1	5.2	0.8	0.0	44.9	3.2	41.3	2.0	0.5	4.9	51.9	3.2	658	
Terai	14.5	25.8	7.0	0.3	0.1	47.7	2.7	28.6	17.6	2.3	0.4	51.6	0.6	774	
Education:															
Never attended school	7.0	15.6	6.3	0.7	0.0	29.6	3.0	44.2	14.8	2.2	2.5	66.7	3.6	730	**<0.001**
Primary	7.3	26.1	6.4	0.9	0.0	40.7	6.9	36.7	8.3	1.4	3.7	57.0	2.3	218	
Secondary	16.6	42.5	4.6	0.0	0.2	63.9	2.6	24.8	4.8	0.7	1.7	34.6	1.3	459	
Further	24.8	45.3	6.6	0.0	0.0	76.7	2.2	16.8	2.2	0.0	2.2	23.4	0.0	137	
Wealth quintile:															
Lowest	9.4	27.3	5.6	1.0	0.0	43.3	3.5	34.3	12.6	5.6	0.3	56.3	0.3	286	**<0.001**
Second	6.7	20.8	7.9	0.3	0.0	35.7	3.5	41.8	11.7	0.9	1.8	59.7	4.4	342	
Middle	6.2	23.7	4.9	0.3	0.0	35.1	4.3	46.1	6.7	0.3	5.1	62.5	2.4	371	
Fourth	16.7	27.6	4.1	0.6	0.0	49.0	2.3	31.1	12.0	0.3	1.8	47.5	3.2	341	
Highest	22.4	48.3	8.0	0.0	0.5	79.2	3.0	10.4	5.0	0.0	2.0	20.4	0.5	201	
Caste/ethnicity:															
Brahmin/Chhetri	13.5	42.6	6.3	0.0	0.3	62.7	5.0	24.4	3.0	0.3	2.6	35.3	1.7	303	**0.042**
Terai/Madhesi other castes	13.4	15.1	9.6	0.0	0.0	38.1	2.4	32.3	22.0	4.1	0.3	61.1	0.7	291	
Dalit	7.8	26.3	5.1	0.5	0.0	39.7	3.2	37.8	13.8	2.3	0.9	58.0	1.8	217	
Newar	*36.8*	*26.3*	*5.3*	*0.0*	*0.0*	*68.4*	*15.8*	*5.3*	*10.5*	*0.0*	*0.0*	*31.6*	*0.0*	*19*	
Janajati	11.0	28.3	4.8	1.0	0.0	45.1	3.1	37.3	6.1	0.2	4.1	50.8	4.1	608	
Muslim	4.5	11.2	4.5	0.0	0.0	20.2	0.0	65.2	11.2	1.1	1.1	78.6	1.1	89	
Others	*0.0*	*66.7*	*0.0*	*0.0*	*0.0*	*66.7*	*5.6*	*27.8*	*0.0*	*0.0*	*0.0*	*33.4*	*0.0*	*18*	

Time taken before being seen

Women who had delivered at a government facility were asked how long it took for health workers to attend to them after their arrival (Table 7.26). Over two-thirds of women (69%) were attended to immediately, although 9% of women had to wait over one hour before being seen by a provider.

Women residing in mountain districts (40%) were far less likely to be seen immediately than those residing in hill (80%) or Terai districts (65%), and more likely to have to wait over an hour.

Table 7.26: Time that health workers took to attend to woman after her arrival at the facility, among women who had delivered at a government facility within the last year†

	Immediately (%)	<30 minutes (%)	30-60 minutes (%)	>60 minutes (%)	Total women who had delivered at a government facility (N)	*p*
All	69.4	14.9	7.1	8.7	750	
Age group:						
<20	65.9	20.0	7.1	7.1	85	0.788
20-34	69.8	14.7	6.8	8.7	619	
35-49	70.2	8.5	10.6	10.6	47	
Residence:						
Urban	67.6	15.7	3.9	12.7	102	0.342
Rural	69.6	14.8	7.6	8.0	648	
Ecological zone:						
Mountain	40.0	34.3	8.6	17.1	70	**<0.001**
Hill	80.4	7.9	2.4	9.4	330	
Terai	65.0	17.7	11.1	6.3	350	
Education:						
Never attended school	69.1	13.5	9.2	8.2	207	0.103
Primary	66.9	6.8	9.3	16.9	118	
Secondary	71.4	15.4	6.0	7.2	318	
Further education	67.3	25.2	3.7	3.7	107	
Wealth quintile:						
Lowest	66.9	15.2	9.7	8.3	145	**0.032**
Second	77.8	9.8	7.8	4.6	153	
Middle	73.9	19.7	3.8	2.5	157	
Fourth	65.5	13.9	3.6	17.0	165	
Highest	62.3	15.4	11.5	10.8	130	
Caste/ethnicity:						
Brahmin/Chhetri	64.9	14.1	6.5	14.5	248	**<0.001**
Terai/Madhesi other castes	57.0	21.5	12.9	8.6	93	
Dalit	65.1	20.5	7.2	7.2	83	
Newar	*55.6*	*44.4*	*0.0*	*0.0*	*9*	
Janajati	79.6	11.6	4.1	4.8	294	
Muslim	*36.4*	*0.0*	*63.6*	*0.0*	*11*	
Others	*90.9*	*9.1*	*0.0*	*0.0*	*11*	
Place of delivery:						
Government hospital	65.1	15.3	8.3	11.4	457	0.168
PHCC	76.8	16.8	3.2	3.2	95	
HP	76.1	13.5	6.7	3.7	163	
SHP	74.3	11.4	2.9	11.4	35	

Note:

† Sample includes additional non-representative sample of women that had delivered in government facility

The italic figures are based on an unweighted sample size of <30; the figures in bold are statistically significant

Reason for not delivering in an institution

Women who had delivered at home (N=945, 61% of all women, Table 7.21) gave their reasons for not delivering in a healthcare facility. Most women who had delivered at home had done so because they preferred to (47%), or they did not see a need to deliver in a health facility (39%) (Table 7.27). The actual barriers most frequently mentioned as reasons for not delivering in a health facility related to distance and access; that the facility was too far away (17%), that the woman did not have enough time to get there (8%), and that there was no transport (8%).

Table 7.27: Reason for not delivering in a health facility, for women who had home delivery in last year

	Preferred to deliver at home (%)	Did not see a need (%)	Not given permission by house-hold members (%)	Facility too far away (%)	No transp-ort (%)	Travel costs too expens-ive (%)	Did not have enough time to get there (%)	Too difficult to travel in labour (%)	Treat-ment costs too expens-ive (%)	Thought there may not be a health provider present (%)	Service provid-ers are male (%)	Lang-uage problem (%)	Night time (%)	No reason given (%)	Total women who had home delivery in last year (N)
All	47.0	38.5	5.9	17.2	8.4	1.7	8.0	6.7	2.3	1.6	3.1	0.1	7.6	2.1	945
Age group:	(0.796)	(0.983)	(0.634)	(0.545)	(0.948)	(0.133)	(0.211)	(0.569)	(0.137)	(0.585)	(0.437)	(0.832)	(0.878)		
<20	44.5	46.2	6.3	13.1	6.0	0.6	8.4	7.7	1.1	0.0	2.9	0.0	8.8	2.4	115
20-34	47.9	37.2	5.9	18.1	8.7	1.9	8.5	6.7	2.5	1.9	3.1	0.2	7.4	2.2	741
35-49	42.6	39.8	6.1	15.8	7.6	1.6	4.2	4.7	2.3	1.2	3.0	0.0	7.8	1.5	88
Residence:	(0.948)	(0.439)	(0.336)	(0.756)	(0.813)	(0.293)	(0.354)	(0.174)	(0.618)	**(<0.001)**	(0.354)	**(<0.001)**	(0.551)		
Urban	45.6	31.2	13.5	12.6	12.1	1.4	6.1	5.3	0.0	2.7	9.5	2.6	4.1	1.4	48
Rural	47.1	38.9	5.5	17.5	8.1	1.7	8.2	6.7	2.4	1.5	2.7	0.0	7.8	2.2	897
Ecological zone:	(0.948)	(0.439)	(0.336)	(0.756)	(0.813)	(0.293)	(0.354)	(0.174)	(0.618)	**(<0.001)**	(0.354)	**(<0.001)**	(0.551)		
Mountain	44.3	40.7	12.5	25.9	14.6	1.9	12.8	12.3	1.0	2.4	1.0	0.0	13.9	0.0	72
Hill	39.8	34.7	3.3	26.9	11.0	1.6	12.1	8.6	0.4	0.7	0.9	0.0	11.1	2.6	396
Terai	53.3	41.3	7.2	8.0	5.1	1.7	4.0	4.2	4.1	2.2	5.2	0.3	3.8	2.1	477
Education:	(0.151)	(0.501)	(0.092)	(0.591)	(0.146)	(0.911)	(0.084)	(0.907)	(0.090)	(0.625)	(0.837)	(0.855)	(0.067)		
Never attended school	51.0	37.9	6.4	15.5	6.6	1.8	6.5	4.7	3.0	1.4	3.2	0.2	5.9	1.7	567
Primary	44.0	44.9	4.9	22.2	10.4	1.5	9.3	7.6	0.6	2.2	1.9	0.0	10.0	0.9	145
Secondary	38.8	36.1	4.3	17.4	10.7	1.8	11.4	11.5	0.7	1.4	2.7	0.0	8.4	4.7	193
Further education	40.9	35.9	11.0	24.3	13.7	0.0	10.0	7.6	6.6	3.3	6.6	0.0	18.9	0.0	40
Wealth quintile:	(0.478)	(0.740)	(0.676)	(0.413)	(0.737)	(0.583)	(0.106)	**(0.017)**	(0.247)	(0.580)	(0.453)	(0.792)	(0.325)		
Lowest	60.6	35.3	6.3	16.3	9.7	1.9	5.3	10.5	3.3	2.6	4.5	0.0	4.3	1.5	180
Second	43.5	39.8	8.1	18.9	7.0	1.7	11.1	3.5	0.8	1.1	1.6	0.2	9.2	2.7	245
Middle	43.6	38.1	5.4	17.5	9.9	1.8	6.0	7.3	2.1	1.2	2.1	0.0	9.6	2.5	257
Fourth	46.9	39.7	5.5	19.3	7.4	1.9	7.7	6.3	2.4	1.5	4.5	0.3	6.4	1.8	202
Highest	35.2	40.9	0.0	5.7	6.2	0.0	13.6	6.6	6.3	2.2	3.5	0.0	6.8	1.1	60

	Preferred to deliver at home (%)	Did not see a need (%)	Not given permission by house-hold members (%)	Facility too far away (%)	No transp-ort (%)	Travel costs too expens-ive (%)	Did not have enough time to get there (%)	Too difficult to travel in labour (%)	Treat-ment costs too expens-ive (%)	Thought there may not be a health provider present (%)	Service provid-ers are male (%)	Lang-uage problem (%)	Night time (%)	No reason given (%)	Total women who had home delivery in last year (N)
Caste/ethnicity:	(0.060)	(0.440)	(0.674)	(0.074)	(0.343)	(0.961)	(0.078)	(0.549)	(0.480)	(0.741)	(0.205)	(0.846)	(0.142)		
Brahmin/ Chhetri	41.6	34.8	5.9	22.2	6.6	1.6	12.9	4.9	1.0	3.8	3.5	0.0	13.6	1.0	133
Terai/Madhesi other castes	62.9	42.3	6.4	8.5	5.4	1.7	3.1	1.8	3.1	1.8	5.5	0.6	3.1	2.4	215
Dalit	43.1	36.3	7.9	17.0	7.4	1.0	12.5	5.9	2.6	1.9	3.6	0.0	7.0	2.7	146
Newar	*10.1*	*43.7*	*0.0*	*48.2*	*0.0*	*0.0*	*41.7*	*0.0*	*0.0*	*0.0*	*0.0*	*0.0*	*0.0*	*0.0*	*7*
Janajati	43.7	36.0	4.7	23.1	12.7	2.1	7.6	10.8	2.1	0.3	1.0	0.0	9.2	2.6	360
Muslim	40.0	51.3	8.0	4.5	2.0	1.7	5.1	2.6	3.5	2.7	3.5	0.0	4.8	0.0	75
Others	*23.6*	*34.0*	*0.0*	*8.3*	*0.0*	*0.0*	*0.0*	*34.0*	*0.0*	*0.0*	*8.3*	*0.0*	*0.0*	*0.0*	*9*

Note: the figures in parentheses indicate p-value; those in bold are statistically significant
The italic figures are based on an unweighted sample size of <30

Type of delivery

Most women who had delivered in the last year had had a normal delivery (95%); 4% had had a CS and more than 1% had had an assisted delivery (forceps or vacuum) (Table 7.28). Women were much more likely to have had a CS if they had given birth in a private hospital (19%) than if they had delivered in a government hospital (7%). Women with higher levels of education or those in the highest wealth quintile were much more likely to have had a CS than less educated women or those from lower wealth quintiles.

Table 7.28: Type of delivery for RDW

	Normal delivery (%)	Forceps (%)	Vacuum (%)	CS (%)	Total RDW (N)	*p*
All	94.5	0.9	0.7	3.9	1,543	
Residence:						
Urban	83.1	0.7	2.9	13.2	136	0.015
Rural	95.7	0.9	0.5	2.8	1,406	
Ecological zone:						
Mountain	95.4	3.7	0.9	0.0	109	0.387
Hill	95.2	1.2	1.1	2.6	660	
Terai	93.9	0.3	0.4	5.4	775	
Education:						
Never attended school	98.1	0.4	0.4	1.1	730	**0.006**
Primary	94.5	0.9	0.0	4.6	218	
Secondary	92.1	1.3	1.1	5.5	457	
Further education	84.8	1.4	2.2	11.6	138	
Wealth quintile:						
Lowest	96.5	0.7	0.3	2.4	287	**<0.001**
Second	98.0	0.3	0.0	1.8	342	
Middle	97.0	1.1	0.8	1.1	372	
Fourth	92.1	1.8	0.6	5.6	341	
Highest	85.1	0.5	3.0	11.4	202	
Caste/ethnicity:						
Brahmin/Chhetri	91.0	1.0	0.3	7.6	301	**0.001**
Terai/Madhesi other castes	95.9	0.0	0.3	3.8	292	
Dalit	97.2	0.5	0.5	1.8	217	
Newar	*70.0*	*10.0*	*5.0*	*15.0*	*20*	
Janajati	94.7	1.3	1.2	2.8	608	
Muslim	97.8	0.0	0.0	2.2	89	
Others	*100.0*	*0.0*	*0.0*	*0.0*	*18*	
Place of delivery:						
Any government	88.3	3.3	1.8	6.8	400	**<0.001**
Any private	77.3	1.2	2.5	19.0	163	
Home	100.0	0.0	0.0	0.0	945	
On the way	*100.0*	*0.0*	*0.0*	*0.0*	*25*	
Others	*100.0*	*0.0*	*0.0*	*0.0*	*12*	

Note: the figures in parentheses indicate p-value; those in bold are statistically significant; the italic figures are based on an unweighted sample size of <30

Complications

Table 7.29 shows that 49% of women who had delivered in a government facility within the last year had experienced a complication during labour or delivery. It should be noted that those experiencing a complication are more likely to seek care at a facility and hence reporting of complications for facility clients is likely to be higher than the figure for the population as a whole. The most common complications were vaginal bleeding or haemorrhage (20%), fits, convulsions, or seizures (18%), prolonged/obstructed labour (17%), and feeling weak, fainting, or anaemia (16%).

Table 7.29: Complications experienced during labour and delivery among women who had delivered at a government facility within the last year†

	Vaginal bleeding/ haemorrhage (%)	Fits/convulsions/ seizures (%)	Pre-eclampsia (%)	Prolonged/ obstructed labour (%)	Retained placenta (%)	Feeling weak/ fainting/anaemia (%)	Women experiencing any complications (%)	Total women who had delivered in government facility within the last year (N)
All	19.6	17.5	4.0	16.9	3.3	15.6	49.3	750
Age group:	**(0.021)**	(0.700)	(0.468)	(0.692)	**(<0.001)**	(0.846)	(0.121)	
<20	10.9	13.9	3.5	16.1	3.3	14.1	47.8	85
20-34	21.0	17.8	3.7	16.0	2.4	15.8	48.1	619
35-49	16.3	20.9	9.9	31.7	14.9	16.3	68.8	46
Residence:	(0.828)	(0.194)	(0.465)	(0.341)	(0.652)	**(<0.001)**	(0.427)	
Urban	24.7	16.8	0.4	9.2	7.8	16.5	48.1	101
Rural	18.7	17.6	4.6	18.2	2.6	15.5	49.5	649
Ecological zone:	(0.991)	(0.194)	(0.465)	(0.341)	(0.652)	**(<0.001)**	(0.427)	
Mountain	16.0	29.7	12.3	24.1	0.0	7.0	59.2	69
Hill	20.5	13.1	3.9	16.4	3.8	8.6	44.0	331
Terai	19.4	19.2	2.5	16.1	3.5	23.9	52.3	350
Education:	(0.241)	(0.311)	**(0.015)**	(0.390)	(0.603)	(0.629)	(0.249)	
Never attended school	24.0	22.2	9.1	19.8	2.4	17.4	55.5	207
Primary	19.4	12.2	2.5	18.2	4.7	17.7	54.8	118
Secondary	17.4	15.3	1.8	16.7	3.2	14.9	46.4	318
Further education	17.4	20.9	2.8	10.8	3.8	11.8	40.1	108
Wealth quintile:	(0.502)	(0.171)	(0.115)	(0.190)	(0.897)	(0.486)	(0.316)	
Lowest	17.2	25.6	8.7	13.5	2.2	19.1	46.5	146
Second	13.6	14.7	7.3	16.5	3.2	13.1	44.6	153
Middle	19.3	14.2	0.7	15.8	1.6	14.9	49.3	157
Fourth	27.6	19.9	3.2	26.1	3.6	19.4	59.8	165
Highest	19.3	12.7	0.1	11.2	6.3	10.9	44.7	130
Caste/ethnicity:	(0.704)	(0.447)	**(0.015)**	(0.334)	(0.729)	**(0.010)**	(0.236)	
Brahmin/Chhetri	22.0	11.9	1.7	12.2	3.6	11.7	42.8	248
Terai/Madhesi other castes	21.0	18.1	3.1	22.2	1.3	33.2	62.4	94

	Vaginal bleeding/ haemorrhage (%)	Fits/convulsions/ seizures (%)	Pre-eclampsia (%)	Prolonged/ obstructed labour (%)	Retained placenta (%)	Feeling weak/ fainting/anaemia (%)	Women experiencing any complications (%)	Total women who had delivered in government facility within the last year (N)
Dalit	24.2	19.0	1.1	18.4	4.8	17.4	55.6	83
Newar	*30.1*	*22.9*	*0.0*	*22.9*	*0.0*	*0.0*	*53*	*10*
Janajati	15.1	20.6	6.2	19.2	3.3	11.9	47.9	294
Muslim	*35.6*	*36.7*	*36.7*	*8.9*	*0.0*	*41.7*	*81.2*	*12*
Others	*11.3*	*19.0*	*0.0*	*9.4*	*9.4*	*26.2*	*37.7*	*11*

Note:

† Sample includes additional non-representative sample of women that had delivered in government facility

The figures in parentheses indicate p-value; those in bold are statistically significant

The italic figures are based on an unweighted sample size of <30

Length of stay

Government protocols stipulate that women should stay in a facility for 24 hours after having a normal delivery, for three days after an assisted delivery, and for seven days after a CS. Figure 7.5 shows the duration of stay at government health facilities by the type of delivery. For normal deliveries, nearly half (49%) of women had stayed in the facility for less than 24 hours, with most of these staying less than 12 hours. Only two-fifths of women who had had a vacuum delivery (40%) and 12% of women who had had a forceps delivery had stayed for at least three days. For those women who had had a delivery by CS, nearly two-thirds (63%) had stayed at least seven days.

Table 7.30 shows that women who had given birth in a government hospital were more likely to have stayed for the required 24 hours, and less likely to have stayed for less than four hours. Of the other government facilities, women who had delivered in HPs were least likely to have stayed 24 hours, and more likely to stay less than four hours. Most women (79%) who had delivered in a government facility had received a health check before they left. This was most likely to have happened in a government hospital (83%) and least likely in a HP (71%).

Figure 7.5: Duration of stay at the health facility after delivery, by delivery type, for women who had delivered at a government facility in last year (N=750)

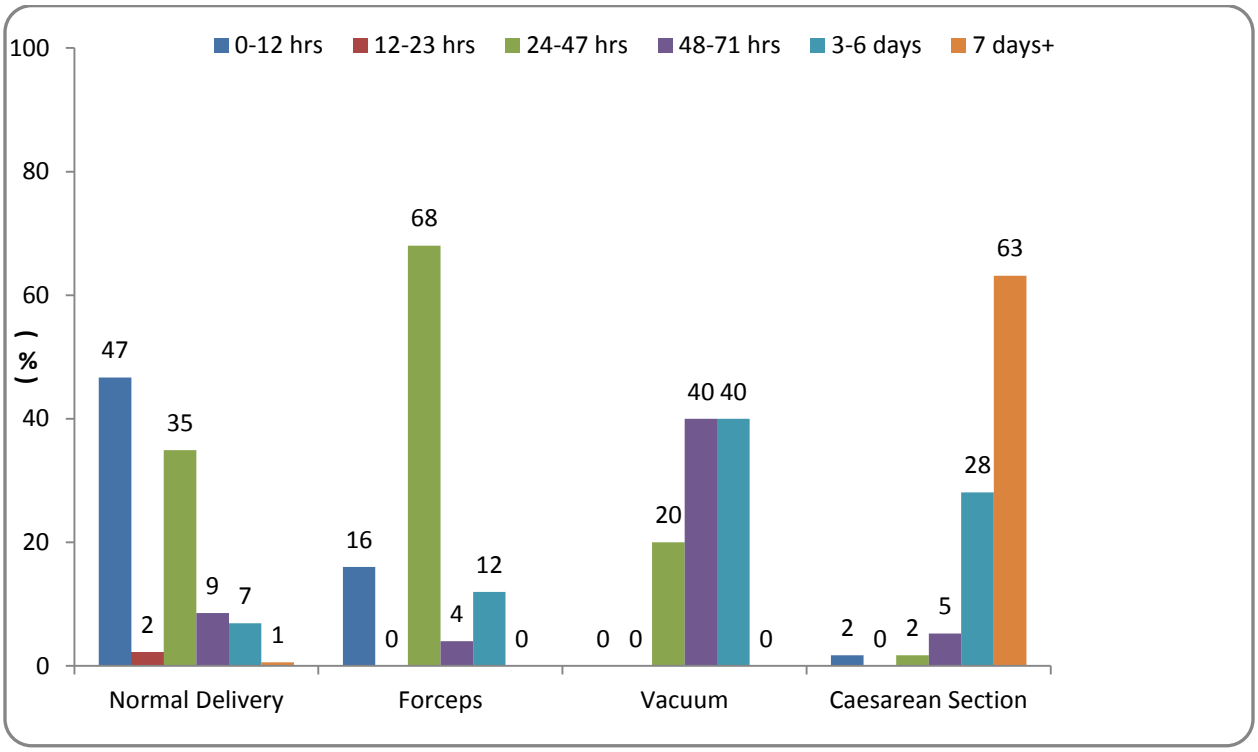


Table 7.30: Duration of stay at the health facility after delivery, and health check before discharge, for women who had had a normal delivery at a government facility within the last year†

	Duration of stay (hours)				Women who had received check-up (%)	Total women who had had a normal delivery (N)
	0-4 hours (%)	4-24 hours (%)	>24 hours (%)	*p*		
All	25.2	58.0	16.8		79.2	662
Age group:					(0.596)	
<20	22.7	61.3	16.0	0.229	76.0	75
20-34	25.9	58.6	15.5		79.2	548
35-49	23.1	43.6	33.3		84.6	39
Residence:					(0.235)	
Urban	17.4	64.0	18.6	0.429	86.0	86
Rural	26.6	57.1	16.3		78.2	576
Ecological zone:					(0.905)	
Mountain	21.5	63.1	15.4	0.324	77.3	65
Hill	32.4	51.4	16.2		80.3	290
Terai	19.5	63.2	17.3		78.5	307
Education:					(0.117)	
Never attended school	38.2	48.2	13.6	**0.001**	73.7	191
Primary	35.4	55.6	9.1		72.4	99
Secondary	18.1	63.2	18.8		82.9	288
Further education	9.3	65.1	25.6		86.2	86
Wealth quintile:					(0.132)	
Lowest	32.0	53.9	14.1	0.111	68.8	128
Second	20.6	61.7	17.7		86.6	141
Middle	30.8	51.4	17.8		76.6	146
Fourth	32.4	50.7	16.9		81.6	136
Highest	8.9	75.0	16.1		82.1	112
Caste/ethnicity:					(0.430)	
Brahmin/Chhetri	21.2	57.1	21.7	0.026	81.2	212
Terai/Madhesi other castes	14.6	59.8	25.6		84.3	82
Dalit	37.3	53.3	9.3		69.7	75
Newar	*100.0*	*0.0*	*0.0*		*60.0*	*5*
Janajati	28.7	60.0	11.3		78.4	265
Muslim	*8.3*	*50.0*	*41.7*		*81.8*	*12*
Others	*9.1*	*72.7*	*18.2*		*90.9*	*11*
Place of delivery					(0.273)	
Government hospital	10.2	64.8	24.9	**<0.001**	83.2	381
PHCC	27.9	65.1	7.0		75.6	86
HP	55.0	40.0	5.0		70.8	160
SHP	45.7	48.6	5.7		80.6	35

Note:
† Sample includes additional non-representative sample of women that had delivered in government facility
The italic figures are based on an unweighted sample size of <30

7.2.2.3 Postnatal

During the postnatal period it is important to ensure the best care and nutrition for the mother and child as it is a period of health risk for both newborns and the mothers who have recently endured the physical strain of childbirth. PNC provides women with advice concerning child health and nutrition, as well as early identification of and assistance in dealing with any complications that may arise. The HHS contained questions about the PNC received, as well as any complications that were experienced and the care choices made in responding to these. Women who had delivered at a facility of any kind were asked about the PNC that they had received after delivery. Overall, 75% of women who had delivered in a facility received at least one postnatal check-up; only 13% had had at least three postnatal check-ups (Table 7.31). NHSP-2 requires that women receive their first PNC check-up within 24 hours of delivery, their second within 72 hours of delivery, and their third within seven days of delivery. Only 6% of women who had delivered in a facility had received PNC in line with the timings set out in the guidelines. Residents from Terai districts were most likely to have received at least three PNC check-ups.

Table 7.31: Women who had received PNC among women who had delivered in any type of facility within the last year

	Women who received at least one PNC check-up (%)	Women who received at least three PNC check-ups (%)	Women who received PNC as per guidelines[20] (%)	Total women who had delivered in a facility within the last year (N)
All	75.1	13.1	6.0	557
Age group:	(0.334)	(0.209)	(0.580)	
<20	77.3	11.8	1.3	75
20-34	75.5	12.7	6.5	444
35-49	*63.9*	*19.4*	*10.8*	*36*
Residence:	(0.833)	(0.814)	(0.508)	
Urban	71.3	17.0	11.5	87
Rural	75.5	12.4	5.1	470
Ecological zone:	(0.105)	**(0.039)**	(0.122)	
Mountain	90.9	9.1	3.0	33
Hill	67.8	10.6	4.1	245
Terai	79.2	15.9	8.1	279
Education:	(0.181)	(0.224)	(0.111)	
Never attended school	68.3	8.3	2.8	142
Primary	67.1	13.9	6.9	70
Secondary	78.7	13.8	6.7	253
Further education	80.4	18.5	8.8	92
Wealth quintile:	(0.251)	(0.160)	(0.169)	
First	67.3	7.1	3.0	98
Second	72.1	9.1	3.4	86
Third	72.1	13.2	3.8	104
Fourth	79.2	16.8	7.6	130
Fifth	79.9	15.9	10.1	139
Caste/ethnicity:	(0.251)	(0.160)	(0.169)	
Brahmin/Chhetri	78.5	13.3	6.3	158
Terai/Madhesi other castes	83.8	16.2	7.4	68
Dalit	73.0	17.2	9.4	63
Newar	*75.0*	*23.1*	*16.7*	*12*
Janajati	72.2	10.1	4.2	234
Muslim	*72.7*	*9.1*	*8.3*	*11*
Others	*44.4*	*22.2*	*0.0*	*9*

Note: the figures in parentheses indicate p-value; those in bold are statistically significant
The italic figures are based on an unweighted sample size of <30

[20]First within 24 hours of delivery, second within 72 hours of delivery, and third within seven days of delivery.

Complications

RDW were asked about any problems that they had experienced in the six weeks after delivery; nearly one in ten (9%) women reported having experienced at least one problem, the most common of which were fever (35%), anaemia (32%), and Postpartum Haemorrhage (PPH) (32%) (Table 7.32).

Table 7.32: Complications experienced by RDW up to six weeks after delivery

	RDW who experienced complications (%)	Total RDW (N)	Types of complications experienced (as a % of total complications)						Total RDW experienced complication (N)
			Fever (%)	Infection/ sepsis (%)	Swollen hands/ face (%)	Anaemia (%)	PPH (%)	Others (%)	
All	9.4		35.2	7.6	6.9	31.7	31.7	24.8	145
Age group:	(0.090)		(0.562)	(0.512)	(0.266)	(0.013)	(0.767)	(0.432)	
<20	13.3	196	*38.4*	*7.4*	*3.6*	*16.7*	*33.4*	*36.2*	*26*
20-34	9.2	1,220	32.5	7.1	8.1	36.3	31.7	23.0	112
35-49	5.5	127	*61.7*	*19.4*	*0.0*	*18.9*	*19.4*	*14.7*	*7*
Residence:	(0.638)		(0.147)	(0.179)	(0.377)	(0.058)	(0.080)	(0.097)	
Urban	10.2	137	*13.9*	*21.4*	*0.0*	*44.4*	*55.4*	*0.0*	*14*
Rural	9.3	1,406	37.2	6.3	7.6	30.6	28.8	27.7	131
Ecological zone:	**(0.027)**		(0.384)	(0.448)	(0.067)	(0.060)	(0.124)	**(0.034)**	
Mountain	12.8	109	*19.8*	*0.0*	*5.0*	*21.8*	*39.1*	*60.5*	*14*
Hill	11.5	659	37.3	9.9	1.8	24.0	37.2	20.5	76
Terai	7.1	775	35.7	6.9	14.3	45.3	21.5	22.1	55
Education:	(0.161)		(0.229)	(0.170)	(0.328)	(0.471)	(0.281)	(0.683)	
Never attended school	7.1	730	46.8	5.1	6.9	39.2	23.1	21.4	52
Primary	*11.5*	*218*	*32.8*	*14.9*	*1.1*	*17.9*	*42.4*	*25.5*	*25*
Secondary	11.8	458	23.8	3.5	11.4	36.3	36.9	31.1	54
Further education	*10.2*	*137*	*37.8*	*21.3*	*0.0*	*13.7*	*21.6*	*14.1*	*14*
Wealth quintile:	(0.325)		(0.076)	(0.166)	(0.714)	(0.312)	(0.710)	(0.166)	
Lowest	11.2	286	23.9	3.9	6.8	42.1	32.9	30.8	32
Second	*7.9*	*342*	*34.6*	*0.0*	*9.8*	*26.0*	*28.9*	*39.5*	*27*
Middle	7.8	373	59.2	2.1	1.0	17.2	38.8	21.5	29
Fourth	12.6	341	37.2	15.0	8.4	33.7	23.7	22.7	43
Highest	*7.5*	*201*	*6.7*	*20.0*	*8.5*	*43.9*	*40.7*	*0.0*	*15*
Caste/ethnicity:	(0.359)		**(0.015)**	(0.954)	(0.929)	(0.430)	(0.071)	(0.830)	
Brahmin /Chhetri	11.3	301	19.1	8.9	6.2	28.8	49.2	19.6	34
Terai /Madhesi other castes	*6.5*	*291*	*32.0*	*3.4*	*10.1*	*40.9*	*23.6*	*20.7*	*19*
Dalit	*10.6*	*217*	*14.9*	*6.0*	*8.9*	*48.1*	*37.0*	*27.3*	*23*
Newar	*10.5*	*19*	*0.0*	*0.0*	*0.0*	*0.0*	*64.9*	*35.1*	*2*
Janajati	10.5	608	52.0	9.7	6.0	25.4	22.5	29.1	64
Muslim	*3.3*	*90*	*50.0*	*0.0*	*0.0*	*50.0*	*0.0*	*0.0*	*3*
Other	*0.0*	*18*	*0.0*	*0.0*	*0.0*	*0.0*	*0.0*	*0.0*	*0*

Note: the figures in parentheses indicate p-value; those in bold are statistically significant
The italic figures are based on an unweighted sample size of <30

Care-seeking

For those women who had experienced a problem within six weeks of delivery, 47% of them had not sought care, 20% had sought care from a private provider, and 29% from a public provider (Table 7.33). The numbers of women having experienced complications were too small to show any associations between background characteristics and care-seeking behaviour.

Table 7.33: Place care for complications was sought, by RDW experiencing postnatal complications

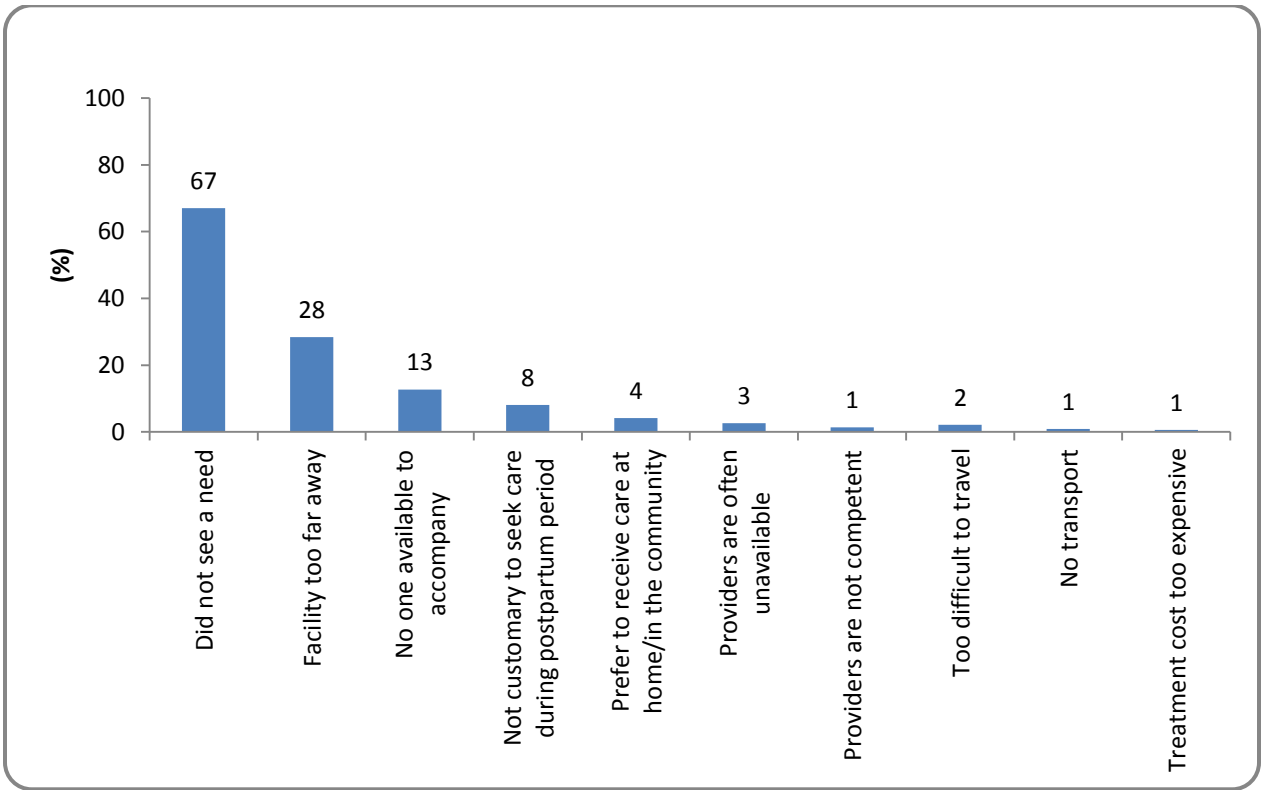
	At public facility (%)	Private provider (%)	Went to FCHV (%)	Not sought care (%)	Other(%)	Total RDW who had experienced postnatal complications (N)	*p*
All	29.4	20.3	2.1	46.9	1.4	145	
Age group:							
<20	*25.9*	*14.8*	*0.0*	*59.3*	*0.0*	*27*	0.567
20-34	31.2	20.5	3.6	42.9	1.8	112	
35-49	*16.7*	*50.0*	*0.0*	*33.3*	*0.0*	*6*	
Residence:							
Urban	*42.9*	*14.3*	*0.0*	*42.9*	*0.0*	*14*	0.904
Rural	28.2	21.4	3.1	45.8	1.5	131	
Ecological zone:							
Mountain	*26.7*	*26.7*	*0.0*	*46.7*	*0.0*	*15*	0.343
Hill	34.2	11.8	3.9	50.0	0.0	76	
Terai	23.2	32.1	1.8	39.3	3.6	56	
Education:							
Never attended school	35.3	21.6	7.8	33.3	2.0	51	0.296
Primary	*29.2*	*4.2*	*0.0*	*66.7*	*0.0*	*24*	
Secondary	23.6	25.5	0.0	49.1	1.8	55	
Further education	*35.7*	*28.6*	*0.0*	*35.7*	*0.0*	*14*	
Wealth quintile:							
Lowest	29.0	12.9	3.2	54.8	0.0	31	0.552
Second	*37.0*	*14.8*	*3.7*	*44.4*	*0.0*	*27*	
Middle	31.0	3.4	3.4	58.6	3.4	29	
Fourth	21.4	35.7	0.0	40.5	2.4	42	
Highest	*40.0*	*33.3*	*0.0*	*26.7*	*0.0*	*15*	
Caste/ethnicity:							
Brahmin /Chhetri	11.8	20.6	2.9	64.7	0.0	34	0.253
Terai /Madhesi other castes	*15.8*	*31.6*	*5.3*	*47.4*	*0.0*	*19*	
Dalit	*36.4*	*13.6*	*4.5*	*45.5*	*0.0*	*22*	
Newar	*0.0*	*100*	*0.0*	*0.0*	*0.0*	*2*	
Janajati	42.2	15.6	0.0	39.1	3.1	64	
Muslim	*0.0*	*50.0*	*0.0*	*50.0*	*0.0*	*2*	

Note: The italic figures are based on an unweighted sample size of <30

Reasons for not seeking care

Figure 7.6 shows the reasons for not seeking care given by the women who had had complications within six weeks of delivery and had not sought care; women could give more than one reason for each episode. The reasons most commonly given by these women were that they had not seen a need to seek care (67%) or that the facility was too far away (28%).

Figure 7.6: Reasons for not seeking care for complications among RDW who had experienced a postnatal complication (N=61)



7.2.3 Barriers

A woman's access to appropriate and timely healthcare is often influenced by different physical and socioeconomic barriers. These barriers range from having the money to pay for care to being reluctant to seek care because of the expectation of discriminatory treatment based on a person's caste or ethnic group.

Before arriving at facility

Women from the representative and additional samples who had given birth in a government facility were asked if they had faced any difficulties before arriving at the facility. The most common difficulties that these women had faced were mostly related to travelling to the facility; these included: the facility being too far away (46%), difficulty travelling during labour (45%), no transport being available or transport difficult to find (35%), and travel cost being expensive (23%) (Table 7.34).

Table 7.34: Difficulties faced before arriving at the facility where RDW had sought care, among those who had delivered at a government facility†

	Not customary to deliver in facility (%)	Difficulty obtaining/not given permission by household members (%)	Facility far away (%)	Difficult to travel during labour (%)	Difficult to find transport or no transport (%)	Travel costs expensive (%)	Treatment costs expensive (%)	Employment responsibilities (%)	Needed to earn money (%)	Needed to do household tasks (%)	Needed to do agricultural duties (%)	Thought quality of care would be poor (%)	Thought there may not be a health provider present (%)	Thought may not be treated with respect (%)	Ridiculed by others in community for seeking care just for the money (%)	No one for child care (%)	No men available to transport (%)	No difficulty faced (%)	Total women who had delivered in government health facility in last year (N)
All	21.7	3.6	46.3	45.2	35.2	22.5	5.2	3.5	2.1	11.7	8.9	8.4	7.3	7.7	1.9	10.8	11.1	34.5	750
Age group:	(0.223)	(0.748)	(0.445)	(0.411)	(0.601)	(0.170)	**(0.013)**	(0.241)	**(0.001)**	(0.645)	(0.369)	(0.362)	(0.857)	(0.076)	(0.677)	(0.682)	(0.695)	(0.488)	
<20	28.5	5.2	41.7	49.9	29.3	17.4	5.9	0.0	0.5	8.0	5.6	5.4	5.6	5.2	2.0	7.4	8.0	29.5	85
20-34	21.4	3.5	46.0	43.6	35.5	21.9	4.1	3.7	1.9	12.2	9.0	9.1	7.7	8.6	2.1	11.3	11.3	35.7	619
35-49	13.2	3.0	57.3	56.8	41.4	38.9	18.8	6.1	8.9	12.5	14.7	4.9	6.6	1.0	0.0	11.5	13.8	27.8	46
Residence:	(0.284)	(0.205)	**(<0.001)**	(0.041)	**(0.004)**	(0.058)	(0.134)	(0.833)	(0.503)	(0.360)	(0.754)	(0.173)	(0.037)	(0.056)	**(0.009)**	(0.243)	(0.816)	(0.308)	
Urban	27.4	6.0	15.0	30.0	16.5	11.0	2.5	3.8	3.1	15.2	7.9	13.7	17.4	15.4	6.2	17.2	12.5	42.6	101
Rural	20.8	3.3	51.1	47.5	38.1	24.3	5.6	3.4	2.0	11.2	9.1	7.6	5.8	6.6	1.2	9.9	10.9	33.3	649
Ecological zone:	**(0.020)**	(0.121)	(0.823)	(0.105)	(0.307)	(0.969)	(0.667)	(0.132)	(0.476)	(0.758)	(0.930)	(0.103)	(0.775)	(0.721)	(0.748)	(0.889)	(0.483)	(0.258)	
Mountain	14.2	0.0	40.8	57.9	43.9	21.5	4.1	7.4	4.0	15.0	8.1	9.8	9.9	9.7	2.6	8.4	7.0	24.2	69
Hill	14.9	2.3	48.0	39.2	37.4	23.2	4.3	1.7	1.2	10.5	9.6	5.0	7.9	8.4	1.4	11.0	13.3	39.0	331
Terai	29.5	5.6	45.5	48.2	31.4	22.0	6.2	4.4	2.6	12.2	8.6	11.4	6.4	6.7	2.3	11.2	9.7	32.4	350
Education:	(0.142)	(0.828)	**(0.032)**	**(0.021)**	(0.406)	(0.828)	(0.359)	**(0.003)**	**(0.006)**	(0.195)	**(0.030)**	(0.918)	(0.748)	(0.586)	**(0.017)**	**(0.015)**	(0.084)	(0.063)	
Never attended school	29.0	4.5	56.7	55.2	41.0	20.8	7.2	6.2	4.3	15.7	13.9	9.0	9.4	9.2	2.5	19.2	18.0	24.2	207
Primary	19.8	4.4	51.3	39.8	34.8	26.2	2.3	4.8	2.5	15.4	12.4	7.8	7.7	10.0	6.0	10.3	4.4	32.4	118
Secondary	17.5	3.1	41.8	45.8	34.4	23.3	4.5	0.3	0.3	8.5	6.2	7.7	5.8	5.2	0.6	6.6	9.9	38.8	318
Further education	22.1	2.7	33.2	29.6	26.7	19.1	6.4	6.1	3.0	9.4	3.7	9.8	7.9	9.9	0.0	8.2	8.4	44.1	108

	Not customary to deliver in facility (%)	Difficulty obtaining/not given permission by household members (%)	Facility far away (%)	Difficult to travel during labour (%)	Difficult to find transport or no transport (%)	Travel costs expensive (%)	Treatment costs expensive (%)	Employment responsibilities (%)	Needed to earn money (%)	Needed to do household tasks (%)	Needed to do agricultural duties (%)	Thought quality of care would be poor (%)	Thought there may not be a health provider present (%)	Thought may not be treated with respect (%)	Ridiculed by others in community for seeking care just for the money (%)	No one for child care (%)	No men available to transport (%)	No difficulty faced (%)	Total women who had delivered in government health facility in last year (N)
Wealth quintile:	(0.180)	(0.930)	**(<0.001)**	**(0.004)**	(0.105)	(0.321)	(0.878)	(0.086)	(0.315)	(0.315)	(0.116)	(0.473)	(0.271)	(0.593)	(0.069)	(0.229)	(0.150)	**(0.008)**	
Lowest	30.1	3.7	52.4	60.4	35.0	22.2	5.7	6.2	3.8	13.2	12.7	12.7	13.4	11.7	4.7	18.9	19.0	28.0	146
Second	21.1	3.4	59.3	48.3	45.6	28.2	4.6	1.9	1.9	15.6	12.5	6.7	6.0	9.1	3.2	10.4	15.0	21.9	153
Middle	23.8	3.5	52.1	48.6	36.5	21.8	6.9	3.7	1.4	13.6	10.0	7.4	5.3	5.5	1.1	8.9	8.5	35.7	157
Fourth	18.5	4.8	39.7	39.3	34.4	25.5	4.3	0.6	0.8	7.3	5.3	6.2	4.8	4.8	0.5	7.7	5.4	37.7	165
Highest	14.5	2.6	24.8	27.6	22.6	13.0	4.3	5.4	3.1	8.8	3.9	9.6	8.0	8.1	0.0	8.8	8.0	51.4	130
Caste/ ethnicity:	(0.235)	**(0.021)**	(0.214)	(0.380)	**(0.042)**	(0.335)	(0.667)	(0.451)	(0.716)	(0.603)	(0.492)	(0.498)	(0.972)	(0.850)	(0.222)	(0.835)	(0.556)	(0.240)	
Brahmin/ Chhetri	16.1	1.5	35.8	37.4	28.0	17.5	2.9	3.5	1.3	13.3	11.3	8.7	7.6	8.8	2.1	10.2	10.6	44.2	248
Terai /Madhesi other castes	32.3	12.1	47.1	53.8	31.6	24.1	8.3	8.2	3.8	15.6	10.4	15.7	7.3	7.8	5.7	16.2	9.3	26.7	94
Dalit	15.6	8.4	44.2	43.9	39.2	19.2	5.1	2.3	1.9	11.7	6.5	5.7	5.4	3.3	4.0	7.5	3.7	35.1	83
Newar	*50.7*	*0.0*	*45.8*	*50.7*	*27.8*	*22.9*	*0.0*	*0.0*	*0.0*	*22.9*	*22.9*	*0.0*	*0.0*	*0.0*	*0.0*	*0.0*	*0.0*	*44.4*	*10*
Janajati	23.7	1.9	54.5	50.3	43.4	28.0	6.4	2.2	2.3	9.0	6.4	7.4	8.1	8.6	0.2	10.8	14.6	28.8	294
Muslim	*18.4*	*0.0*	*66.6*	*29.9*	*11.6*	*11.6*	*8.0*	*0.0*	*0.0*	*0.0*	*18.4*	*3.6*	*3.6*	*0.0*	*0.0*	*18.4*	*18.4*	*33.4*	*12*
Other	*26.4*	*0.0*	*45.5*	*28.3*	*9.4*	*9.4*	*0.0*	*9.4*	*9.4*	*18.7*	*9.4*	*0.0*	*9.3*	*9.3*	*0.0*	*9.3*	*0.0*	*26.3*	*11*

† Sample includes additional non-representative sample of women that had delivered in government facility (unweighted N=406)
The figures in parentheses indicate p-value; those in bold are statistically significant
The italic figures are based on an unweighted sample size of <30

At facility

Women were asked about any difficulties that they had encountered after they had arrived at the facility; 53% of women had encountered one or more difficulties (Table 7.35). The four most common difficulties encountered related to the availability of care: the provider was not available (30%), the facility was not open (29%), the provider did not give enough time (28%), or there were inconvenient opening hours (26%). The next three most common difficulties broadly related to the quality of care provided: the drugs were not available (27%), the provider was not friendly (26%), or the provider was not able to treat (23%).

Table 7.35: Difficulties faced at the delivery facility among women who had delivered in a government health facility in the last year†

	Had to pay (%)	Facility not open (%)	Inconvenient opening hours (%)	Provider not available (%)	Provider not able to treat (%)	Provider did not give enough time (%)	Provider not friendly (%)	Ridiculed by staff for seeking care just for the money (%)	Discrimination owing to caste/ being poor (%)	Care provider of opposite sex (%)	Lack of privacy (%)	Drugs not available (%)	Long waiting time (%)	Poor quality of care (%)	Difficult to communicate owing to language differences (%)	No difficulty faced (%)	Total women delivering in government health facility in last year (N)
All	11.6	29.1	26.0	30.1	22.9	27.7	25.7	3.1	4.4	7.6	8.4	27.3	13.3	13.3	3.5	46.7	750
Age group:	**(0.001)**	(0.798)	(0.760)	(0.827)	(0.866)	(0.926)	(0.515)	(0.544)	(0.400)	(0.536)	(0.483)	(0.320)	(0.351)	(0.378)	(0.524)	(0.299)	
<20	11.0	31.6	27.7	30.7	22.2	28.9	22.7	4.2	2.2	11.7	13.3	29.4	16.6	17.8	2.2	44.9	85
20-34	9.7	28.3	26.2	29.7	22.6	27.3	25.3	3.2	4.3	6.9	7.5	26.0	12.2	12.2	4.0	47.9	619
35-49	38.8	33.8	19.9	35.8	27.5	30.5	35.9	0.0	9.2	10.3	11.1	40.6	21.8	19.5	0.0	33.0	46
Residence:	(0.803)	(0.719)	(0.696)	(0.953)	(0.550)	(0.644)	(0.842)	(0.656)	(0.833)	(0.216)	(0.310)	(0.626)	**(0.044)**	(0.965)	(0.845)	(0.872)	
Urban	10.3	32.1	29.4	29.7	27.3	31.1	27.4	2.3	3.9	4.1	11.9	23.8	21.7	13.1	3.0	45.2	101
Rural	11.8	28.5	25.4	30.2	22.2	27.1	25.4	3.2	4.4	8.2	7.9	27.8	11.9	13.3	3.6	46.8	649
Ecological zone:	(0.534)	**(0.009)**	**(0.011)**	**(0.003)**	**(0.007)**	**(0.006)**	**(0.045)**	(0.481)	(0.557)	(0.340)	(0.570)	(0.222)	**(<0.001)**	**(0.001)**	(0.909)	**(0.003)**	
Mountain	6.0	51.0	31.0	42.6	7.4	34.0	22.8	2.6	2.7	5.9	7.0	39.7	8.5	9.3	3.7	23.9	69
Hill	12.8	18.3	15.0	17.7	15.6	16.9	17.4	1.9	3.4	5.6	7.0	21.2	6.1	5.7	3.9	58.5	331
Terai	11.6	34.7	35.4	39.5	32.8	36.6	34	4.3	5.6	9.9	10.0	30.6	21.0	21.3	3.1	39.9	350
Education:	(0.419)	(0.065)	(0.267)	(0.112)	(0.222)	(0.509)	(0.281)	(0.504)	**(0.046)**	(0.418)	(0.661)	(0.197)	(0.976)	(0.567)	(0.104)	(0.096)	
Never attended school	17.5	39.7	32.7	39.7	30.3	33.0	32.8	5.0	7.0	10.4	7.7	35.8	13.2	15.3	2.7	40.7	207
Primary	8.3	26.2	27.0	26.5	22.0	24.3	21.9	2.0	1.6	9.6	5.5	27.9	13.3	8.7	12.8	36.4	118
Secondary	8.3	24.4	23.3	26.3	20.4	26.5	24.1	2.1	5.0	6.0	10.1	22.2	12.8	14.1	1.8	51.2	318
Further education	13.6	25.1	19.9	27.4	17.2	24.4	20.6	3.5	0.3	4.8	7.8	24.9	14.9	12.2	0.0	55.6	108
Wealth quintile:	(0.419)	**(0.005)**	**(0.002)**	**(<0.001)**	**(<0.001)**	**(0.001)**	**(0.015)**	(0.296)	(0.349)	(0.237)	(0.368)	(0.086)	(0.216)	(0.606)	**(0.026)**	(0.114)	
Lowest	11.3	45.9	45.4	50.6	42.4	48.2	40.7	5.1	2.7	7.6	6.2	38.9	11.8	18.0	5.7	36.7	146
Second	12.1	32.6	22.9	34.1	21.8	26.4	29.2	1.5	6.0	12.1	5.5	31.4	9.9	11.0	0.5	48.6	153
Middle	17.3	23.9	22.6	22.4	17.5	21.9	19.2	1.7	3.5	5.2	8.5	22.9	9.5	11.0	1.6	56.5	157

	Had to pay (%)	Facility not open (%)	Inconvenient opening hours (%)	Provider not available (%)	Provider not able to treat (%)	Provider did not give enough time (%)	Provider not friendly (%)	Ridiculed by staff for seeking care just for the money (%)	Discrimination owing to caste/ being poor (%)	Care provider of opposite sex (%)	Lack of privacy (%)	Drugs not available (%)	Long waiting time (%)	Poor quality of care (%)	Difficult to communicate owing to language differences (%)	No difficulty faced (%)	Total women delivering in government health facility in last year (N)
Fourth	8.9	24.4	23.0	24.7	19.4	23.8	21.1	5.1	6.9	8.2	12.9	23.8	16.5	14.1	8.3	39.8	165
Highest	7.9	17.9	15.7	19.0	13.2	18.0	18.3	2.0	2.2	4.6	8.5	19.1	19.3	12.7	0.9	52.0	130
Caste/ethnicity:	**(0.038)**	(0.147)	**(0.047)**	**(0.028)**	**(0.015)**	**(0.041)**	(0.129)	(0.059)	**(<0.001)**	**(<0.001)**	(0.063)	(0.243)	(0.072)	**(0.043)**	(0.783)	**(0.013)**	
Brahmin /Chhetri	6.0	20.3	16.9	19.9	11.4	18.5	18.9	2.4	3.5	8.0	5.5	20.0	10.7	8.3	4.7	56.3	248
Terai /Madhesi other castes	14.0	40.6	41.8	48.6	38.5	44.2	35.9	10.8	3.3	8.1	9.1	31.6	21.6	24.7	6.2	28.3	94
Dalit	14.5	30.4	27.3	30.3	21.8	26.8	25.2	5.9	7.5	14.1	6.8	29.2	12.9	10.6	3.4	43.7	83
Newar	*45.8*	*48.1*	*48.1*	*48.1*	*48.1*	*48.1*	*25.2*	*0.0*	*25.2*	*2.3*	*44.4*	*44.4*	*44.4*	*44.4*	*2.3*	*9.8*	*10*
Janajati	12.5	31.4	27.4	32.5	27.7	30.9	27.9	0.8	2.3	3.7	8.8	29.7	10.9	12.9	2.1	45.7	294
Muslim	*43.9*	*55.1*	*55.1*	*55.1*	*18.4*	*18.4*	*55.1*	*0.0*	*40.3*	*55.1*	*36.7*	*66.6*	*41.0*	*36.7*	*0.0*	*33.4*	*12*
Other	*9.4*	*9.3*	*0.0*	*0.0*	*11.3*	*3.7*	*3.7*	*0.0*	*9.3*	*9.3*	*9.3*	*18.7*	*11.3*	*9.3*	*0.0*	*75.6*	*11*

† Sample includes additional non-representative sample of women that had delivered in government facility (unweighted N=406)

The figures in parentheses indicate p-value; those in bold are statistically significant

The italic figures are based on an unweighted sample size of <30

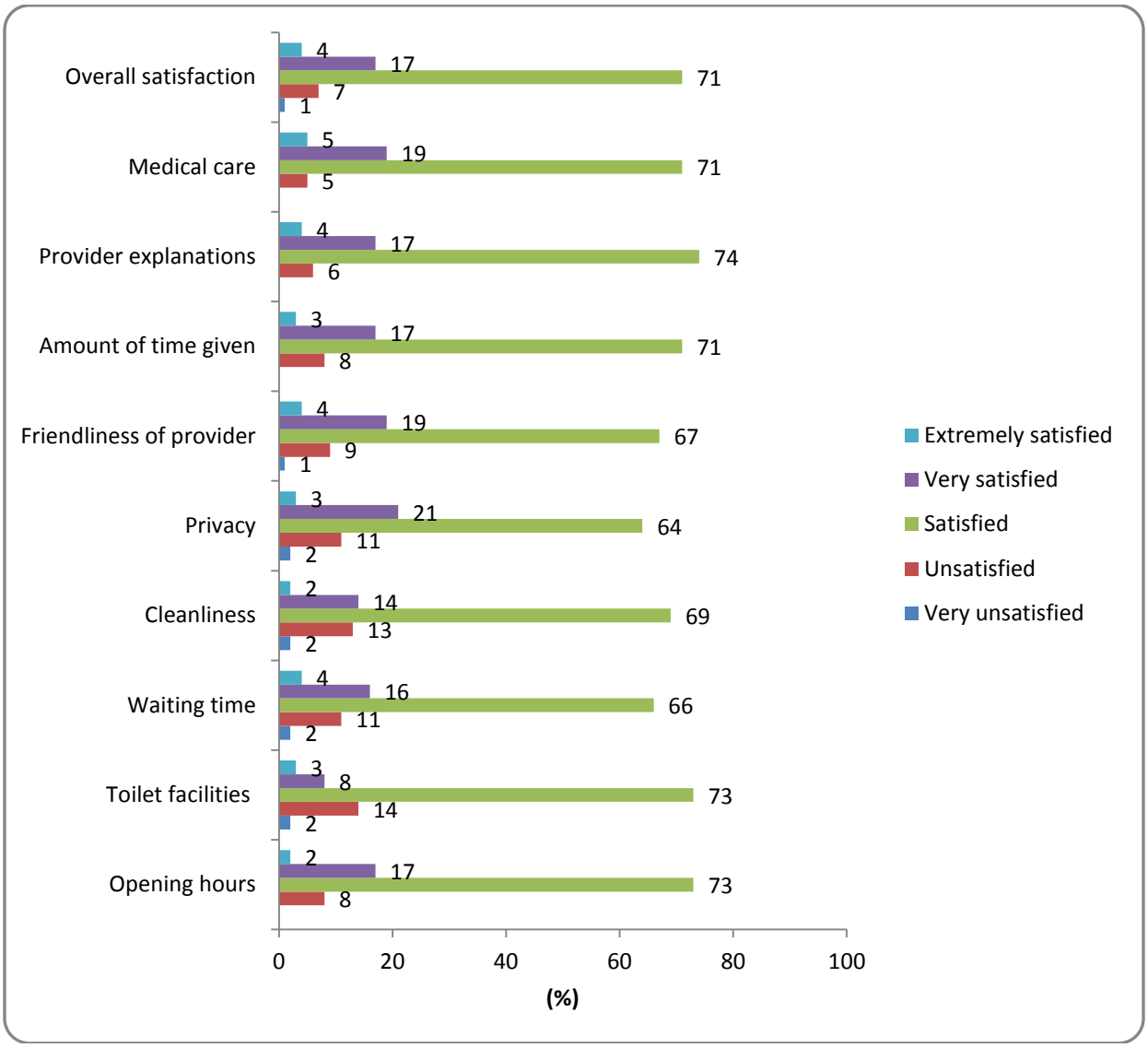
7.2.4 Satisfaction

A woman's satisfaction with her healthcare provider is important in shaping future care-seeking behaviour. Appropriate care-seeking behaviour is more likely to be adopted if women feel informed and valued by the provider, if they are satisfied with the cleanliness and facilities of the building, and if the service is accessible. A woman's satisfaction with these elements is also an indicator of the quality of the facility and care received. Women who had given birth at a government facility in the last year were asked to rate their levels of satisfaction with the facility and provider that they had used for their delivery; their responses are summarised in Figures 7.7 and 7.8.

Overall satisfaction with the care received was mostly positive, with only 8% of women responding negatively (unsatisfied or very unsatisfied) to the care that they had received. Most women were likely to recommend the facility to others (90%) or use the facility again (87%).

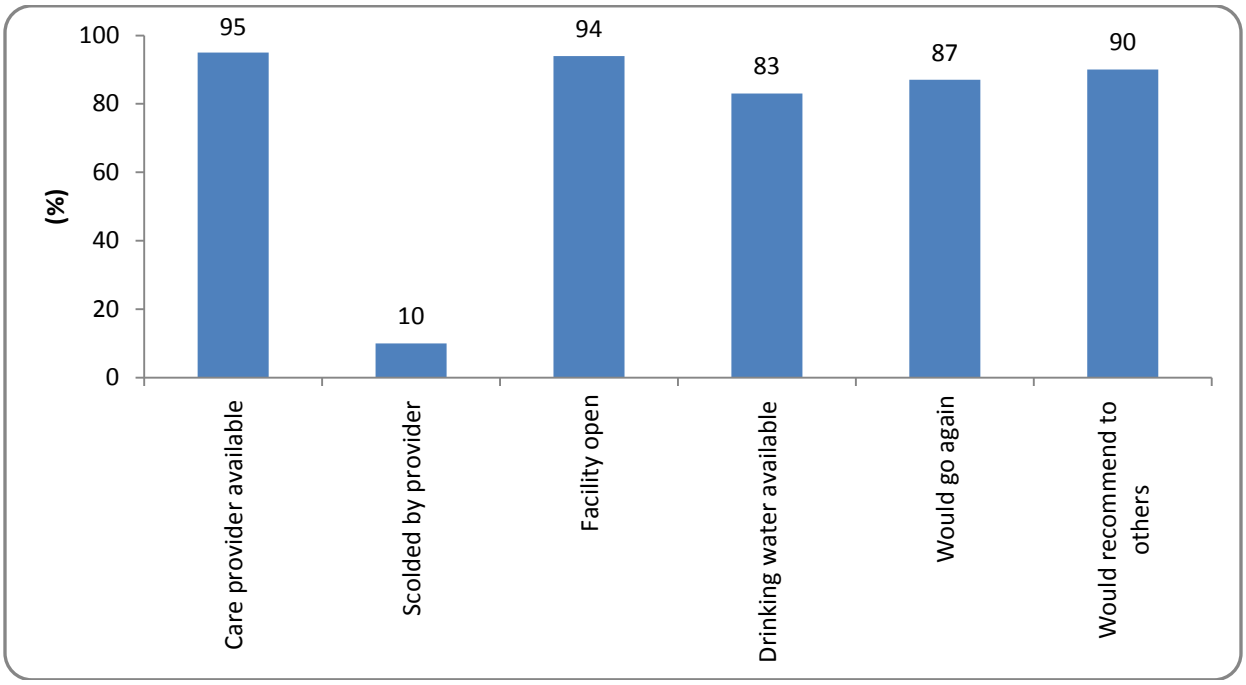
The two elements of care that were most likely to be a source of dissatisfaction related to the cleanliness of the facility: the toilet facility (16%) and the general cleanliness of the facility (15%). Waiting time was also a source of dissatisfaction (13%). The elements of care to which women responded most positively (very satisfied or extremely satisfied) were the medical care received from the provider (24%), the politeness and friendliness of the care provider (23%), and the amount of privacy afforded women (24%).

Figure 7.7: Client* satisfaction with delivery (N=750)



**Includes additional non-representative sample of women who had delivered in a government facility*

Figure 7.8: Client* experience and future utilisation/recommendation (N=750)



**Includes additional non-representative sample of women that had delivered in a government facility*

7.3 KEY FINDINGS

Awareness of danger signs

- The women interviewed had a moderate level of awareness of antenatal danger signs and danger signs during labour/delivery, but low awareness of postnatal danger signs. Awareness of three or more danger signs among WRA was 52% for the antenatal period, 40% for the labour/delivery period, and 24% for the postnatal period.

ANC

- Just over three-quarters of women had received at least one ANC check-up (77%), with 57% having had their first ANC visit within the first four months of pregnancy. However, a smaller proportion of women received ANC as per the guidelines for the number and timing of ANC visits: only 43% of women had received at least four ANC check-ups, with just 21% receiving a check-up in each of the recommended months (fourth, sixth, eighth, and ninth) of pregnancy.

Delivery

- The same proportion of women had planned to deliver in a facility (50%) as at home (50%). More women had planned to deliver in a government facility (39%) than a non-government facility (10%). Most of those planning to deliver in a government facility had planned to deliver in a hospital (24%).
- The home was the most common place of delivery, with over half of all women giving birth in the home (61%).
- The most common facility used for deliveries was the government hospital, which accounted for 16% of deliveries; 26% of all deliveries were in a government facility of some sort.

PNC

- Most women (75%) had received at least one PNC check-up. However, only 13% had received at least three PNC check-ups, and only 6% of women had received PNC in line with the NHSP-2 guidelines on the number and timing of PNC check-ups.
- Just under one-tenth of women (9%) had experienced a problem in the six weeks following delivery; of these, 47% of had not sought care.

Inequalities

- Women in the Terai districts tended to have better awareness of danger signs than those in hill or mountain districts, while rural residents tended to have better awareness than their urban counterparts. Terai/Madhesi other castes tended to have better awareness of danger signs than other caste/ethnic groups.
- The likelihood of having at least one ANC check-up, at least four ANC check-ups, having the first check-up in the first four months, and having check-ups as per the guideline increased with increasing education. It was more common among those in urban areas, in the highest quintile, and among Brahmins/Chhetris, and least common among Muslims. Those residing in mountain

districts were more likely to have received their first ANC check-up in the first four months, compared to those in Terai or hill districts. Those in the oldest age group (35-49) were less likely to have had at least one or at least four ANC check-ups than the younger age groups. This is of particular concern given older women are at higher risk during pregnancy.

- Women with higher education levels were more likely to receive ANC from hospitals (government and private), whereas women with lower levels of education were more likely to utilise ANC services from SHPs. Women from urban areas and those in the highest quintile were more likely to have received ANC from non-government institutions.
- The likelihood of using a doctor as a provider of ANC increased with woman's educational level and was more common among women in the wealthiest quintile.
- Women with higher levels of education, those in the highest wealth quintile, and those in urban areas were much more likely to both plan and have an institutional delivery.
- Maternity clients residing in mountain districts were less likely to be seen immediately, and more likely to have to wait over an hour, than those residing in hill or Terai districts.
- Women with higher levels of education, and those in the highest wealth quintile, were more likely to have had a CS than less educated women or those in lower wealth quintiles.

CHAPTER EIGHT: NEWBORN AND CHILD HEALTH

8.1 INTRODUCTION

Nepal is currently on track to achieve the fourth MDG, to reduce child mortality. However, the reduction in neonatal mortality has lagged behind the reductions in infant and under-five mortality. The Under-five Mortality Rate (U5MR) reduced by 11% between 2006 and 2011 (from 61 deaths per 1,000 live births in NDHS 2006 to 54 per 1,000 live births in NDHS 2011), and the IMR by 4% (from 48 deaths per 1,000 live births in NDHS 2006 to 46 per 1,000 live births in NDHS 2011), but the Neonatal Mortality Rate (NMR) remained stagnant during the same period (33 deaths per 1,000 live births in both the NDHS 2006 and 2011). The contribution of neonatal deaths has risen from 63% of infant deaths in 1996 to 72% in 2011, and from 42% of under-five deaths to 61% in the same period. The GoN has implemented several interventions for child survival, including the Community-based Newborn Care Programme (CB-NCP), Integrated Management of Childhood Illness (IMCI), Expanded Programme on Immunization (EPI), Infant and Young Child Feeding (IYCF) programme, micronutrients supplementation programme, vitamin A and deworming campaign, and Community-based Management of Acute Malnutrition (CMAM) programme.

This chapter looks at indicators for newborns delivered in the last 12 months (newborn care practices, i.e. bathing, breastfeeding, and check-ups, and awareness of newborn danger signs) and for children under five (vitamin A supplementation among children aged 6-59 months, and treatment of diarrhoea, Acute Respiratory Infection (ARI), and fever among children under five). Where appropriate, findings are disaggregated by age group, urban/rural residence, ecological zone, education, wealth quintile, caste/ethnicity, and use of improved toilet/water source. Associations were tested to see if they are significant. Findings for key indicators are compared to the NDHS 2011; similar wording was used in the HHS questionnaire and the NDHS questionnaire.

8.2 RESULTS

	NDHS 2011	HHS 2012	
		(%)	95%CI
% of women who delivered in the last year who did not bathe their infant in first 24 hours	26.1**	64.7	59.5-69.6
% of women who delivered in the last year who breastfed their infant within an hour of birth*	44.5**	48.5	43.7-63.3
% of infants exclusively breastfed for the first five months*	70	65.9	61.2-70.3
% of infants delivered in a facility in the last year who had a check-up before discharge	NA	77.8	72.9-82.1
% of women who delivered in the last year aware of at least three newborn danger signs	NA	49.7	44.1-54.5
% of WRA (15-49) aware of at least three newborn danger signs*	NA	44.9	40.6-49.4
% of children aged 6-59 months that have received vitamin A supplements*	90	90.0	88.3-91.5
% of children under five who had diarrhoea in the last two weeks	13.8	11.5	9.7-13.9
% of children under five who had diarrhoea in the last two weeks treated with ORS	5	47.9	40.5-55.3
% of children under five who had diarrhoea in the last two weeks treated with zinc	6.2	29.1	24.3-38.2
% of children under five who had diarrhoea treated with ORS and zinc	5.2	23.7	17.8-30.7
Average number of days given zinc (children under five who had diarrhoea in the last two weeks treated with zinc)	NA	6	
% of children under five who had ARI*** in the last two weeks	4.6	6.4	5.1-7.9
% of children under five who had ARI in the last two weeks and sought care	NA	84.0	76.9-88.9
% of children under five who had ARI in the last two weeks treated with antibiotics	NA	26.6	19.9-34.8
% of children under five who had fever in the last two weeks	18.7	19.1	16.5-21.9
% of children under five who had fever in the last two weeks treated with antimalarials	0.6	0.9	0.4-2.1
% of children under five who had fever in the last two weeks treated with antibiotics	31.6	20.0	16.5-24.9

* LF Indicator
**Data from the NDHS reflects the two years preceding the survey
***Symptoms of ARI include a cough accompanied by short, rapid breathing that is chest-related and/or by difficult breathing that is chest-related

8.2.1 Newborn

8.2.1.1 Newborn care practices

Bathing

The HHS 2012 found that nearly two-thirds of women (65%) who had delivered in the last year had waited at least 24 hours before bathing their infants (Table 8.1 and Figure 8.1). Women living in urban areas (76%) were more likely to wait at least 24 hours than those in rural areas (64%). Those in Terai (72%) and hill (61%) districts were more likely to wait at least 24 hours than those in mountain districts (36%). The likelihood of delaying bathing increased with level of education; just 58% of those who had never attended school delayed bathing for 24 hours in comparison with 85% of those who had further education.

Breastfeeding

UNICEF, the World Health Organization (WHO), and the nutrition programme under the National Nutrition Policy and Strategy 2004, recommend that children are exclusively breastfed for the first six months (WHO/UNICEF, 2002; Pan American Health Organization (PAHO)/WHO, 2004). At six months, they recommend mothers start to introduce semi-solid or solid foods, and continue breastfeeding until the child is at least two. Nepal's Breast Milk Substitute Act (2049) of 1992 promotes and protects breastfeeding and regulates the unauthorised or unsolicited sale and distribution of breast milk substitutes (MoHP, 2004b).

Overall initiation of breastfeeding within an hour of delivery was low (49%) (Table 8.1). Those in mountain (59%) and hill districts (56%) were more likely to initiate breastfeeding within an hour of birth, compared to those in Terai districts (40%). The largest variation was seen between castes/ethnicities: only 27% of those in the Terai/Madhesi group and 36% of the Muslim group had initiated breastfeeding within one hour, compared to 58% in the Janajati group. There was no significant difference between urban and rural areas or by wealth quintile.

Two-thirds of women (66%) who had delivered in the last year exclusively breastfed for the first five months. It was more common for women in Terai districts to breastfeed exclusively for five months (80%) than it was for women in in hill (53%) or mountain (47%) districts. Muslims (92%) were most likely to breastfeed exclusively, and Brahmins/Chhetris were least likely to. There were no significant differences by urban/rural residence, education, or wealth quintile.

Infant check-ups

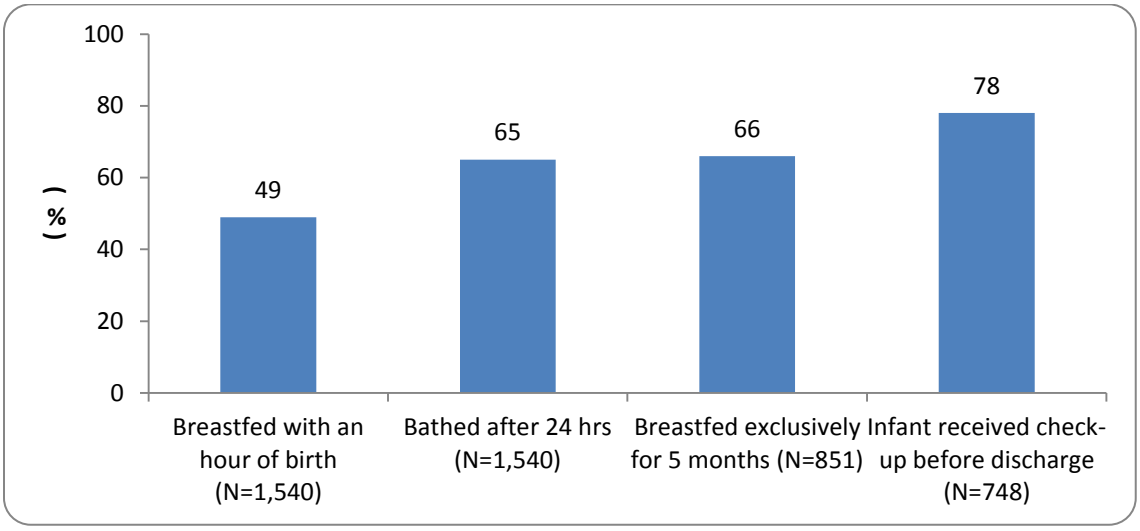
Nearly four-fifths of infants (78%) who were delivered in a facility during the last year received a check-up before discharge (Table 8.1). There were no significant differences by urban/rural residence, ecological zone, educational level, or caste/ethnicity. However, wealth quintile was significantly associated with infants receiving a check-up before discharge, with infants in the highest wealth quintile infants being most likely to receive a check-up before discharge.

Table 8.1: Newborn care practices (by women who delivered during the last year)

	Infants breastfed within an hour of delivery (%)	Infant bathed after 24 hours of birth (%)	Total women delivered during last year and had live birth (N)	Infant received check-up before discharge (%)	Total women delivered in government facility (N)	Infants exclusively breastfed for first five months (%)	Total infants of age 6-12 months (N)
All	48.5	64.7	1,540	77.8	748	65.9	851
Residence:	(0.908)	**(0.029)**		(0.126)		(0.878)	
Urban	47.7	76.1	137	87.2	118	66.8	79
Rural	48.6	63.6	1,403	76.1	629	65.8	772
Ecological zone:	**(0.001)**	**(0.001)**		(0.125)		**(<0.001)**	
Mountain	59.2	36.2	109	59.9	70	46.8	59
Hill	56.4	61.1	659	78.7	331	53.0	376
Terai	40.2	71.8	772	80.6	348	80.3	416
Education:	**(0.003)**	**(<0.001)**		(0.079)		(0.222)	
Never attended school	41.6	58.4	728	73.2	221	69.7	391
Primary	53.1	64.5	546	76.8	301	59.8	301
Secondary	60.8	79.8	129	87.1	120	64.0	77
Further education	55.1	85.1	137	79.9	106	71.5	82
Wealth quintile:	(0.161)	**(0.003)**		**(0.032)**		(0.765)	
Lowest	43.3	74.2	285	69.3	133	67.4	145
Second	43.3	65.1	341	79.1	142	63.7	176
Middle	53.7	55.5	372	77.6	161	67.3	219
Fourth	49.8	61.1	340	78.7	173	62.5	188
Highest	52.8	73.7	202	84.0	139	69.8	122
Caste/ethnicity:	**(<0.001)**	**(0.001)**		(0.627)		**(<0.001)**	
Brahmin/Chhetri	57.2	70.7	301	80.8	219	55.3	179
Terai/Madhesi other castes	26.8	70.8	289	87.5	95	83.1	146
Dalit	41.1	55.1	217	70.4	100	68.4	127
Newar	*53.5*	*92.8*	*19*	*61.1*	*8*	*67.4*	*13*
Janajati	58.4	57.7	608	76.3	299	59.5	335
Muslim	35.7	83.3	89	55.0	12	92.2	45
Others	*65.1*	*100.0*	*18*	*82.5*	*14*	*64.4*	*6*

Note: Figures in parentheses indicate p-value; those in bold are statistically significant
The italic figures are based on <30 unweighted cases

Figure 8.1Newborn care practices by women who delivered in the last year



8.2.1.2 Awareness of newborn danger signs

Among women who had recently delivered

Awareness of most danger signs was low across most groups, although 92% knew at least one danger sign, and half of RDW (50%) were aware of at least three danger signs (Table 8.2 and Figure 8.3). In particular, there was a lack of awareness of prematurity and neonatal conjunctivitis as danger signs. The symptom most commonly recognised as a danger sign was the infant having breathing difficulties. More than half of RDW in rural areas were aware of three danger signs (51%), while only one-third of urban women were aware of these (33%).

Among WRA

Among WRA, overall knowledge of at least three danger signs was 45%, which is lower than among those who had recently delivered, and 13% of WRA did not know any danger signs (Table 8.3). As with RDW, WRA in rural areas (47%) were more likely to be aware of at least three danger signs than those in urban areas (33%). Levels of knowledge appear to be lower in hill districts (33%) than in mountain (48%) and Terai (56%). By education level, those with further education had higher awareness of three danger signs (53%) than those in other categories. By caste/ethnicity, Janajatis had the lowest levels of knowledge (36%). Breathing difficulties (49%), jaundice (42%), and feeding difficulties (41%) were the symptoms most commonly recognised.

Table 8.2: Awareness of newborn danger signs (among women who delivered during last year)

	Low birth weight (%)	Premature birth (%)	Poor feeding or sucking (%)	Breathing difficulty (%)	Excessive vomiting (%)	Fever and hypothermia (%)	Neonatal conjunctivitis (%)	Umbilical cord infection (%)	Jaundice (%)	Skin infection (%)	Lethargic/ unconscious (%)	Know at least three danger signs (%)	Don't know any newborn danger signs (%)	Total women who delivered last year^ (N)
All	12.4	6.2	44.2	49.9	19.2	24.4	5.1	8.9	40.1	18.3	18.4	49.7	8.1	1,543
Residence:	(0.792)	(0.258)	**(0.003)**	(0.349)	**(0.005)**	(0.431)	(0.517)	(0.344)	(0.566)	**(0.042)**	(0.871)	**(0.003)**	(0.994)	
Urban	11.4	9.8	31.5	55.4	8.6	20.2	3.7	6.1	44.3	8.1	19.4	32.5	8.5	137
Rural	12.5	5.9	45.4	49.3	20.2	24.8	5.2	9.2	39.7	19.3	18.3	51.4	8.1	1,407
Ecological zone:	(0.515)	**(0.001)**	(0.191)	**(0.001)**	(0.359)	**(0.003)**	**(0.002)**	(0.308)	**(0.005)**	**(0.047)**	**(0.047)**	(0.066)	**(0.001)**	
Mountain	7.6	1.6	51.4	38.9	20.1	26.4	3.5	4.2	6.5	31.8	29.1	37.3	14.1	109
Hill	12.5	3.4	39.9	40.7	16.4	17.0	2.6	8.9	43.4	18.2	21.7	45.3	12.8	659
Terai	13.0	9.3	46.8	59.2	21.4	30.5	7.5	9.7	42.0	16.5	14.0	55.2	3.3	775
Education:	(0.084)	(0.101)	(0.485)	**(0.019)**	**(0.008)**	(0.211)	(0.318)	(0.336)	**(0.001)**	**(0.037)**	(0.893)	(0.538)	(0.205)	
Never attended school	9.7	4.5	46.8	51.0	23.0	22.3	6.3	7.7	32.6	15.5	19.2	50.2	10.7	730
Primary	13.8	6.7	42.7	45.6	17.3	25.1	3.6	10.0	44.3	21.2	16.9	47.4	6.4	546
Completed secondary	15.0	10.5	39.5	50.3	9.7	28.0	5.7	7.8	51.3	15.0	18.6	48.5	5.3	130
Further education	18.8	9.7	40.6	60.3	15.4	29.7	4.2	12.5	52.4	24.8	19.5	57.1	3.9	137
Wealth quintile:	**(0.011)**	(0.137)	(0.333)	(0.460)	**(0.012)**	(0.154)	**(0.037)**	**(0.007)**	**(0.003)**	**(0.039)**	**(0.029)**	(0.109)	(0.577)	
First	15.6	9.4	47.5	46.1	25.7	21.7	8.2	15.1	33.0	25.9	26.7	57.7	7.6	286
Second	17.7	5.3	48.7	48.7	21.6	21.7	5.5	6.5	40.4	17.9	17.8	50.8	7.7	343
Third	8.7	4.2	39.9	49.9	15.7	23.4	3.1	6.8	34.7	16.2	18.4	43.9	11.1	372
Fourth	7.3	5.7	42.7	49.9	19.3	25.6	5.7	7.9	42.5	17.5	15.6	48.3	7.6	341
Fifth	14.3	8.0	42.2	57.0	12.1	32.8	2.7	10.0	55.5	13.6	12.2	49.6	4.9	202
Caste/ethnicity:	(0.236)	(0.405)	(0.065)	**(0.009)**	**(<0.001)**	(0.118)	**(<0.001)**	**(0.023)**	(0.214)	(0.420)	(0.272)	(0.206)	(0.056)	
Brahmin/Chhetri	15.6	7.2	42.6	48.6	14.0	30.1	3.6	8.5	38.6	20.1	23.5	49.4	7.6	301

	Low birth weight (%)	Premature birth (%)	Poor feeding or sucking (%)	Breathing difficulty (%)	Excessive vomiting (%)	Fever and hypothermia (%)	Neonatal conjunctivitis (%)	Umbilical cord infection (%)	Jaundice (%)	Skin infection (%)	Lethargic/ unconscious (%)	Know at least three danger signs (%)	Don't know any newborn danger signs (%)	Total women who delivered last year^ (N)
Terai/Madhesi other castes	12.2	8.3	53.7	62.7	26.6	26.7	9.8	10.2	36.8	12.3	13.7	57.7	2.4	291
Dalit	14.8	6.4	40.5	58.0	27.1	25.5	5.4	13.6	36.1	16.2	14.1	50.8	2.8	217
Newar	*14.7*	*3.5*	*49.6*	*34.3*	*16.6*	*28.9*	*19.4*	*27.2*	*32.7*	*22.7*	*0.0*	*65.9*	*16.1*	*19*
Janajati	11.1	5.6	40.3	41.0	14.6	19.5	1.9	6.5	45.6	20.8	19.5	44.1	12.3	608
Muslim	2.3	0.8	56.5	54.6	26.1	30.2	10.5	5.7	38.0	20.4	22.3	58.6	6.3	89
Others	*23.5*	*7.8*	*25.8*	*56.6*	*12.1*	*12.1*	*15.7*	*17.7*	*0.0*	*9.8*	*19.9*	*37.6*	*34.9*	*18*

Note: Figures in parentheses indicate p-value; those in bold are statistically significant

The italic figures are based on <30 unweighted cases

Figure 8.2: Awareness of newborn danger signs among women who delivered during the last year (N=1,543)

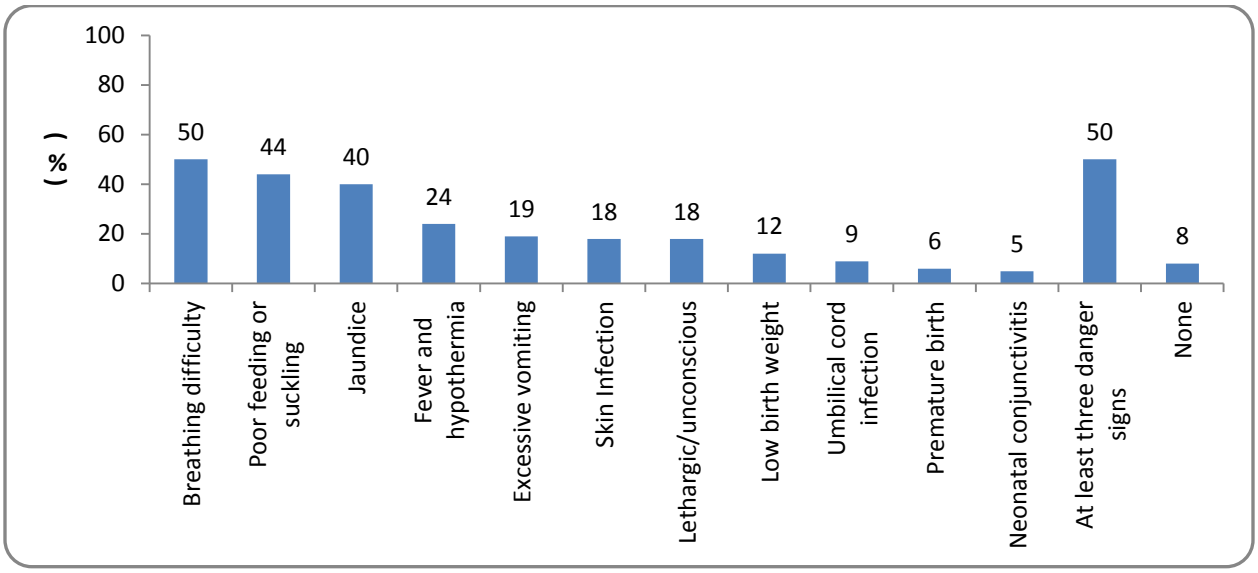


Table 8.3: Awareness of newborn danger signs among WRA

	Low birth weight (%)	Premature birth (%)	Poor feeding or sucking (%)	Breathing difficulty (%)	Excessive vomiting (%)	Fever and hypothermia (%)	Neonatal conjunctivitis (%)	Umbilical cord infection (%)	Jaundice (%)	Skin infection (%)	Lethargic/ unconscious (%)	Know at least three danger signs (%)	Don't know any danger signs (%)	Total women who deliver-ed last year^ (N)
All	10.2	8.4	40.6	49.0	16.2	23.7	4.6	8.1	41.7	15.5	17.4	44.9	12.5	9,322
Residence:	(0.821)	(0.865)	**(0.019)**	(0.789)	(0.210)	(0.385)	(0.110)	(0.172)	(0.428)	(0.160)	**(0.037)**	**(0.035)**	(0.437)	
Urban	9.7	8.9	29.1	47.6	11.3	19.6	2.7	5.7	46.2	10.9	10.1	32.8	16.7	1,108
Rural	10.3	8.3	42.1	49.2	16.9	24.3	4.9	8.4	41.1	16.1	18.4	46.6	11.9	8,214
Ecological zone:	(0.363)	**(<0.001)**	(0.087)	**(<0.001)**	**(0.039)**	**(<0.001)**	**(<0.001)**	**(0.019)**	**(<0.001)**	**(0.049)**	**(0.003)**	**(<0.001)**	**(<0.001)**	
Mountain	6.6	2.4	52.2	44.6	19.2	32.8	1.9	6.5	7.5	27.0	34.4	48.1	14.5	613
Hill	9.8	3.5	37.4	36.1	12.9	12.5	2.2	6.2	38.9	13.6	18.3	32.9	20.8	4,242
Terai	11.1	13.8	42.0	61.8	18.9	33.1	7.2	10.1	49.1	15.7	14.2	56.0	4.3	4,467
Education:	**(<0.001)**	**(0.007)**	(0.349)	**(0.018)**	**(0.001)**	(0.065)	(0.090)	(0.456)	**(<0.001)**	(0.118)	(0.131)	**(0.031)**	**(0.005)**	
Never attended school	7.9	7.3	41.0	47.3	18.3	24.5	5.0	7.7	36.0	14.3	18.5	44.9	14.7	5,018
Primary	11.0	8.4	40.1	49.1	14.4	20.9	3.7	9.1	45.9	18.2	14.3	43.1	10.1	2,701
Completed secondary	14.6	11.2	36.6	52.8	10.2	25.1	4.2	6.3	52.3	12.8	17.0	44.2	10.8	854
Further education	18.2	12.1	43.8	55.6	15.6	26.7	5.7	8.7	53.1	16.8	15.7	53.0	7.9	747
Wealth quintile:	(0.070)	**(<0.001)**	**(0.023)**	**(0.006)**	**(<0.001)**	**(0.019)**	**(0.019)**	(0.607)	**(<0.001)**	**(0.046)**	**(<0.001)**	**(0.031)**	(0.287)	
Lowest	11.9	9.6	45.6	46.5	21.8	24.7	7.0	8.8	34.7	18.2	22.9	51.5	13.5	1,752
Second	10.5	6.7	43.1	48.5	17.1	20.4	3.7	8.1	38.9	16.5	18.5	44.2	13.3	2,080
Middle	8.0	5.6	37.7	44.5	14.4	20.1	3.6	7.3	39.2	15.3	16.5	38.9	15.6	2,070
Fourth	9.2	8.3	40.9	50.1	16.4	26.6	4.6	8.7	41.8	14.3	17.8	46.5	9.9	1,895
Highest	12.3	13.0	34.8	57.3	10.8	28.5	4.5	7.4	56.9	12.8	10.2	44.9	9.4	1,525
Caste/ethnicity:	**(0.021)**	(0.588)	**(0.011)**	**(<0.001)**	**(<0.001)**	**(<0.001)**	**(<0.001)**	(0.091)	(0.394)	(0.124)	(0.076)	**(<0.001)**	**(0.003)**	
Brahmin/Chhetri	13.2	9.6	43.1	49.9	16.5	25.6	4.8	9.3	40.3	16.8	20.3	47.7	10.6	2,417

	Low birth weight (%)	Premature birth (%)	Poor feeding or sucking (%)	Breathing difficulty (%)	Excessive vomiting (%)	Fever and hypothermia (%)	Neonatal conjunctivitis (%)	Umbilical cord infection (%)	Jaundice (%)	Skin infection (%)	Lethargic/ unconscious (%)	Know at least three danger signs (%)	Don't know any danger signs (%)	Total women who deliver-ed last year^ (N)
Terai/Madhesi other castes	7.9	9.1	47.6	66.0	28.9	31.5	9.2	9.6	39.7	10.5	14.3	58.2	3.7	1,368
Dalit	9.7	9.4	43.3	51.8	19.6	25.6	4.2	10.2	38.2	14.9	19.6	47.9	10.0	1,160
Newar	12.0	7.7	39.6	42.1	11.3	12.3	3.5	8.3	43.7	14.8	12.3	38.1	20.4	268
Janajati	9.2	7.3	34.4	41.5	10.4	19.0	2.7	6.3	43.2	16.5	15.3	36.2	18.1	3,601
Muslim	5.4	6.1	46.4	51.0	19.0	36.2	8.6	6.8	47.9	19.6	20.1	58.7	7.3	344
Other	17.3	6.0	48.5	46.5	12.4	11.4	1.0	5.1	55.8	12.4	33.1	47.4	7.5	163

Note: Figures in parentheses indicate p-value; those in bold are statistically significant

8.2.2 Child Health

8.2.2.1 Vitamin A

It is government policy for infants to receive vitamin A supplementation once between six and 11 months of age, and then once every six months between 12-59 months. FCHVs are responsible for distributing vitamin A once every six months within their allocated ward/cluster to all those who are eligible. Vitamin A supplementation of children aged 6-59 months was generally high (90%) (Table 8.4). Nearly three-quarters of those aged 6-11 months had received supplementation (73%), and over 90% of children aged between 12-59 months had received vitamin A in the last six months. There was no significant difference by sex, urban/rural residence, ecological zone, wealth quintile, or caste/ethnicity. The NHSP-2 LF target of 90% was met overall, and was achieved by most disaggregated groups, but more focus is needed to reach the 6-11 month age group.

Table 8.4: Vitamin A supplementation among children aged 6-59 months in the last six months

	Children aged 6-59 months given vitamin A supplements in the last 6 months (%)	Total children aged 6-59 months (N)
All	90.0	4,583
Age group:	**(<0.001)**	
6-11 months	73.1	768
12-23 months	92.5	679
24-35 months	93.7	1,060
36-47 months	93.4	957
48-59 months	93.7	1,119
Sex:	(0.432)	
Male	89.5	2,352
Female	90.5	2,231
Residence:	(0.148)	
Urban	87.6	413
Rural	90.2	4,170
Ecological zone:	(0.443)	
Mountain	94.3	308
Hill	89.1	1,879
Terai	90.2	2,396
Wealth quintile:	(0.303)	
Lowest	91.6	816
Second	90.2	1,055
Middle	88.5	1,113
Fourth	89.1	1,037
Highest	92.0	563
Caste/ethnicity:	(0.694)	
Brahmin/Chhetri	90.7	931
Terai/Madhesi other castes	87.8	934
Dalit	90.7	680
Newar	88.5	91
Janajati	90.6	1,613
Muslim	90.0	284
Others	94.4	50

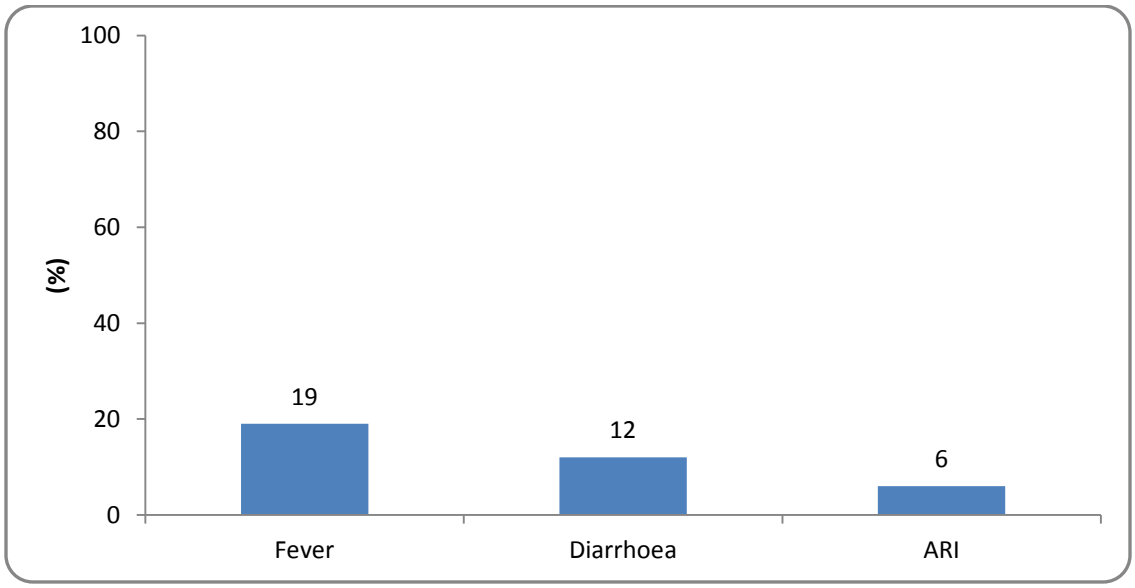
Note: Figures in parentheses indicate p-value; those in bold are statistically significant

8.2.2.2 Diarrhoea

Prevalence

Around one in eight children (12%) had experienced diarrhoea in the two weeks preceding the survey (Table 8.5 and Figure 8.3). It was most common among children aged 12-23 months (17%). There were no significant differences by sex, urban/rural residence, source of drinking water, type of toilet, region or wealth quintile.

Figure 8.3: Percentage of children under five experiencing diarrhoea, ARI, and fever in the last two weeks (N=5,129)



Treatment

Nearly half of children (47%) under five who had experienced diarrhoea in the last two weeks had not been treated with either ORS or zinc (Figure 8.4). Of those treated, more children had been treated with ORS (48%) than zinc (29%). However, most of those treated with zinc had also been treated with ORS, so nearly one-quarter (24%) of children who had experienced diarrhoea in the last two weeks had been treated with both (Table 8.5). Those in Terai (32%) districts were less likely to receive ORS than those in mountain (69%) or hill (58%) districts. A similar pattern was not seen for zinc: more than twice the proportion of children with diarrhoea were treated with zinc in mountain (38%) and hill districts (39%) than were in Terai districts (17%). Overall, just 11% of children from Terai districts experiencing diarrhoea were treated with zinc and ORS, compared to 32% of hill residents and 37% of mountain residents. Those who received zinc took it for an average of six days. Aside from ecological zone, there were no significant differences between subgroups in the treatment of children with ORS and zinc.

Table 8.5: Prevalence and treatment of children under five experiencing diarrhoea in the last two weeks

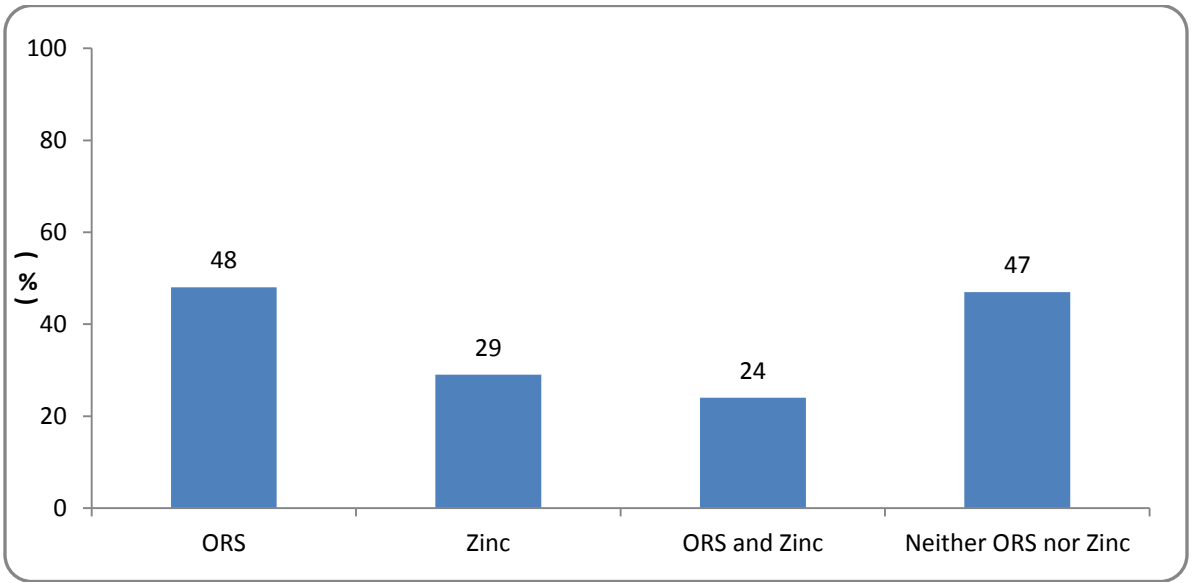
	Children Under Five (U5) with diarrhoea in the last two weeks (%)	Total children U5 (N)	Children U5 treated with ORS (%)	Children U5 treated with zinc (%)	Average number of days given zinc (N)	Children U5 treated with ORS and zinc (%)	Children U5 not treated with either ORS or zinc (%)	Total children U5 with diarrhoea (N)
All	11.5	5,129	47.9	29.1	5.7	23.7	46.7	592
Age group:	**(0.001)**		(0.243)	(0.638)		(0.417)	(0.172)	
< 6 months	9.4	546	35.2	27.3	6.3	15.9	53.4	51
6-11 months	13.6	768	50.5	32.9	6.5	28.2	44.7	104
12-23 months	15.6	679	53.4	33.2	6.3	26.1	39.5	106
24-35 months	12.9	1,060	55.1	30.1	5.4	26.9	41.8	137
36-47 months	10.1	957	42.5	22.2	4.9	20.1	55.4	97
48-59 months	8.7	1,119	40.7	27.0	4.2	19.1	51.4	97
Sex:	(0.290)		(0.155)	(0.647)		(0.929)	(0.699)	
Male	12.1	2,637	47.9	30.1	6.0	23.9	45.8	318
Female	11.0	2,492	47.8	27.9	5.3	23.4	47.7	274
Residence:	(0.186)		(0.150)	(0.373)		(0.139)	(0.221)	
Urban	8.6	461	64.6	37.1	6.3	36.4	34.8	40
Rural	11.8	4,669	46.7	28.5	5.6	22.7	47.6	553
Source of drinking water:	(0.273)		(0.473)	(0.692)		(0.954)	(0.165)	
Improved	11.2	4,597	48.8	24.2	5.1	18.9	45.9	112
Non-improved	14.7	532	47.6	30.2	5.8	24.7	46.9	481
Toilet facility:	(0.319)		(0.056)	(0.780)		(0.232)	(0.077)	
Improved	10.6	1,848	42.8	27.7	5.2	21.1	50.6	396
Non-improved	12.1	3,281	58.0	31.9	6.4	28.9	38.9	197
Region:	(0.065)		**(0.012)**	**(0.013)**		**(0.004)**	**(<0.001)**	
Mountain	21.5	350	68.5	38.1	4.9	37.2	30.6	75
Hill	11.7	2,120	58.4	39.4	6.3	32.8	35.1	248
Terai	10.1	2,660	32.4	17.1	4.8	11.4	61.9	269
Wealth quintile:	(0.223)		(0.802)	(0.333)		(0.680)	(0.201)	
Lowest	11.5	927	44.6	28.4	4.6	25.0	52.0	107
Second	13.3	1,188	53.4	29.9	5.7	21.9	38.6	158
Middle	11.1	1,241	48.4	35.6	5.8	28.4	44.4	137
Fourth	12.0	1,150	46.6	26.4	6.1	22.2	49.2	138
Highest	8.4	623	39.5	18.1	6.2	17.5	59.9	52

	Children Under Five (U5) with diarrhoea in the last two weeks (%)	Total children U5 (N)	Children U5 treated with ORS (%)	Children U5 treated with zinc (%)	Average number of days given zinc (N)	Children U5 treated with ORS and zinc (%)	Children U5 not treated with either ORS or zinc (%)	Total children U5 with diarrhoea (N)
Caste/ ethnicity:	(0.306)		**(<0.001)**	**(0.003)**		(0.070)	**(<0.001)**	
Brahmin/ Chhetri	8.7	1,025	45.6	34.8	5.6	25.8	45.4	89
Terai/ Madhesi other castes	9.6	1,033	32.7	18.7	4.0	11.2	59.8	99
Dalit	13.3	747	57.8	23.1	5.9	19.0	38.0	100
Newar	9.0	97	24.5	32.1	8.3	24.5	67.9	9
Janajati	12.7	1,842	59.8	38.9	5.9	35.4	36.8	234
Muslim	14.9	325	16.2	6.3	5.3	4.2	81.7	48
Others	*22.6*	*61*	*22.3*	*22.3*	*7.0*	*0.0*	*55.4*	*14*

Note: Figures in parentheses indicate p-value; those in bold are statistically significant

The italic figures are based on <30 unweighted cases

Figure 8.4:Treatment of children under five experiencing diarrhoea in the last two weeks (N=592)



8.2.2.3 ARI

Prevalence

Overall, 6% of children under five had suffered from ARI in the two weeks preceding the survey (Table 8.6 and Figure 8.3). Symptoms of ARI include: cough accompanied by short, rapid breathing that is chest-related, and/or by difficulty breathing that is chest-related. ARI rates were higher in mountain districts (12%) than in hill (7%) or Terai (5%) districts. There were no significant differences by age, sex, urban/rural residence, or wealth quintile.

Table 8.6: Prevalence for children under five with ARI in the last two weeks

	Children U5 with ARI in the last two weeks (%)	Total children U5 (N)
All	6.4	5,130
Age group:	(0.100)	
<6 months	8.2	546
6-11 months	8.5	768
12-23 months	6.0	679
24-35 months	6.7	1,060
36-47 months	5.0	957
48-59 months	5.1	1,119
Sex:	(0.834)	
Male	6.3	2,637
Female	6.5	2,492
Residence:	(0.716)	
Urban	5.6	461
Rural	6.4	4,669
Ecological zone:	**(0.015)**	
Mountain	12.0	350
Hill	7.4	2,120
Terai	4.8	2,660
Wealth quintile:	(0.602)	
Lowest	6.6	927
Second	6.6	1,188
Middle	6.5	1,242
Fourth	5.1	1,150
Highest	7.7	623
Caste/ethnicity:	**(0.010)**	
Brahmin/Chhetri	6.5	1,025
Terai/Madhesi other castes	3.4	1,033
Dalit	6.6	747
Newar	18.6	97
Janajati	7.1	1,842
Muslim	5.2	325
Others	16.4	61

Note: Figures in parentheses indicate p-value; those in bold are statistically significant

Treatment

Most children with reported ARI in the last two weeks sought care (84%) (data not shown). There were no significant differences in care-seeking when data were disaggregated, hence these data are not displayed. Of those who sought care for ARI, 40% went to a government facility and 42% to a non-government facility (Figure 8.5). The most common places to seek care were private clinics (20%) and government HPs (20%). Nearly three-quarters of children (73%) were not treated with any of the four named antibiotics (Table 8.7). Of those who were treated, children were most likely to be treated with amoxicillin (15%) and co-trimoxazole (14%).

Figure 8.5: Place of treatment for children under five with ARI in the last two weeks (N=327)

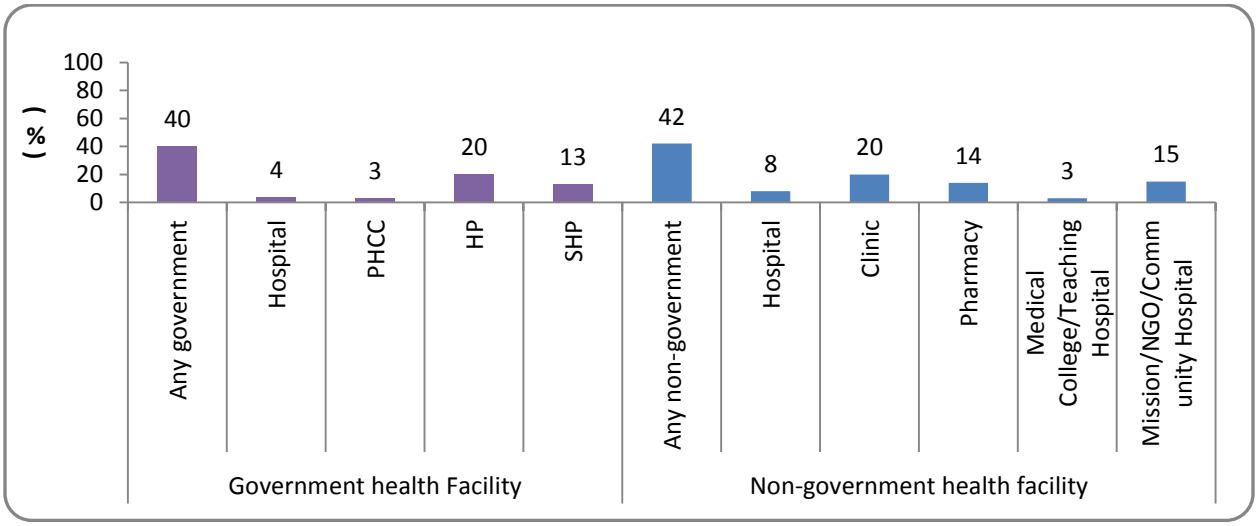


Table 8.7: Antibiotic intake by children under five with ARI in the last two weeks

	%
Treated with any of the below four antibiotics:	26.6
Co-trimoxazole	14.4
Amoxicillin	15.3
Ciprofloxacin	0.6
Procaine penicillin injection	0.6
Total children U5 with ARI (N)	327

8.2.2.4 Fever

Prevalence

Nearly one-fifth (19%) of children under-five had had a fever in the last two weeks (Table 8.8 and Figure 8.3). Prevalence was highest amongst those aged 6-11 months (23%) and 12-23 months (26%). There were no significant differences by sex, urban/rural residence, ecological zone, ecological region, source of drinking water, toilet facility, and wealth quintile.

Table 8.8: Prevalence of fever among children under five in the last two weeks

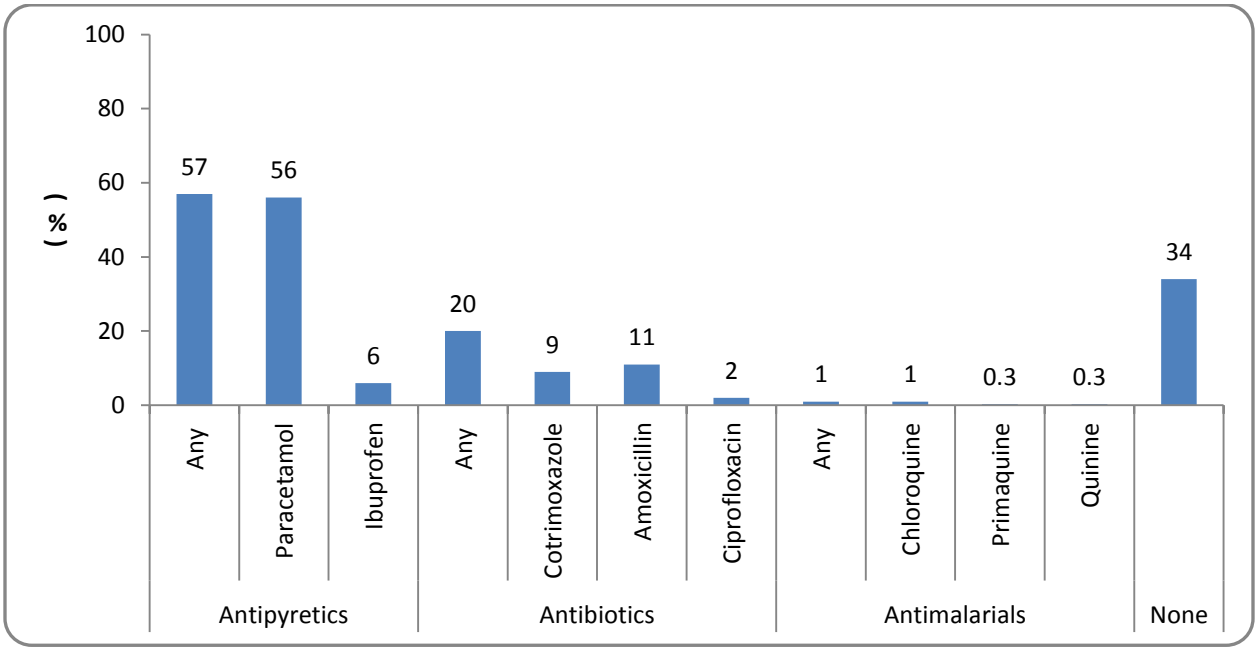
	Children U5 with fever in the last two weeks (%)	Total children U5 (N)
All	19.1	5,129
Age group:	**(<0.001)**	
<6 months	16.7	546
6-11 months	23.0	768
12-23 months	26.0	679
24-35 months	17.9	1,060
36-47 months	17.9	957
48-59 months	15.4	1,119
Sex:	(0.086)	
Male	19.2	2,637
Female	18.9	2,492
Residence:	(0.107)	
Urban	15.0	461
Rural	19.5	4,669
Region:	(0.644)	
Mountain	23.1	350
Hill	18.1	2,120
Terai	19.3	2,660
Source of drinking water:	(0.979)	
Improved	18.9	4,309
Non-improved	20.2	820
Toilet facility:	(0.317)	
Improved	20.2	1,848
Non-improved	18.5	3,281
Wealth quintile:	(0.955)	
Lowest	17.9	927
Second	19.6	1,188
Middle	19.1	1,241
Fourth	18.9	1,150
Highest	20.2	623
Caste/ethnicity:	**(0.010)**	
Brahmin/Chhetri	16.8	1,025
Terai/Madhesi other castes	14.5	1,033
Dalit	24.6	747
Newar	34.2	97
Janajati	21.0	1,842
Muslim	12.8	325
Others	18.5	61

Note: Figures in parentheses indicate p-value; those in bold are statistically significant

Treatment

More than half of the children suffering from fever in the last two weeks had been treated with paracetamol (56%): this was the most common treatment (Figure 8.6). One-fifth (20%) had been treated with antibiotics, most commonly amoxicillin (11%) and co-trimoxazole (9%). Less than 1% had been treated with an antimalarial, with chloroquine (0.8%) being the most common. Over one-third had not been treated with any of these medications.

Figure 8.6: Treatment of fever among children under five in the last two weeks (N=978)



8.3 KEY FINDINGS

Newborn health

- Nearly two-thirds of women waited at least 24 hours before bathing their infants (65%). Less than half of RDW initiated breastfeeding within an hour of delivery (49%), and two-thirds (66%) of women who had delivered in the last year exclusively breastfed for the first five months. Over three quarters of infants (78%) who had been delivered in a facility within the last year received a check-up before discharge.
- Awareness of many newborn danger signs was low: although 92% of women who had delivered in the last year knew at least one danger sign, only half of RDW (50%) were aware of at least three. Women were most aware of breathing difficulties, feeding difficulties, and jaundice.

Child health

- Vitamin A supplementation of children aged 6-59 months was generally high (90%) and met the NHSP-2 LF target.
- Around one in eight children (12%) had experienced diarrhoea in the last two weeks, but 47% of these children had not been treated with either ORS or zinc. Of those treated, children were more commonly given ORS (48%) than zinc (29%), but most of those treated with zinc had also been treated with ORS (24% of total). Those who took zinc had taken it for an average of six days.
- Overall, 6% of children under five had suffered from ARI during the last two weeks, and most of those had sought care (84%). The most common places to seek care were private clinics (20%) and government HPs (20%). Nearly three-quarters of children (73%) had not been treated with any of the four named antibiotics. Of those who had been treated, children were most likely to have been treated with co-trimoxazole (15%) and amoxicillin (14%).
- Nearly one-fifth of children under five had had a fever in the last two weeks. Over one-third had not been treated with antipyretics, antibiotics, or antimalarials, although over half had been treated with paracetamol, one-fifth with antibiotics, and 1% with an anti-malarial.

Inequalities

- As regards newborn care practices, women living in urban areas were more likely to wait at least 24 hours before bathing their infant. However, awareness of danger signs was greater in rural areas. Those in Terai and hill districts were more likely to wait at least 24 hours before bathing than those in mountain districts, while those in hill and mountain districts were more likely to initiate breastfeeding within an hour of birth than those in Terai districts. Those with a higher level of education were more likely to delay bathing, have a check-up for their infant, and have better knowledge of most newborn danger signs.
- With regards to the prevalence of childhood illness, diarrhoea and fever were most common among children aged 12-23 months. Children living in mountain districts were more likely to experience ARI.
- The youngest eligible age group (6-11 months) were least likely to have received vitamin A.

CHAPTER NINE: OUTPATIENT AND INPATIENT CARE

9.1 INTRODUCTION

The Interim Constitution of Nepal, 2007, considers the right to health as a fundamental right of the people of Nepal and guides the state's actions. The GoN has 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 FCHVs in district hospitals (of up to 25 beds) and PHCCs (as per the government decision of 15 December 2006). Since January 2008, the provision of free health care services has been expanded to all citizens at SHP and HP level (as per the decision of 8 October 2007). Since January 2009, all services at district hospitals (withup 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.

This chapter explores care-seeking behaviour, namely whether household members suffering from illnesses sought informal care, outpatient care, or inpatient care for their most recent illness, and whether there were any differences by age/sex. Data were collected for those who were inpatients in the last 12 months and those who were outpatients in the last month for their most recent illness. For those who did not seek formal care the reasons are noted. The top 20 illnesses for which household members sought both inpatient and outpatient care are presented. For both outpatients and inpatients the time taken before seeking care, place where care was sought, decision-making, satisfaction, and difficulties faced are assessed. Where relevant, findings are disaggregated by age group, sex, urban/rural residence, ecological zone, wealth quintile, and caste/ethnicity. Associations are tested to see if they are significant.

9.2 RESULTS

	HHS 2012	95%CI
% of residents who sought outpatient care in the last year	26.9	24.6-29.2
% of residents who sought inpatient care in the last year	2.1	1.8-2.5
% of outpatients who sought care in a government facility	39.2	34.3-44.7
% of inpatients who sought care in a government facility	29.3	24.5-34.7
% of outpatients citing poor quality of care as a reason for not utilising government services	62.3	58.3-66.0
% of inpatients citing poor quality of care as a reason for not utilising government services	49.9	44.3-55.3
% of outpatients at government facilities satisfied with their health care	90.0	85.9-93.1
% of inpatients at government facilities satisfied with their health care	94.9	90.5-97.3
% of outpatients at government facilities who would recommend the facility to a friend	82.7	77.8-86.7
% of inpatients at government facilities who would recommend the facility to a friend	84.6	77.3-89.5
% of outpatients at government facilities who were scolded by a provider	3.7	2.7-5.3
% of inpatients at government facilities who were scolded by a provider	7.7	4.5-13.1
% of inpatients at government facilities who experienced difficulties prior to arrival	66.9	59.5-73.5
% of outpatients at government facilities who experienced difficulties prior to arrival	48.6	44.7-58.1
% of inpatients at a government facility who experienced difficulties while seeking care	61.0	52.7-68.7
% of outpatients at a government facility who experienced difficulties while seeking care	54.0	46.1-61.7
% of outpatients unable to pay who returned from a government facility without care/only received partial care	21.2	6.4-35.0
% of inpatients unable to pay who returned from a government facility without care/only received partial care	10.0	3.1-26.1

9.2.1 Service utilisation

Of the 53,878 household members, 37% had been ill during the last year. Of those who had been ill, 75% had sought care as an outpatient, 6% had sought care as an inpatient, and 23% had not sought care or had only sought informal care.

Table 9.1 shows the top 26 reported illnesses. The most common illnesses reported by participants were fever (10%), common cold (3%), and abdominal pain (2%). For the top 26 illnesses, household members with common colds (40%), back pain (37%), headaches/migraines (33%), or, notably, those with mental illness (33%) were the most likely to have only sought informal care or not to have sought care. Those suffering from pneumonia (84%), typhoid (82%), or eye problems (82%) were most likely to have sought outpatient care. Those who suffered from kidney problems (30%), neurological disorders (20%), typhoid 15%), injuries (13%), or jaundice (13%) were most likely to have been admitted as inpatients.

Table 9.1: Care-seeking behaviour for the top 26 reported illnesses in the last year

	Household members who were ill (%)	Care-seeking behaviour			Total household members who were ill (N)
		Did not seek formal care (%)	Sought care as an outpatient (%)	Sought care as an inpatient (%)	
Any illness	37.2	23.4	74.7	5.7	19,372
Top 26 illnesses:					
Fever	9.6	25.0	74.1	0.9	5,177
Common cold	2.8	39.8	60.2	0.1	1,511
Abdominal pain	2.4	23.3	72.4	5.6	1,312
Headache	2.2	32.5	66.4	1.3	1,195
Diarrhoea	2.0	18.2	76.6	5.8	1,079
Injuries	1.8	12.5	77.5	13.0	982
Gastritis	1.4	20.9	76.6	3.0	775
Chronic illness	1.3	16.5	78.7	4.9	699
Back pain	1.1	36.6	61.3	2.7	595
Hand and leg pain	1.0	27.9	70.3	2.7	555
Typhoid	1.0	5.5	82.3	15.4	531
Pneumonia	0.9	7.1	84.4	9.9	494
Skin problem	0.6	21.5	77.6	0.9	335
Cough	0.5	28.3	71.7	0.0	276
Arthritis	0.5	23.2	75.3	3.4	267
Eye problem	0.5	13.2	81.6	6.0	266
Jaundice	0.4	20.4	71.5	12.8	235
Kidney problem	0.4	3.9	70.6	30.3	228
Ear problem	0.4	19.5	80.0	1.0	210
Weakness	0.3	25.5	72.3	4.3	184
Asthma	0.3	13.6	76.6	9.8	184
Neurological disorder	0.3	14.3	68.7	20.4	147
Chest pain	0.3	20.5	76.7	4.1	146
Dental problem	0.3	19.0	78.9	1.4	142
Mental illness	0.2	33.3	57.9	8.8	114
ARI	0.2	16.5	75.3	11.8	85
Total household members (N)	53,878				

By sex

There was little difference in the proportions of women (38%) and men (34%) who had experienced illness in the last 12 months (Table 9.2), and among those who had been ill there was little difference in

the percentages of men and women who had sought either outpatient (73% of men, 71% of women) or inpatient care (5% of women and 6% of men).

For the top 26 illnesses, men who had experienced dental (86%), eye (84%), or ear (81%) problems, pneumonia (82%), or typhoid (81%) were most likely to have sought outpatient care; among women, those who had experienced pneumonia (88%), typhoid (84%), asthma (84%), or eye (81%) or ear problems (80%) were most likely to have sought outpatient care. For the top 26 illnesses, men who had experienced kidney problems (26%), neurological disorders (26%), injuries (15%), or typhoid (15%) were most likely to have sought inpatient care. Similarly, for the top 26 illnesses, women who had experienced kidney problems (33%), mental illness (17%), neurological disorders (16%), and typhoid (16%) were most likely to have sought inpatient care.

Table 9.2: Care-seeking behaviour for different conditions

	Household members who were ill (%)	Care-seeking behaviour			Total household members who were ill (N)
		Did not seek formal care (%)	Sought care as an outpatient (%)	Sought care as an inpatient (%)	
Male:					
Any illness	34.0	22.2	73.0	5.7	8,538
Top 26 illnesses:					
Fever	9.7	23.4	75.7	0.9	2,437
Common cold	2.9	40.7	59.1	0.1	727
Diarrhoea	2.2	17.3	78.9	3.8	560
Injuries	2.1	11.7	76.1	15.1	523
Headache	1.6	33.4	66.3	0.5	395
Abdominal pain	1.5	24.3	70.4	6.1	375
Chronic illness	1.4	15.7	75.5	0.0	364
Gastritis	1.2	21.6	75.7	2.0	301
Pneumonia	1.1	7.8	81.6	12.4	282
Typhoid	1.1	5.1	81.3	15.4	273
Back pain	0.9	34.4	62.4	3.7	218
Hand and leg pain	0.8	29.0	67.9	3.1	193
Skin problem	0.7	21.1	77.1	0.6	166
Cough	0.6	26.1	73.9	0.0	161
Jaundice	0.6	14.7	79.0	13.3	143
Arthritis	0.4	27.6	70.5	5.7	105
Asthma	0.4	12.7	72.5	14.7	102
Eye problem	0.4	10.3	83.5	6.2	97
Kidney problem	0.3	3.7	74.4	25.6	82
Ear problem	0.3	18.2	80.5	1.3	77
Chest pain	0.2	21.0	77.4	3.2	62
Mental Illness	0.2	28.3	61.7	10.0	60
Neurological disorder	0.2	12.1	65.5	25.9	58
Dental problem	0.2	12.3	86.0	0.0	57
Weakness	0.2	27.3	70.9	3.6	55
ARI	0.2	16.3	74.4	14.0	43
Total male household members (N)	25,131				
Female:					
Any illness	37.7	24.3	71.4	5.4	10,835
Top 26 illnesses:					
Fever	9.5	26.5	72.6	0.8	2,741

	Household members who were ill (%)	Care-seeking behaviour			Total household members who were ill (N)
		Did not seek formal care (%)	Sought care as an outpatient (%)	Sought care as an inpatient (%)	
Abdominal pain	3.3	22.9	73.2	5.4	938
Headache	2.8	32.0	66.4	1.7	801
Common cold	2.7	38.9	61.1	0.1	784
Diarrhoea	1.8	19.3	74.2	7.9	519
Gastritis	1.6	20.5	77.0	3.6	474
Injuries	1.6	13.5	79.1	10.9	459
Back pain	1.3	38.2	60.7	2.4	377
Hand and leg pain	1.3	27.3	71.3	2.8	363
Chronic illness	1.2	18.5	75.9	5.7	336
Typhoid	0.9	6.2	83.7	15.5	258
Pneumonia	0.7	6.1	88.2	6.6	212
Skin problem	0.6	21.9	78.1	1.2	169
Eye problem	0.6	14.2	81.1	5.9	169
Arthritis	0.6	19.8	78.4	1.9	162
Kidney problem	0.5	3.4	69.2	32.9	146
Ear problem	0.5	20.3	79.7	0.8	133
Weakness	0.4	25.0	73.4	4.7	128
Cough	0.4	32.2	67.8	0.0	115
Jaundice	0.3	29.7	61.5	12.1	91
Neurological disorder	0.3	15.7	69.7	15.7	89
Dental problem	0.3	23.5	74.1	2.4	85
Chest pain	0.3	20.5	77.1	4.8	83
Asthma	0.3	13.6	84.0	3.7	81
Mental illness	0.2	37.0	46.3	16.7	54
ARI	0.1	16.7	76.2	11.9	42
Total female household members (N)	28,747				

By age and sex

For both males (48%) and females (55%), those over 60 were most likely to have experienced illness in the past 12 months (Table 9.3). Children under six years were the group most likely to have sought outpatient care when ill for both males (79%) and females (78%).

Table 9.3: Care-seeking by household members who were ill over the last year by age and sex

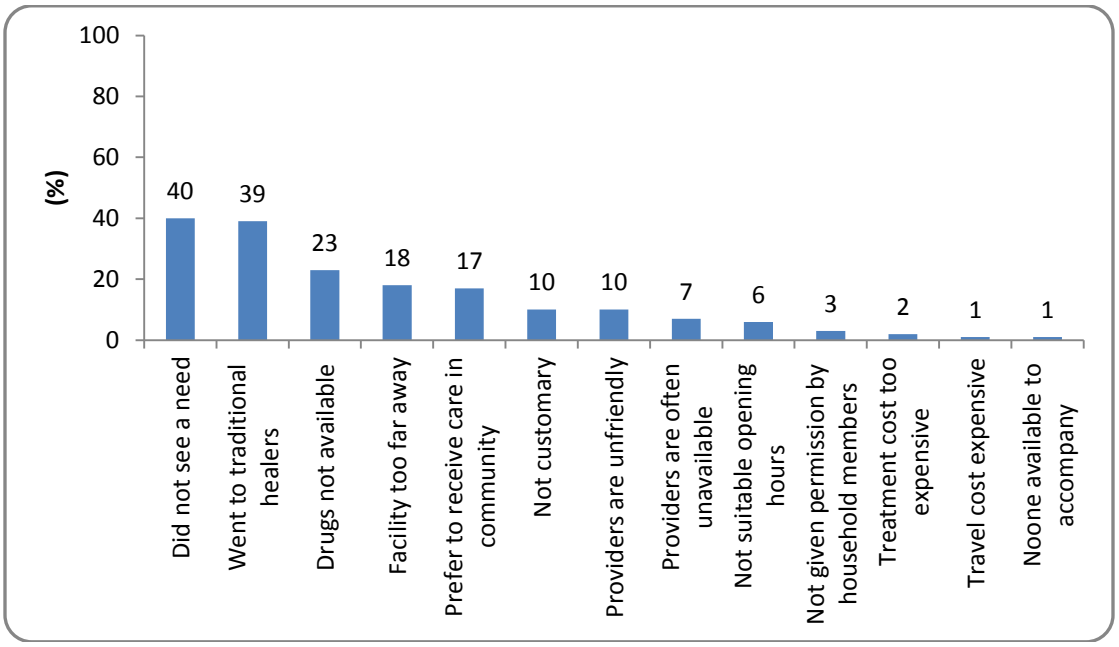
	Household members who were ill (%)	Care-seeking behaviour			
		Did not seek formal care (%)	Sought care as an outpatient (%)	Sought care as an inpatient (%)	Total household members who were ill (N)
Males:					
All ages	34.0	22.2	73.0	5.7	8,538
<6	43.8	18.4	78.5	3.7	1,679
6-11	32.0	22.4	73.6	4.5	1,273
12-23	26.0	23.8	70.9	5.9	1,551
24-35	25.4	22.6	72.1	6.2	977
36-47	36.3	23.5	69.8	7.1	1,021
48-59	38.9	23.1	71.9	6.7	845
60+	47.6	23.5	71.9	7.2	1,191
Total male household members (N)	25,131				
Females:					
All ages	37.7	24.3	71.4	5.4	10,835
<6	39.1	18.8	78.3	3.3	1,423
6-11	29.0	27.4	69.6	3.1	1,151
12-23	28.9	26.8	69.6	4.7	2,238
24-35	36.6	22.6	73.0	6.1	2,012
36-47	48.5	22.6	72.1	6.7	1,593
48-59	50.7	26.9	66.8	7.7	1,199
60+	54.8	25.5	69.3	6.6	1,216
Total female household members (N)	28,747				

**Note: 'Don't know' in age category is not shown in the table*

Reasons for not seeking formal care

Over one-third of the household members were reported to have been ill in the last year (37%). Of these, almost one-quarter (23%) had not sought formal care. Figure 9.1 shows the reasons given by those not seeking formal care. Two-fifths of respondents (40%) reported that they did not see a need. However, more than one-third of those who did not seek formal care had sought informal care through a traditional healer (39%), and nearly a quarter of household members (23%) did not seek care because of the lack of availability of drugs.

Figure 9.1: Reasons given for not seeking formal care (N=2,165)



Outpatient care

Table 9.4 presents the top 20 illnesses for which outpatient care was sought. These 20 illnesses account for 87% of illnesses for which outpatient care was sought. By far the most common reason for outpatient care was fever, accounting for over a quarter of outpatients (27%), followed by abdominal pain (7%), and the common cold (6%).

Table 9.4: Top 20 illnesses for which outpatient care was sought

Illness	Total (%)
Fever	26.5
Abdominal pain	6.6
Common cold	6.3
Diarrhoea	5.7
Headache	5.5
Injuries	5.3
Gastritis	4.1
Chronic illness	3.8
Typhoid	3.0
Pneumonia	2.9
Hand and leg pain	2.7
Back pain	2.5
Skin problem	1.8
Eye problem	1.5
Arthritis	1.4
Cough	1.4
Jaundice	1.2
Ear problem	1.2
Kidney problem	1.1
Asthma	1.0
Others	14.7
Total outpatients	14,478

Inpatient care

Table 9.5 presents the top 20 illnesses for which inpatient care was sought. These 20 illnesses accounted for 69% of illnesses for which inpatient care was sought. The main reasons for seeking inpatient care were: injuries (12%), followed by typhoid (7%), abdominal pain (7%), kidney problems (6%), and diarrhoea (6%).

Table 9.5: Top 20 illnesses for which inpatient care was sought

Illness	Total (%)
Injuries	11.5
Typhoid	7.4
Abdominal pain	6.7
Kidney problem	6.2
Diarrhoea	5.7
Pneumonia	4.4
Fever	4.1
Chronic illness	3.1
Jaundice	2.7
Neurological disorder	2.7
Gastritis	2.1
Asthma	1.6
Headache	1.4
Back pain	1.4
Eye problem	1.4
Hand and leg pain	1.4
Mental illness	0.9
ARI	0.9
Arthritis	0.8
Weakness	0.7
Others	32.9
Total inpatients (N)	1,111

Time taken before seeking care

Outpatients

The HHS 2012 asked household members how long they waited before seeking outpatient care (Table 9.6). Diabetes mellitus had the longest average time delay before seeking outpatient care, with a median wait of seven days (with an IQR of two to 30 days); even then, this delay may reflect the time taken before seeking care from the onset of severe symptoms rather than the onset of diabetes itself. Other conditions for which respondents identified long delays before seeking outpatient care were jaundice (median delay of six days, with an IQR of two to ten days), arthritis, asthma, eye problems, back pain, and skin problems, which all had a median delay of five days.

Table 9.6: Time taken after the onset of illness before seeking care as an outpatient

Top 20 conditions resulting in outpatient care which it takes the longest time for patients to seek care for	Number of days before seeking outpatient care		
	Median	Lower quartile (25th percentile)	Upper quartile (75th percentile)
Diabetes mellitus	7 days	2 days	30 days
Jaundice	6 days	2 days	10 days
Arthritis	5 days	2 days	19.5 days
Asthma	5 days	2 days	15 days
Eye problems	5 days	2 days	15 days
Back pain	5 days	2 days	11.5 days
Skin problems	5 days	2 days	7 days
Kidney problems	4 days	2 days	13.6 days
Gastritis	4 days	1 day	10 days
Hand and leg pain	3 days	2 days	10 days
Neurological disorder	3 days	3 days	26 days
Chest pain	3 days	2 days	8.5 days
Ear problems	3 days	2 days	8 days
Weakness	3 days	1 day	7.8 days
Falls/injuries/fractures	3 days	1 day	7 days
Dental caries/toothache	3 days	1 day	5.5 days
Intestinal worms	3 days	2 days	5 days
Cough	3 days	1.5 days	5 days
Abdominal pain	3 days	1 day	5 days
Respiratory tract infection	2 days	1 day	7 days

Inpatients

The HHS 2012 also investigated the length of time household members waited before seeking inpatient care (Table 9.7). People suffering from haemorrhoids took a particularly long time to seek inpatient care (median delay of 25 days, IQR four to 82.5 days). Women also took a long time to seek inpatient care when suffering from a prolapsed uterus (median delay of 20 days, IQR seven to 83 days).

Table 9.7: Time taken after the onset of illness before seeking care as an inpatient

Top 20 conditions resulting in inpatient care which it takes the longest time for patients to seek care for	Number of days before seeking inpatient care		
	Median	Lower quartile (25^{th} percentile)	Upper quartile (75^{th} percentile)
Haemorrhoids	25 days	4 days	82.5 days
Prolapsed uterus	20 days	7 days	83 days
Eye problems	20 days	3 days	30 days
Diabetes mellitus	15 days	4.5 days	25 days
Neurological disorder	15 days	3.5 days	25 days
Arthritis	12 days	1.5 days	26 days
Hernia	10 days	2.5 days	8 days
Kidney problems	10 days	2 days	36 days
Hand and leg pain	10 days	1.5 days	26.3 days
Urinary tract infection	7 days	2 days	27 days
Cardiovascular disease	6.5 days	1 day	16.3 days
Back pain	6 days	3.6 days	33.8 days
Chronic obstructive pulmonary disease	5 days	2 days	7 days
Headache	5 days	1.5 days	30 days
Gastritis	3 days	2 days	10 days
Typhoid	3 days	2 days	5 days
Kidney disease	3 days	1.5 days	20 days
Jaundice	3 days	1 day	5 days
Falls/injuries/fractures	2.5 days	1 day	20 days
Acute lower respiratory infection	2.5 days	18.3 hours	18.8 days

Place of care

Outpatients

Utilisation of different types and levels of facilities varies considerably in Nepal; the HHS asked household members where outpatient care was sought for the most recent illness (Table 9.8). Of those seeking outpatient care, three-fifths (60%) had utilised non-government facilities, and two-fifths (40%) had used a government facility. Most had attended a private hospital/clinic (47%), with smaller proportions having attended government hospitals (12%), HPs (13%), and SHPs (11%).

Table 9.8 shows that there were significant differences in the utilisation of different facilities by urban/rural residence, wealth quintile, caste/ethnic group, and ecological zone. Urban dwellers were more likely to have used hospitals than their rural counterparts, whether government (30% of urban residents compared to just 9% or rural dwellers) or private (59% of urban residents compared 45% of rural dwellers). In line with this, rural dwellers were more likely to have accessed PHCCs (4% compared with 0% of urban dwellers), HPs (15% compared with 0.1% of urban dwellers), and SHPs (12% compared with 1% of urban dwellers). This may reflect the limited provision of lower-level government facilities in urban areas. The use of pharmacies was higher in rural (12%) than in urban areas (8%).

Care-seeking patterns differed by ecological zone, with three-quarters of outpatients in mountain districts using government services (78%) but just one-quarter (26%) in Terai districts. Outpatients in Terai districts reported high utilisation of private hospital services (63%), whereas just 16% of those in mountain districts had used a private hospital or clinic. Outpatients in the highest wealth quintile were most likely to have used a non-government facility, namely a private hospital or clinic (61%). They were also most likely to have used a government hospital (20%), but were the least likely to have used government facilities below hospital level.

Table 9.8: Place where outpatient care was sought

	Government (%)							Non-government (%)					Total out-patients (N)	*p*
	Govern-ment hospital	PHCC	HP	SHP	Ayur-vedic clinic	Homeo-pathy/ unani	Any govern-ment	Private hospital/ clinic	Pharmacy	Medical college/ teaching hospital	Mission/ NGO hospital/ community hospital	Any non-government		
All	11.8	3.4	13.2	10.5	0.1	0.2	39.2	46.8	11.2	0.8	1.5	59.7	3,739	
Residence:														
Urban	30.4	0.0	0.1	1.2	0.1	0.0	31.9	59.4	8.1	0.2	0.1	66.7	542	**<0.001**
Rural	8.7	4.0	15.4	12.0	0.2	0.2	40.5	44.6	11.8	0.9	1.8	58.6	3,197	
Ecological zone:														
Mountain	8.5	5.3	50.2	13.0	0.7	0.0	77.7	16.4	3.0	0.0	2.6	21.9	283	**<0.001**
Hill	11.9	2.9	15.0	14.2	0.0	0.2	44.2	38.7	14.3	1.1	2.3	55.7	1,938	
Terai	12.4	3.8	3.9	5.3	0.2	0.2	25.8	62.7	8.9	0.6	0.4	72.1	1,518	
Wealth quintile:														
First	9.9	3.3	15.7	13.9	0.0	0.0	42.7	43.1	8.9	1.8	2.5	56.3	668	**<0.001**
Second	9.1	3.6	15.1	15.3	0.0	0.0	43.0	44.3	10.9	0.5	1.1	56.5	855	
Third	8.5	4.5	18.5	11.1	0.0	0.5	43.2	40.6	13.7	0.4	1.5	55.7	827	
Fourth	14.1	3.1	11.8	8.4	0.4	0.2	37.9	47.9	12.3	0.8	0.9	60.7	780	
Fifth	19.5	2.4	2.2	1.7	0.3	0.1	26.3	61.2	9.5	0.7	2.0	72.7	608	
Caste/ethnicity:														
Brahmin/ Chhetri	15.9	3.2	10.6	7.9	0.3	0.1	38.1	47.2	11.1	1.2	2.1	61.1	995	**0.001**
Terai/Madhesi other castes	15.0	1.8	2.4	4.9	0.0	0.0	24.2	59.0	13.1	0.3	0.3	71.8	433	
Dalit	11.1	4.9	11.0	10.9	0.0	0.0	37.9	43.7	16.5	0.5	1.4	61.5	500	
Newar	12.4	8.1	20.7	17.6	0.0	0.0	58.8	29.5	9.7	0.5	1.6	41.2	140	
Janajati	8.6	3.6	18.8	14.4	0.1	0.3	45.8	43.5	9.7	0.9	0.7	54.2	1,482	
Muslim	9.7	0.0	4.0	1.6	0.0	0.0	15.3	70.8	7.8	0.0	0.0	78.8	120	
Others	10.5	0.0	18.3	0.0	0.0	0.0	28.4	45.1	5.7	0.0	20.4	71.6	69	

Note: Figures in bold are statistically significant

Inpatients

In the past year, just over two-thirds (67%) of inpatients had attended a non-government facility and less than a third (29%) had attended a government facility. Nearly half of inpatients had been to a private hospital (47%) and 29% to a government hospital.

Table 9.9 shows that there were significant differences in the utilisation of inpatient care by ecological zone. Inpatients in Terai districts were more likely than those elsewhere to have used private hospitals, those in hill districts were more likely than others to have used private clinics, and those in mountain districts were more likely than others to have used a mission/NGO/community hospital. Nearly two-fifths of inpatients in mountain districts (38%) and one-quarter of those in Terai districts had sought care at a government facility. The place where inpatient care was sought did not differ significantly by place of residence, wealth quintile, or caste/ethnicity.

Table 9.9: Place where inpatient care was sought

	Government (%)			Non-government (%)					Other (%)	Total inpatients (N)	*p*
	Govern-ment hospital	PHCC	Any government	Private hospital	Private clinic	Medical college/ teaching hospital	Mission/NGO/ community hospital	Any non-government			
All	28.6	0.7	29.3	47.3	4.7	8.4	6.9	67.3	3.5	1,039	
Residence:											
Urban	30.3	0.0	30.1	55.5	4.5	7.1	0.0	67.1	2.6	155	0.393
Rural	28.4	0.9	29.2	45.8	4.7	8.6	8.0	67.1	3.6	885	
Ecological zone:											
Mountain	37.3	0.0	38.0	41.2	2.0	2.0	15.7	60.9	2.0	51	**0.001**
Hill	30.1	1.3	31.4	42.8	6.5	7.5	10.3	67.1	1.5	601	
Terai	25.0	0.0	25.0	54.9	2.3	10.6	0.5	68.3	6.7	388	
Wealth quintile:											
First	23.8	0.0	23.7	45.8	7.7	9.5	11.3	74.3	1.8	168	0.131
Second	33.2	1.8	35.3	40.1	6.5	7.4	7.8	61.8	3.2	217	
Third	31.0	1.5	32.5	40.4	6.4	8.4	7.4	62.6	4.9	203	
Fourth	32.9	0.0	33.0	46.2	2.2	6.2	7.6	62.2	4.9	225	
Fifth	21.2	0.0	21.2	62.4	2.2	10.6	1.3	76.5	2.2	226	
Caste/ethnicity:											
Brahmin/Chhetri	29.9	1.0	31.1	49.5	4.8	5.8	5.8	65.9	3.0	394	0.242
Terai/Madhesi other castes	26.5	0.0	26.7	55.9	6.9	4.9	0.0	67.7	5.9	102	
Dalit	24.3	0.0	24.1	40.7	7.1	7.9	13.6	69.3	6.4	140	
Newar	31.2	0.0	31.2	50.0	0.0	9.4	9.4	68.8	0.0	32	
Janajati	31.0	1.0	32.1	44.8	4.4	12.5	5.7	67.4	0.7	297	
Muslim	19.4	0.0	19.4	61.3	0.0	9.7	0.0	71.0	9.7	31	
Others	23.3	0.0	23.3	32.6	0.0	11.6	23.3	67.5	9.3	43	

Note:
**Percentage total may exceed 100 as a result of multiple responses*
[#]Most in the 'other' category had sought care in India
Figures in bold are statistically significant

Reasons for not seeking care in a government facility

Outpatients

Table 9.10 shows the main reasons given for outpatients not seeking care at a government facility. The principal concern for outpatients was that the quality of care might be poor (62%). This was followed by concerns about the availability of drugs (20%). Respondents were generally less concerned about privacy (0.3%) or cleanliness (1%), while almost a quarter did not give a reason (25%) for not seeking care in a government facility.

Reasons for not utilising government health facilities differed significantly by urban/rural residence. Urban residents were more likely to report poor quality of care (66% compared to 62% of rural residents), waiting time (13% compared to 7% of rural residents), and overcrowding (11% compared to 6% of rural residents) as reasons for not utilising government facilities, while rural residents were more likely to report the lack of availability of drugs (22% compared to 9% of urban residents). No significant differences were observed by ecological zone, wealth quintile, or caste/ethnicity.

Table 9.10: Reasons for not seeking outpatient care at a government facility

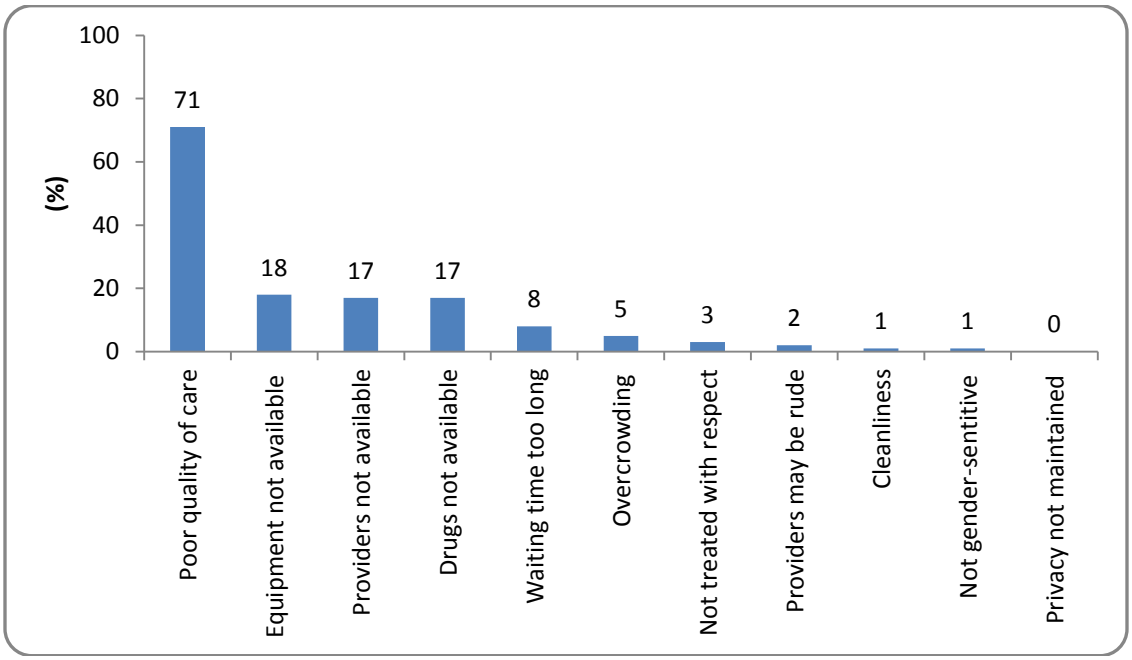
	Too expensive (%)	Poor quality of care (%)	Lack of health provider (%)	Not treated with respect (%)	Providers are not gender-sensitive (%)	Rude providers (%)	Lack of privacy (%)	Waiting time too long (%)	Over-crowding (%)	Clean-liness (%)	Drugs not avail-able (%)	No reason given (%)	Total (N)	*p*
All	1.7	62.3	13.2	4.3	1.4	2.6	0.3	8.2	6.4	0.8	20.0	24.5		
Residence:														
Urban	1.6	65.6	14.4	3.4	1.1	2.1	0.5	12.5	10.9	1.9	8.8	21.3	375	**0.003**
Rural	1.8	61.6	13.0	4.5	1.5	2.7	0.2	7.4	5.5	0.6	22.2	25.1	1,892	
Ecological zone:														
Mountain	4.9	64.3	3.3	1.6	0.0	3.2	0.0	11.7	4.2	0.0	28.0	26.7	64	
Hill	1.7	53.2	10.8	0.6	0.0	0.3	0.2	7.8	6.2	0.4	19.2	35.5	1,076	0.474
Terai	1.6	70.9	16.1	8.0	2.9	4.8	0.4	8.4	6.7	1.3	20.3	13.8	1,127	
Wealth quintile:														
First	1.7	65.6	17.2	9.0	4.3	2.7	1.0	8.7	7.5	1.1	22.9	21.4	384	
Second	1.9	60.0	12.1	4.4	1.6	2.0	0.0	4.1	4.0	0.6	19.4	28.4	482	
Third	1.8	57.9	12.7	3.7	0.8	1.9	0.1	9.3	7.1	0.6	22.4	30.0	463	0.439
Fourth	0.9	61.8	14.4	2.8	0.4	3.4	0.3	8.6	6.0	0.5	19.2	24.2	488	
Fifth	2.5	67.0	10.5	2.5	0.5	3.2	0.1	10.6	7.8	1.4	16.7	17.6	451	
Caste/ethnicity:														
Brahmin/Chhetri	1.2	61.6	8.0	1.0	0.4	1.0	0.2	9.0	6.6	0.7	16.0	30.0	612	
Terai/Madhesi other castes	1.8	76.7	18.4	9.4	2.8	6.0	0.4	7.1	5.1	2.0	17.3	8.5	330	
Dalit	2.6	62.1	15.4	7.9	0.8	5.9	0.9	5.6	3.8	0.8	25.4	26.0	307	
Newar	2.9	60.0	9.6	1.0	0.0	1.3	0.0	7.4	13.3	0.0	35.0	16.9	60	0.307
Janajati	1.6	57.0	14.4	3.3	1.9	1.1	0.0	9.9	7.1	0.7	18.8	28.9	807	
Muslim	2.2	65.0	17.2	8.1	2.5	4.8	1.3	5.5	8.5	0.0	29.3	9.1	102	
Others	2.8	58.9	7.1	2.5	1.2	1.2	0.0	1.1	6.2	0.0	37.7	23.8	49	

Note: Figures in bold are statistically significant

Inpatients

As with outpatient care, the overriding reason for not seeking inpatient care at government health facilities was concern regarding the quality of care (50%) (Figure 9.2). Other key concerns were that equipment and drugs would not be available (13% and 12%, respectively) and that a health provider might not be available (12%). No reason was given by 17% of respondents (data not shown).

Figure 9.2: Reasons for not seeking inpatient care at a government facility (N=735)



9.2.2 Decision making

The HHS 2012 explored decision making for inpatients and outpatients. It should be noted that in some cases, namely when the patients were children, the respondent was not always the patient, and in these instances data have been excluded from this decision-making analysis. Furthermore, the decision-making questions were only asked of those for whom care was sought, and hence satisfaction may be greater than if those for whom care was not sought were included.

Outpatients

Table 9.11 shows the persons involved in care-seeking decision making for outpatients. Overall, over three-quarters of patients were involved in the decision-making process to seek care (78%). Spouses were also important in decision making, with 56% of household members acknowledging their involvement in care-seeking decision making. FCHVs (0.3%) and outreach health workers (0.1%) were unlikely to have been involved in care-seeking decisions. Women over 50 years old were less likely to have been involved in the decision-making process (73%) in comparison to women in other age groups. Sons and daughters played a role in decision making for almost one-third of men (32%) over 50 years of age, and over one-third of women (39%) over 50.

Table 9.11: Persons involved in care-seeking decision making process for outpatients*

	Self (%)	Wife/ Hus-band (%)	Parents (%)	Parents-in-law (%)	Son/ Daugh-ter (%)	Son-in-law/ Daugh-ter-in-law (%)	Brother or sister (%)	Brother-or sister-in-law (%)	Other relative (%)	FCHV (%)	Out-reach health worker (%)	Total out-patients (N)
All	78.0	55.5	9.2	4.7	16.4	5.0	1.2	0.3	1.4	0.3	0.1	2,319
Males:												
18-24	77.7	27.5	36.5	2.0	0.0	0.0	3.2	3.2	1.6	0.0	2.5	81
25-49	80.1	61.7	11.0	1.6	4.9	1.5	3.2	0.3	0.0	0.0	0.2	403
50+	81.9	47.0	7.1	0.5	32.1	9.9	0.7	0.0	0.9	0.0	0.0	430
Females:												
18-24	76.0	47.5	28.5	23.4	1.6	0.0	0.4	0.8	1.2	0.5	0.0	190
25-49	78.1	62.2	4.8	5.9	7.3	1.4	0.7	0.0	1.4	0.5	0.1	807
50+	72.5	54.2	3.6	1.5	39.2	14.0	0.5	0.1	3.4	0.7	0.0	408

**Only respondents who were patients were included in this analysis*

Overall, nearly two-thirds of people were happy with the decision-making process and outcome around outpatient care (65%) (Table 9.12); however, 5% were pleased with neither the process nor the outcome. Men over 50 were the group least likely to be satisfied with the process and outcome.

Table 9.12: Outpatients pleased with the decision-making process and outcome

	Pleased with process and outcome (%)	Pleased with process (%)	Pleased with outcome (%)	Pleased with neither process nor outcome (%)	Total outpatients (N)
All	65.1	18.9	11.2	4.7	2,319
Males:					
18-24	75.3	15.2	7.0	2.5	81
25-49	66.7	16.2	10.6	6.5	403
50+	58.7	24.9	13.1	3.4	430
Females:					
18-24	70.4	15.9	7.5	6.2	190
25-49	66.8	16.8	12.1	4.3	807
50+	62.3	21.8	10.9	5.0	408

**Only respondents who were patients were included in this analysis*

Inpatients

As without patient care-seeking decision making, 70% of inpatients were involved in the decision-making process about seeking inpatient care (Table 9.13). Spouses were involved in 58% of cases. Sons and daughters were more likely to have been involved in decisions around inpatient care than outpatient care, especially care for those over 50. Women over 50 were the group least likely to have been involved in care-seeking decision making (60%).

Table 9.13: Persons involved in care-seeking decision making process for inpatients

	Self (%)	Wife/husband (%)	Parents (%)	Parents-in-law (%)	Son/daughter (%)	Brother/sister (%)	Brother-/ sister-in-law (%)	Other relative (%)	FCHV (%)	Outreach health worker (%)	Total inpatients(N)
All	70.4	57.5	11.9	6.5	30.8	4.9	8.1	5.0	0.5	0.4	776
Males:											
18-24	74.7	58.9	46.6	0.0	0.0	0.8	0.0	0.0	0.0	0.0	34
25-49	79.9	64.4	13.8	1.5	12.4	6.9	2.3	8.7	0.0	0.8	131
50+	71.4	42.6	6.6	2.1	52.9	4.3	13.7	4.9	0.4	0.2	152
Females:											
18-24	73.3	40.0	22.4	28.0	8.7	16.6	0.0	3.7	2.4	0.0	70
25-49	70.3	74.3	8.9	8.8	15.6	3.1	0.9	2.1	0.1	0.4	222
50+	59.8	50.3	7.5	3.7	60.8	2.3	22.1	7.4	0.8	0.4	166

**Only respondents who were patients were included in this analysis*

Inpatients were more likely to be pleased with the decision-making process and outcome than outpatients. Over two-thirds reported they were satisfied (69%), with just 2% reporting that they were pleased with neither the process nor the outcome (Table 9.14).

Table 9.14: Inpatients pleased with the decision-making process and outcome

	Pleased with process and outcome (%)	Pleased with process (%)	Pleased with outcome (%)	Pleased with neither process nor outcome (%)	Total inpatients (N)
All	68.9	10.9	18.0	2.2	776
Males:					
18-24	62.6	19.6	17.8	0.0	34
25-49	61.1	9.5	27.1	2.3	131
50+	67.2	12.3	15.6	5.0	152
Females:					
18-24	73.7	15.7	10.6	0.0	70
25-49	71.3	10.9	16.9	0.9	222
50+	72.7	7.0	17.7	2.6	166

**Only respondents who were patients were included in this analysis*

9.2.3 Satisfaction

Satisfaction is notoriously difficult to measure; clients were therefore asked a variety of questions related to satisfaction in an attempt to gather meaningful data (Table 9.15 and Figure 9.3). Most outpatients (90%) and inpatients (95%) were satisfied, very satisfied, or extremely satisfied with the overall care they had received from the provider. Of the satisfaction indicators, waiting time (18% of outpatients and 18% of inpatients) and toilet facilities (18% of outpatients and 16% of inpatients) were most likely to have been reported as unsatisfactory, by both outpatients and inpatients. For inpatients, privacy (4%) was the indicator least likely to be reported as unsatisfactory, while for outpatients, opening hours (6%) and politeness of provider (6%) were least commonly cited.

Table 9.15: Satisfaction of care received among outpatients and inpatients in government facilities

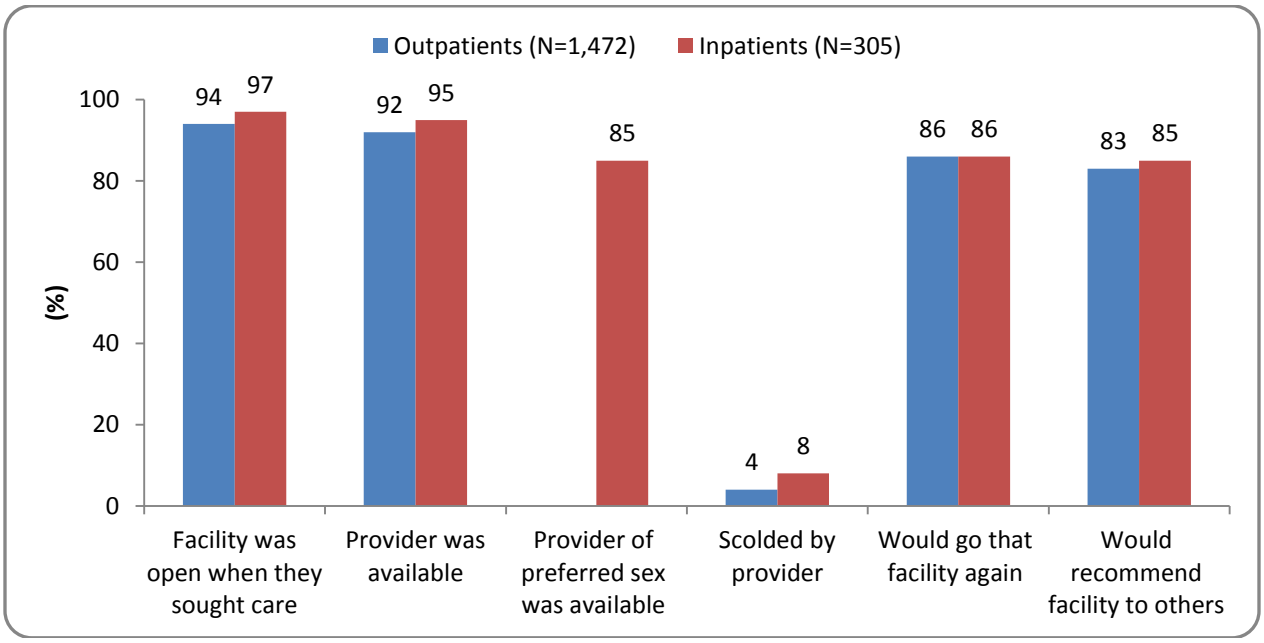
	Outpatients (%)	Inpatients (%)
Care received from provider		
Extremely satisfied	2.9	3.3
Very satisfied	11.5	19.2
Satisfied	77.2	73.4
Unsatisfied	8.2	3.7
Very unsatisfied	0.2	0.4
Provider explanations		
Extremely satisfied	2.1	4.0
Very satisfied	10.8	17.7
Satisfied	77.6	70.3
Unsatisfied	9.3	7.3
Very unsatisfied	0.3	0.7
Consultation time		
Extremely satisfied	2.3	3.5
Very satisfied	11.8	13.9
Satisfied	74.8	75.4
Unsatisfied	10.7	6.7
Very unsatisfied	0.4	0.4
Politeness of care provider		
Extremely satisfied	3.3	4.1
Very satisfied	14.8	22.8
Satisfied	76.2	68.8
Unsatisfied	5.3	3.9
Very unsatisfied	0.3	0.4
Privacy		
Extremely satisfied	2.2	1.8
Very satisfied	11.2	21.5
Satisfied	80.1	72.7
Unsatisfied	6.3	4.0
Very unsatisfied	0.2	0.0
Cleanliness		
Extremely satisfied	2.2	5.0
Very satisfied	10.1	12.8
Satisfied	76.8	70.1
Unsatisfied	10.1	10.2
Very unsatisfied	0.8	1.9
Waiting time		
Extremely satisfied	1.6	1.8
Very satisfied	9.2	8.7
Satisfied	71.1	71.1
Unsatisfied	17.4	17.7

	Outpatients (%)	Inpatients (%)
Very unsatisfied	0.7	0.7
Toilet facility		
Extremely adequate	2.3	2.9
Very adequate	7.2	7.4
Adequate	72.4	73.7
Inadequate	15.9	13.8
Very inadequate	2.2	2.3
Opening hours		
Extremely convenient	2.6	2.6
Very convenient	66.6	13.3
Convenient	25.3	78.3
Inconvenient	5.5	5.9
Very inconvenient	0.1	0.0
Overall care		
Extremely satisfied	2.7	5.3
Very satisfied	11.7	14.0
Satisfied	75.6	75.6
Unsatisfied	8.8	4.9
Very unsatisfied	1.1	0.2
Total (N)	**1,472**	**305**

Responses to additional questions related to satisfaction were also positive, with 94% of outpatients and 97% of inpatients reporting that the facility was open when they sought care, and 92% of outpatients and 95% inpatients reporting that the provider was available. However, it was less likely that a provider of the preferred sex be available, although 85% of inpatients still reported this to be the case. It is concerning that 4% of outpatients and 8% inpatients were scolded by a provider in a government health facility (Figure 9.3).

Most outpatients (86%) and inpatients (86%) stated that they would return to the facility; however, the likelihood that they might recommend the facility to others was slightly lower (83% of outpatients and 85% of inpatients).

Figure 9.3: Indicators of satisfaction for government facilities



Note: Information on preferred sex was not collected for outpatients

9.2.4 Barriers

The HHS 2012 explored the barriers to care experienced by inpatients and outpatients before and after they reached the facility.

Difficulties faced prior to arrival

Outpatients

Just under half of the outpatients (49%) interviewed reported that they had experienced difficulties prior to their arrival at a government health facility. More than one-third reported that the time taken/distance to a health facility was a key difficulty (39%); the next most commonly reported barriers were finding transport (19%) and finding someone to accompany (14%) them to the facility. Getting permission was rarely an issue, with just 1% of outpatients citing this as a barrier (Table 9.16).

Respondents from rural areas were significantly more likely to report problems linked to the time taken to reach the facility than urban residents; likewise residents in Terai areas were less likely to report problems linked to travel time or distance. There were significant differences between ecological zones in regards to getting permission or approval to go to a facility, with a higher percentage of Terai residents (4%) reporting this to be a problem. There were also significant differences by caste/ethnicity in reporting problems linked to finding enough money to reach facilities.

Table 9.16: Difficulties faced by outpatients prior to arrival at the health facility

	Not knowing where to go (%)	Getting permission/ approval/ agreement to go(%)	Finding someone to accompany (%)	Finding transport to get there (%)	Time taken/ distance to get there (%)	Finding money/ being able to pay to get there (%)	No difficulty reported (%)	Total out-patients (N)
All	14.4	1.3	14.0	18.9	38.9	12.4	51.4	1,472
Residence:	(0.819)	(0.525)	(0.218)	(0.545)	**(0.050)**	(0.942)	(0.334)	
Urban	13.2	1.9	21.0	15.8	23.5	12.6	58.0	167
Rural	14.5	1.3	13.1	19.3	40.8	12.3	50.6	1,306
Ecological zone:	(0.350)	**(<0.001)**	(0.126)	(0.417)	**(0.015)**	(0.708)	(0.345)	
Mountain	10.6	0.6	8.1	17.1	37.9	10.8	55.1	219
Hill	13.9	0.2	16.5	21.1	44.9	12.0	47.8	862
Terai	17.5	4.1	11.9	15.2	25.9	14.1	57.2	391
Caste/ethnicity:	(0.272)	(0.226)	(0.851)	(0.642)	(0.168)	**(<0.001)**	(0.705)	
Brahmin/Chhetri	11.0	0.9	13.3	19.1	39.4	10.2	53.8	382
Terai/Madhesi other castes	15.6	6.3	11.7	18.7	28.8	19.5	54.4	103
Dalit	14.2	1.4	13.6	19.3	35.5	14.4	52.4	192
Newar	5.9	0.3	12.3	30.0	50.5	7.7	46.9	80
Janajati	17.3	1.0	15.4	17.8	38.9	10.8	50.3	676
Muslim	*7.5*	*0.0*	*0.0*	*22.7*	*26.8*	*26.3*	*58.9*	*18*
Others	*16.6*	*0.0*	*15.3*	*0.0*	*71.0*	*55.8*	*29.0*	*20*

Note: the figures in parentheses indicate p-value; those in bold are statistically significant; the italic figures are based on an unweighted sample size of <30

Inpatients

Over two-thirds of inpatients (67%) reported that they had faced difficulties prior to arriving at the health facility. The most frequently cited difficulties were the time it took to get to the facility (51%), finding transport (36%) and finding money/being able to pay to get there (35%). Getting permission to go to the facility was only cited by 6% of respondents as a barrier to inpatient care (Table 9.17, Figure 9.4).

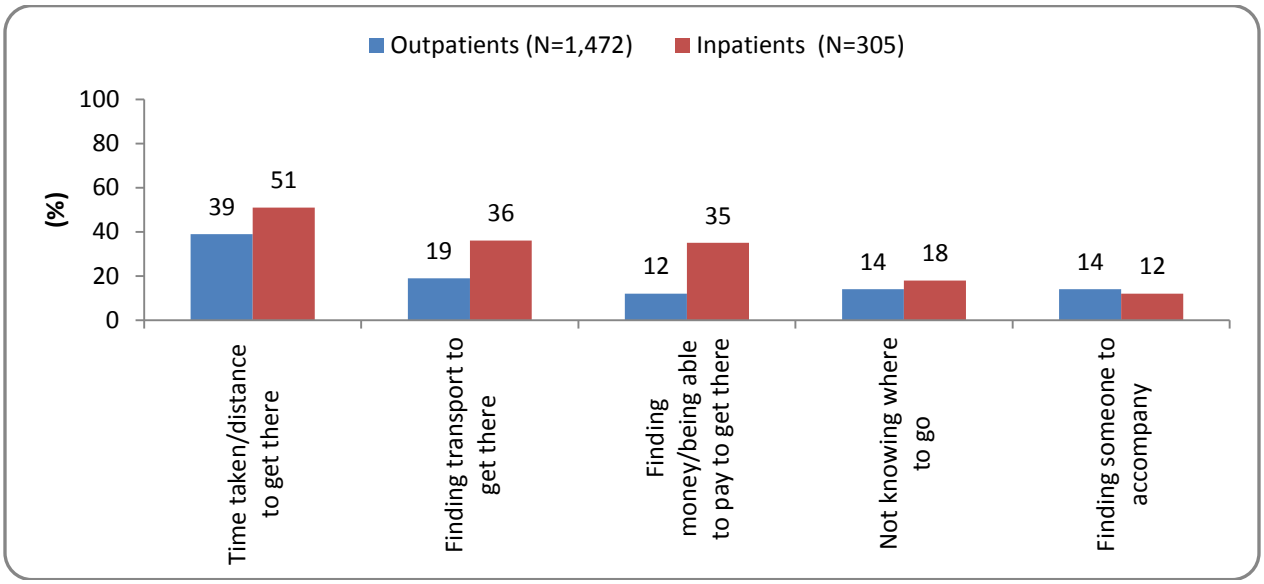
As with outpatients, there were significant differences by urban/rural residence and ecological zone in the likelihood of reporting time taken to reach a facility as a barrier, with urban residents and those residing in the Terai districts less likely to report this. Rural residents (19%) were also significantly more likely to report problems linked to finding transport than urban ones (39%). There were also significant differences by ecological zone in regards to not knowing where to go for care, with this more likely to be a problem for those in the Terai. There were significant differences by caste/ethnicity in regards to experiencing problems with language.

Table 9.17: Difficulties faced by inpatients prior to arrival at the health facility

	Not knowing where to go (%)	Getting approval/ agree-ment/per-mission to go (%)	Finding someone to accompany (%)	Finding transport to get there (%)	Time taken/ distance to get there (%)	Finding money/ being able to pay to get there (%)	Language (%)	No difficulty reported (%)	Total inpatients (N)
All	18.4	5.9	11.5	35.7	50.8	35.4	3.3	33.1	305
Residence:	(0.209)	(0.068)	(0.536)	**(0.001)**	**(<0.001)**	(0.138)	(0.394)	**(<0.001)**	
Urban	11.0	1.4	8.3	19.0	20.2	27.8	0.0	61.7	47
Rural	19.7	6.7	12.0	38.7	56.4	36.8	3.9	27.9	258
Ecological zone:	**(0.040)**	(0.240)	(0.078)	(0.736)	**(0.024)**	(0.623)	(0.881)	(0.406)	
Mountain	*7.3*	*10.5*	*7.3*	*42.7*	*58.9*	*34.0*	*5.4*	*30.3*	*19*
Hill	15.3	3.3	8.2	36.6	56.6	33.0	3.1	30.5	189
Terai	26.5	10.0	18.5	32.4	37.9	40.4	3.4	38.9	97
Caste/ ethnicity:	(0.520)	(0.349)	(0.467)	(0.323)	(0.434)	(0.066)	**(0.003)**	(0.067)	
Brahmin/ Chhetri	16.3	3.0	8.7	39.9	51.0	28.4	1.4	31.9	123
Terai/Madhesi other castes	*22.6*	*9.8*	*25.0*	*23.8*	*36.3*	*37.7*	*4.9*	*48.8*	*27*
Dalit	10.5	0.0	8.4	35.6	54.1	59.5	6.2	15.6	34
Newar	*37.0*	*0.0*	*0.0*	*23.1*	*83.3*	*69.4*	*0.0*	*16.7*	*10*
Janajati	23.1	12.2	14.7	39.9	49.3	30.4	2.1	39.6	95
Muslim	*0.0*	*0.0*	*0.0*	*2.8*	*63.9*	*61.2*	*30.6*	*5.5*	*6*
Others	*0.0*	*0.0*	*0.0*	*2.8*	*63.9*	*61.2*	*30.6*	*5.5*	*10*

Note: the figures in parentheses indicate p-value; those in bold are statistically significant
The italic figures are based on an unweighted sample size of <30

Figure 9.4: Top five difficulties faced by outpatients and inpatients prior to arrival at the health facility



Difficulties faced at facility

Outpatients

Over half (54%) of outpatients reported that they had faced some sort of difficulty while seeking care (Table 9.18). The most commonly reported difficulties were linked to the availability of services and behaviour of health care providers: unavailability of drugs (27%), the unavailability of a provider (24%), unfriendliness of providers (24%), provider not giving enough time (24%), and the facility being closed (23%) (Figure 9.5).

Urban residents were significantly more likely to report problems linked to lack of privacy, lack of information on availability of subsidies/procedures, completing forms, and language barriers. The only significant difference by wealth quintile was for language, with the highest wealth quintile being most likely to report this as a problem. For many of the reported difficulties there were reported differences by ecological zone. Mountain residents were more likely to report problems linked to the opening hours; provider availability, time, and friendliness; and availability of drugs. Terai residents were more likely to report problems linked to inability to pay; sex of provider; lack of privacy; waiting time and space; inadequate toilet facilities; lack of safe drinking water; and completion of forms. Hill residents were less likely to report facing difficulties. Significant differences by caste/ethnic groups were seen for difficulties related to being able to afford to pay, not thinking they should have to pay, sex of provider, lack of privacy, lack of safe drinking water, inadequate toilet facilities, completion of forms, and the lack of availability of drugs.

Table 9.18: Difficulties faced at health facility by outpatients

	Difficulties faced at health by outpatients (%)																					
	Could not afford to pay	Did not think should have to pay (that much)	Facility not open	Inconvenient opening hours	Provider not available	Provider did not give enough time	Provider not friendly	Provider of opposite sex	Lack of privacy	Drugs not available	Long waiting time	Overcrowding	Lack of information/guidance on where to go	Lack of Information about medical condition	Lack of information onavailability of subsidies/procedures	Lack of waiting space – patients	Lack of waiting space – companions	Inadequate toilet facilities	Lack of safe drinking water	Filling in forms	Language	No difficulty reported	Total outpatients (N)
All	9.1	13.0	23.4	23.2	24.3	23.5	24.0	7.1	6.6	26.7	17.0	17.6	13.2	14.3	14.5	9.4	8.8	12.6	9.5	4.0	1.0	46.0	1,472
Residence:	(0.114)	(0.377)	(0.751)	(0.616)	(0.662)	(0.226)	(0.479)	(0.511)	**(0.025)**	(0.899)	(0.091)	(0.051)	(0.546)	(0.241)	**(0.043)**	(0.060)	(0.137)	(0.166)	(0.087)	**(0.006)**	**(0.002)**	(0.294)	
Urban	13.2	17.0	25.4	26.2	26.9	30.6	28.7	8.7	14.9	27.4	27.2	32.4	15.6	19.5	25.6	18.5	16.5	20.6	17.2	9.3	3.7	38.3	167
Rural	8.6	12.5	23.2	22.8	24.0	22.6	23.5	6.9	5.5	26.6	15.7	15.7	12.9	13.6	13.1	8.3	7.8	11.6	8.5	3.3	0.7	47.0	1,306
Ecological zone:	**(0.003)**	(0.073)	**(0.001)**	**(0.001)**	**(0.001)**	**(0.003)**	**(0.001)**	**(<0.001)**	**(0.003)**	**(0.001)**	**(0.032)**	(0.055)	(0.166)	(0.567)	(0.495)	**(0.024)**	**(0.003)**	**(<0.001)**	**(0.004)**	**(<0.001**	(0.123)	**(<0.001)**	
Mountain	2.8	5.1	44.4	44.5	44.8	39.5	45.4	6.8	1.9	46.7	13.6	17.0	8.1	12.1	14.5	10.6	8.4	10.5	8.5	0.3	0.3	22.9	219
Hill	8.2	13.8	14.6	14.4	15.6	15.1	15.4	4.2	5.0	20.7	13.3	13.9	12.1	13.6	13.2	6.3	5.2	7.1	6.3	2.7	0.7	57.9	862
Terai	14.6	15.7	31.3	30.6	31.9	33.0	31.3	13.8	12.6	28.7	26.9	26.2	18.7	16.8	17.5	15.6	17.0	25.8	17.2	9.1	2.0	32.7	391
Wealth quintile:	(0.278)	(0.612)	(0.387)	(0.608)	(0.401)	(0.074)	(0.458)	(0.490)	(0.932)	(0.231)	(0.211)	(0.083)	(0.413)	(0.487)	(0.692)	(0.882)	(0.903)	(0.908)	(0.058)	(0.678)	**(0.003)**	(0.760)	
First	6.6	9.9	26.1	24.0	25.2	22.5	24.3	8.2	6.7	30.6	18.0	18.6	12.4	12.8	16.9	9.8	10.1	11.8	9.1	4.9	0.2	45.7	285
Second	7.2	15.8	28.1	27.4	29.5	30.6	29.2	6.3	6.3	29.7	13.1	13.5	17.7	17.7	15.3	8.1	8.2	11.2	9.7	3.6	0.4	45.4	373
Third	10.8	11.0	19.3	20.0	21.1	16.7	19.8	8.9	6.3	26.4	15.1	15.0	11.0	10.6	12.0	9.8	9.1	13.1	6.2	2.7	0.2	50.0	364
Fourth	12.2	14.2	20.3	20.6	20.5	23.1	23.4	6.4	6.3	20.5	20.7	21.9	11.9	14.8	13.1	10.9	7.7	13.5	14.9	4.3	2.4	42.9	292
Fifth	8.8	14.1	23.1	23.6	24.6	25.0	22.7	4.3	8.2	24.5	21.6	23.4	11.7	15.8	17.0	8.2	9.3	14.4	7.3	5.5	3.3	44.4	158
Caste/ethnicity:	**(<0.001**	**(0.045)**	(0.186)	(0.112)	(0.103)	(0.097)	(0.138)	**(0.011)**	**(0.025)**	**(0.042)**	(0.444)	(0.135)	(0.112)	(0.251)	(0.142)	(0.615)	(0.384)	**(<0.001)**	**(0.020)**	**(0.003)**	**<0.001)**	(0.090)	
Brahmin/Chhetri	6.1	10.5	22.9	23.2	23.6	23.8	23.8	5.8	7.0	26.1	17.1	21.3	9.5	13.0	13.0	10.3	9.4	12.3	11.3	3.1	0.6	45.7	382
Terai/Madhesi other castes	20.2	13.9	25.5	23.6	24.8	26.5	26.8	13.3	12.5	23.0	24.4	23.6	21.9	18.8	21.1	14.2	14.6	26.0	13.2	13.4	3.1	37.0	103

	Difficulties faced at health by outpatients (%)																					
	Could not afford to pay	**Did not think should have to pay (that much)**	**Facility not open**	**Inconvenient opening hours**	**Provider not available**	**Provider did not give enough time**	**Provider not friendly**	**Provider of opposite sex**	**Lack of privacy**	**Drugs not available**	**Long waiting time**	**Overcrowding**	**Lack of information/guidance on where to go**	**Lack of information about medical condition**	**Lack of information onavailability of subsidies/procedures**	**Lack of waiting space – patients**	**Lack of waiting space – companions**	**Inadequate toilet facilities**	**Lack of safe drinking water**	**Filling in forms**	**Language**	**No difficulty reported**	**Total outpatients (N)**
Dalit	20.2	13.9	25.5	23.6	24.8	26.5	26.8	13.3	12.5	23.0	24.4	23.6	21.9	18.8	21.1	14.2	14.6	26.0	13.2	13.4	3.1	37.0	192
Newar	8.6	2.7	9.0	5.1	7.8	6.0	6.0	0.8	0.0	10.8	11.1	12.3	5.5	4.6	1.7	5.5	4.7	4.4	0.8	3.8	0.0	71.9	80
Janajati	6.3	14.1	27.5	27.0	27.8	26.8	27.7	8.0	5.5	31.4	15.5	14.2	15.4	16.7	16.1	8.9	7.8	11.9	8.2	2.7	0.8	44.8	676
Muslim	*37.2*	*8.3*	*14.7*	*10.6*	*10.6*	*7.5*	*21.9*	*17.8*	*14.4*	*29.9*	*19.6*	*31.0*	*19.6*	*7.5*	*23.0*	*11.3*	*4.1*	*19.6*	*14.7*	*3.4*	*0.0*	*35.7*	*18*
Others	*30.5*	*35.6*	*16.6*	*31.9*	*47.2*	*34.3*	*30.5*	*19.0*	*34.3*	*15.3*	*16.6*	*31.9*	*16.6*	*15.3*	*15.3*	*15.3*	*16.6*	*30.5*	*30.5*	*16.6*	*15.3*	*32.5*	*20*

Note: the figures in parentheses indicate p-value; those in bold are statistically significant
The italic figures are based on an unweighted sample size of <30

Inpatients

Inpatients (61%) were slightly more likely to report having faced difficulties at the health facility than outpatients (54%). The most common problems were related to payment, with 26% reporting that they could not afford to pay, and 24% reporting that they did not think they should have to pay (Table 9.19, Figure 9.5). One-quarter of respondents also reported that drugs were not available at the government health facility.

There were no significant differences in urban/rural residence in reported difficulties faced by inpatients at government health facilities. There were significant differences between ecological zones in regards to reporting difficulties with the opening hours, availability of drugs, waiting time and inadequate toilet facilities, with mountain residents more likely to report facing these difficulties. Significant differences were seen by wealth quintile in the likelihood of reporting difficulties associated with opening hours and provider availability, with the poorest more likely to report these problems. Significant differences by wealth quintile were also seen in reporting a lack of waiting space. Significant differences by caste/ ethnicity were seen for: inability to pay, inconvenient opening hours, lack of information about where to go, and lack of availability of drinking water.

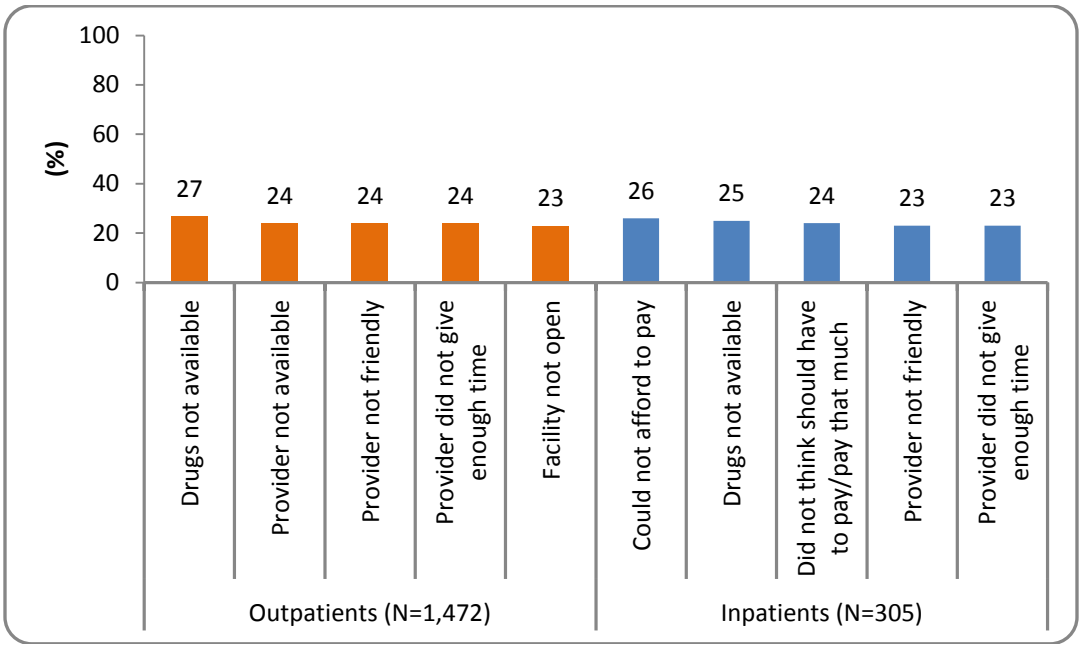
Table 9.19: Difficulties faced at health facility by inpatients

	Difficulties faced at health by inpatients (%)																				
	Could not afford to pay	Did not think should have to pay (that much)	Facility not open	Inconvenient opening hours	Provider not available	Provider did not give enough time	Provider not friendly	Provider of opposite sex	Lack of privacy	Drugs not available	Long waiting time	Overcrowding	Lack of information/guidance on where to go	Lack of information onavailability of subsidies/procedures	Lack of waiting space – patients	Lack of waiting space – companions	Inadequate toilet facilities	Lack of safe drinking water	Language	Filling in forms	No difficulty reported	Total inpatients (N)
All	25.9	23.6	14.8	17.7	19.3	22.6	22.6	7.5	7.5	24.6	16.7	21.6	22.6	21.3	11.5	12.8	11.1	10.8	1.0	3.9	39.0	305
Residence:	(0.485)	(0.366)	(0.782)	(0.811)	(0.854)	(0.900)	(0.936)	(0.257)	(0.432)	(0.393)	(0.769)	(0.368)	(0.083)	(0.206)	(0.706)	(0.697)	(0.906)	(0.407)	(0.578)	(0.530)	(0.193)	
Urban	22.6	19.1	16.5	16.0	17.9	23.6	23.1	4.2	10.5	17.3	14.9	14.9	11.3	12.5	13.3	10.8	11.8	14.0	0.0	5.5	51.3	47
Rural	26.5	24.6	14.4	18.0	19.5	22.4	22.6	8.3	6.9	25.9	17.2	22.8	24.7	23.0	11.0	13.0	11.1	10.3	1.3	3.6	36.8	258
Ecological zone:	(0.146)	(0.407)	**(0.013)**	**(0.049)**	(0.107)	(0.523)	(0.516)	(0.463)	(0.243)	**(0.020)**	**(0.020)**	(0.054)	(0.273)	(0.262)	(0.107)	(0.297)	**(0.049)**	(0.707)	(0.628)	(0.538)	(0.051)	
Mountain	*9.0*	*23.2*	*35.9*	*35.9*	*35.9*	*30.5*	*35.9*	*12.7*	*0.0*	*48.1*	*41.3*	*41.3*	*28.3*	*39.4*	*3.6*	*19.5*	*26.7*	*15.9*	*0.0*	*0.0*	*15.9*	*19*
Hill	23.8	20.9	8.5	12.1	14.5	19.8	20.6	6.0	6.3	19.4	10.6	16.4	18.5	19.7	9.3	9.8	6.4	9.6	0.7	3.6	44.4	189
Terai	33.4	29.3	22.5	25.0	25.2	26.4	24.0	10.0	11.0	30.0	24.1	27.8	29.5	21.0	17.0	16.9	17.4	12.3	2.2	5.3	33.0	97
Wealth quintile:	(0.307)	(0.909)	**(0.026)**	**(0.034)**	**(0.030)**	(0.170)	(0.086)	(0.251)	(0.753)	(0.483)	(0.637)	(0.380)	(0.785)	(0.191)	**(0.026)**	(0.636)	(0.996)	(0.402)	(0.710)	(0.602)	(0.226)	
First	18.7	22.7	27.1	27.9	28.6	31.2	32.0	8.3	11.5	33.8	15.6	20.4	19.5	8.3	11.4	10.7	11.0	1.4	0.7	1.4	47.5	40
Second	22.6	27.6	21.0	27.6	30.9	31.3	31.7	12.2	8.3	20.8	16.1	16.0	28.6	31.3	16.1	13.7	10.2	11.5	0.8	5.8	32.1	77
Third	34.7	25.1	11.3	12.3	12.3	15.5	25.3	10.2	7.3	29.9	18.1	31.5	21.8	20.2	14.7	17.6	12.4	16.2	0.9	4.5	34.3	66
Fourth	29.7	20.4	4.5	9.5	12.2	19.2	13.7	2.7	3.6	20.2	12.3	18.3	21.4	20.9	1.3	8.2	11.1	10.2	1.9	1.9	36.1	74
Fifth	19.4	21.5	14.8	13.5	13.4	16.3	10.8	4.0	8.7	22.6	24.2	22.9	18.4	18.8	14.9	13.0	11.3	11.4	1.3	5.4	53.7	48
Caste/ethnicity:	**(0.017)**	(0.228)	(0.126)	**(0.035)**	(0.056)	(0.112)	(0.237)	(0.148)	(0.346)	(0.473)	(0.429)	(0.233)	**(0.018)**	(0.106)	(0.843)	(0.647)	(0.129)	**(0.045)**	(0.800)	(0.561)	(0.225)	
Brahmin/Chhetri	21.1	18.3	12.8	12.3	13.9	17.9	20.5	6.1	6.6	21.8	15.5	19.2	15.8	16.6	10.0	13.5	4.1	7.0	0.0	4.3	43.3	123
Terai/Madhesi other castes	28.1	15.6	32.0	37.0	37.0	39.5	34.5	17.3	22.3	26.1	9.9	16.3	26.0	7.4	13.3	11.0	17.3	2.5	0.0	2.3	36.3	27
Dalit	48.0	46.5	7.6	9.6	11.5	16.5	25.5	6.0	8.6	31.3	25.1	30.9	17.4	26.2	13.7	19.6	25.3	33.3	4.0	4.0	15.5	34
Newar	*69.4*	*37.0*	*0.0*	*0.0*	*0.0*	*0.0*	*0.0*	*0.0*	*0.0*	*0.0*	*0.0*	*6.4*	*6.4*	*6.4*	*0.0*	*0.0*	*0.0*	*0.0*	*0.0*	*0.0*	*16.7*	*10*

	Difficulties faced at health by inpatients (%)																				
	Could not afford to pay	**Did not think should have to pay (that much)**	**Facility not open**	**Inconvenient opening hours**	**Provider not available**	**Provider did not give enough time**	**Provider not friendly**	**Provider of opposite sex**	**Lack of privacy**	**Drugs not available**	**Long waiting time**	**Overcrowding**	**Lack of information/guidance on where to go**	**Lack of information onavailability of subsidies/procedures**	**Lack of waiting space – patients**	**Lack of waiting space – companions**	**Inadequate toilet facilities**	**Lack of safe drinking water**	**Language**	**Filling in forms**	**No difficulty reported**	**Total inpatients (N)**
Janajati	18.5	25.9	18.6	20.4	22.5	24.9	20.1	6.6	5.3	28.3	21.2	26.4	36.5	33.7	13.7	12.2	15.8	12.4	2.2	3.5	43.8	95
Muslim	*21.7*	*21.7*	*0.0*	*0.0*	*0.0*	*10.9*	*10.9*	*0.0*	*10.9*	*10.9*	*10.9*	*21.7*	*21.7*	*21.7*	*10.9*	*10.9*	*10.9*	*10.9*	*0.0*	*21.7*	*67.4*	*6*
Others	*33.3*	*0.0*	*2.8*	*63.9*	*63.9*	*63.9*	*63.9*	*30.6*	*0.0*	*30.6*	*2.8*	*2.8*	*0.0*	*0.0*	*5.5*	*2.8*	*0.0*	*0.0*	*0.0*	*0.0*	*33.3*	*10*

Note: the figures in parentheses indicate p-value; those in bold are statistically significant
The italic figures are based on an unweighted sample size of <30

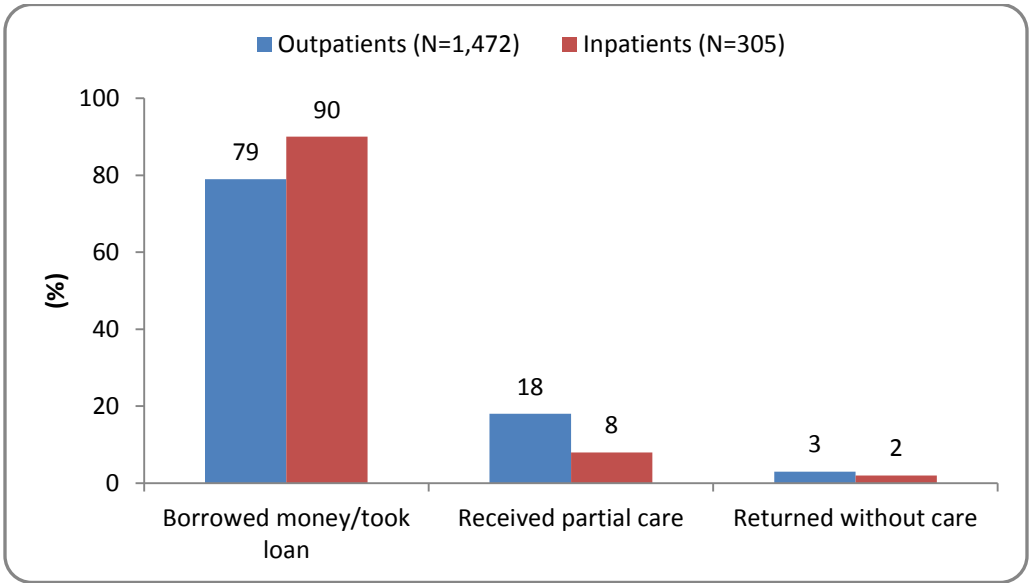
Figure 9.5: Top five difficulties faced at health facility by outpatients and inpatients



Outcome for those unable to pay

Among those unable to pay for care, the pattern was similar for both outpatients and inpatients, with most borrowing money or taking out a loan (79% of outpatients and 90% of inpatients). Outpatients were more than twice as likely to have received partial care (18%) than inpatients (8%).

Figure 9.6: Outcome for outpatients and inpatients who could not afford to pay for services



9.3 KEY FINDINGS

Care-seeking

- One-third of household members (37%) were ill at some point in the last year. The most common illnesses were fever, common cold, and abdominal pain.
- Of those who were ill, three-quarters (75%) had sought care as an outpatient. By far the most common reason for outpatient care was fever, followed bythose suffering from abdominal pain, common cold, diarrhoea, and headache.
- Overall, 6% of household members who had been ill had sought care as an inpatient. The main reasons for inpatient care were injuries, followed by typhoid.
- The key reason for respondents not attending formal care when ill was that they simply did not see a need (40%). However, over one-third had sought care from a traditional healer (39%), and nearly one-quarter (23%) had not sought care because of concerns about the lack of availability of drugs. One-third (33%) of household members with a mental illness had not sought formal care.

Time taken before care-seeking

- Diabetes mellitus had the longest average time delay before seeking outpatient care. Other conditions with long delays included jaundice, arthritis, asthma, eye problems, back pain, and skin problems, while respondents were quickest in seeking outpatient care for diarrhoea and injuries.
- Haemorrhoids had the longest average time delay before seeking inpatient care. Women also took a long time to seek care for prolapsed uterus. Injuries, diarrhoea, appendicitis, and chest pain tended to result in prompt care-seeking.

Place care sought

- Around two-thirds of outpatients (60%) and inpatients (67%) had utilised non-government facilities in the past year, with approximately half of outpatients (47%) and inpatients (52%) attending a private hospital/clinic.
    - For those patients who had not sought care at a government facility, the principal concern for both outpatients (62%) and and inpatients (50%) was the expectation of poor quality of care. Concerns about the availability of drugs were also raised.

Decision making

- Overall, most outpatients and inpatients were involved in the decision-making process surrounding care-seeking (78% of outpatients and 70% of inpatients), but spouses also played a key role (56% of outpatients and 58% of inpatients). Sons and daughters were more likely to have been involved in decisions around inpatient care (31%) than they were in outpatient care (16%).

Satisfaction

- Overall, most outpatients (90%) and inpatients (95%) were satisfied, very satisfied, or extremely satisfied with the care they received in a government health facility. Most also reported that the facility was open, the provider was available, and that they would return to the facility and recommend the facility to others.
- It is concerning that 4% of outpatients and 8% inpatients were scolded by a provider.

Difficulties faced

- Over two-thirds of inpatients (67%) and nearly half of outpatients (49%) had experienced difficulties prior to arrival at the health facility. The most frequently cited difficulties were the time it took to get to the facility (51% of inpatients, 39% of outpatients) finding transport to get there (36% of inpatients and 19% of outpatients) and finding money (35% of inpatients and 12% of outpatients).
- Over half of outpatients (54%) and a greater proportion of inpatients (61%) reported that they had faced some sort of difficulty while seeking care at the facility. The most commonly reported difficulties for outpatients were linked to the availability of services and unfriendly providers. The most common problems for inpatients were related to payment.
- For those unable to pay for care, the pattern was similar for both outpatients and inpatients, with most borrowing money or taking out a loan. Outpatients were twice as likely to have received partial care compared to inpatients.

Inequalities

- There was little difference in the percentages of men and women who sought outpatient and inpatient care.
- The likelihood of seeking inpatient care when ill increased with age for males and females; however, both male and female children under six were the group most likely to have sought outpatient care when ill.
- Outpatients in the highest wealth quintile were most likely to have used a non-government facility, namely private hospitals/clinics. They were also most likely to have used a government hospital, but, given they were least likely to have used government facilities below hospital level, overall they were least likely to use a government facility.
- Prior to arrival at the facility, outpatients and inpatients from urban areas and those in the Terai were significantly less likely to report problems linked to the time taken to reach the facility. Rural residents were significantly more likely to report problems linked to finding transport than urban dwellers. Terai outpatients were more likely to report problems in regards to getting permission or approval to go to a facility, while Terai inpatients more likely to report not knowing where to go for care.
- After arriving at the facility, urban outpatients were significantly more likely to report problems linked to lack of privacy, lack of information on availability of subsidies/procedures, completing forms, and language. Mountain outpatients were more likely to report problems linked to opening hours, provider availability, time, friendliness, and availability of drugs. Terai outpatients were more likely to report problems linked to inability to pay, sex of provider, lack of privacy, waiting time and space, toilet facilities, lack of safe drinking water, and completion of forms. Hill outpatients were less likely to report facing difficulties. There were significant differences between ecological zones in regards to inpatients reporting difficulties with opening hours, availability of drugs, waiting time, and toilet facilities, with mountain residents more likely to report facing these difficulties. Significant differences were seen by wealth quintile in the likelihood of reporting difficulties associated with opening hours and provider availability, with the poor more likely to report these problems.

CHAPTER TEN: PROGRESS AGAINST NHSP-2 LOGICAL FRAMEWORK INDICATORS

10.1 INTRODUCTION

One of the objectives of the HHS 2012 was to measure progress against selected NHSP-2 LF indicators. The LF consists of 12 goal-level, 14 purpose-level, 19 outcome-level, and 42 output-level indicators. This chapter presents the findings for the 20 LF indicators for which the HHS is cited as a source (Table 10.1). The findings are disaggregated by relevant Gender Equality and Social Inclusion (GESI) categories. For all indicators, only the households included in the representative sample are included in the analysis, except for maternity client satisfaction, where data from the additional sample are also included.

Table 10.1: NHSP-2 LF indicators monitored by the HHS 2012

NHSP-2 LF Code	NHSP-2 LF Indicator
OP5.1	% of WRA (15-49) aware of safe abortion sites
OP5.2	% of WRA (15-49) who know at least three pregnancy-related danger signs
OP5.3	% of WRA (15-49) giving birth in the last two years aware of at least three danger signs of newborns
P7	CPR (modern methods) (disaggregated by urban/rural, wealth quintile, and caste/ethnicity)
P8	% of pregnant women attending at least four ANC visits
P10	% of deliveries conducted by a SBA (disaggregated by urban/rural, wealth quintile, and caste/ethnicity)
OC2.4	% of deliveries in institutions (disaggregated by urban/rural, wealth quintile, and caste/ethnicity)
OC1.6	% of deliveries by CS
P1	% of infants breastfed within one hour of birth
P2	% of infants exclusively breastfed for 0-5 months
P4	% of children aged 6-59 months that have received vitamin A supplements
OC2.1	% of children under five with diarrhoea treated with zinc and ORS
OC2.2	% of children under five with pneumonia who received antibiotics
OC3.1	% of children under five who slept under a LLIN the previous night in high-risk areas
OP4.10	% of households with at least one LLIN per two residents in all high-risk areas
OC3.4	% of households with HW facilities with soap and water nearby the latrine
OC1.1	% of population living within 30 minutes' travel time to a HP or SHP (disaggregated by urban/rural)
OC1.2	% of population utilising outpatient services at SHPs, HPs, PHCCs, and district hospitals (disaggregated by sex and caste/ethnicity)
OC1.3	% of population utilising inpatient services at district hospitals (all levels of hospitals) (disaggregated by sex and caste/ethnicity)
OC2.6	% of clients satisfied with their health care at public facilities (disaggregated by caste/ethnicity)

10.2 RESULTS

The findings for each indicator are presented alongside the 2011, 2013, and 2015 NHSP-2 LF targets, where targets are available. Those indicators for which the 2013 target has already been reached are shaded green, those for which the 2013 target is on track to be reached are shaded amber, and those that are not going to reach their 2013 target are shaded in red. The findings were disaggregated by GESI categories where relevant, and where significant differences were observed between the disaggregated groups, the findings are presented in the tables. Where data were available from other sources for 2011 they have been presented for comparison. It should be noted when comparing different sources that there may be differences in the methodology employed or the indicator wording may vary slightly.

10.2.1 Awareness

Safe abortion sites

Overall, 28% of WRA were aware of safe abortion sites (Table 10.2); this indicator is on track to reach the target of 35% by 2013. However, this figure is far lower than that in NDHS 2011 (59%). The HHS specifically requested the respondents name a SAS site and then verified it with the FHD list, whereas NDHS simply asked respondents whether they were aware of a site, without any verification.

The survey found that there were significant differences in awareness of safe abortion sites by caste/ethnicity, ecological zone, urban/rural residence, and wealth quintile. Nearly half of WRA from mountain districts (46%) were aware of safe abortion sites, compared to just over one-quarter of those from hill and Terai (27%) districts, and those in urban areas (42%) were more likely to be aware than those in rural districts (26%). Almost half of women in the highest wealth quintile (48%) were aware of safe abortion sites, while only one-quarter of those in the lowest quintile (25%) were. There were also differences between caste/ethnic groups, ranging from 48% of Brahmins/Chhetris being aware, to just 6% of Muslims.

Table 10.2: Awareness of safe abortion sites among WRA (LF indicator OP5.1)

	Indicators	Achieved			Target			*p*
		2011 (%)	HHS 2012		2011 (%)	2013 (%)	2015 (%)	
			%	Total WRA (N)				
OP5.1	% of WRA (15-49) aware of safe abortion sites	58.8 (NDHS)	28.2	9,322	-	35	50	
	Residence:							
	Urban	63.2	42.4	1,285				**0.004**
	Rural	58.1	26.3	8,126				
	Ecological zone:							
	Mountain	60.1	46.0	563				
	Hill	50.4	27.1	2,448				**0.006**
	Terai	65.1	26.8	6,400				
	Wealth quintile:							
	First	40.2	25.4	590				
	Second	51.3	23.7	661				
	Third	60.2	20.7	581				**<0.001**
	Fourth	66.2	28.2	693				
	Fifth	70.8	47.7	894				
	Caste/ethnicity:							
	Brahmin/Chhetri	65.6	48.0	1,272				
	Terai/Madhesi other castes	65.4	12.8	325				
	Dalit	55.1	24.8	353				
	Newar	64.0	32.5	115				**<0.001**
	Janajati	51.4	23.3	1,245				
	Muslim	61.6	5.8	33				
	Others	34.0	35.4	74				

Note: Figures in bold are statistically significant

Pregnancy-related danger signs

Overall, 52% of WRA reported knowing at least three pregnancy-related danger signs (Table 10.3). This has already far exceeded the target for 2013 (40%) and has also exceeded the 2015 target (50%).

The survey found that there were significant differences in knowledge of pregnancy-related danger signs by ecological zone and caste/ethnicity. Nearly two-thirds of WRA (63%) from Terai districts were aware of at least three pregnancy danger signs compared to 40% from hill districts. Knowledge was greatest amongst Terai/Madhesi groups (65%) and the lowest amongst Janajatis (45%). There were no significant differences by urban/rural residence or wealth quintile.

Table 10.3: Knowledge of pregnancy-related danger signs (LF indicator OP5.2)

	Indicators	Achieved			Target			*p*
		2011 (%)	HHS 2012		2011 (%)	2013 (%)	2015 (%)	
			%	Total WRA (N)				
OP5.2	% of WRA (15-49) who know at least three pregnancy-related danger signs		52.2	9,322	-	40	50	-
	Ecological zone:							
	Mountain		56.0	613				**<0.001**
	Hill		40.3	4,242				
	Terai		63.0	4,467				
	Caste/ethnicity:							
	Brahmin/Chhetri		53.9	2,417				**<0.001**
	Terai/Madhesi other castes		64.8	1,368				
	Dalit		55.8	1,160				
	Newar		45.5	268				
	Janajati		44.6	3,601				
	Muslim		64.8	344				
	Others		50.9	163				

Note: Figures in bold are statistically significant

Newborn danger signs

Less than half (45%) of WRA knew at least three newborn danger signs (Table 10.4), but this has already exceeded the target for 2013 (40%).

The survey found that there were significant differences in knowledge of newborn danger signs by caste/ethnicity, ecological zone, urban/rural residence, and wealth quintile. Almost half (47%) of rural WRA were aware of newborn danger signs compared to nearly one-third (33%) of urban WRA. WRA from Terai districts were more likely to know at least three newborn danger signs (56%) than those from hill (33%) districts. Larger differences were seen between caste/ethnic groups: Muslims (59%) and Terai/Madhesi other castes (58%) had the highest level of knowledge of at least three newborn danger signs, and Janajatis the lowest (36%).

Table 10.4: Knowledge of newborn danger signs (LF indicator OP5.3)

	Indicators	Achieved			Target			p
		2011 (%)	HHS 2012		2011 (%)	2013 (%)	2015 (%)	
			%	Total WRA (N)				
OP5.3	% of WRA (15-49) giving birth in the last two years aware of at least three newborn danger signs		44.9	9,322	-	40	50	-
	Residence:							
	Urban		32.8	1,108				**0.035**
	Rural		46.6	8,214				
	Ecological zone:							
	Mountain		48.1	613				**<0.001**
	Hill		32.9	4,242				
	Terai		56.0	4,467				
	Wealth quintile:							
	First		51.5	1,752				**0.031**
	Second		44.2	2,080				
	Third		38.9	2,070				
	Fourth		46.5	1,895				
	Fifth		44.9	1,525				
	Caste/ethnicity:							
	Brahmin/Chhetri		47.7	2,417				**<0.001**
	Terai/Madhesi other castes		58.2	1,368				
	Dalit		47.9	1,160				
	Newar		38.1	268				
	Janajati		36.2	3,601				
	Muslim		58.7	344				
	Others		47.4	163				

Note: Figures in bold are statistically significant

10.2.2 Maternal health

Contraceptive use

Among MWRA, the CPR for modern methods was found to be 41% (Table 10.5). This is a long way off the 2013 target of 52%, suggesting that this target will not be met. It is similar to the NDHS finding (43%).

The survey found that there were significant differences in CPR by caste/ethnicity and wealth quintile. Contraceptive use was extremely low amongst Muslims (10%); aside from Muslims, Dalits had the lowest use (38%), with highest use among the Newar community (58%). CPR was 46% amongst the

highest quintile group and 42% amongst the lowest quintile. There were no significant differences by urban/rural residence or ecological zone.

Table 10.5: CPR among MWRA (LF indicator P7)

	Indicators	Achieved			Target			*p*
		2011 (%)	HHS 2012		2011 (%)	2013 (%)	2015 (%)	
			%	Total WRA (N)				
P7	CPR (modern methods) (%) MWRA	43.2 (NDHS)	41.4	8,403	48	52	67	-
	Wealth quintile:							
	First	35.6	42.3	1,220				**0.034**
	Second	41.1	40.8	1,385				
	Third	43.3	38.0	1,354				
	Fourth	45.3	41.1	1,259				
	Fifth	48.9	46.0	985				
	Caste/ethnicity:							
	Brahmin/Chhetri	43.1	42.4	1,409				**<0.001**
	Terai/Madhesi other castes	46.5	39.1	1,155				
	Dalit	40.0	37.9	748				
	Newar	55.2	57.8	176				
	Janajati	44.5	44.0	2,341				
	Muslim	22.8	10.3	275				
	Others	57.4	57.3	99				

Note: Figures in bold are statistically significant

ANC

Table 10.6 shows that less than half (43%) of pregnant women had attended at least four ANC check-ups, a finding lower than the NDHS 2011 figure of 50%. This indicator is not on track to reach the 2013 target of 65%.

The survey found that there were significant differences in uptake of ANC by caste/ethnicity, urban/rural residence, and wealth quintile. Nearly two-thirds (65%) of urban residents had accessed at least four ANC check-ups, compared to 41% of rural residents. Nearly three-quarters (71%) of those in the highest wealth quintile had accessed at least four check-ups, compared to just over one-third (37%) of those in the lowest quintile. There was no significant difference by ecological zone.

Table 10.6: ANC (LF indicator P8)

	Indicators	Achieved			Target			*p*
		2011 (%)	HHS 2012		2011 (%)	2013 (%)	2015 (%)	
			%	Total women delivered in last year (N)				
P8	% of pregnant women attending at least four ANC visits	50.1 (NDHS)	43.2	1,543	-	65	80	-
	Residence:							
	Urban	71.8	64.7	137				**0.006**
	Rural	47.7	41.1	1,406				
	Wealth quintile:							
	First	28.3	36.8	286				**<0.001**
	Second	39.1	38.2	343				
	Third	48.0	34.4	372				
	Fourth	65.1	46.0	341				
	Fifth	83.7	71.3	202				
	Caste/ethnicity:							
	Brahmin/Chhetri	63.5	59.9	301				**<0.001**
	Terai/Madhesi other castes	35.9	31.2	291				
	Dalit	39.9	37.3	218				
	Newar	82.8	*100.0*	*19*				
	Janajati	46.4	45.1	608				
	Muslim	34.8	12.4	89				
	Others	72.5	*55.6*	*18*				

Note:
The italic figures are based on an unweighted sample size of <30; those in bold are statistically significant

SBAs

More than one-third of women who had delivered in the last year were assisted by a SBA (39%), which is on track to achieve the 2013 target (40%) (Table 10.7). This figure is similar to the NDHS 2011 finding (36%), which captures deliveries over the last five years, whereas HHS 2012 only includes those in the last year.

The survey found that there were significant differences in deliveries assisted by SBAs by wealth quintile, caste/ethnicity, and ecological zone. There were large differences by wealth quintile: nearly three-quarters of those in the highest wealth quintile (71%) were assisted by a SBA, compared to 28% in the second lowest quintile. Likewise, there were large differences by caste/ethnic group, with 56% of Brahmins/Chhetris assisted by SBAs, but just 16% of Muslims. Women from Terai (40%) districts were more likely to have been assisted by a SBA than those in mountain (32%) districts. There were no significant differences by urban/rural residence.

Table 10.7: Deliveries by a SBA (LF indicator P10)

	Indicators	Achieved			Target			*p*
		2011 (%)	HHS 2012		2011 (%)	2013 (%)	2015 (%)	
			%	Total women delivered in last year (N)				
P10	% of deliveries conducted by a SBA	36.0 (NDHS)	39.1	1,543	-	40	60	-
	Ecological zone:							
	Mountain	18.9	32.1	109				**<0.001**
	Hill	30.4	38.9	658				
	Terai	42.8	40.3	774				
	Wealth quintile:							
	First	10.7	36.7	286				**<0.001**
	Second	23.7	27.5	342				
	Third	35.9	29.9	371				
	Fourth	53.0	44.3	341				
	Fifth	81.5	70.7	201				
	Caste/ethnicity:							
	Brahmin/Chhetri	45.5	56.1	303				**0.042**
	Terai/Madhesi other castes	39.3	28.5	291				
	Dalit	26.8	34.1	217				
	Newar	71.7	*63.1*	*19*				
	Janajati	28.8	39.3	608				
	Muslim	32.9	15.7	89				
	Others	77.4	*66.7*	*18*				

Note:
The italic figures are based on an unweighted sample size of <30; those in bold are statistically significant

Institutional deliveries

Among women who delivered in the last year, 37% had delivered in a health facility (Table 10.8). This surpasses the 2013 target (35%) and is on track to achieve the 2015 target (40%). It is similar to the NDHS 2011 finding (35%), which captures deliveries over the last five years, whereas HHS 2012 only includes those in the last year.

The survey found that there were significant differences by urban/rural residence, wealth quintile, and caste/ethnicity. In urban areas, nearly two-thirds (64%) of residents had delivered in an institution, compared to just one-third (34%) of those in rural areas. Similarly, just over two-thirds (69%) of those in the highest quintile had delivered in an institution compared to over one-quarter of those in the second wealth quintile (26%). By caste/ethnicity, just 11% of Muslims had delivered in a health facility compared to 53% of Brahmins/Chhetris. There were no significant differences in the percentage of institutional deliveries by ecological zone.

Table 10.8: Institutional deliveries (LF indicator OC2.4)

Code	Indicators	Achieved			Target			*p*
			HHS 2012					
		2011 (%)	%	Total women delivered in last year (N)	2011 (%)	2013 (%)	2015 (%)	
OC2.4	% of deliveries in institutions	35.3 (NDHS)	36.5	1,543	27	35	40	-
	Residence:							
	Urban	71.3	63.5	137				**<0.001**
	Rural	31.6	33.7	1,406				
	Wealth quintile:							
	First	11.4	34.8	285				**<0.001**
	Second	23.3	25.7	342				
	Third	35.4	28.3	372				
	Fourth	51.9	38.3	340				
	Fifth	77.9	69.0	203				
	Caste/ethnicity:							
	Brahmin/Chhetri	44.1	52.8	301				**<0.001**
	Terai/Madhesi other castes	37.9	23.7	291				
	Dalit	26.4	29.5	217				
	Newar	68.0	*65.0*	*20*				
	Janajati	28.9	39.1	609				
	Muslim	32.3	11.3	89				
	Others	77.4	*50.1*	*18*				

Note:
The italic figures are based on an unweighted sample size of <30; those in bold are statistically significant
** NDHS captured live births in the five years preceding the survey*

CS

Internationally, it is recommended that between 5-15% of all deliveries should be by CS (CS) (WHO, 2009). Among women who delivered in the last 12 months, the HHS found that 3.9% had had a CS (Table 10.9). This is slightly lower than the target for 2013 (4.3%), but the target could still be reached. The finding is also lower than that for NDHS 2011 (4.6%), but it should be noted that the HHS finding has a wide confidence interval (95%CI: 2.7-5.3), which the NDHS finding falls within.

The survey found that there were significant differences by urban/rural residence, wealth quintile, and caste/ethnicity. The percentage of CS deliveries was eleven times higher in the highest wealth quintile (11%) than in the third quintile (1%). Just 2% of recently delivered Dalit women had had a CS compared to 8% of Brahmins/Chhetris. Thirteen per cent of deliveries among urban dwellers were by CS, compared to just 3% of deliveries among rural dwellers. These stark differences between disaggregated groups suggest that the overall percentage of deliveries by CS is likely being amplified by women having

unnecessary CSs, while failing to reach many of those in need. There were no significant differences in deliveries by CS by ecological zone.

Table 10.9: Deliveries by CS (LF indicator OC1.6)

Code	Indicators	Achieved			Target			*p*
		2011 (%)	HHS 2012		2011 (%)	2013 (%)	2015 (%)	
			%	Total RDW (N)				
OC1.6	% of deliveries by CS	4.6 (NDHS*)	3.9	1,543	4.0	4.3	4.5	
	Residence:							
	Urban	15.3	13.2	136				**0.015**
	Rural	3.5	2.8	1,406				
	Wealth quintile:							
	First	1.0	2.4	287				
	Second	0.8	1.8	342				
	Third	4.6	1.1	372				**<0.001**
	Fourth	7.1	5.6	341				
	Fifth	14.1	11.4	202				
	Caste/ethnicity:							
	Brahmin/Chhetri	7.3	7.6	301				
	Terai/Madhesi other castes	6.0	3.8	292				
	Dalit	2.1	1.8	217				
	Newar	7.8	*15.0*	*20*				**0.001**
	Janajati	3.0	2.8	608				
	Muslim	3.2	2.2	89				
	Others	4.3	*0.0*	*18*				

Note:
The italic figures are based on an unweighted sample size of <30; those in bold are statistically significant
** NDHS captured live births in the five years preceding the survey*

10.2.3 Child health

Early breastfeeding

Nearly half of mothers (49%) initiated breastfeeding within an hour of delivery (Table 10.10). This is similar to the NDHS 2011 finding. The 2013 target (48%) has been achieved.

There were significant differences in early initiation of breastfeeding by ecological zone: mothers from mountain (59%) districts were more likely to initiate early breastfeeding than those in Terai (40%) districts. Significant differences were also observed between caste/ethnic groups, with only 27% of those in the Terai/Madhesi group initiating breastfeeding within one hour, compared to 58% in the Janajati group. There were no significant differences in early initiation of breastfeeding by urban/rural residence or wealth quintile.

Table 10.10: Infants breastfed within one hour of birth (LF indicator P1)

Code	Indicators	Achieved			Target			*p*
		2011 (%)	HHS 2012		2011 (%)	2013 (%)	2015 (%)	
			%	Total RDW (N)				
P1	% of infants breastfed within one hour of birth	44.5	48.5	1,543	35	48	60	
	Ecological zone:							
	Mountain	51.3	59.2	109				**0.001**
	Hill	47.1	56.4	659				
	Terai	41.6	40.2	772				
	Caste/ethnicity:							
	Brahmin/Chhetri	50.6	57.2	301				**<0.001**
	Terai/Madhesi other castes	31.1	26.8	289				
	Dalit	39.0	41.1	217				
	Newar	53.8	*53.5*	*19*				
	Janajati	48.1	58.4	608				
	Muslim	33.8	35.7	89				
	Others	-	*65.1*	*18*				

Note:
The italic figures are based on an unweighted sample size of <30; those in bold are statistically significant

Exclusive breastfeeding

Two-thirds of infants (aged 6-12 months) were exclusively breastfed (66%) for the first five months (Table 10.11). This is similar to the NDHS 2011 finding (70%). Both the 2013 (48%) and 2015 (60%) targets have already been exceeded.

There were significant differences in exclusive breastfeeding by ecological zone and caste/ethnic group. Four-fifths of infants from the Terai (80%) were exclusively breastfed, compared to less than half from mountain districts (47%). Significant differences in exclusive breastfeeding between caste/ethnic groups were also observed, with Muslims (92%) more likely to breastfeed exclusively than Brahmins/Chhetris (55%). As with early initiation of breastfeeding, there were no significant differences in exclusive breastfeeding by urban/rural residence or wealth quintile.

Table 10.11: Infants exclusively breastfed for 0-5 months (LF indicator P2)

Code	Indicators	Achieved			Target			*p*
			HHS 2012					
		2011 (%)	%	Total infants aged 6-12 months (N)	2011 (%)	2013 (%)	2015 (%)	
P2	% of infants exclusively breastfed for 0-5 months	69.6	65.9	850	35	48	60	
	Ecological zone:							
	Mountain		46.8	59				**<0.001**
	Hill		53.0	376				
	Terai		80.3	416				
	Caste/ethnicity:							
	Brahmin/Chhetri		55.3	179				**<0.001**
	Terai/Madhesi other castes		83.1	146				
	Dalit		68.4	127				
	Newar		*67.4*	*13*				
	Janajati		59.5	335				
	Muslim		92.2	45				
	Others		*64.4*	*6*				

Note:
The italic figures are based on an unweighted sample size of <30; those in bold are statistically significant

Vitamin A

Among children aged between six and 59 months, 90% had received vitamin A supplements (Table 10.12). This meets the 2013 and 2015 targets of 90%. The figure is the same as that in the NDHS 2011 (90%). The survey found no significant differences in the receipt of vitamin A supplements by sex of the child, urban/rural residence, ecological zone, wealth quintile, or caste/ethnicity.

Table 10.12: Receipt of vitamin A by children aged 6-59 months (LF indicator P4)

	Indicators	Achieved			Target			*p*
			HHS 2012					
		2011 (%)	%	Total children aged 6-59 months (N)	2011 (%)	2013 (%)	2015 (%)	
P9	% of children aged 6-59 months that have received vitamin A supplements	90.4	90.0	4,583	90	90	90	-

Treatment of diarrhoea

Of those children under five years old who had suffered from diarrhoea in the last two weeks, nearly one-quarter (24%) had been treated with zinc and ORS (Table 10.13). This finding was a large improvement from the NDHS 2011 (5%), where the same wording was used in the questionnaire. It also reflects the large difference in the targets between 2011 (7%) and 2013 (25%). The 2012 HHS figure is on track to reach the 2013 target (25%).

The survey found that there were significant differences in treating under-fives with diarrhoea with zinc and ORS by caste/ethnicity and ecological zone. Over one-third (35%) of Janajatis had done so, compared to just 4% of Muslims. More than one-third (37%) of those in mountain districts gave zinc and ORS, compared to just 11% of Terai dwellers. There were no significant differences in the treatment of diarrhoea among under-fives by wealth quintile or urban/rural residence.

Table 10.13: Treatment of diarrhoea amongst children under five (LF indicator OC2.1)

Code	Indicators	Achieved			Target			*p*
		2011 (%)	HHS 2012		2011 (%)	2013 (%)	2015 (%)	
			%	Total children under 5 with diarrhoea (N)				
OC2.1	% of children under 5 with diarrhoea treated with zinc and ORS	5.2 (NDHS)	23.7	607	7	25	40	-
	Ecological zone:							
	Mountain	5.7	37.2	75				**0.004**
	Hill	5.9	32.8	248				
	Terai	4.7	11.4	269				
	Caste/ethnicity:							
	Brahmin/Chhetri	6.1	25.8	89				**<0.001**
	Terai/Madhesi other castes	1.3	11.2	99				
	Dalit	9.0	19.0	100				
	Newar	2.2	*24.5*	*9.0*				
	Janajati	4.2	35.4	234				
	Muslim	4.0	4.2	48				
	Others	0.0	*0.0*	*14*				

Note:
The italic figures are based on an unweighted sample size of <30; those in bold are statistically significant

Treatment of pneumonia

Among children under five who had suffered from pneumonia in the last two weeks, just over one-quarter had received antibiotics (27%) (Table 10.14), suggesting that this indicator is not currently on track to reach the 2013 target of 40%.

The survey found that there were significant differences by ecological zone for the treatment of pneumonia by antibiotics: 36% of children in hill districts were treated with antibiotics in comparison to

just 16% of those from Terai districts. No significant differences were observed in the treatment of pneumonia in children by urban/rural residence, wealth quintile, or caste/ethnic group.

Table 10.14: Treatment of pneumonia amongst children under-five children (LF indicator OC2.2)

Code	Indicators	Achieved			Target			*p*
			HHS 2012					
		2011 (%)	%	Total children under 5 with pneumonia in past 2 weeks (N)	2011 (%)	2013 (%)	2015 (%)	
OC2.2	% of children under 5 with pneumonia in the last two weeks who had received antibiotics	35.1 (NDHS)	26.9	327	30	40	50	-
	Ecological zone:							
	Mountain		23.8	42				**0.047**
	Hill		36.3	157				
	Terai		16.4	128				

Note: Figures in bold are statistically significant

10.2.4 Use of bed nets

Use of LLINs by children under five

Only one in ten (10%) children under five had slept under an LLIN the previous night (Table 10.15). This is a long way off the target for 2013 (80%), which is highly unlikely to be achieved. Only findings from the high endemic (four of the 13 selected districts) and endemic (seven of the 13 selected districts) districts were included in this analysis. The current finding is much lower than that from the malaria survey of 2011 (61%). LLINs have only been distributed in selected VDCs in endemic districts, and the 2011 malaria survey only included those VDCs where LLINs were distributed.

Use of LLINs among under-five children differed significantly by urban/rural residence, ecological zone, wealth quintile, and caste/ethnic group. While just 6% of under-five children from urban areas had slept under a LLIN the previous night, nearly twice as many of their rural counterparts (11%) did so. Use of LLINs was 15% in Terai districts compared to 0% in mountain districts. Among the highest wealth quintile, 17% of children under five slept under a LLIN, compared to 8% in the third quintile. By caste/ethnic group, Dalits (13%) were more than twice as likely to sleep under an LLIN than Newars (6%). It should be noted that none of the disaggregated findings came close to reaching the 2013 target.

Table 10.15: Children under five who had slept under a LLIN on the previous night (LF indicator OC3.1)

	Indicators		Achieved		Target			*p*
			HHS 2012**					
		2011 (%)	%	Total children under five (N)	2011 (%)	2013 (%)	2015 (%)	
OC3.1	% of children under 5 in the endemic area who had slept under a LLIN on the previous night	61.2* (Malaria survey)	10.4	5,996	70	80	80	
	Residence:							
	Urban		6.2	564				**0.005**
	Rural		10.8	5,431				
	Ecological zone:							
	Mountain		0.0	201				**<0.001**
	Hill		4.5	2,448				
	Terai		15.3	3,346				
	Wealth quintile:							
	First		9.9	1,101				**<0.001**
	Second		10.4	1,377				
	Third		7.8	1,424				
	Fourth		9.4	1,306				
	Fifth		17.4	786				
	Caste/ethnicity:							
	Brahmin/Chhetri		10.4	1,224				**<0.001**
	Terai/Madhesi other castes		8.7	1,274				
	Dalit		13.3	927				
	Newar		6.4	107				
	Janajati		10.9	1,952				
	Muslim		8.2	446				
	Others		5.5	66				

Note: Figures in bold are statistically significant

** Malaria survey captured information from selected VDCs in 13 high endemic districts where LLINs had been distributed*

***Of the 13 districts selected for HHS, four are classified as high endemic districts, seven are classified as endemic districts, and two are classified as no risk. Residents of high and low endemic districts are encouraged to use LLINs and hence have been included in the above analysis, and those in 'no risk' districts are excluded from the analysis*

Presence of LLINs in households

More than one in ten households (11%) had at least one LLIN per two residents (Table 10.16). Only findings from the high endemic (four of the 13 selected districts) and endemic (seven of the 13 selected districts) districts were included in this analysis. This is a long way off the target for 2013 (90%), which is highly unlikely to be achieved.

HHS 2012 found that there were significant differences in having at least one LLIN per two residents by caste/ethnicity, ecological zone, urban/rural residence, and wealth quintile. Brahmins/Chhetris (12%) and Janajatis (11%) were nearly twice as likely as Newars (6%) to have one LLIN per two members of the household. Rural households (11%) were nearly twice as likely to meet the criteria as urban households (6%). Those in the Terai were most likely to have one LLIN per two household members (17%), and 0% of households in mountain districts met the criteria. The highest wealth quintile were the most likely to have one LLIN per two members of the household.

Table 10.16: Households in all high-risk areas with at least one LLIN per two residents (LF indicator OP4.10)

	Indicators		Achieved		Target			*p*
		2011	HHS 2012		2011	2013	2015	
			%	Total households (N)**				
OP4.10	% of households in all high-risk areas with at least one LLIN per two residents		10.5	9,869	90	90	90	-
	Residence:							
	Urban		5.6	1,244				**<0.001**
	Rural		11.3	8,625				
	Ecological zone:							
	Mountain		0.0	297				**<0.001**
	Hill		5.2	4,791				
	Terai		16.6	4,780				
	Wealth quintile:							
	First		10.7	1,832				**<0.001**
	Second		9.6	2,185				
	Third		7.8	2,206				
	Fourth		9.5	1,972				
	Fifth		16.4	1,673				
	Caste/ethnicity:							
	Brahmin/Chhetri		12.2	2,672				**<0.001**
	Terai/Madhesi other castes		8.0	1,443				
	Dalit		10.3	1,247				
	Newar		5.8	291				
	Janajati		11.2	3,674				
	Muslim		7.5	357				
	Others		9.1	184				

Note: Figures in bold are statistically significant
***Of the 13 districts selected for HHS, four are classified as high endemic districts, seven are classified as endemic districts and two are classified as no risk. Residents of high and low endemic districts are encouraged to use LLINs and hence have been included in the above analysis, and those in 'no risk' districts are excluded from the analysis*

10.2.5 HW

Less than one-fifth of households (18%) had a HW station with water, soap, and within ten paces of a latrine (Table 10.17). This is a long way off the target for 2013 of 65%, suggesting that this target will not be reached. It is a lot lower than that recorded in the NDHS 2011 (48%). The NDHS 2011 indicator reflects households having a HW station with soap and water, but it does not include proximity to a latrine. However, even when that same indicator is used, the finding is still lower (30% in HHS 2012, compared to 48% in NDHS 2011). More than half of households have a HW station (59%) and half have a latrine (50%), but this proportion is reduced when taking into account water (55%), and especially soap (30%) or proximity of the HW station to the latrine (27%).

The survey found that there were significant differences in meeting the criteria for this indicator by caste/ethnicity, ecological zone, urban/rural residence, and wealth quintile. Over half of those in the highest wealth quintile (56%) had a HW station with soap and water near the latrine, eight times as many as those in the middle quintile, who were the group least likely to have such facilities available (7%). Differences between caste/ethnic groups were also pronounced: Brahmins/Chhetris (33%) and Newars (33%) were more than three times as likely to have a HW station with soap and water near a latrine than Dalits (9%) or Muslims (9%). Furthermore, urban households (51%) were more likely to meet the criteria than rural households (14%), and households in Terai districts (20%) were more likely to meet these criteria than those in mountain (16%) districts.

Table 10.17: HW station with soap/water (LF indicator OC3.4)

	Indicators	Achieved			Target			*p*
		2011 (%)	HHS 2012		2011 (%)	2013 (%)	2015 (%)	
			%	Total households (N)				
OC3.4	% of households with HW station		59.0	10,260	-	-	-	-
	% of households with latrine		50.2	10,260	-	-	-	-
	% of households with HW station within ten paces of latrine		26.5	10,260	-	-	-	-
	% of households with HW station with soap and water	47.8 (NDHS)	29.6 (25.5-34.1)	10,260	-	-	-	-
	% of households with HW station with soap and water within ten paces of latrine		18.4 (15.0-22.5)	10,260	-	65	85	-
	Residence:							
	Urban		50.6	1,244				**<0.001**
	Rural		14.0	9,016				
	Ecological zone:							
	Mountain		15.9	688				**<0.001**
	Hill		17.5	4,791				
	Terai		19.7	4,780				
	Wealth quintile:							
	First		10.7	1,928				**<0.001**
	Second		8.6	2,283				
	Third		7.4	2,306				
	Fourth		18.3	2,060				
	Fifth		55.8	1,683				
	Caste/ethnicity:							
	Brahmin/Chhetri		32.5	2,724				**<0.001**
	Terai/Madhesi other castes		13.4	1,443				
	Dalit		8.8	1,262				
	Newar		32.8	300				
	Janajati		12.7	3,989				
	Muslim		8.8	357				
	Others		34.9	184				

Note: Figures in parentheses represent CI associated with findings; those in bold are statistically significant

10.2.6 Accessibility and utilisation of health services

Travel time to health facilities

The HHS 2012 found that 35% of the population were living within 30 minutes' travel time of a HP or SHP (Table 10.18). This finding is a long way off the 2011 target of 60% and 2013 target of 70%. Although there is a focus on upgrading SHPs to HPs, there are no plans to construct any new HPs or SHPs by 2013, hence this target will not be achieved. The current finding is lower than that found in the NLSS (62%). The NLSS measures the percentage of households rather than percentage of population. It is also unclear whether NLSS measured access to HP/SHP *or any other higher-level facilities*: the wording does not state this but the data suggest it did. In the current data, if we look at the percentage of the population living within 30 minutes' travel time of a HP or SHP or any higher-level government facility, the proportion increases to 57%. The latter finding may be a better reflection of access to services than the currently worded indicator, which excludes many who are not close to SHPs/HPs but do not suffer given their proximity to PHCCs or hospitals.

The survey found that there were significant differences in access to HPs/SHPs by caste/ethnicity, urban/rural residence, ecological zone, and wealth quintile. The lower-level health facilities were less accessible for the highest wealth quintile (24%), for those living in hill districts (24%), and for those in urban areas (9%). One should note that in many of these cases, those with poorer access to these lower-level facilities, such as HPs and SHPs, may have better access to higher-level facilities.

Table 10.18: Population living within 30 minutes of a HP/SHP (LF indicator OC1.1)

Code	Indicators	Achieved			Target			*p*
		2011 (%)	HHS 2012		2011 (%)	2013 (%)	2015 (%)	
			%	Total population (N)				
OC1.1	% of population living within 30 minutes' travel time to a HP or SHP	61.8* (NLSS)	34.9	53,878	60	70	80	-
	Residence:							
	Urban	85.9	9.3	5,911				**<0.001**
	Rural	59.0	38.1	47,967				
	Ecological zone:							
	Mountain		42.1	3,608				**<0.001**
	Hill		24.4	22,895				
	Terai		42.8	27,375				
	Wealth quintile:							
	First		38.1	10,402				**<0.001**
	Second		34.9	12,176				
	Third		36.8	11,856				
	Fourth		38.2	11,260				
	Fifth		23.6	8,183				
	Caste/ethnicity:							
	Brahmin/Chhetri		29.3	12,568				**<0.001**
	Terai/Madhesi other castes		52.1	9,196				
	Dalit		40.6	6,870				
	Newar		35.0	1,398				
	Janajati		27.3	20,266				
	Muslim		46.1	2,710				
	Others		34.5	869				

** Note: NLSS measured households not population; figures in bold are statistically significant*

Utilisation of outpatient services

The HHS 2012 showed that, overall, 5% of the population had used outpatient services at government health facilities in the last month (Table 10.19). The utilisation of outpatient services is lower than the HMIS data for 2010/11 (10%). However, HMIS monitors cases rather than individuals, whereby some individuals may be counted more than once. There is no target for this indicator.

The survey found that there were significant differences in utilisation of outpatient facilities by urban/rural residence, ecological zone, and caste/ethnicity. Over twice as many (8%) of those residing in mountain areas had utilised outpatient services at a government facility in the past month compared to those in Terai districts (3%), and rural residents (5%) were more likely to have used them than urban residents (3%). No significant differences in outpatient service utilisation were observed by wealth quintile.

Table 10.19: Population utilising outpatient services (LF indicator OC1.2)

Code	Indicators	Achieved			Target			*p*
		2011 (%)	HHS 2012		2011 (%)	2013 (%)	2015 (%)	
			%	Total population (N)				
OC1.2	% of population utilising outpatient services at a government facility (in the last month)	9.6* (HMIS)	4.5	53,878				-
	Residence:							
	Urban		3.3	8,110				**0.001**
	Rural		4.7	45,768				
	Ecological zone:							
	Mountain		8.0	8,264				**<0.001**
	Hill		5.7	17,628				
	Terai		2.6	27,985				
	Caste/ethnicity:							
	Brahmin/Chhetri		4.5	14,517				**0.013**
	Terai/Madhesi other castes		3.1	6,553				
	Dalit		3.5	7,318				
	Newar		5.4	2,128				
	Janajati		4.6	22,025				
	Muslim		4.1	2,148				
	Others		8.2	875				

**Note HMIS measured the proportion of outpatient among total cases received inpatient, outpatient, and emergency services; figures in bold are statistically significant*

Utilisation of inpatient services

Overall, 0.7% of the population had utilised inpatient services at a district hospital inthe last 12 months (Table 10.20). The level of utilisation of inpatient services is lower than in the HMIS data for 2010/11 (9%). However, this would be expected, given that HMIS monitors cases rather than individuals, whereby some individuals may be counted more than once. There is no target for this indicator.

The survey did not find any significant differences in utilisation of inpatient service by urban/rural residence, ecological zone, wealth quintile, and caste/ethnicity.

Table 10.20: Population utilising inpatient services (LF indicator OC1.3)

Code	Indicators	Achieved			Target			*p*
			HHS 2012					
		2011 (%)	%	Total population (N)	2011 (%)	2013 (%)	2015 (%)	
OC1.3	% of the population utilising inpatient services at district hospitals (in the last 12 months)	9.1* (HMIS)	0.7	53,878				-

**Note HMIS measured the total number of inpatient cases and hence individuals may be counted more than once*

Client satisfaction with government facilities

The results on client satisfaction are presented separately for maternity clients, outpatients, and inpatients, as well as for all of these clients combined.

Maternity satisfaction

Most maternity clients (92%) were satisfied with the health care they received (Table 10.21). This finding is slightly lower than that reported in STS 2011 (99%); this is likely to reflect changes to the rating scale used in the questionnaire to include a neutral category in the middle, and/or clients being more likely to give a positive response when asked about satisfaction immediately after care and while still at the facility, compared to when some time has passed and they are in their home environment.

The survey found that there were significant differences in satisfaction with maternity care by ecological zone and caste/ethnic group. Maternity clients from hill districts (96%) were more likely to report satisfaction with the service received compared to those from Terai districts (88%). Almost all Dalits (98%) reported satisfaction, while just 58% of Muslims did. No significant differences in satisfaction were observed by urban/rural residence or wealth quintile.

Table 10.21: Maternity satisfaction (LF indicator OC2.6)

	Indicators	Achieved			Target			*p*
		2011 (%)	HHS 2012		2011 (%)	2013 (%)	2015 (%)	
			%	Total women delivered in govt. facility (N)				
OC2.6	% of (maternity) clients satisfied with their health care at public facilities (maternal)	98.5 (STS)	92.1	750	-	-	-	-
	Ecological zone:							
	Mountain		94.2	69				**0.035**
	Hill		95.8	331				
	Terai		88.3	351				
	Caste/ethnicity:							
	Brahmin/Chhetri		94.3	247				**0.005**
	Terai/Madhesi other castes		88.3	94				
	Dalit		97.6	83				
	Newar		60.0	10				
	Janajati		92.9	294				
	Muslim		58.3	12				
	Others		90.9	11				

Note: Figures in bold are statistically significant

Outpatient satisfaction

Overall, 90% of outpatients were satisfied with their care (Table 10.22). This compares to 95% in STS 2011, but, as mentioned above, STS 2011 used a more favourable scale. The survey found that there were no significant differences in satisfaction with outpatient care at government facilities by urban/rural residence, ecological zone, wealth quintile, or caste/ethnic group.

Table 10.22: Outpatient satisfaction (LF indicator OC2.6)

		Achieved			Target			*p*
		2011 (%)	HHS 2012		2011 (%)	2013 (%)	2015 (%)	
			%	Total outpatients (N)				
OC2.6	% of (outpatient) clients satisfied with their health care at public facilities	94.9 (STS)	90.1	1,472	-	-	-	-

Inpatient satisfaction

Overall, inpatients (95%) (Table 10.23) were more likely to report satisfaction than outpatients (90%) and maternity clients (91%). There were no significant differences when disaggregated.

Table 10.23: Inpatient satisfaction (LF indicator OC2.6)

		Achieved			Target			*p*
		2011 (%)	HHS 2012		2011 (%)	2013 (%)	2015 (%)	
			%	Total inpatients (N)				
OC2.6	% of (inpatient) clients satisfied with their health care at public facilities	-	94.8	305	-	-	-	-

All clients (maternity, outpatient, and inpatient)

Overall, for maternity, outpatients, and inpatients combined, 91% of clients reported they were satisfied with their health care (Table 10.24). This has surpassed both the 2013 (74%) and 2015 (80%) targets. A higher percentage (96%) of clients reported satisfaction in STS 2011 (maternity clients and outpatients), but, as mentioned above, STS 2011 used a more favourable rating scale. There were no significant differences when disaggregated.

Table 10.24: Client satisfaction (LF indicator OC2.6)

	Indicators		Achieved		Target			*p*
		2011 (%)	HHS 2012		2011 (%)	2013 (%)	2015 (%)	
			%	Total clients (N)				
OC2.6	Overall satisfaction for all clients	96.0 (STS)	91.3	2,529	-	74	80	

10.3 KEY FINDINGS

Progress against targets

Progress on the 20 NHSP-2 LF indicators that cite HHS 2012 as the source was varied. Six indicators have already reached the 2013 target, with four of these already meeting the 2015 target (Table 10.25). These indicators included awareness of danger signs, institutional deliveries, exclusive breastfeeding, vitamin A supplementation, and client satisfaction.

Table 10.25: NHSP-2 LF indicators that have achieved the 2013 target

Code	Indicators	Achieved		Target		
		HHS 2012		2011 %	2013 %	2015 %
		%	95%CI			
OP5.2	% of WRA (15-49) who know at least three pregnancy-related danger signs	52.2	47.7-56.7	-	40	50
OP5.3	% of WRA (15-49) giving birth in the last two years aware of at least three danger signs of newborns	44.9	40.6-49.4	-	40	50
OC2.4	% of deliveries in institutions	36.5	30.9-42.3	27	35	40
P2	% of infants exclusively breastfed for 0-5 months	65.9	61.2-70.3	35	48	60
P4	% of children aged 6-59 months that have received vitamin A supplements	90.0	88.3-91.5	90	90	90
OC2.6	% of clients satisfied with their health care at public facilities (maternal, outpatient, inpatient)	91.3	89.0-94.6	68	74	80

Six further indicators are on track to reach the 2013 target (Table 10.26). These include awareness of safe abortion sites, deliveries by CS, early initiation of breastfeeding, and treatment of childhood illness.

Table 10.26: NHSP-2 LF indicators that are on track to achieve the 2013 target

Code	Indicators	Achieved		Target		
		HHS 2012		2011 %	2013 %	2015 %
		%	95%CI			
OP5.1	% of WRA (15-49) aware of safe abortion sites	28.2	24.5-32.1	-	35	50
P10	% of deliveries conducted by a SBA	39.1	33.6-45.0	-	40	60
OC1.6	% of deliveries by CS	3.9	2.7-5.3	4	4.3	4.5
OP4.10	% of infants breastfed within one hour of birth	48.5	43.7-63.3	-	55	60
OC2.1	% of children under five with diarrhoea treated with zinc and ORS	23.7	17.8-30.7	7	25	40
OC2.2	% of children under five with pneumonia who received antibiotics	26.9	19.9-34.8	30	40	50

Six indicators are a long way off the 2013 targets; where a target for 2011 is available it has not yet been achieved (Table 10.27). These include CPR, ANC, use of LLINs, accessibility of lower-level health facilities, and household HW stations.

Table 10.27: NHSP-2 LF indicators that will not achieve the 2013 target

Code	Indicators	Achieved		Target		
		HHS 2012		2011	2013	2015
		%	95%CI	%	%	%
P7	CPR (modern methods) among MWRA	41.4	38.7-44.1	48	52	67
P8	% of pregnant women attending at least four ANC visits	43.2	37.6-48.9	-	65	80
OC3.1	% of children under five in the endemic area who slept under a LLIN on the previous night	10.4	6.2-14.6	70	80	80
OP4.10	% of households in all high-risk areas with at least one LLIN per two residents	10.5	6.6-14.2	90	90	90
OC1.1	% of population living within 30 minutes' travel time to a HP or SHP	34.9	29.6-40.6	-	70	80
OC3.4	% of households with HW facilities with soap and water nearby the latrine	18.4	15.0-22.5	-	65	85

Two indicators did not have targets set for 2013 (Table 10.28). The NHSP-2 LF simply states that utilisation of outpatient and inpatient care should be proportionate to population need.

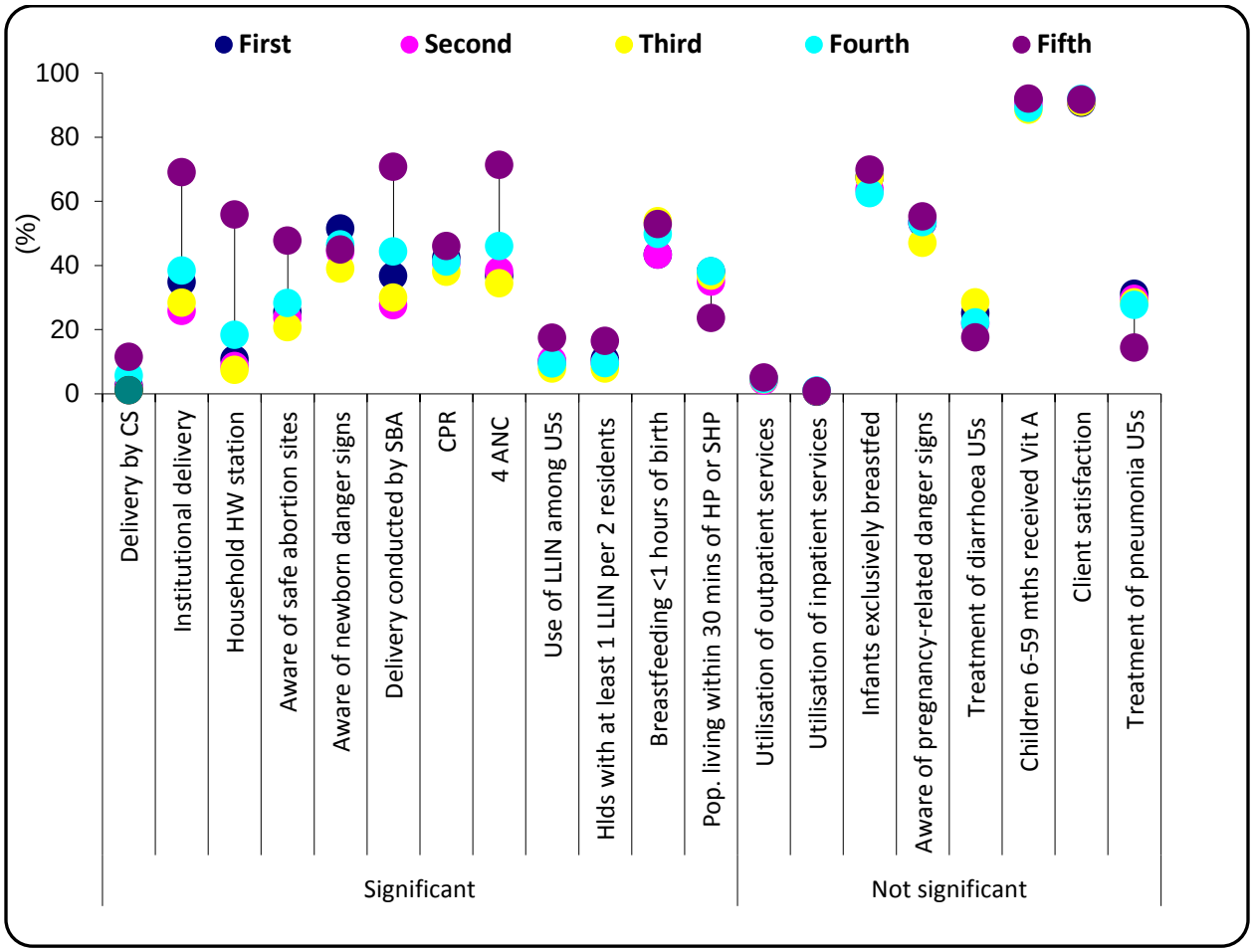
Table 10.28: NHSP-2 LF indicators that do not have a 2013 target

Code	Indicators	Achieved	Target		
		HHS 2012 %	2011 %	2013 %	2015 %
OC1.2	% the population utilising outpatient services at SHP/HP/PHCC/district hospitals (in the last 12 months)	4.5			
OC1.3	% of the population utilising inpatient services at district hospitals (in the last 12 months)	0.7			

Differences by wealth quintile

Significant differences by wealth quintile were seen for 12 of the 20 indicators: deliveries by CS, institutional deliveries, deliveries conducted by SBA, availability of HW facilities, at least four ANC check-ups, awareness of safe abortion sites, awareness of newborn danger signs, CPR, infants breastfed within an hour of birth, population living within 30 minutes of a HP/SHP, use of LLINs among under-fives, and presence of LLINs in households (Figure 10.1).

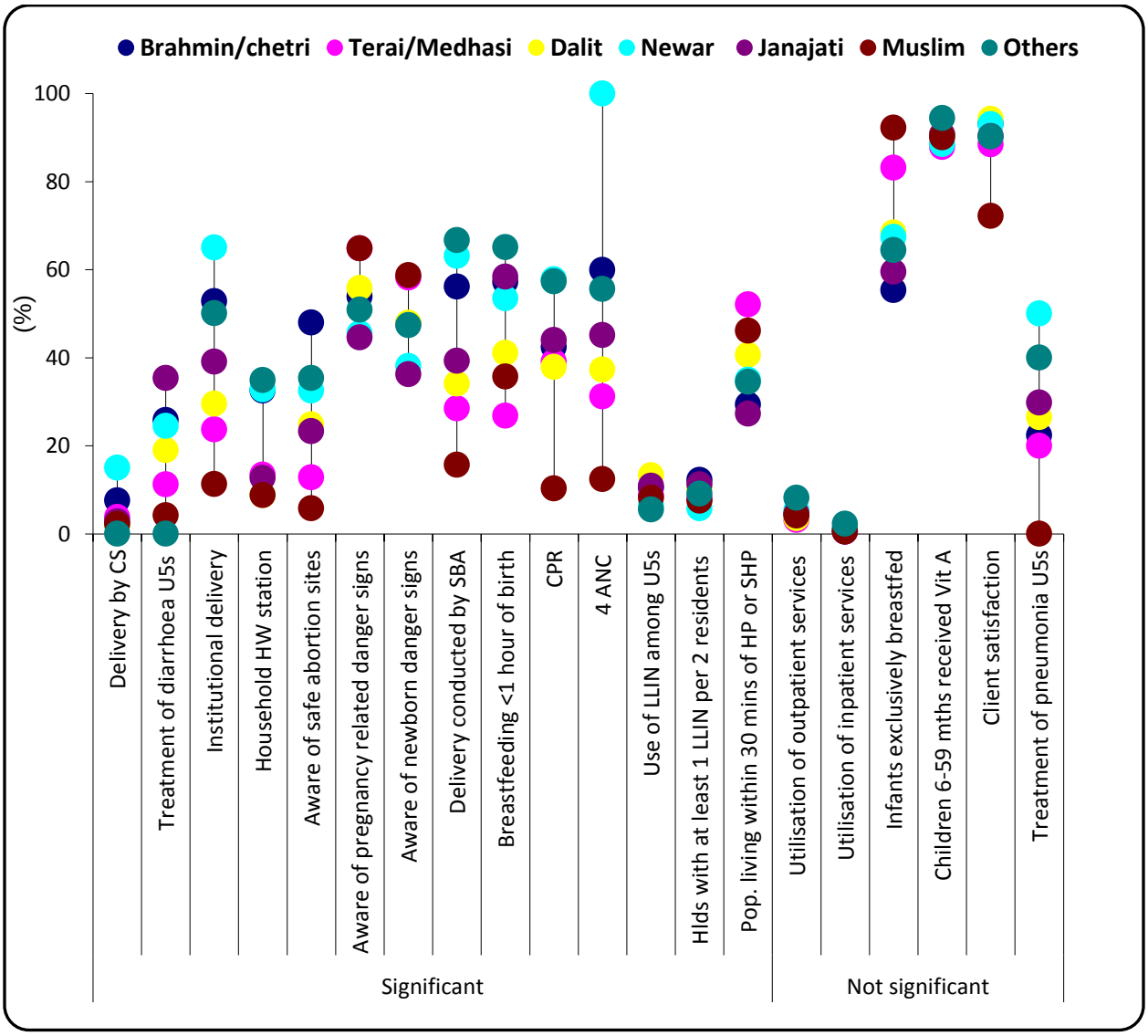
Figure 10.1: Equity chart showing LF indicators disaggregated by wealth quintile



Differences by caste/ethnicity

Significant differences by caste/ethnicity were seen in 14 of the 20 indicators (Figure 10.2): delivery conducted by CS, treatment of diarrhoea in under-fives, institutional deliveries, household HW station, awareness of safe abortion sites, awareness of pregnancy-related danger signs, awareness of newborn danger signs, deliveries conducted by SBA, early initiation of breastfeeding, CPR, at least four ANC check-ups, use of LLINs by under-fives, presence of LLINs in households, and population living within 30 minutes of a HP/SHP.

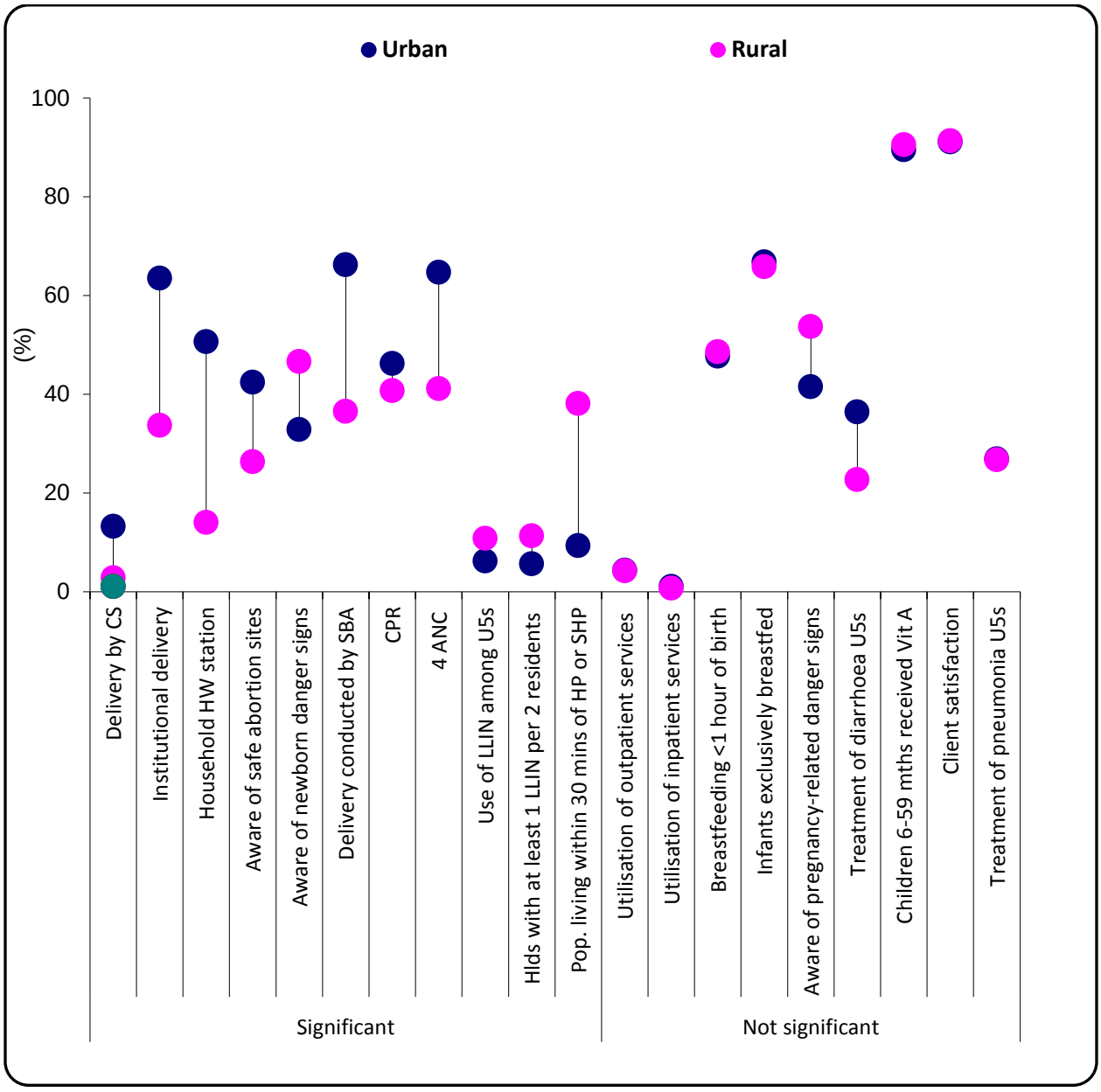
Figure 10.2: Equity chart showing LF indicators disaggregated by caste/ethnicity



Differences by urban/rural residence

Significant differences by urban/rural residence were seen for 11 of the 20 indicators: delivery by CS, institutional delivery, household HW facilities, awareness of safe abortion sites, awareness of newborn danger signs, delivery conducted by SBA, CPR, at least four ANC check-ups, use of LLINs among under-fives, presence of LLINs within households, and population living within 30 minutes of a HP/SHP (Figure 10.3). Of these 11 indicators with significant differences, rural residents had higher proportions in awareness of newborn danger signs, population living within 30 minutes of a HP/SHP, and use and presence of LLINs. Urban residents had higher proportions for the remaining nine indicators.

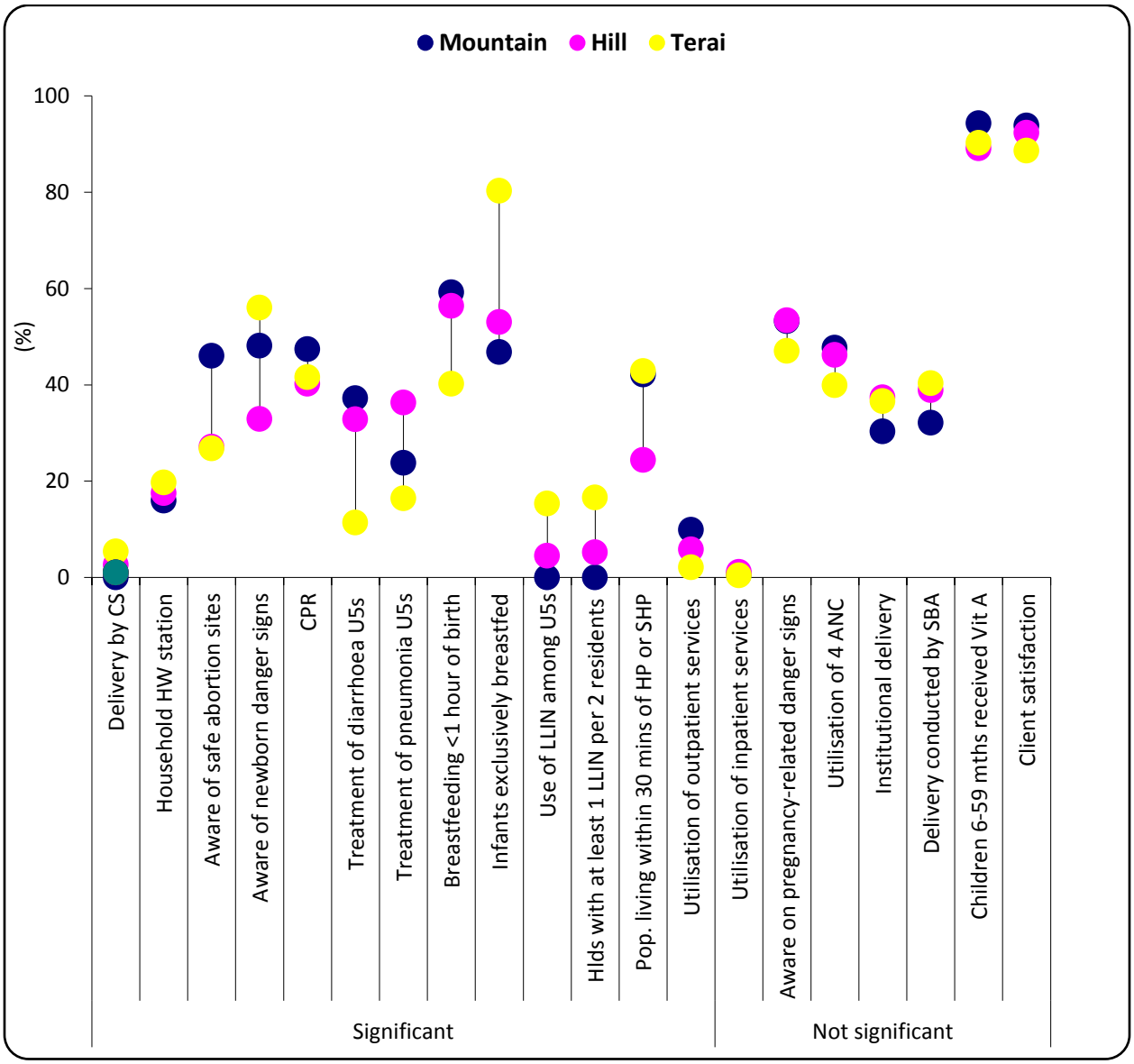
Figure 10.3: Equity chart showing LF indicators disaggregated by urban/rural residence



Differences by ecological zone

As shown in Figure 10.4, significant differences by ecological zone were seen for 13 out of 20 indicators: delivery by CS, HW stations, awareness of safe abortion sites, awareness of newborn danger signs, CPR, children under five with diarrhoea treated with zinc and ORS, children under five with pneumonia treated with antibiotics, early initiation of breastfeeding, exclusive breastfeeding, use of LLINs by under-fives, presence of LLINs within households, population living within 30 minutes of an HP or SHP, and utilisation of outpatient services.

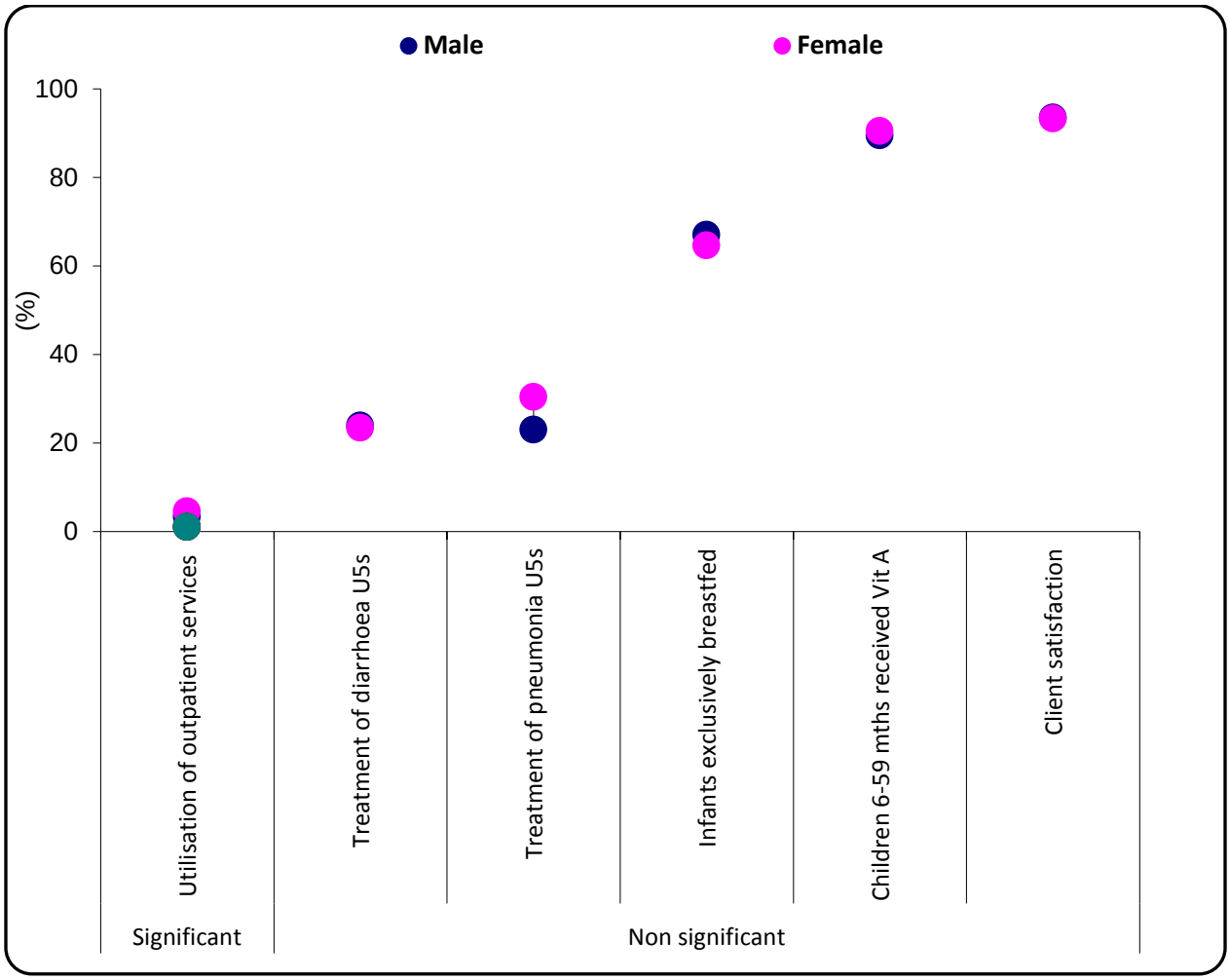
Figure 10.4: Equity chart showing LF indicators disaggregated by ecological zone



Differences by sex

Of the six indicators examined for significant differences between males and females, the only indicator with significant differences was the utilisation of outpatient services, with greater utilisation by females (Figure 10.5).

Figure 10.5: Equity chart showing LF indicators disaggregated by sex



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ANNEX 1: SAMPLE SIZE CALCULATION FOR REPRESENTATIVE HOUSEHOLD SURVEY

Formula: $n = (z^2)\ (r)\ (1-r)\ (f)\ (k)/\ (p)\ (n)\ (e^2)$

Where,

z - Level of confidence

r - Estimate of a key indicator to be measured by the survey;

f - Design effect (deff), assumed to be 2.0 (default value);

k - Multiplier to account for the anticipated rate of non-response;

p - Proportion of the total population accounted for by the target population and upon which the parameter, r, is based;

N - Average household size (number of persons per household);

e - Margin of error assuming relative precision.

Estimated sample size (N)	z	z^2	Key indicator to be measured (r)	(1-r)	Design effect (f)	Non-response rate (k)	P	N	e (10% of r)	e^2
10,244	1.96	3.8416	0.25	0.75	2	1.2	0.06	4.5	0.025	0.000625
5,122	1.96	3.8416	0.4	0.6	2	1.2	0.06	4.5	0.04	0.0016
3,415	1.96	3.8416	0.5	0.5	2	1.2	0.06	4.5	0.05	0.0025
2,277	1.96	3.8416	0.6	0.4	2	1.2	0.06	4.5	0.06	0.0036

Source: UN Secretariat, Statistics Division, 2003. *Expert group meeting to review the draft handbook on designing of household sample surveys 3-5 December 2003*. ESA/STAT/AC.93/2

ANNEX 2: RATIONALE FOR ADDITIONAL SAMPLE OF WOMEN DELIVERING IN GOVERNMENT INSTITUTIONS

In a sample of 10,250 households we expected to cover an estimated population of 45,144. With a national Crude Birth Rate (CBR) of 24.3 (NDHS, 2011) we expected this to include 1,097 women who had delivered in the last year. Of these, assuming 26% had delivered in a government institution (NDHS, 2011), we expected to reach 285 in our representative sample.

Within the 180 clusters, we estimated the total population to be 158,400 (assuming 200 households per cluster, and an average family size of 4.4), and using the CBR of 24.3 per 1,000 population, we expected 3,849 women residing in the clusters to have delivered in the last year. Assuming that 26% of deliveries had been at a government facility, we expected 1,001 of these deliveries to have come from government institutions.

As mentioned above, we expected our representative sample to capture 285 women who had delivered in a government institution in the last year. We decided to increase this sample by interviewing all remaining women in the 180 clusters who had delivered in a government institution, therefore visiting an estimated 716 additional households (1,001 *minus* 285). Additional households to be visited were identified from the master household list of the 180 clusters by excluding (i) those households which had already been included in the representative survey (estimated to be 285), and (ii) those households that did not have a woman who had delivered in a government institution in the last 12 months. All remaining households (estimated to be 716) were visited.

ANNEX 3: CALCULATION OF WEALTH QUINTILES

A number of household assets (23) were used to calculate the wealth index. All 23 variables are dichotomous, except for the number of persons per sleeping room, which is continuous. Principal Component Analysis (PCA) has been used to compute the wealth index. The first principle component is taken as the underlying index of wealth. Each household's position has been calculated using the PCA weights. The PCA procedure produces an index that is normally distributed so that it has a mean value of zero and a standard deviation of one. The households are then divided into quintiles for analysis.

Variables used in wealth index:

1. Source of drinking water
2. Toilet type
3. Saving bank account
4. Main cooking fuel
5. Flooring material
6. Roof material
7. Exterior wall of the house
8. Electricity
9. Radio
10. Television
11. Mobile phone
12. Fixed phone
13. Refrigerator
14. Sofa
15. Cupboard
16. Computer
17. Fan
18. Bicycle
19. Motorcycle
20. Tempo/taxi
21. Cart
22. Car/truck/bus, and

ANNEX 4: WEIGHTING USED IN HHS

a. Calculation of household-level weights

Sub-region	Census 2011		Proportionate sample $=n_h$	Sample size HHS		$(var'/var)^2$	SE'/SE	Selection probability ($f_h=n/N$)	Weight
	Total households (N_h)	%		Disproportionate sample $=n'_h$	%				
Eastern mountain	84,918	1.56	161	228	2.22	0.70	0.8	0.002685	0.70
Central mountain	122,154	2.25	231	114	1.11	2.03	1.4	0.000933	2.03
Far-western mountain	157,048	2.89	297	285	2.78	1.04	1.0	0.001815	1.04
Eastern hill	346,571	6.39	655	456	4.44	1.44	1.2	0.001316	1.44
Central hill	1,016,181	18.72	1,921	627	6.11	3.06	1.8	0.000617	3.06
Western hill	677,498	12.48	1,281	741	7.22	1.73	1.3	0.001094	1.73
Mid-western hill	332,153	6.12	628	456	4.44	1.38	1.2	0.001373	1.38
Far-western hill	162,027	2.99	306	456	4.44	0.67	0.8	0.002814	0.67
Eastern Terai	800,016	14.74	1,512	2,280	22.22	0.66	0.8	0.002850	0.66
Central Terai	825,710	15.21	1,561	1,197	11.67	1.30	1.1	0.001450	1.30
Western Terai	384,030	7.08	726	969	9.44	0.75	0.9	0.002523	0.75
Mid-western Terai	294,364	5.42	556	912	8.89	0.61	0.8	0.003098	0.61
Far-western Terai	224,632	4.14	425	1539	15.00	0.28	0.5	0.006851	0.28
Total	**5,427,302**	**100**	**10,260**	**10,260**	100.0	**1.47=L**	**1.2**	**0.001890**	1.0

b. Calculation of individual-level weights

Wards (sampling unit)	Frequency	Average deliveries in a government facility per cluster	Weight' = Average number/number of target population in each ward	Individual weight = Weight*District weight
Cluster 0019	4	4.58	1.15	0.76
Cluster 0044	6	4.58	0.76	0.50
Cluster 0071	8	4.58	0.57	0.38
Cluster 0095	1	4.58	4.58	3.03
Cluster 0119	1	4.58	4.58	3.03
Cluster 0142	1	4.58	4.58	3.03
Cluster 0168	5	4.58	0.92	0.61
Cluster 0194	11	4.58	0.42	0.28
Cluster 0219	5	4.58	0.92	0.61
Cluster 0246	5	4.58	0.92	0.61
Cluster 0272	4	4.58	1.15	0.76
Cluster 0297	2	4.58	2.29	1.51

Wards (sampling unit)	Frequency	Average deliveries in a government facility per cluster	Weight' = Average number/number of target population in each ward	Individual weight = Weight*District weight
Cluster 0298	5	4.58	0.92	0.61
Cluster 0324	14	4.58	0.33	0.22
Cluster 0350	4	4.58	1.15	0.76
Cluster 0375	4	4.58	1.15	0.76
Cluster 0402	2	4.58	2.29	1.51
Cluster 0426	2	4.58	2.29	1.51
Cluster 0451	10	4.58	0.46	0.30
Cluster 0474	6	4.58	0.76	0.50
Cluster 0522	2	4.58	2.29	1.51
Cluster 0545	3	4.58	1.53	1.01
Cluster 0594	5	4.58	0.92	0.61
Cluster 0618	14	4.58	0.33	0.22
Cluster 0667	4	4.58	1.15	0.76
Cluster 0740	4	4.58	1.15	0.76
Cluster 0763	8	4.58	0.57	0.38
Cluster 0788	3	4.58	1.53	1.01
Cluster 0813	2	4.58	2.29	1.51
Cluster 0838	1	4.58	4.58	3.03
Cluster 0863	5	4.58	0.92	0.61
Cluster 0889	4	4.58	1.15	0.76
Cluster 0937	1	4.58	4.58	3.03
Cluster 0960	5	4.58	0.92	0.61
Cluster 0985	1	4.58	4.58	3.03
Cluster 1009	3	4.58	1.53	1.01
Cluster 1066	2	4.57	2.29	3.29
Cluster 1094	1	4.57	4.57	6.58
Cluster 1122	3	4.57	1.52	2.19
Cluster 1149	3	4.57	1.52	2.19
Cluster 1177	3	4.57	1.52	2.19
Cluster 1203	14	4.57	0.33	0.47
Cluster 1230	6	4.57	0.76	1.10
Cluster 1253	1	1.00	1.00	0.70
Cluster 1327	1	1.00	1.00	0.70
Cluster 1352	1	3.11	3.11	9.52
Cluster 1403	1	3.11	3.11	9.52
Cluster 1452	5	3.11	0.62	1.90
Cluster 1476	5	3.11	0.62	1.90
Cluster 1497	1	3.11	3.11	9.52
Cluster 1521	3	3.11	1.04	3.17
Cluster 1545	2	3.11	1.56	4.76
Cluster 1571	9	3.11	0.35	1.06
Cluster 1597	1	3.11	3.11	9.52
Cluster 1629	6	5.50	0.92	1.86

Wards (sampling unit)	Frequency	Average deliveries in a government facility per cluster	Weight' = Average number/number of target population in each ward	Individual weight = Weight*District weight
Cluster 1653	5	5.50	1.10	2.23
Cluster 1682	2	3.25	1.63	2.11
Cluster 1707	3	3.25	1.08	1.41
Cluster 1757	3	3.25	1.08	1.41
Cluster 1782	2	3.25	1.63	2.11
Cluster 1783	8	3.25	0.41	0.53
Cluster 1825	13	3.25	0.25	0.33
Cluster 1883	2	3.25	1.63	2.11
Cluster 1909	3	3.25	1.08	1.41
Cluster 1934	3	3.25	1.08	1.41
Cluster 1984	3	3.25	1.08	1.41
Cluster 2009	1	3.25	3.25	4.23
Cluster 2033	2	3.25	1.63	2.11
Cluster 2081	2	3.25	1.63	2.11
Cluster 2105	2	3.25	1.63	2.11
Cluster 2129	2	3.25	1.63	2.11
Cluster 2154	1	3.25	3.25	4.23
Cluster 2177	1	4.67	4.67	8.07
Cluster 2203	5	4.67	0.93	1.61
Cluster 2229	3	4.67	1.56	2.69
Cluster 2253	2	4.67	2.33	4.04
Cluster 2294	3	4.67	1.56	2.69
Cluster 2317	3	4.67	1.56	2.69
Cluster 2341	2	4.67	2.33	4.04
Cluster 2368	6	4.67	0.78	1.35
Cluster 2392	2	4.67	2.33	4.04
Cluster 2419	11	4.67	0.42	0.73
Cluster 2447	4	4.67	1.17	2.02
Cluster 2471	14	4.67	0.33	0.58
Cluster 2505	6	3.33	0.56	0.42
Cluster 2528	3	3.33	1.11	0.83
Cluster 2553	4	3.33	0.83	0.63
Cluster 2604	4	3.33	0.83	0.63
Cluster 2627	6	3.33	0.56	0.42
Cluster 2651	2	3.33	1.67	1.25
Cluster 2673	6	3.33	0.56	0.42
Cluster 2696	3	3.33	1.11	0.83
Cluster 2724	3	3.33	1.11	0.83
Cluster 2749	2	3.33	1.67	1.25
Cluster 2774	1	3.33	3.33	2.50
Cluster 2799	5	3.33	0.67	0.50
Cluster 2823	3	3.33	1.11	0.83
Cluster 2870	1	3.33	3.33	2.50

Wards (sampling unit)	Frequency	Average deliveries in a government facility per cluster	Weight' = Average number/number of target population in each ward	Individual weight = Weight*District weight
Cluster 2894	1	3.33	3.33	2.50
Cluster 2917	6	4.50	0.75	1.04
Cluster 2944	9	4.50	0.50	0.69
Cluster 2969	1	4.50	4.50	6.21
Cluster 2994	4	4.50	1.13	1.55
Cluster 3020	1	4.50	4.50	6.21
Cluster 3047	7	4.50	0.64	0.89
Cluster 3074	4	4.50	1.13	1.55
Cluster 3100	4	4.50	1.13	1.55
Cluster 3126	6	8.50	1.42	0.86
Cluster 3151	13	8.50	0.65	0.40
Cluster 3177	14	8.50	0.61	0.37
Cluster 3203	3	8.50	2.83	1.73
Cluster 3228	10	8.50	0.85	0.52
Cluster 3255	5	8.50	1.70	1.04
Cluster 3279	2	8.50	4.25	2.59
Cluster 3304	3	8.50	2.83	1.73
Cluster 3330	8	8.50	1.06	0.65
Cluster 3354	16	8.50	0.53	0.32
Cluster 3379	8	8.50	1.06	0.65
Cluster 3403	11	8.50	0.77	0.47
Cluster 3429	13	8.50	0.65	0.40
Cluster 3452	6	8.50	1.42	0.86
Cluster 3477	9	8.50	0.94	0.58
Cluster 3502	9	8.50	0.94	0.58
Cluster 3523	5	9.75	1.95	1.31
Cluster 3547	15	9.75	0.65	0.44
Cluster 3574	3	9.75	3.25	2.18
Cluster 3601	5	9.75	1.95	1.31
Cluster 3625	14	9.75	0.70	0.47
Cluster 3651	21	9.75	0.46	0.31
Cluster 3675	3	9.75	3.25	2.18
Cluster 3698	12	9.75	0.81	0.54
Cluster 3719	5	7.32	1.46	0.41
Cluster 3744	2	7.32	3.66	1.02
Cluster 3771	4	7.32	1.83	0.51
Cluster 3796	6	7.32	1.22	0.34
Cluster 3821	6	7.32	1.22	0.34
Cluster 3849	9	7.32	0.81	0.23
Cluster 3871	9	7.32	0.81	0.23
Cluster 3893	7	7.32	1.05	0.29
Cluster 3917	13	7.32	0.56	0.16
Cluster 3938	6	7.32	1.22	0.34

Wards (sampling unit)	Frequency	Average deliveries in a government facility per cluster	Weight' = Average number/number of target population in each ward	Individual weight = Weight*District weight
Cluster 3964	5	7.32	1.46	0.41
Cluster 3990	9	7.32	0.81	0.23
Cluster 4017	6	7.32	1.22	0.34
Cluster 4042	11	7.32	0.67	0.19
Cluster 4067	8	7.32	0.92	0.26
Cluster 4091	10	7.32	0.73	0.20
Cluster 4116	6	7.32	1.22	0.34
Cluster 4142	11	7.32	0.67	0.19
Cluster 4167	7	7.32	1.05	0.29
Cluster 4191	3	7.32	2.44	0.68
Cluster 4214	8	7.32	0.92	0.26
Cluster 4263	2	7.32	3.66	1.02
Cluster 4290	7	7.32	1.05	0.29
Cluster 4320	8	7.32	0.92	0.26
Cluster 4345	7	7.32	1.05	0.29
Cluster 4366	8	7.32	0.92	0.26
Cluster 4392	5	8.80	1.76	1.83
Cluster 4417	19	8.80	0.46	0.48
Cluster 4443	13	8.80	0.68	0.70
Cluster 4467	2	8.80	4.40	4.58
Cluster 4492	5	8.80	1.76	1.83

ANNEX 5: 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.	Brahmin/Chhetri	1.1	Hill Brahmin Hill Brahmin
		1.2	Hill Chhetri Chhetri, Takuri, Sanyasi
		1.3	Terai/Madhesi Brahmin/Chhetri Madhesi Brahmin, Nurang, Rajput, Kayastha
2.	Terai/Madhesi other castes	2.1	Terai/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	Terai/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.	Terai 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