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Benefit Incidence Analysis in Health

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ABBREVIATIONS

BIA	Benefit Incidence Analysis
HP	Health Post
LSMS	Living Standards Measurement Survey
MEI	Multi-dimensional Exclusion Index
MPI	Multi-dimensional Poverty Index
NHA	National Health Accounts
NHSSP	Nepal Health Sector Support Programme
NLSSIII	Nepal Living Standards Survey, round 3
NPR	Nepali Rupees
PER	Public Expenditure Review
PSU	Primary Sampling Unit
PHC	Primary Health Centre
SHP	Sub-Health Post
WB	World Bank

EXECUTIVE SUMMARY

Methodology

This study carries out a benefit incidence analysis using the methodology laid out in Demery (2000). The basis for the study is the 3rd Nepal Living Standard Survey (NLSSIII) for demand side variables. All supply side figures concerning public expenditures on health care by type of service and region have been provided by a Public Expenditure Review (PER) that was carried out recently for the health sector in Nepal. The main limitations of the data used are:

1. The NLSSIII figures for utilisation of public health services cover only a period of 30 days compared to the recommended 12 day recall period for these types of questions. This may lead to small sample problems and over-estimation of variations in utilisation, as well as biases linked to seasonality in the utilisation of public health services.

2. The public expenditure review does not include locally raised revenue for hospital services and, as such, underestimates the cost of provision of hospital services.

In order to address issues linked to the first problem, we have adjusted health services utilisation data for seasonal variations. The second issue has been addressed by adding an estimate for total local revenue collection for hospital services in each belt-region to the public expenditure figures made available through the PER. The data are analysed using both gross and net subsidy methods, which respectively include/ exclude local revenue collection through fees.

The analysis of distribution of health subsidies has been carried out on several relevant population subgroups, categorised by region, caste, gender, dwelling area, income, poverty and multi-dimensional poverty. A multi-dimensional poverty index has been constructed in order to allow for both monetary and non-monetary aspects of poverty to be taken into consideration during the analysis. The multi-dimensional poverty index uses the Alkire Foster methodology (Alkire and Foster 2011) and uses the dimensions and variables defined in the recent paper by Bennett and Parajuli (2012) on Multi-dimensional Exclusion Index in Nepal.

Utilisation

The utilisation of health services varies significantly across the country and across population subgroups in quantity of services used and types of services. The rate of utilisation of public health services is almost twice as high among Dalits and upper caste groups, as it is in other castes. The lowest rate of utilisation of public health services is found in the Far-Western region with just a 4% utilisation rate, compared to almost 8% in the Mid-Western region. Most of the differences in utilisation rates across

regions are driven by the rate of utilisation of primary health care services. Populations living in rural areas tend to use primary health care services to a much greater extent, whereas urban dwellers overwhelmingly use the more expensive hospital services. When utilisation is broken down by income level, we find that the highest rates of utilisation of public health services are found in the middle quintiles (between 6% and 7% for quintiles 2,3,4), whereas the top and bottom quintiles have significantly lower rates of utilisation of health services (between 4% and 5%). In the former case, this may be due to the use of alternative, private, health care options, whereas in the latter it may be due to access costs, which prevent poor households from accessing public health services. The analysis by multi-dimensional poverty yields similar insights, but highlights the importance of specific deprivations in explaining the difference in utilisation rates across the population. In particular, we find that households that are deprived in the education dimension have significantly lower rates of utilisation of public health services than non-deprived households (3% vs. 6%). This points to the possible existence of non-monetary barriers to access.

Costs of Provision

The unit cost of provision of each health service is estimated as the total public expenditure on that service in each belt-region, as estimated from the PER, divided by the total number of users of the service in the same belt-region (adjusted for seasonality), as estimated from NLSSIII. The unit cost for providing health services is almost twice as high in the Far-Western region as in the Mid-Western region at Nepali Rupee (NPR) 1,313 compared to NPR 663. The breakdown of unit cost figures by type of facility shows that the provision of health post services are cheapest at NPR 388, whereas the provision of hospital services are the most expensive at an average of NPR 1,306.

Access costs

Total out-of-pocket expenditures incurred by Nepalese users of public health services in the 30 days preceding the survey amounted to NPR 3,000 for hospital services and NPR 500 for mobile clinics and primary health care services. Fees paid by health service users were highest for hospital services at NPR 1,000 per user compared to NPR 71 for the use of sub-health post services. When differences in usage rates for different services are taken into account, the average Nepalese health care user spent an average of NPR 361 on fees, NPR 820 on medicine and NPR 150 on transport and other expenses related to the usage of public health services in the 30 days preceding the survey. This represented 46% of the average monthly household income in Nepal.

The highest out-of-pocket expenditures for usage of public health facilities were found in the Far-Western region (NPR 2,134 compared to NPR 729 in the Mid-Western region), representing about 60% of total monthly household consumption in the Far-Western region, compared to 30-40% of total

monthly household consumption in other regions. Similarly, the breakdown of out-of-pocket expenditures by caste shows that health expenditures tend to be proportional to household income, at around 30-40% of total monthly household consumption. One exception is disadvantaged Janajatis, who spent on average almost 50% of their total monthly household consumption on health-related expenditures. This was due both to the higher expenditures incurred by this group, and their lower income levels. The breakdown of health related expenditures shows that women have significantly higher health expenditures than men, particularly in urban areas. The breakdown by income level shows that out-of-pocket health expenditures tend to be constant at around 40% of total monthly household consumption for the middle quintiles, but is significantly higher for the bottom quintile (over 50%) and significantly lower for the top quintile (less than 30%), suggesting the possible existence of access barriers for the former group.

Subsidies

When differences in unit costs and utilisation of health services across regions are taken into account, we find that 80% of the gross public health subsidy goes to hospital services and sub-health posts. When fee payment is taken into account, the net subsidy for hospital services decreases significantly, from 43% to 19% of the total, whereas the net subsidy for sub-health posts represents 55% of the total net public health subsidies.

The largest recipients of public health subsidies in net terms are Dalits (NPR 60 per capita per month) whereas disadvantaged Janajatis receive only NPR 30 per capita per month, and actually incur a negative subsidy (i.e. they pay more than they receive for usage of hospital services). The largest per capita gross subsidy goes to the Western region (NPR 68), whereas the largest net subsidies are found in the Mid-Western and Far-Western regions (NPR 39 and NPR 44 respectively). Women receive slightly higher gross subsidies than men (NPR 55 vs. NPR 50), but because they have to pay higher fees, they end up receiving a significantly lower net subsidy (NPR 33 vs. NPR 38). When subsidies are broken down by income quintile, we find that the largest gross subsidy accrues to the 4th quintile (NPR 62) and the lowest to the bottom quintile (NPR 45). However, when fee payment is taken into account, the largest net subsidy is received by the 2nd quintile (NPR 49) whereas the lowest one is received by the top quintile (NPR 24). The analysis by multi-dimensional poverty yields similar results but with an even stronger bias in favour of the poor with a net subsidy of NPR 46 vs. NPR 32 for multi-dimensionally poor/non-poor, respectively, compared to NPR 37 vs. NPR 35 for income poor/non-poor. The study of concentration curves shows that the net effect of health subsidies is progressive, due mainly to the strongly pro-poor nature of sub-health posts and health posts. All services except for ayurvedic care are progressive in the sense that they have a net redistributive effect in favour of the poor (a positive Kakwani index), when differences between transfers and fees are taken into account.

Health Outcomes

The study of inequality in health outcomes is difficult due to the limitations of the dataset which uses almost exclusively self-reported health variables. The only objective health variable available concerned anthropometric measures for children under the age of 5. This variable shows large variations across population subgroups, but tends to be commensurate with variations in income. Malnutrition rates are almost twice as high in rural areas, compared to urban areas. The highest rates of malnutrition are found in mountain areas in the Mid-Western region (10% of children under 5 have a height for age of more than 2 standard deviations below the WHO median). The analysis by multi-dimensional poverty reveals that children living in households where no woman is literate, and in households deprived in education or influence, are twice as likely to be undernourished as children living in non-deprived households.

1 OBJECTIVES AND METHODOLOGY

The objectives of this study are the following:

1. Analyse differences in the cost of provision of public health services across Nepal.
2. Study the rates and patterns of utilisation of public health services by regions and population sub-groups in Nepal.
3. Identify possible monetary and non-monetary barriers to access to public services, which may prevent specific subgroups of the population from benefiting from public services.
4. Analyse the distribution of public subsidies to the health sector with a view to identifying imbalances in the distribution of public subsidies, and in particular with a view to seeing whether public expenditures on health are pro-poor.
5. Analyse inequalities in health outcomes across population subgroups, regions and income levels.

1.1 Data

For this study, we have used two main data sources: the 2010/11 Nepal Living Standards Survey round 3 (NLSSIII) to measure demand side variables (utilisation, out-of-pocket expenditures, etc.) and the Public Expenditure Review to estimate supply side variables, namely the cost of service provision.

1.1.1 Nepal Living Standards Survey, 2010/11

The NLSSIII, 2010/11 is the third multi-topic household survey in Nepal conducted by the Central Bureau of Statistics[1]. The previous two surveys were undertaken in 1995/96 and 2003/04. All three surveys followed the Living Standards Measurement Survey (LSMS) methodology developed and promoted by the World Bank (WB).

The survey collected information on different aspects of household welfare, including consumption, income, housing, access to facilities, education, health, migration, employment, access to credit, remittances and anthropometrics.

The survey covers the whole country, including both rural and urban areas. The total sample size for the survey was estimated at 6,000 households in 500 primary sampling units (PSUs).

[1] According to the guidelines the concept of household is based on the "arrangements made by persons, individually or in groups, for providing themselves with food or other essentials for living".

The sample was designed to provide disaggregated estimates for the following 12 areas (called the analytic domains): Mountains; urban areas of the Kathmandu valley; other urban areas of the hills; Eastern rural hills; Central rural hills; Western rural hills; Mid-Western and Far-Western rural hills; urban areas of the Tarai; Eastern rural Tarai; Central rural Tarai; Western rural Tarai; Mid-Western and Far-Western rural Tarai.

1.1.2 Public Expenditure Review

For cost data, we used the Public Expenditure Review (PER), which was carried out and later modified for the purpose of the current study by a team of national consultants working for the Nepal Health Sector Support Programme (NHSSP). After consultation, it was agreed to use the PER data, rather than data from the National Health Accounts (NHA) for two reasons. Firstly, there were questions raised by some national consultants about the reliability of the NHA figures and the methodology used. Secondly, the NHA figures were not disaggregated by region, and would therefore not have allowed us to take into account regional differences in the cost of service provision, which can be significant in Nepal due to the lack of communication infrastructure and the difficult terrain in some parts of the country. Moreover, the PER offers another significant additional advantage over the NHA, i.e. it allows us to calculate the cost categories exactly as for the utilisation categories used in the NLSSIII.

1.2 Benefit Incidence Analysis

Benefit Incidence Analysis (BIA) is used to analyse who benefits from public expenditures on health. This is done by contrasting individual utilisation and health expenditure data, estimated from household surveys, with public expenditure data available through the public expenditure review.

Following the methodology laid out in the World Bank's Practitioners Guide on BIA (Demery 2000), we proceed in 3 steps: (1) estimate unit costs of health services across regions and different types of health services; (2) identify users of health services; (3) aggregate into groups to estimate the distribution of health subsidies.

1.2.1 Estimate unit costs

The total public subsidy, S_i, for individual i was estimated as:

$$S_i = \sum_{k=1}^{K} \left(q_{ki} c_{kj} - f_{ki} \right)$$

Where q_{ki} indicates the quantity of service k utilised by individual i, c_{kj} represents the unit cost of providing service k in belt-region j and f_{ki} represents the amount paid for k by i. For the purpose of the present study, we have broken down cost and utilisation figures geographically into 3 ecological zones (Mountain, Hill, Terai) and 5 development zones (Eastern, Central, Western, Mid-Western, and Far-Western). When superimposed, these two categorisations form 15 distinct geographical regions. All services are measured using the same recall period of 30 days, so no further adjustment will be required for comparisons of utilisation across services.

Service Cost: The PER contains information on the expenditures by facility type, matching approximately the facility types listed in the Household Survey for utilisation statistics. The following matching of categories between the NLSSIII and PER was used for the computation of unit costs:

- **Sub-Health Post**: SHP
- **Health Post**: HP
- **Primary Health Centres**: PHC
- **Mobile clinics**: Primary Health Care Out Reach Clinics
- **Hospital**: Zonal, regional, sub-regional and district hospitals
- **Ayurveda centres**: Zonal and district ayurveda centres

For each facility, the total cost reported in the PER, including personnel, administrative costs, research, training, drugs, etc., was used as a basis for computing the unit costs. The rationale for including indirect costs is that these also contribute to the delivery of the service, even if indirectly so. Recurrent equipment costs were included, but large non-recurrent investment costs were excluded to avoid skewing the results.

In the case of hospital expenditures, the data recorded in the PER excluded funding through local cost recovery through fees. In order to ensure comparability with the other facility types, we therefore had to add our estimate (computed from NLSSIII data) of aggregate fundraising through hospital user fees to the total public expenditure on hospitals in each region reported in the PER, so as to obtain the true cost of service provision.

The data reported in the PER covers a 12 months period. In order to ensure comparability with the utilisation figures in the NLSS, which cover only a 30 day period, we divided the PER totals by 12 to obtain monthly public expenditures on health. Consequently, all figures reported in the paper ought to be considered as referring to cost/expenditures over a typical 30 day period, unless otherwise indicated.

Table 1: Unit cost of provision of public health care services (Nepali rupees (NPR) per user), by type of facility and region

region	belt	UNIT_SHP_all	UNIT_HP_all	UNIT_PHC_all	UNIT_hospital_all	UNIT_ayurveda_all	UNIT_mobilecl_all	UNIT_total_all	UNIT_vaccine_all
Eastern	Mountain	995	668	1,509	330	.	.	765	19
Eastern	Hill	621	294	929	5,175	.	863	1,165	15
Eastern	Terai	1,250	193	1,802	690	336	180	741	6
Eastern	All	888	269	1,372	1,481	926	454	915	10
Central	Mountain	1,016	387	294	1,964	.	.	1,253	68
Central	Hill	2,255	499	1,969	1,814	3,997	1,353	1,629	13
Central	Terai	1,202	213	1,179	1,097	1,257	180	888	6
Central	All	1,460	342	1,253	1,505	2,245	402	1,188	12
Western	Hill	780	471	591	1,173	1,552	810	820	121
Western	Terai	2,580	260	928	1,167	.	.	1,288	40
Western	All	963	426	665	1,171	1,952	1,007	916	80
Mid-West	Mountain	656	2,998	1,195	599	.	.	889	23
Mid-West	Hill	561	300	850	961	.	700	588	16
Mid-West	Terai	1,276	419	1,431	645	415	49	670	5
Mid-West	All	695	494	1,063	733	1,595	275	663	12
Far-West	Mountain	1,454	1,844	749	527	.	.	1,279	25
Far-West	Hill	1,587	677	4,702	899	.	.	1,303	17
Far-West	Terai	1,424	393	4,891	1,563	.	372	1,338	5
Far-West	All	1,516	689	2,756	1,222	.	3,169	1,314	14
Population Total	.	1,027	388	1,115	1,306	1,811	489	972	23

Cost recovery: Cost recovery was computed from the total cost for utilisation of each service reported in the NLSS (question 8.17.a). This allowed us to estimate the actual cost of using the service, including extras and possible unofficial fees that would not be included in official accounts.

Medicine costs (question 8.17b) and transport costs (question 8.17.c) were not included in the cost recovery calculations. However, medicine costs as well as transportation costs can be used in order carry out complementary analysis to the BIA. This complementary analysis may, for instance, seek to identify access costs that prevent poor individuals from accessing healthcare and thus draw advantage from public subsidies.

Three separate analyses were carried out: (1) Gross subsidy, based on public health expenditures and utilisation, without taking into account cost recovery. This was used as a baseline for a comparison of figures and to understand the cost structure of the subsidy. (2) Net subsidy, taking into account direct cost recovery, such as consultation fees, etc. (3) Access cost analysis, including medicines and transport costs that are not subsidised by the state.

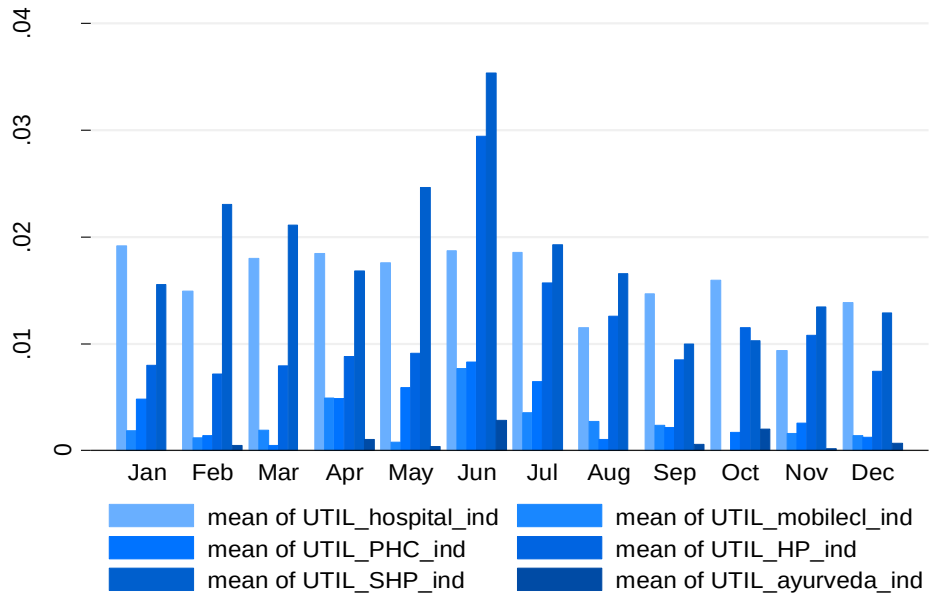
Vertical Programmes: The only vertical programme for which we were able to carry out a benefit incidence analysis, given available data, was the national immunisation programme. It should be noted that this analysis is based on simplifying assumptions, since a programme rarely is provided as a standalone, but relies on a whole system of health services that support the delivery of the programme.

1.2.2 Identify users

Utilisation: The only specific question in the household survey on utilisation of public vs. private health services is limited to the past 30 days (8.11). Other questions in the NLSS touching on health, include a question about access to health services (question 3.05). However, this only has two categories of health facilities (health posts and hospitals). Furthermore, the utilisation question is asked at the household level and coded in an ordinal variable (daily, weekly, monthly, rarely), which does not allow for computation of precise utilisation figures. Finally, there is a question on chronic illnesses which has a recall period of 12 months (8.02). However, that question does not include utilisation figures (only expenditures). A recall period of only 30 days for the utilisation of health services poses a number of problems that are well documented in the literature, such as the underestimation of users of health services, reduced sample problems and measurement errors as people don't necessarily use health facilities on a monthly basis.

An initial analysis of utilisation figures suggests that there is a strong element of seasonality in the utilisation of some services. In particular, it seems that respondents who were interviewed during the summer months reported significantly higher rates of utilisation for SHP, HP and mobile clinics (see Figure 1 below). Given that the survey uses only a 30 day recall period for the utilisation of health services, this could introduce a bias in our estimate of utilisation and unit cost figures. In order to correct for this problem, we have adjusted aggregate utilisation figures for seasonal variations, following the methodology laid out in Deaton (1998), where the weight of each service in the composite index of seasonality was provided by the share of utilisation of each service.

Figure 1: Share of population reporting having visited a public health facility in the past 30 days, by month



1.2.3 Aggregating into groups

The total subsidy per population subgroup was calculated as the unit cost for the provision of a particular service, times the utilisation rate for that service in the specific population subgroup. The incidence analysis was carried out according to the usual population categories (see section 1.5 below), and relevant combinations thereof.

1.3 Income poverty

The income poverty measure was pre-constructed in the NLSSIII dataset. The measure uses total annual household consumption per capita and the poverty line is set at NPR 19,261 per capita per year. The nominal household consumption figure was adjusted for spatial and temporal price variations using a price index constructed following the methodology set out in Deaton (1998). Here we only used the poverty headcount measure, as the intention was not to study poverty per se, but to analyse the incidence of public health subsidies on different population sub-groups, including the poor. The NLSSIII also contains a lower food poverty line set at NPR 11,929 per capita per year which was not used in this study.

1.4 Multi-dimensional Exclusion Index

In addition to a classical income poverty indicator, we constructed a Multi-dimensional Poverty Index (MPI) that takes into account non-monetary aspects of wellbeing. The use of a MPI as an alternative to

income and consumption based measures is particularly interesting in the case of Nepal due to the large discrepancies that exist between monetary and multi-dimensional measures in the country. The United Nations Development Programme's MPI headcount for 2006 was 64.7%, which is more than twice as much as the poverty headcount estimated using the national poverty line, and 20% higher than the poverty headcount computed using the internationally comparable $1.25 per day poverty line. This suggests that there may be significant unobservable factors in Nepal (e.g. discrimination, cultural attitudes, etc.) that prevent the transformation of monetary advantage into wellbeing outcomes.

We have chosen to base the MPI on the Multi-dimensional Exclusion Index (MEI) constructed by Bennet and Parajuli (Bennett and Parajuli 2012). This takes into account the specificities of the Nepalese context and the nature of non-monetary constraints faced by the Nepalese poor. In particular, the MEI includes an indicator of influence, which captures the important role of social and caste relations in Nepalese society. The MEI uses the so-called Alkire-Foster method for counting indices (Alkire and Foster 2011). The MEI comprises the following dimensions and indicators:

- Income: An individual is considered deprived in income if the total real annual per capita income is below the national poverty line defined above.
- Education:
    - An individual is considered deprived in access to education if at least one member of the household between the ages of 6 and 13 is not enrolled in school.
    - An individual is considered deprived in quality of education if at least one member of the household between the ages of 14 and 20 has not completed primary school. Households with no children in the relevant reference groups are non-deprived.
- Health:
    - An individual is considered deprived in nutrition if at least one child under 5 is stunted – defined as height for age being more than 2 standard deviations below the WHO world median for children of the same age and gender.
    - An individual is considered deprived in access to clean water if the household does not have access to clean water.
    - An individual is considered deprived in access to sanitation if the household does not have access to improved sanitation facilities.

- Influence:

    - An individual is considered deprived in influence if no member of his/her caste living in the same village occupies a position of influence (position of influence is defined as having one of the following professions: official, technician, manager, director or professional).

    - An individual is considered deprived in empowerment if none of the adult females in the household are literate.

We have used a nested weighting system, whereby each of the four dimensions received an equal weight (1/4) and each of the indicators within the dimensions received an equal weight (1/3 for health, ½ for education and influence and 1 for income).

The Alkire-Foster class of multi-dimensional poverty indices have the particularity that they require the researcher to set two different sets of poverty/deprivation cut-offs. First, a threshold has to be defined in each dimension to determine who is considered deprived in each dimension, as described above. Secondly, an overall poverty cut-off has to be set for the multi-dimensional poverty index, determining how many deprivations an individual must suffer in order to be considered multi-dimensionally poor. The multi-dimensional exclusion index for individual i is then defined as:

$$MEI_i = A_i \times H_i$$

Where A_i describes the weighted number of deprivations suffered by individual i (normalised between 0 and 1, with 1= deprived in all four dimensions, and 0 = not deprived in any dimension), and H_i is a poverty head-count indicator, taking the value 1 if the individual suffers more deprivations than the minimum required to be considered poor, and 0 otherwise. Here, we have set the poverty cut-off at 0.45, meaning that individuals who are deprived in 45% or more of the total number of weighted deprivation indicators will be considered poor. The multi-dimensional poverty cut-off has been intentionally set so as to generate a multi-dimensional poverty head-count figure that would match as closely as possible the poverty head-count figure of income poverty. With the chosen cut-off, 27% of the population is considered multi-dimensionally poor, compared to 25% according to the income poverty measure.

1.5 Distributive analysis

The analysis of distribution of health subsidies in the population was done in three main ways:

1. Comparison of mean and aggregate subsidies by population subgroups;

2. Analysis of concentration of benefits by income ranking, using summary statistics such as the Gini-coefficient and Lorenz/concentration curves; and

3. Analysis of the progressivity of health financing and transfers using the Kakwani index and concentration curves.

1.5.1 Comparison of population subgroups

The population was grouped into subgroups using the following categories: caste, development region, ecological belt, gender, dwelling area, income quintile, income poverty status, multi-dimensional poverty status, level of deprivations and type of deprivations.

1.5.2 Concentration curves and Inequality Analysis

The main instrument used here was the construction and comparison of concentration curves. A concentration curve plots the cumulative share of the population of individuals, ranked according to a ranking variable (here total real yearly per capita household income) on the horizontal axis, against the cumulative share of the variable of interest (here gross and net subsidies, as well as health outcomes) on the vertical axis. The 45° diagonal line is called the line of perfect equality which describes the hypothetical case in which all individuals have the same amounts of the variable of interest, meaning that the population and variable ranks match for all individuals.

The closer a concentration curve is to the 45° line, the more equal the distribution of the variable of interest is considered to be. Consequently, when comparing two distributions we considered that distribution A is more equal than distribution B if the concentration curve for A lies inside the concentration curve for B. In many cases, however, the concentration curves will cross in some part of the distribution, making it difficult to say with certainty which one is more equal. In such cases, it is helpful to use a summary statistic, which gives an overall assessment of inequality. Here, we used the Gini-coefficient, which simply measures the cumulative gap between the 45° line and the actual concentration curve of the variable of interest. A positive Gini-coefficient indicates that the subsidy is more strongly biased in favour of the rich (i.e. concentrated in the top of the income distribution), whereas a negative Gini-coefficient would mean that the subsidy is pro-poor.

1.5.3 Kakwani Indices and Progressivity Analysis

A separate, but closely related question, concerns whether or not the monetary benefit in question changes the original income distribution, and if so, whether it does so progressively (i.e. redistributes income from the rich to the poor) or regressively (i.e. from the poor to the rich).

The most direct way of studying this is by comparing the concentration curves of the variable of interest with the Lorenz curve, which is the concentration curve for income. If the concentration curve for the transfer or subsidy lies inside the Lorenz curve, we say that the transfer is progressive, meaning that the poor receive proportionally more subsidy than the rich, compared to their income. In the opposite case, we say that the transfer is regressive.

In the case of negative benefits or taxes, the opposite holds: a tax is considered progressive if the concentration curve lies outside of the Lorenz curve, meaning that the poor pay proportionally less in taxes compared to the rich.

As with inequality analysis, concentration and Lorenz curves may cross, making it difficult to reach a definitive conclusion on the progressive/regressive nature of the transfer or tax. In such cases, we use the Kakwani index, which is simply defined as the cumulative gap between the concentration curve for the variable of interest and the Lorenz curve for gross household income. In the case of a transfer, a positive Kakwani index indicates that the transfer is progressive, and in the case of a tax, a negative Kakwani index signifies a progressive tax.

For the computation of Gini, concentration indices and Kakwani indices as well as for the construction of Concentration/ Lorenz curves, we have used the Distributive Analysis Stata Package (DASP) v2.1 software produced by (Araar and Duclos 2009).

2 UTILISATION OF HEALTH SERVICES

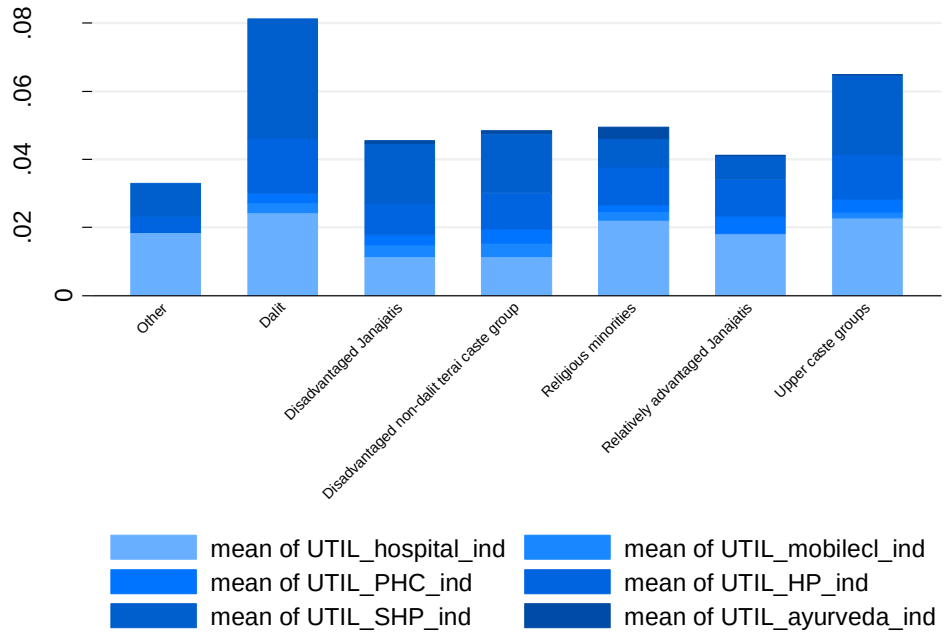
Table 2: Share of population having used public health facility in the past 30 days, by service and population subgroups

criteria	merge	UTIL_SHP_ind	UTIL_HP_ind	UTIL_PHC_ind	UTIL_hospital_ind	UTIL_mobilecl_ind	UTIL_ayurveda_ind	UTIL_total_ind	UTIL_private_ind	UTIL_vaccine_dot
	Population Total	2.03%	1.17%	0.34%	1.78%	0.26%	0.06%	5.64%	0.0878	4.4709
Belt	hill	2.66%	1.44%	0.42%	1.59%	0.16%	0.04%	6.29%	0.0656	4.6213
Belt	mountain	3.08%	1.00%	0.53%	2.46%	0.00%	0.00%	7.08%	0.0440	3.9882
Belt	terai	1.32%	0.95%	0.25%	1.85%	0.39%	0.09%	4.85%	0.1144	4.4173
Dwelling	rural	2.47%	1.38%	0.39%	1.47%	0.29%	0.05%	6.04%	0.0870	4.2297
Dwelling	urban	0.18%	0.28%	0.13%	3.10%	0.13%	0.13%	3.96%	0.0914	5.9290
Gender	female	2.09%	1.15%	0.37%	1.78%	0.24%	0.07%	5.70%	0.0849	4.4440
Gender	male	1.97%	1.20%	0.31%	1.77%	0.27%	0.05%	5.58%	0.0913	4.4967
MEI	MultiD. Poor	2.48%	1.18%	0.26%	1.15%	0.18%	0.03%	5.28%	0.0838	3.4619
MEI	Not MultidD. Poor	1.86%	1.17%	0.38%	2.02%	0.29%	0.07%	5.78%	0.0893	5.0916
Poverty	Income Poor	2.62%	1.08%	0.20%	1.17%	0.12%	0.03%	5.21%	0.0765	3.5218
Poverty	Not Income Poor	1.84%	1.20%	0.39%	1.98%	0.30%	0.07%	5.79%	0.0916	4.9891
Quintile	2nd Qtl	2.69%	1.45%	0.33%	1.59%	0.25%	0.02%	6.32%	0.0824	4.1566
Quintile	3rd Qtl	2.39%	1.72%	0.52%	1.93%	0.32%	0.05%	6.93%	0.0923	4.7138
Quintile	4th Qtl	1.83%	1.02%	0.29%	2.39%	0.30%	0.10%	5.93%	0.0984	5.4703
Quintile	Bottom Qtl	2.58%	1.16%	0.30%	0.76%	0.15%	0.03%	4.98%	0.0756	3.3747
Quintile	Top Qtl	0.69%	0.51%	0.27%	2.23%	0.26%	0.11%	4.07%	0.0903	6.1815
Region	central	1.27%	0.89%	0.28%	1.71%	0.25%	0.04%	4.45%	0.0906	4.6311
Region	eastern	2.29%	1.48%	0.28%	1.79%	0.27%	0.10%	6.21%	0.0956	5.1404
Region	far-western	1.36%	0.98%	0.15%	1.55%	0.06%	0.00%	4.10%	0.0546	3.7411
Region	mid-western	3.52%	1.56%	0.43%	1.79%	0.56%	0.08%	7.95%	0.0681	3.8548
Region	western	2.46%	1.15%	0.58%	1.98%	0.13%	0.07%	6.36%	0.1019	4.2730
caste	Dalit	3.51%	1.63%	0.26%	2.43%	0.29%	0.00%	8.13%	0.0995	3.7739
caste	Disadvantaged Janajatis	1.76%	0.93%	0.28%	1.15%	0.34%	0.09%	4.55%	0.0703	5.0223
caste	Disadvantaged non-dalit terai caste group	1.74%	1.05%	0.41%	1.15%	0.39%	0.11%	4.84%	0.1216	3.9501
caste	Other	0.95%	0.49%	0.00%	1.85%	0.00%	0.00%	3.29%	0.1438	4.4476
caste	Relatively advantaged Janajatis	0.71%	1.05%	0.53%	1.81%	0.00%	0.02%	4.12%	0.0777	5.8105
caste	Religious minorities	0.84%	1.13%	0.17%	2.20%	0.27%	0.32%	4.94%	0.1236	3.6518
caste	Upper caste groups	2.33%	1.30%	0.39%	2.27%	0.18%	0.02%	6.49%	0.0771	4.6635

2.1 By Caste

There are significant differences in utilisation patterns across caste groups (see Figure 2 below). The highest rates of utilisation of public health services are observed among Dalits and Upper Caste respondents, with 8% and 6% utilisation rates, respectively (i.e. the percentage of population having used a public health facility in the past 30 days). By contrast, just over 4% of members of other castes reported having used public health facilities in the 30 days prior to the survey. Patterns of utilisation of various services are relatively constant across castes, although respondents from religious minorities reported relying significantly less on the usage of primary health care and more on ayurvedic care than other castes.

Figure 2: Utilisation rates of health care facilities, by caste

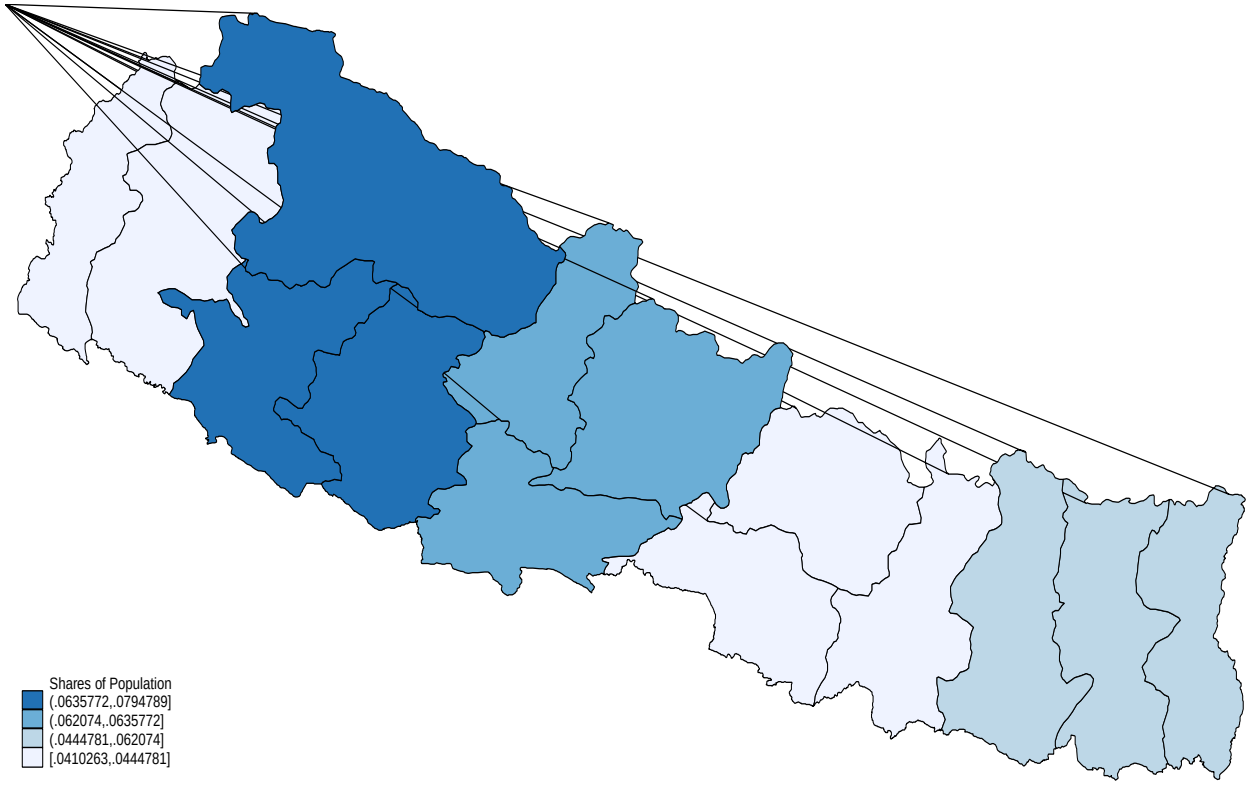


Because disadvantaged Janajatis and upper castes are the most numerous groups, they represent the largest user groups in most facility types (see Table 15 below). Dalits and upper caste respondents are under-represented in Ayurvedic care and disadvantaged Janajatis are under-represented in mobile care clinics.

2.2 By Region

Utilisation of public health care facilities varies widely across regions, with less than 4% of respondents reporting having used a public health facility in the past 30 days in the Far-Western region, compared to more than 7% in the Mid-Western region (see Map 1 below).

Map 1: Share of population having used a public health care facility in the past 30 days, by region

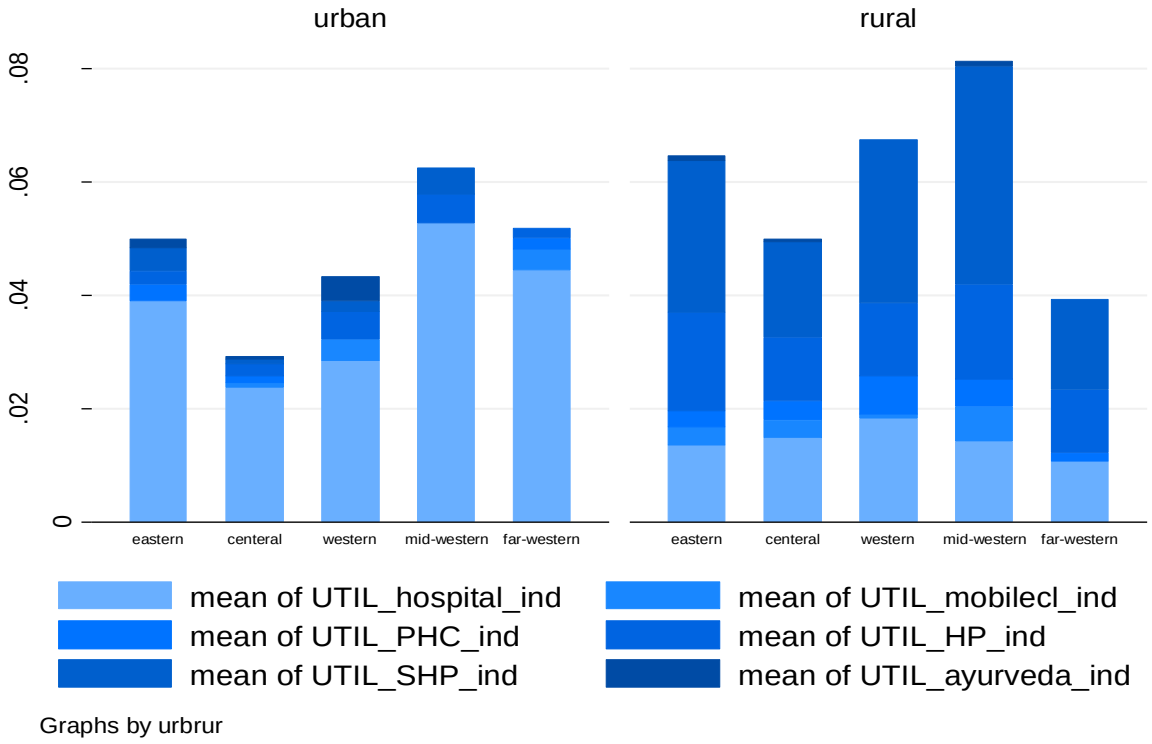


The breakdown of utilisation figures by type of facility shows that most of the differences in utilisation are driven by differences in utilisation of primary health care facilities across regions (see Table 2 above). Utilisation of primary health care facilities varied from just 2% in the Far-Western and Western regions, to over 5% in the Mid-Western region.

2.3 By Dwelling Area

A further disaggregation of usage figures by dwelling areas shows that there are very significant differences in utilisation patterns between urban and rural areas, with the former relying almost exclusively on hospital care, whereas residents of rural areas tend to use primary health care facilities to a much greater extent (see Figure 3 below). Overall utilisation of public health facilities is significantly lower in urban areas across the country, with the lowest utilisation rate being reported in the Central region at just 3% of the population in urban areas. The Far-Western region is the only region in which the utilisation rate of public health facilities is higher in urban than in rural areas, pointing to possible barriers to access due to remoteness and poor communication infrastructure.

Figure 3: Utilisation rates of health care facilities, by region and dwelling area



2.4 By Gender

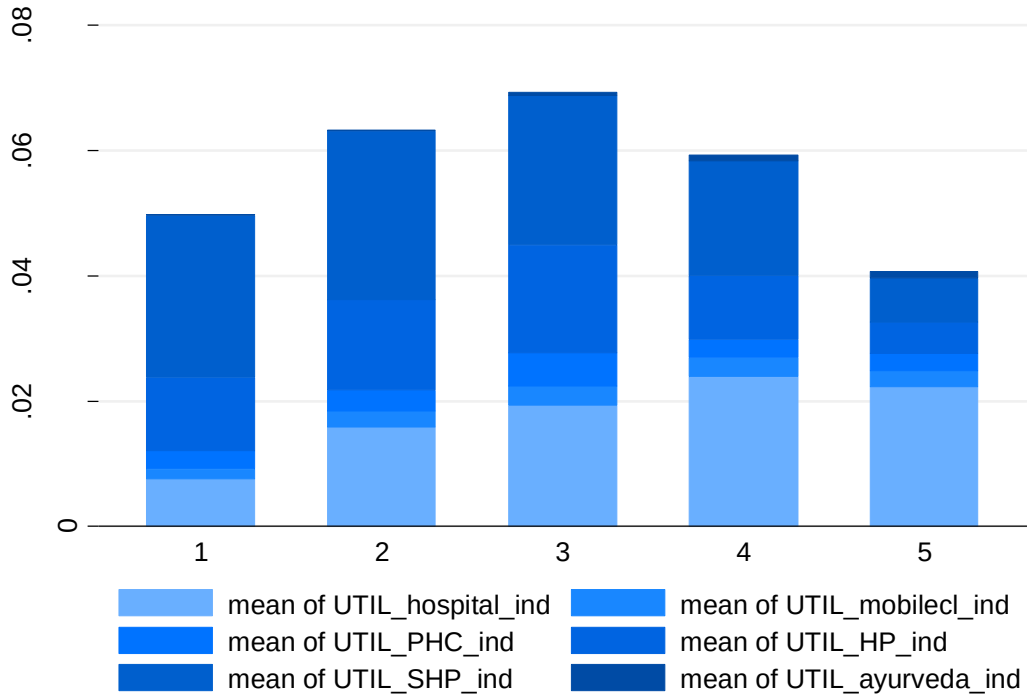
There are no significant differences by gender in terms of utilisation of health services. Around 5.7% of male and female respondents reported visiting a public health care facility in the 30 days preceding the survey (see Table 2 above).

On average, vaccination rates are comparable for girls and boys. However, significant inequalities exist in some population subgroups. The largest differences between vaccination rates for girls and boys are observed in the Far-Western region, where girls received just 3.17 vaccines on average, compared to 4.29 for boys, and compared to 5.55 in the Eastern region (see Table 16 below).

2.5 By Income

Utilisation of public health services is highest among respondents with a total household income per capita falling in the third quintile of the income distribution (see Table 2 above). More than 7% of respondents in this category reported having used public health care facilities in the 30 days preceding the survey. Utilisation rates were lowest in the top and bottom income quintiles at 4% and 5%, respectively. In the latter case, this is likely due to prohibitive costs for accessing public health care, while in the former it is more likely to be due to the fact that high income earners can afford to turn to private health care providers (see section 4 below).

Figure 4: Utilisation rate of public health care facilities, by income quintile



Importantly, the type of public health care facilities used also changes significantly, depending on the income level of the respondent. Over 80% of individuals in the bottom income quintile who had used public health care facilities in the past 30 days had used primary health care facilities (PHC/ HP/SHP). By contrast, less than 40% of public health care users in the top income quintile had used primary health care facilities, and had relied instead to a greater extent on hospital care.

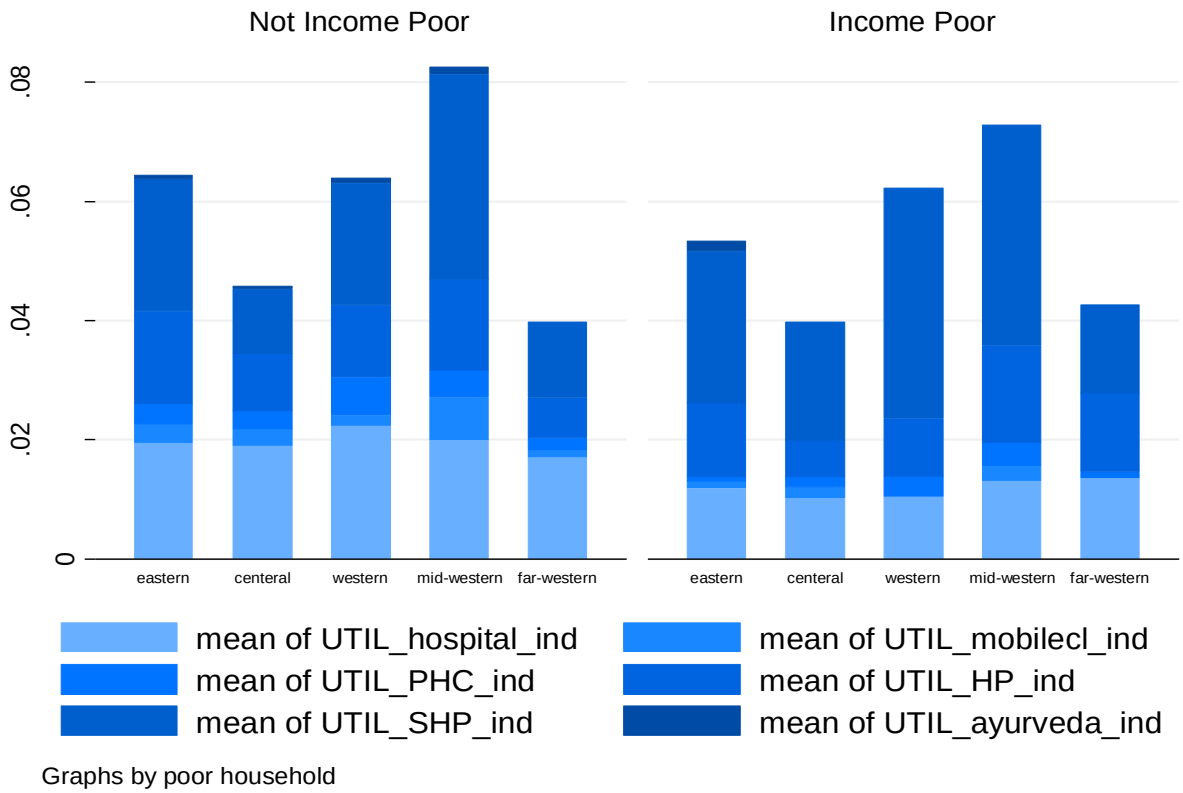
There are also large differences in vaccination rates depending on the income level of the household. Children in the top income quintile receive, on average, more than 6 vaccines each, compared to just over 3 vaccines per child in the bottom income quintile (see Table 2 above).

2.6 By Poverty Status

Due to the conflicting determinants on utilisation (i.e. the cost of access for the poor vs. the use of alternative health care by the rich), the overall difference in utilisation between poor and non-poor individuals is not as strong as one might expect (see Figure 5 below). Among non-poor individuals whose total monthly household income per capita was above the national poverty line, 5.8% reported using public health care facilities in the 30 days preceding the interview, whereas 5.3% of income-poor individuals had used such facilities. The differences between poor and non-poor individuals are largest in

the Eastern and Mid-Western regions (see Figure 5 below). When looking at multi-dimensional poverty, we find similar patterns (see Table 2 above).

Figure 5: Utilisation of public health care facilities, by poverty status and region



Breaking the multi-dimensional poverty index down by its components, we find little or no difference in utilisation rates between deprived and non-deprived individuals (see

Table 11 below). One notable exception is education, in which we find a marked difference in utilisation of health service facilities between deprived and non-deprived individuals. Only 3% of individuals who are deprived in education (i.e. living in households in which at least one child in the relevant age group has failed to complete primary education) reported having visited a public health facility in the previous 30 days, compared to 6% of respondents in non-deprived households. This finding points to the possible existence of non-monetary barriers to access to health care (e.g. awareness or self-esteem), which would merit further investigation. This highlights the importance of considering non-monetary aspects of poverty when exploring equity issues in access to public services.

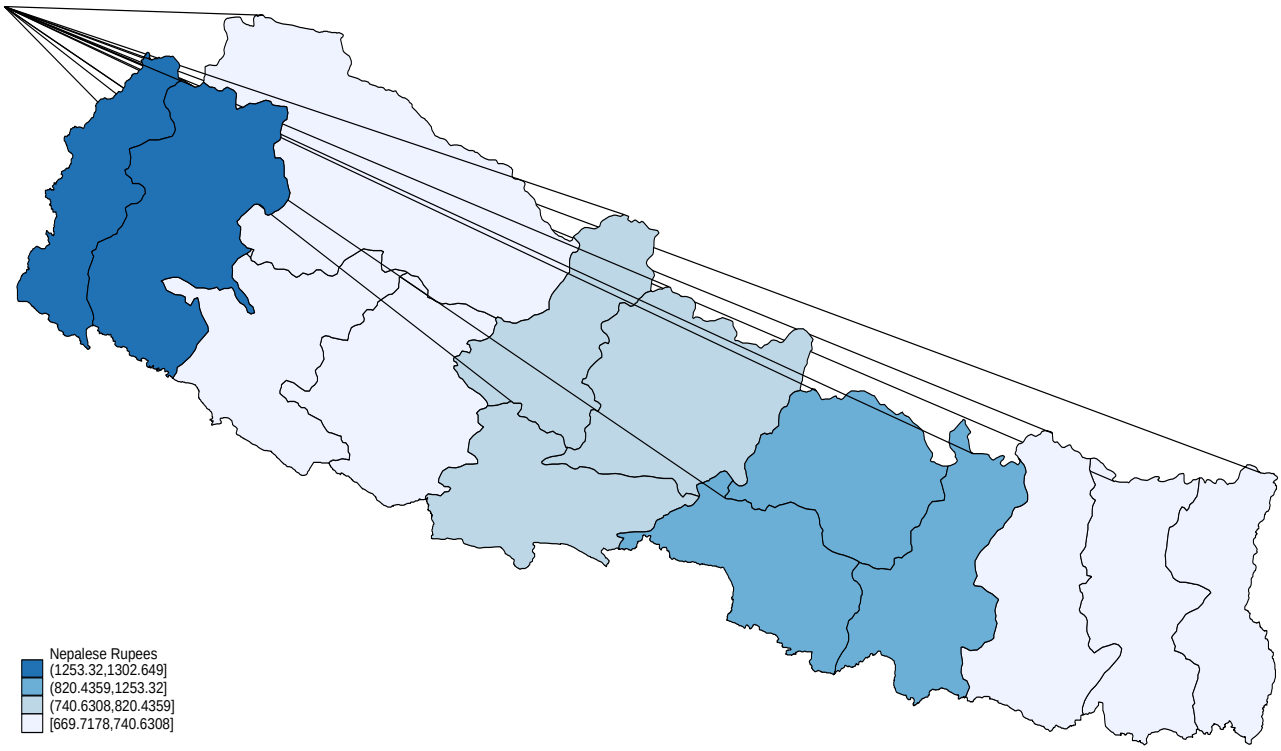
Education deprivation is also associated with significantly lower rates of vaccination, as children from education deprived households received on average 3.5 vaccines, compared to 4.7 vaccines in non-deprived households, as is female literacy (see

Table 11 below).

3 COSTS OF HEALTH SERVICES

The cost of provision of health care services differs significantly across Nepal, from, on average 663 NPR per user in the Mid-Western region to over NPR 1,313 per user in the Far-Western region (see Map 2 below). However, these aggregate figures largely reflect disparities in the types and quality of services being provided in different regions. In particular, the overall cost of service provision is largely dependent on the cost of primary care provision, which is the dominant area for public expenditures on health services.

Map 2: Unit cost of providing health services, by region (total public expenditure on health divided by the total number of users of public health services)



A breakdown of costs by type of facility shows that the cost of providing the same type of service also varies significantly across regions. The unit cost of provision of hospital services in the Far-Western region, for instance, is almost twice as high as the cost for providing the same service in the Mid-Western region (see Table 1 above). Similarly, the cost of providing SHP services in the Far-Western region is more than double the cost of providing the same services in the Mid-Western region, due presumably to differences in terrain and infrastructure.

The estimated unit cost of vaccination, calculated based on the cost of the national immunisation programme, is NPR 23 per vaccine and child. However, this may exclude structural costs for personnel and infrastructure that are carried by the existing health system facilities. For this reason, it is also

difficult to compare unit costs across regions, as variations may be due to differences in the availability of health infrastructure in different regions.

4 ACCESS COSTS

4.1 By type of facility

There are large variations in the cost of accessing public health services, depending on the type of facility used (see Table 3 below). The average fee paid by hospital users amounted to over NPR 1,000 per user per visit, compared to just NPR 71 for using SHP services. In addition to fees, users of public health care services had to incur significant additional costs for medicine, transport, etc. The average total out-of-pocket expenditure incurred by Nepali users of public health care services amounted to more than NPR 3,000 for hospital services and under NPR 500 for mobile clinic and primary health care services.

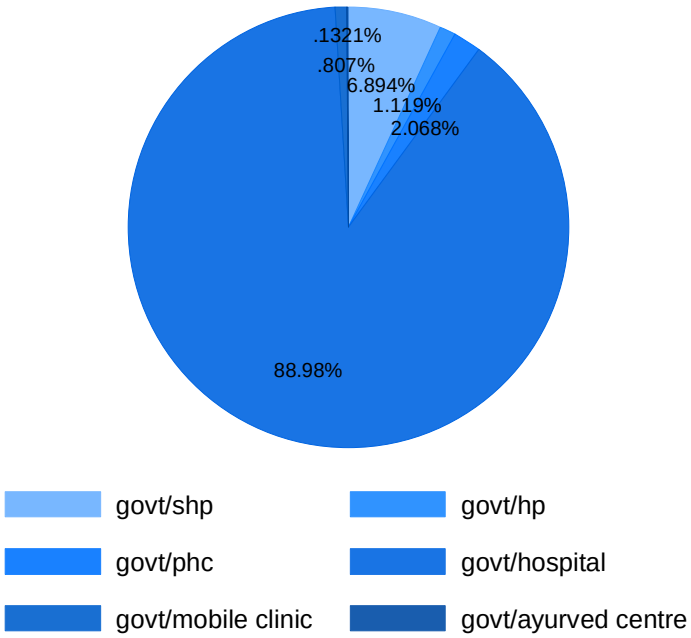
When differences in usage rates for different services are taken into account, the average Nepalese health care user spent NPR 361 on fees, NPR 820 on medicine and NPR 150 on transport and other expenses related to the usage of public health services in the 30 days preceding the survey (see Table 3 below). This represented 46% of the average monthly household income in Nepal.

Table 3: Average out of pocket expenditures for use of health services, by type of facility and type of expenditure

facility	public	FEE_total_dot	MED_total_dot	OTH_total_dot	PAID_total_dot	INC_monthly_hh
SHP	public	71	367	15	453	2137
HP	public	19	301	7	327	2260
PHC	public	109	329	35	473	2515
hospital	public	1051	1883	460	3394	3250
mobilecl	public	60	389	9	458	3264
ayurveda	public	39	855	7	901	3178
pharmacy	private	14	342	6	362	2549
clinic	private	166	821	63	1051	3139
hospital	private	1061	2250	352	3663	4461
healer	private	100	422	2	524	3133
other	private	394	966	193	1553	2399
Total	private	191	748	70	1010	2908
Total	public	361	820	150	1331	2908

The total monthly contribution of Nepalese health care users to the provision of public health services, through the payment of user fees, represented NPR 590 million in the month preceding the survey. This represented about 40% of the total cost of public health care provision in Nepal, excluding other contributions to the provision of public health care, such as non-budgetary foreign aid. The overwhelming majority of this was paid by hospital users (see Figure 6 below).

Figure 6: Total fees paid by users of public health facilities, by type of facility



These aggregate figures hide large disparities across population groups and regions in the cost of accessing public health care. This will be reviewed next.

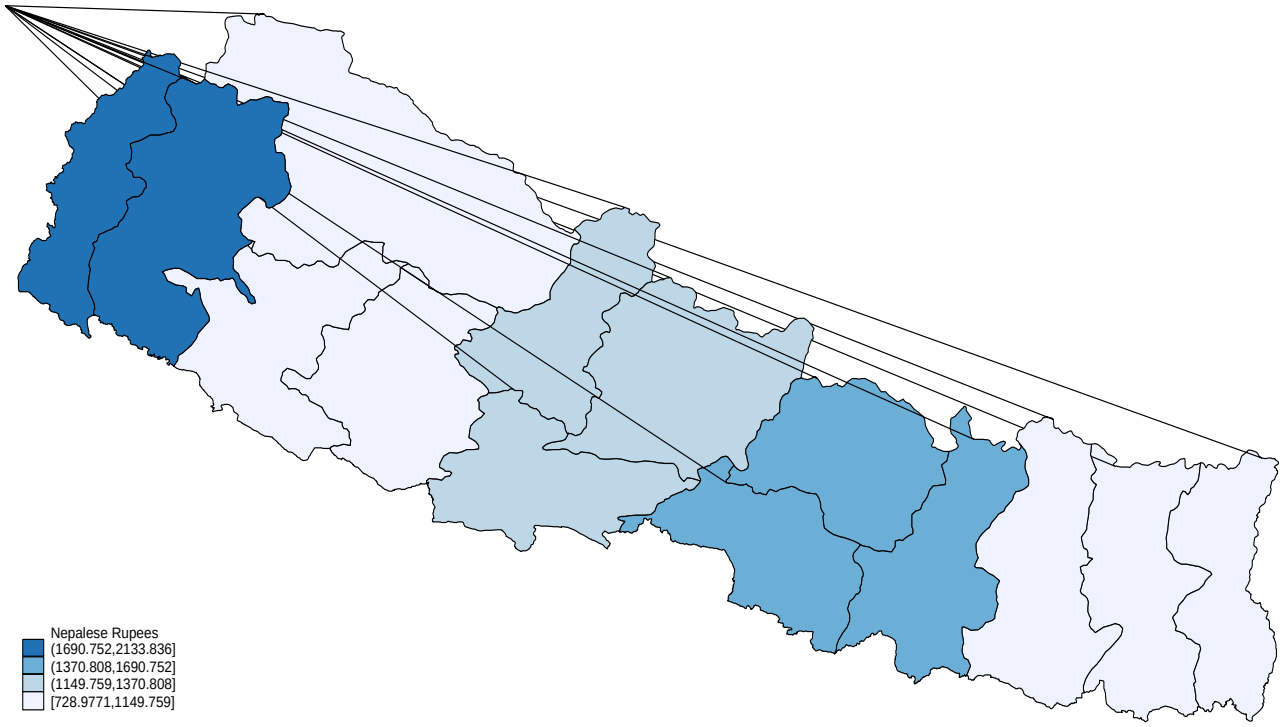
Table 4: Average out-of-pocket expenditures for utilisation of public health services, by population subgroups

criteria	merge	FEE_total_dot	MED_total_dot	OTH_total_dot	PAID_total_dot	INC_monthly_hh
	Population Total	361	820	150	1,331	2,908
Belt	hill	449	746	187	1,382	3,274
Belt	mountain	355	998	120	1,473	2,278
Belt	terai	261	870	114	1,245	2,667
Dwelling	rural	311	722	147	1,180	2,412
Dwelling	urban	714	1,514	174	2,403	5,018
Gender	female	423	854	142	1,419	2,881
Gender	male	284	778	161	1,223	2,939
MEI	MultiD. Poor	75	460	41	577	1,371
MEI	Not MultidD. Poor	455	939	186	1,580	3,488
Poverty	Income Poor	263	668	75	1,005	1,211
Poverty	Not Income Poor	389	864	172	1,426	3,476
Quintile	2nd Qtl	112	605	61	778	1,610
Quintile	3rd Qtl	253	777	123	1,152	2,188
Quintile	4th Qtl	565	887	312	1,764	3,079
Quintile	Bottom Qtl	289	594	69	953	1,098
Quintile	Top Qtl	715	1,408	196	2,319	6,535
Region	central	523	1,028	140	1,691	3,596
Region	eastern	350	655	145	1,150	2,610
Region	far-western	331	1,374	429	2,134	1,970
Region	mid-western	105	542	82	729	2,152
Region	western	392	830	149	1,371	2,926
caste	Dalit	182	623	92	897	1,942
caste	Disadvantaged Janajatis	815	909	202	1,926	2,552
caste	Disadvantaged non-dalit terai caste group	145	569	44	759	2,340
caste	Other	825	3,994	18	4,837	2,203
caste	Relatively advantaged Janajatis	484	1,560	163	2,206	4,983
caste	Religious minorities	82	777	50	909	2,414
caste	Upper caste groups	247	783	197	1,228	3,457

4.2 By region

Out-of-pocket expenditures associated with the use of public health services vary widely across Nepal (see Map 3 below). The highest costs incurred by users of public health facilities were observed in the Far-Western region (an average of NPR 2,134 per user in the 30 days preceding the interview). About two thirds of these expenditures were linked to the purchase of medicine. By comparison, users of public health services in the Mid-Western region spent on average just NPR 729 over the same time period.

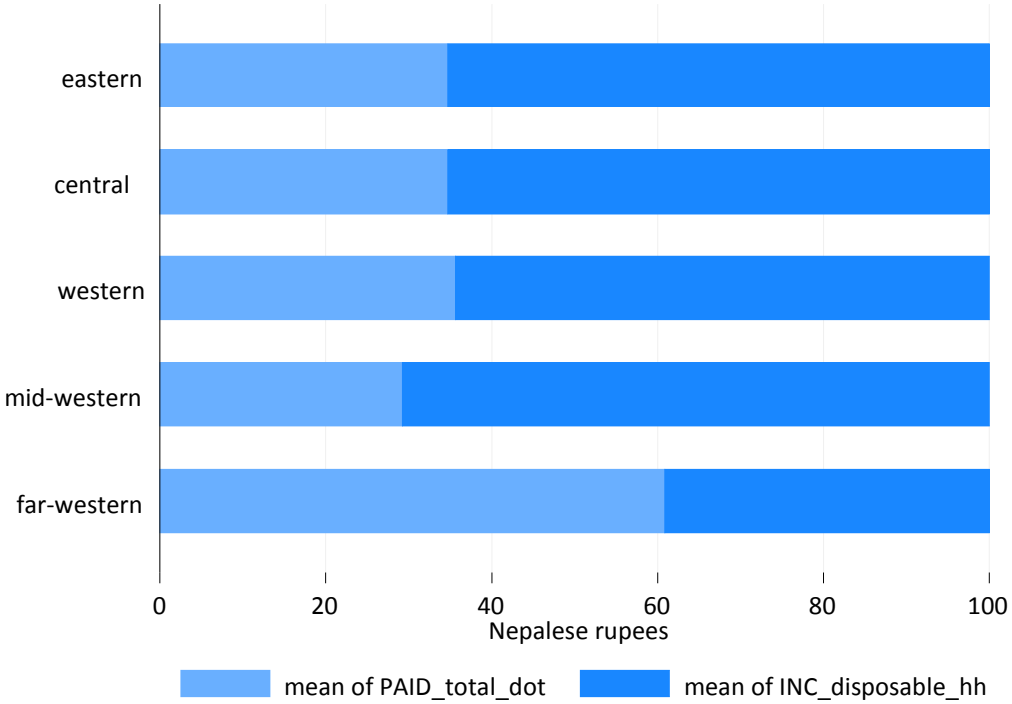
Map 3: Average out-of-pocket expenditures (including fees, medicines and transport) for use of public health facilities, by region



With the exception of the Far-Western region, variations in total out-of-pocket expenditures appear to be proportional to variations in household income, varying between 30% and 40% of average monthly household income (see Figure 7)[2]. These variations may reflect differences in ability to pay for additional services. In the Far-Western region, by contrast, total out-of-pocket expenditures in the 30 days preceding the interview represented over 60% of average monthly household expenditures. This reflects both the higher out-of-pocket expenditures in this region (NPR 2,134 compared to NPR 1,331 for the national average) as well as the lower household incomes in this region (NPR 1,970 compared to a national average of NPR 2,900 per household per month). This pattern may reflect the higher costs of non-compressible or essential health services due to the difficult terrain of the region. Indeed, the largest difference in costs between the Far Western and other regions is observed in transport costs that are more than 3 times higher than the transport costs observed in any other region (see Table 14 below).

[2] Due to the low utilisation rates in the Far Western region, the estimate of out-of-pocket expenditures for this region is based on only 99 observations, which increases the likelihood of sample biases. This problem is compounded by the short recall period for health expenditures (30 days, instead of the recommended 12 days).

Figure 7: Out of pocket expenditures for use of public health services as a % of monthly household income, by region

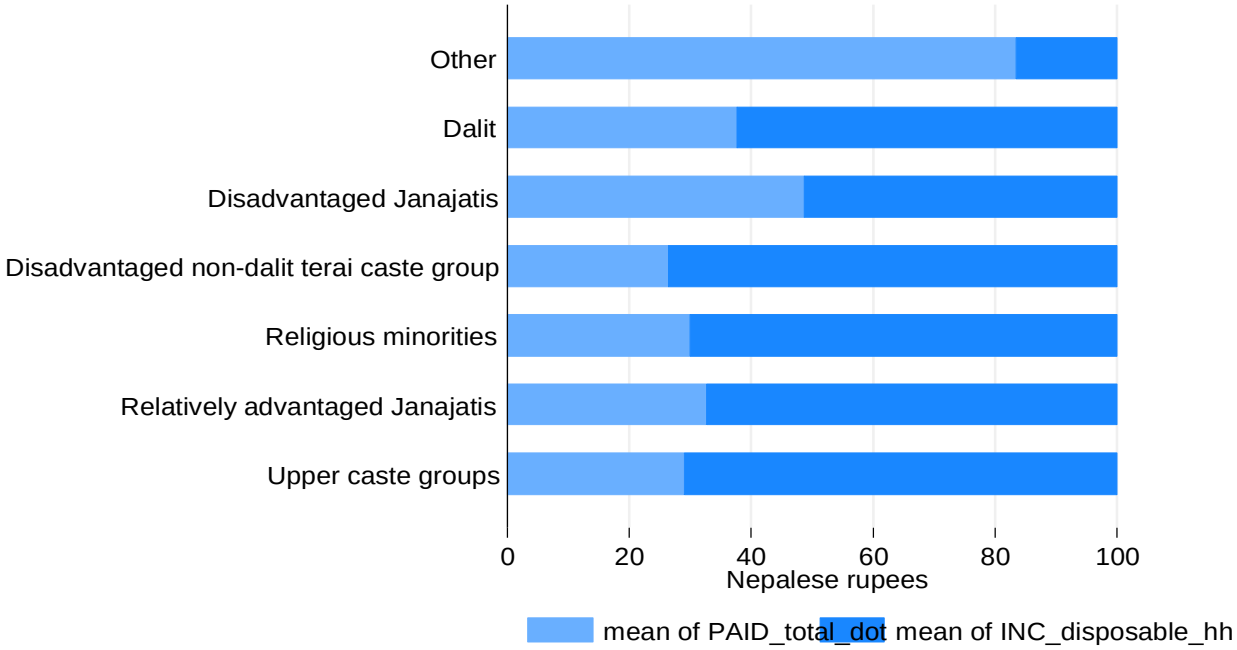


4.3 By Caste

The decomposition of access costs by caste shows that out-of-pocket expenditures tend to be proportional to total household income, ranging between 30 and 40% of total monthly household income for most groups (see

Figure 8 below).

Figure 8: Out of pocket expenditures as a percentage of monthly household income, by caste



A notable exception are disadvantaged Janajatis, whose out-of-pocket expenditures in the 30 days preceding the interview represented almost 50% of their average monthly household income[3]. As Table 15 below shows, this group had out-of-pocket expenditures almost comparable to those incurred by advantaged Janajatis (NPR 1,926 compared to NPR 2,206 for the latter), despite the fact that the average monthly household income of advantaged Janajatis is more than twice as high as that of disadvantaged Janajatis (NPR 4,983 compared to NPR 2,552 for disadvantaged Janajatis).

A disaggregated analysis reveals that the highest expenditures for these groups were incurred during visits to public hospitals. In particular, disadvantaged Janajatis paid more than 3 times as much in fees for their hospital visits than other groups (NPR 3,400 compared to a national average of NPR 1,000) (see Table 15 below).

4.4 By Gender

Despite having similar utilisation rates as men and similar monthly household incomes, women spent significantly higher amounts on out-of-pocket expenditures for their visits to public health facilities compared to their male counterparts (see Table 14 below). The largest differences are found in fee costs for the use of public facilities, which were more than 50% higher for women compared to men (NPR 423

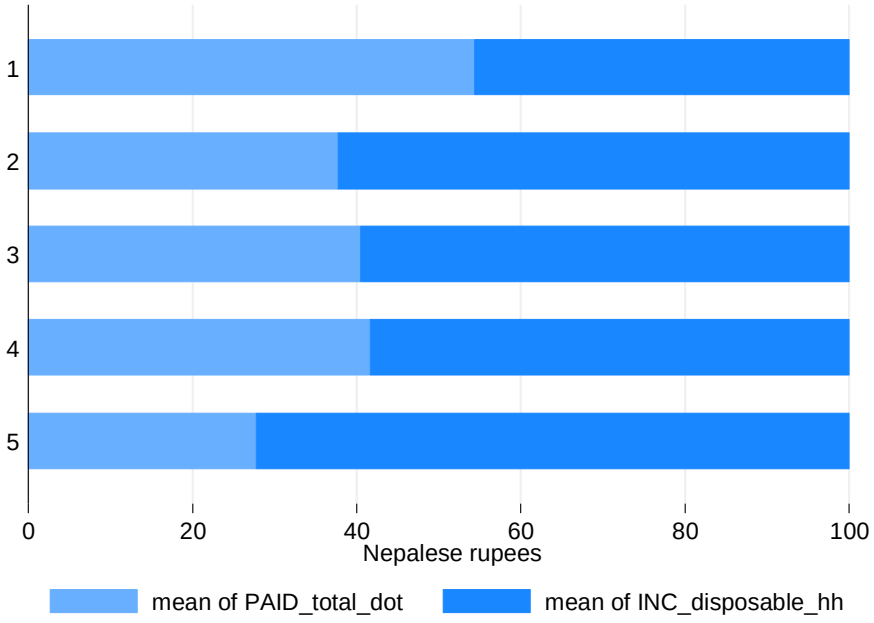
[3] We are excluding other castes from this discussion as the sample size for this category is too small to be able to draw statistically significant conclusions.

compared to NPR 284 for men). The bulk of these differences are due to hospital fees, which averaged NPR 1,200 for female users, compared to NPR 900 for male users (see Table 16 below). The available data do not allow us to analyse the causes of these differences between male and female fees in Nepal, although experience from other countries suggests that a likely cause could be costs related to pregnancy and maternity care.

4.5 By income

Despite large differences in household incomes (ranging from NPR 1,098 on average for the bottom quintile to over NPR 6,500 for the top quintile), there are comparatively smaller differences in out-of-pocket health expenditures, which range between NPR 777 and NPR 2,469 (see Figure 9 below). This suggests that health expenditures are relatively inelastic. In particular, there seems to be a levelling off in health expenditures at around NPR 1,000 for the bottom income quintiles regardless of total household income. This suggests that there is a minimum incompressible level of expenditures that may be required in order to access or benefit from the use of public health services. This in turn would explain the observed steady drop in utilisation of health services from the third income quintile downwards (see section 2.5 above), as poorer households become unable to afford the minimum expenditures required to access public health services, or may be forced to choose between health care and other essential expenditures, such as food.

Figure 9: Total out of pocket expenditure vs. total monthly household income, by income quintile

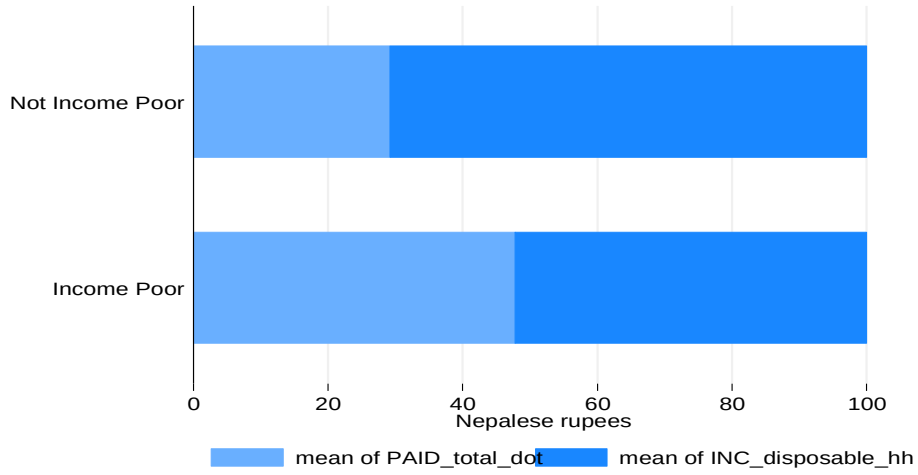


The decomposed figures presented in Table 17 below show that the least elastic expenditures are those related to the use of mobile clinics, which are almost constant across income quintile, and those related to hospital use.

4.6 By Poverty Status

The lack of elasticity in health related expenditures appears even more clearly when looking at poverty figures. Here, health expenditures differ by less than 50% between poor and non-poor households (NPR 1,005 and NPR 1,425, respectively) despite an almost threefold difference in total household income (see Figure 10 below). Using a multi-dimensional poverty measure instead of income poverty yields strong differences in spending, with health expenditures ranging from NPR 576 to NPR 1 579, despite a very similar gap in household incomes (NPR 1,371 to NPR 3,461 for multi-dimensionally poor and non-poor households, respectively).

Figure 10: Total out of pocket expenditures for health care and total monthly household income, by poverty status



The decomposition of the multi-dimensional poverty measure by type of deprivation does not reveal any flagrant difference across type of deprivation in the spending patterns of deprived and non-deprived cases. In all cases, total out-of-pocket expenditures for public health care users remain more or less constant at around 40% of monthly household expenditures, and changes in total out-of-pocket expenditures and type of spending appear to be consistent with differences in income levels between deprived and non-deprived groups. In particular, we observe that individuals that are deprived in education and nutrition appear to spend significantly more on primary health care and less on hospital care than non-deprived individuals (see

Table 11 below).

4.7 Urban/Rural

Overall differences in-out-of pocket expenditures are commensurate with differences in total household income (about half spending for half income). However, a more detailed look reveals that this is largely due to differences in utilisation patterns. For people who do use hospital services, expenditures are comparable to (actually slightly higher than) expenditures incurred by urban dwellers for the same services. The difference is thus due to the much lower rate of utilisation of more expensive services, as

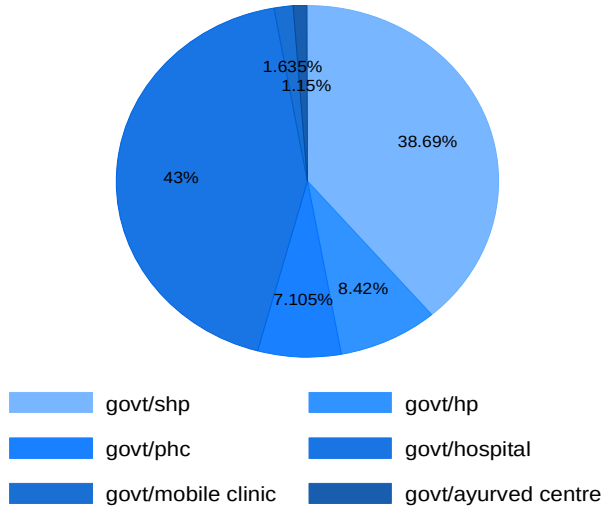
well as to the fact that when they do use primary care services, rural dwellers tend to spend significantly less on the purchase of medicine (see Table 12 below).

5 DISTRIBUTION OF HEALTH SUBSIDIES

5.1 By type of facility

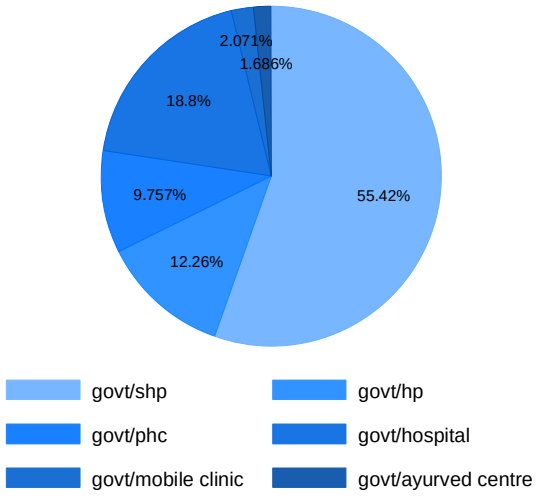
The two largest expenditure posts for public health subsidies are sub-health posts (39% of total public subsidy) and government hospitals (43% of total). However, this represents the gross subsidy figures and, as such, does not take into account differences in the rate of contribution by users of these different services through fees.

Figure 11: Share of total gross public health subsidy, by type of facility



Once fees are deducted, the share of total net subsidy for hospital services is reduced to 19% of the total net subsidy for public health services, and the share for sub-health posts increases to 55% of the total net subsidy. The third largest recipient of net subsidies is health posts, which represent 12% of the total net subsidy.

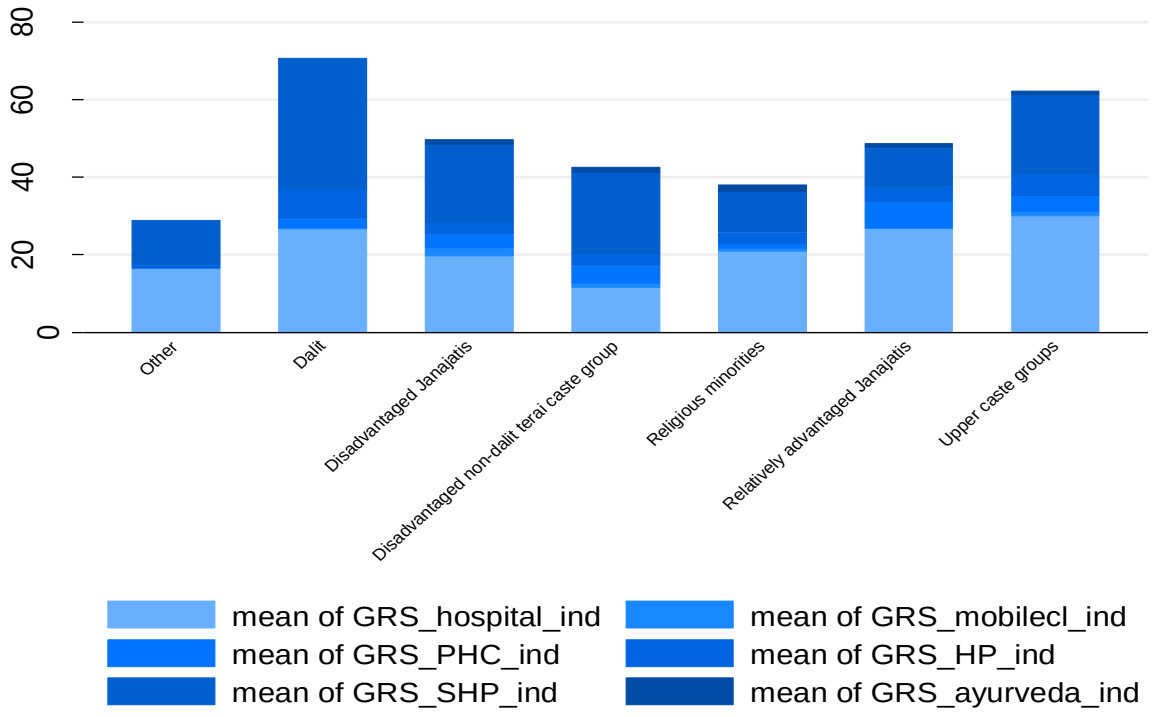
Figure 12: Share of total net public health subsidy, by type of facility



5.2 By Caste

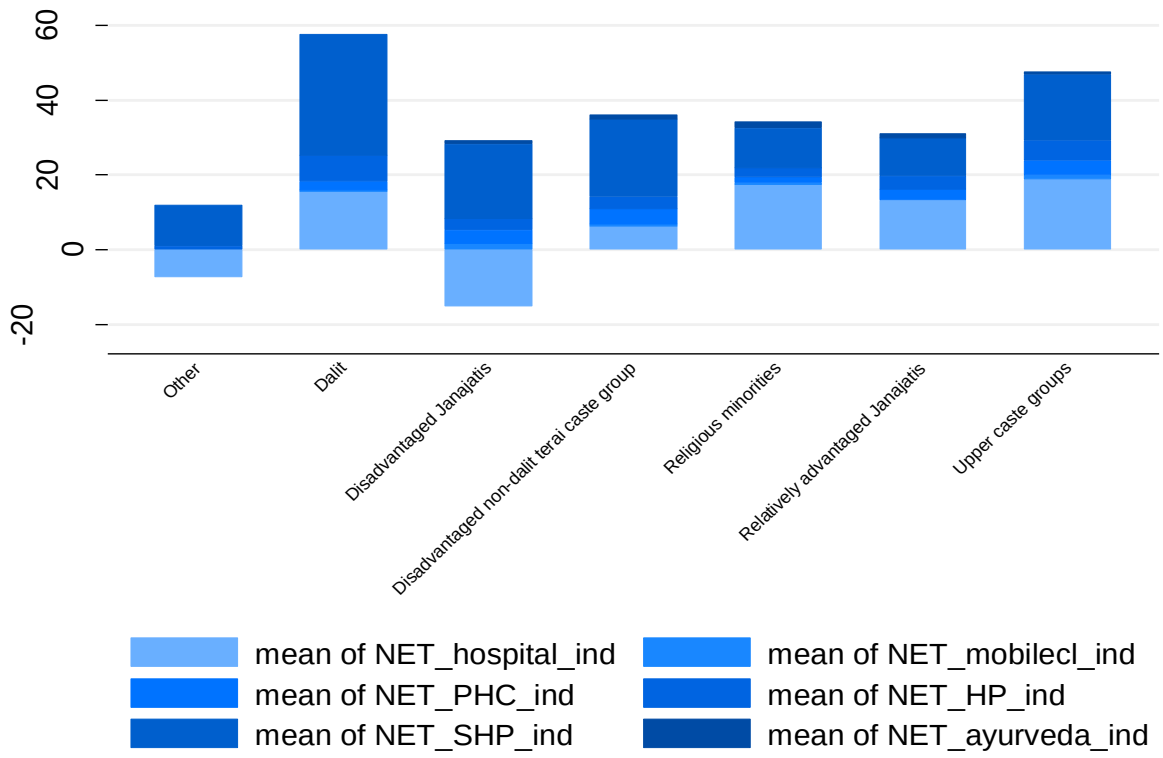
Once differences in utilisation rates and unit costs for the provision of different types of public health services across regions are taken into account, the largest recipient of public health subsidies in per capita terms are Dalits (NPR 65) and upper caste groups (NPR 60) (see Figure 13 below).

Figure 13: Per capita gross public health subsidy, by caste



Once fee payment is taken into account, we find that Janajatis receive a negative subsidy for the use of hospital services, due to the relatively higher fees paid by Janajatis for the utilisation of the same services (see Figure 14 below).

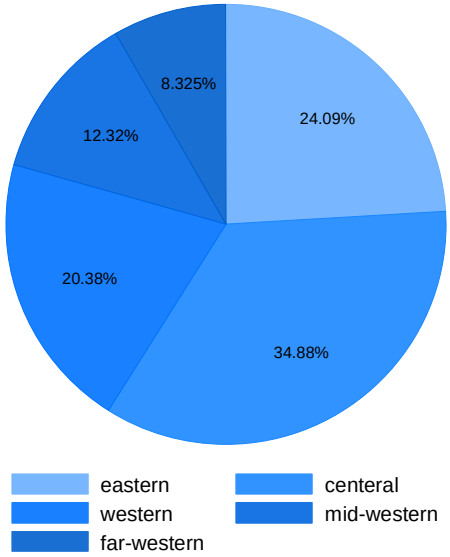
Figure 14: Per capita net public health subsidy, by caste



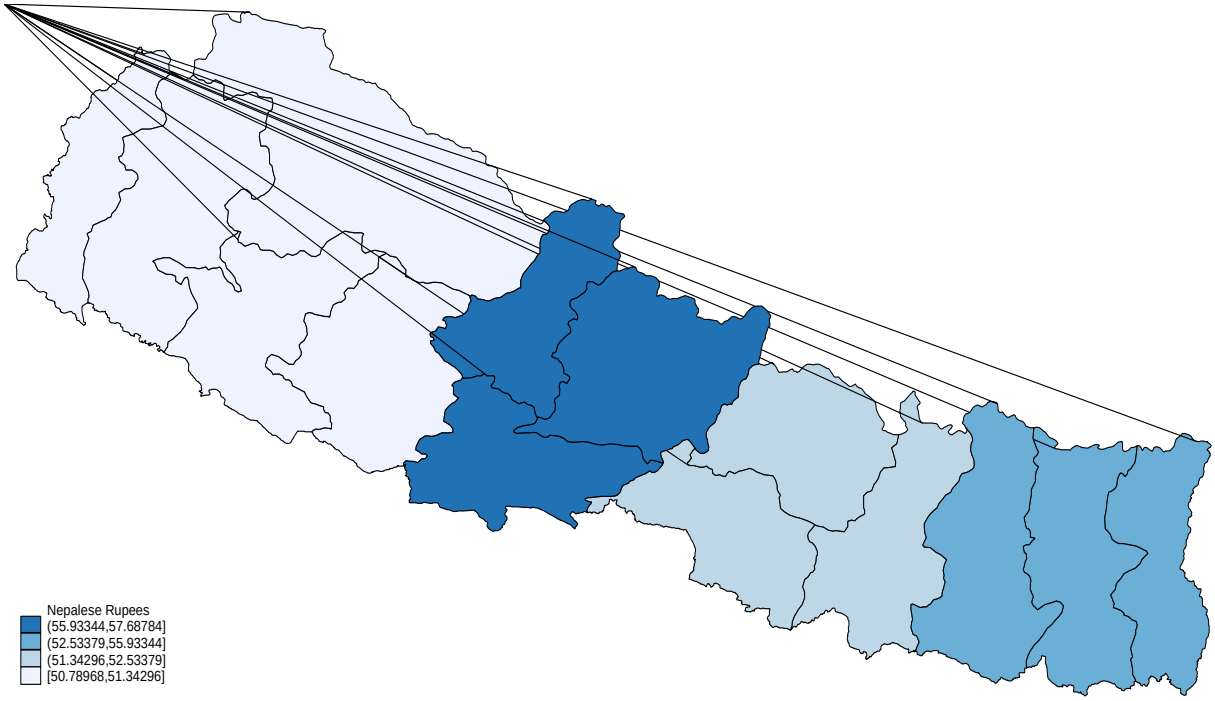
5.3 By Region

Once differences in utilisation rates and unit costs for the provision of different types of public health services across regions are taken into account, the largest recipients of public health subsidies in gross terms are the Central region (34% of total gross subsidy), the Eastern region (24%) and the Western region (20%) (see Figure 15 below). These proportions are commensurate with the distribution of the population across these regions, reflecting a relative parity in the per capita subsidy for public health services across the country (see Map 4 below).

Figure 15: Share of total gross subsidy for public health services, by region

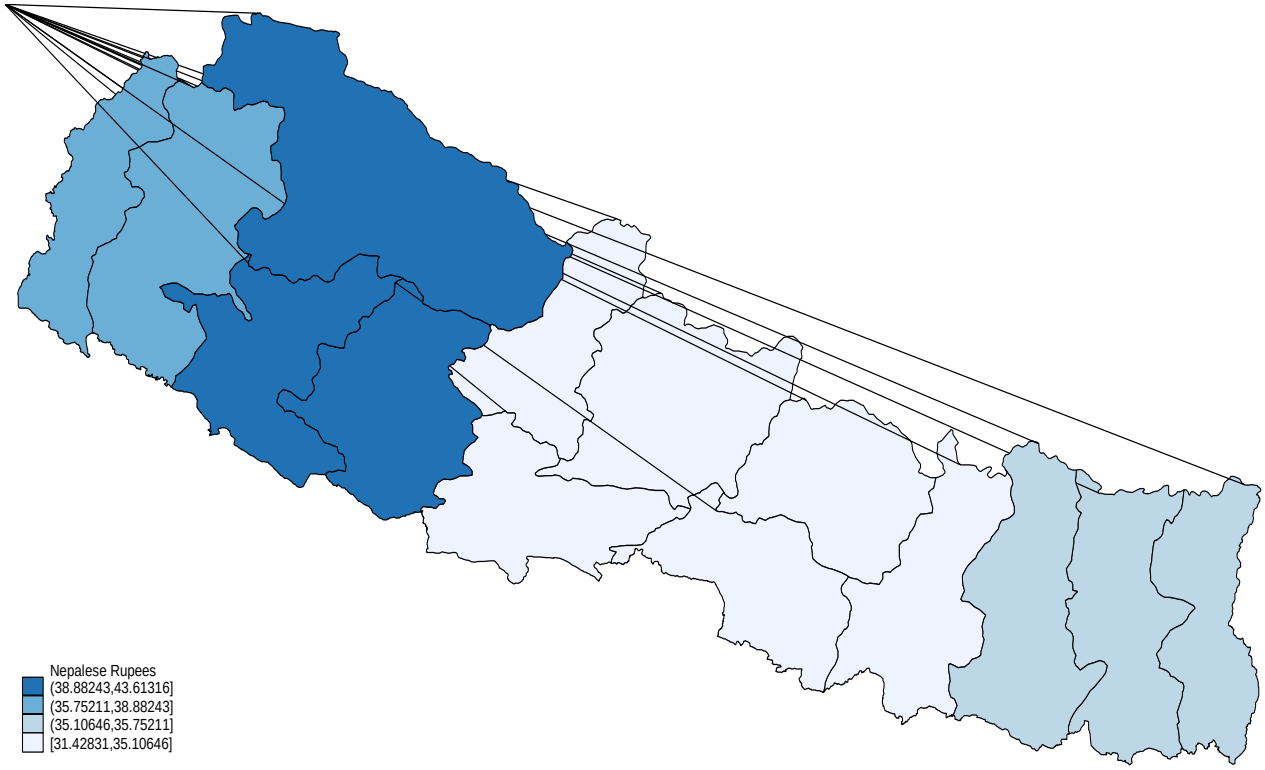


Map 4: Per capita gross subsidy for public health services, by region



Once differences in fee payment for utilisation of different services is taken into account, the share of the total subsidy going to the Central region decreases to 31% of total, and that of the Mid-Western region increases from 12% to 16% of total. This is due to the higher rate of utilisation of free or heavily subsidised facilities such as health posts and sub-health posts in the Mid-Western region compared to the Central region (see Figure 3 above).

Figure 16: Per capita net subsidy for public health services, by region



5.4 By Gender

55% of the total gross health subsidy accrues to women who represent about 53.7% of the population, as estimated from this survey. However, once fee payment is taken into account, the advantage of women turns into a disadvantage, as only 50% of the total net health subsidy benefits women.

Table 5: Per capita gross public health subsidy, by population subgroups

criteria	merge	GRS_SHP_ind	GRS_HP_ind	GRS_PHC_ind	GRS_hospital_ind	GRS_mobilecl_ind	GRS_ayurveda_ind	GRS_total_ind	GRS_vaccine_dot
	Population Total	20.89	4.55	3.84	23.22	1.08	0.96	54.00	20.74
Belt	hill	23.43	5.87	4.13	28.89	1.49	1.33	64.52	32.29
Belt	mountain	27.43	11.00	3.46	25.92			67.81	26.82
Belt	terai	17.64	2.41	3.63	17.68	0.67	0.68	42.44	10.26
Dwelling	rural	25.33	5.34	4.07	19.08	1.17	0.47	55.04	20.03
Dwelling	urban	1.99	1.17	2.86	40.85	0.72	2.49	49.56	25.01
Gender	female	21.44	4.64	4.07	23.50	1.01	1.08	55.19	19.27
Gender	male	20.25	4.43	3.57	22.89	1.15	0.81	52.62	22.15
MEI	MultiD. Poor	26.81	5.27	2.70	13.56	0.93	0.18	49.15	13.57
MEI	Not MultidD. Poor	18.66	4.28	4.27	26.87	1.13	1.22	55.83	25.15
Poverty	Income Poor	28.71	5.28	2.05	12.34	0.32	0.20	48.73	15.19
Poverty	Not Income Poor	18.27	4.30	4.44	26.87	1.31	1.17	55.76	23.77
Quintile	2nd Qtl	26.81	5.91	3.24	18.75	0.86	0.11	55.41	19.09
Quintile	3rd Qtl	22.36	5.45	5.04	22.71	1.08	0.34	56.68	25.73
Quintile	4th Qtl	20.46	3.56	3.43	32.55	1.87	1.16	62.41	25.19
Quintile	Bottom Qtl	27.67	5.54	3.00	8.35	0.40	0.16	44.95	13.81
Quintile	Top Qtl	7.28	2.30	4.47	33.62	1.08	2.37	50.53	27.51
Region	central	18.55	3.05	3.49	25.78	0.89	0.89	52.53	10.92
Region	eastern	20.30	3.98	3.81	26.56	1.02	0.50	55.93	10.54
Region	far-western	20.66	6.74	4.20	18.98	0.48		50.79	10.39
Region	mid-western	24.48	7.71	4.59	13.09	1.31	0.91	51.34	9.49
Region	western	23.67	4.89	3.83	23.20	1.71	1.77	57.69	68.17
caste	Dalit	33.77	7.68	2.21	26.45	0.63	0.00	70.63	23.34
caste	Disadvantaged Janajatis	20.23	3.19	3.62	19.80	1.72	1.14	49.09	24.78
caste	Disadvantaged non-dalit terai caste group	21.11	3.15	4.55	11.63	0.84	1.28	42.14	11.30
caste	Other	11.60	0.94	0.00	16.34	0.00	0.00	28.88	5.33
caste	Relatively advantaged Janajatis	10.24	3.83	6.64	26.86	0.00	1.13	48.52	33.07
caste	Religious minorities	10.67	2.78	1.47	20.81	0.64	1.68	37.49	13.08
caste	Upper caste groups	20.42	5.61	4.13	29.97	1.21	0.86	61.49	22.13

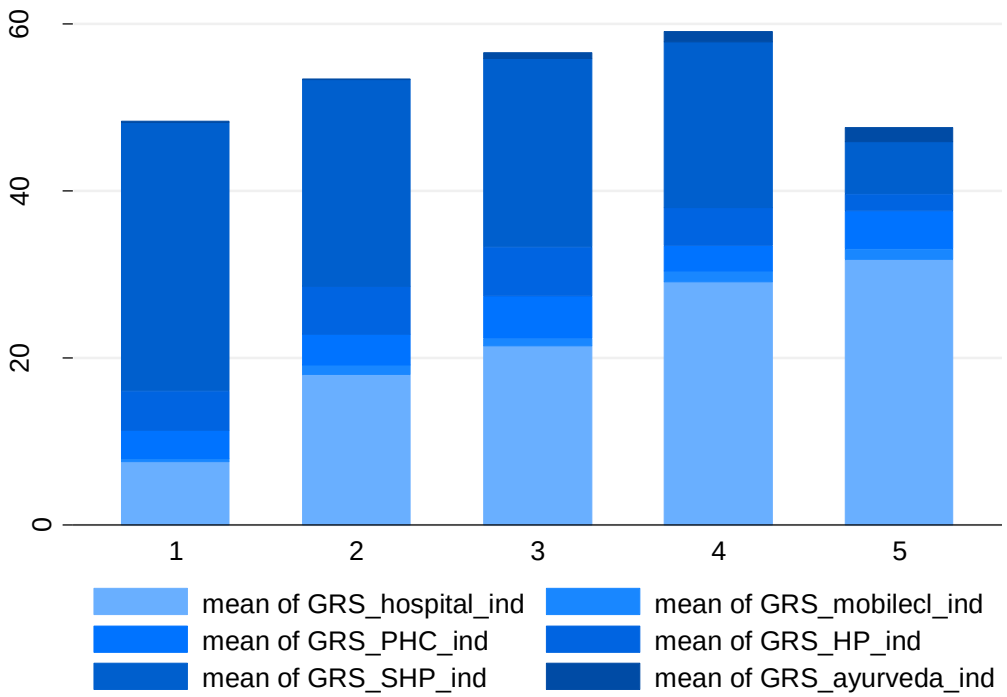
Table 6: Per capita net public health subsidy, by population subgroups

criteria	merge	NET_SHP_ind	NET_HP_ind	NET_PHC_ind	NET_hospital_ind	NET_mobilecl_ind	NET_ayurveda_ind	NET_total_ind	NET_vaccine_dot
	Population Total	19.61	4.34	3.45	6.65	0.89	0.92	35.37	20.74
Belt	hill	21.54	5.69	3.42	6.16	1.37	1.33	38.91	32.29
Belt	mountain	25.44	10.96	3.34	6.44			46.18	26.82
Belt	terai	17.00	2.15	3.50	7.13	0.42	0.61	30.60	10.26
Dwelling	rural	23.78	5.13	3.59	4.12	0.99	0.42	37.67	20.03
Dwelling	urban	1.83	0.97	2.85	17.43	0.52	2.49	25.59	25.01
Gender	female	19.54	4.50	3.52	3.73	0.90	1.05	32.70	19.27
Gender	male	19.69	4.16	3.38	10.03	0.89	0.76	38.48	22.15
MEI	MultiD. Poor	26.46	5.16	1.55	11.72	0.84	0.18	45.64	13.57
MEI	Not MultidD. Poor	17.02	4.03	4.17	4.74	0.91	1.17	31.50	25.15
Poverty	Income Poor	28.59	5.16	0.92	1.55	0.28	0.20	36.54	15.19
Poverty	Not Income Poor	16.60	4.06	4.30	8.36	1.08	1.12	34.98	23.77
Quintile	2nd Qtl	26.76	5.74	3.24	12.62	0.80	0.11	49.03	19.09
Quintile	3rd Qtl	20.95	5.00	4.77	8.88	0.90	0.34	40.55	25.73
Quintile	4th Qtl	16.23	3.51	3.37	6.55	1.48	1.04	31.66	25.19
Quintile	Bottom Qtl	27.51	5.45	1.58	-3.35	0.36	0.16	31.55	13.81
Quintile	Top Qtl	6.71	2.02	4.30	8.52	0.86	2.32	24.19	27.51
Region	central	17.78	2.65	3.32	6.26	0.67	0.84	31.43	10.92
Region	eastern	20.16	3.89	3.78	6.82	0.87	0.44	35.75	10.54
Region	far-western	20.56	6.62	4.12	7.37	0.48		38.88	10.39
Region	mid-western	23.08	7.52	4.47	7.13	1.24	0.91	43.61	9.49
Region	western	19.56	4.83	2.29	6.51	1.39	1.77	35.11	68.17
caste	Dalit	32.33	6.99	2.21	15.63	0.38	0.00	57.48	23.34
caste	Disadvantaged Janajatis	19.83	3.13	3.59	-14.99	1.58	1.09	13.64	24.78
caste	Disadvantaged non-dalit terai caste group	20.76	3.05	4.23	6.26	0.56	1.14	35.67	11.30
caste	Other	10.91	0.94	0.00	-7.17	0.00	0.00	4.69	5.33
caste	Relatively advantaged Janajatis	10.15	3.58	2.90	13.27	0.00	1.13	30.85	33.07
caste	Religious minorities	10.54	2.74	1.47	17.48	0.31	1.68	33.73	13.08
caste	Upper caste groups	17.51	5.41	4.03	18.79	1.02	0.86	46.97	22.13

5.5 By Income

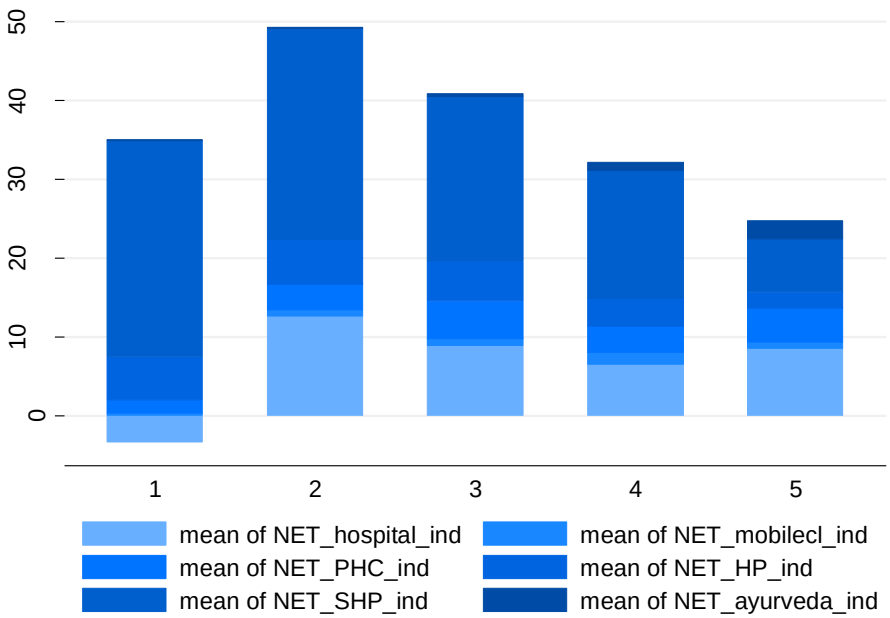
The largest share of the total gross health subsidy accrues to the middle income quintiles, with the second, third and fourth quintiles receiving respectively NPR 55, 57 and 62 per capita in gross health subsidies compared to NPR 45 and 50 per capita for the bottom and top income quintiles. The most likely explanation for this situation is the combined effect of high access costs, which reduce participation of the bottom income quintile, and the availability of higher quality private alternatives, which reduce the participation of the top quintile.

Figure 17: Per capita gross public health subsidy, by income quintile



Once fee payment is taken into account, the benefits of health subsidies become significantly skewed in favour of lower income quintiles, due to the fact that individuals in the higher income quintiles tend to use services for which fees are required. In this case, the largest recipient of public health subsidies is the second income quintile (NPR 50 per capita), followed by the third (NPR 40 per capita) and fourth income quintiles (NPR 32 per capita), with only NPR 24 per capita of the net subsidy accruing to the top income quintile (Figure 18 below).

Figure 18: Per capita net public health subsidy, by income quintile



A more detailed analysis reveals that the distribution of gross health subsidies varies significantly depending on the type of service being considered (see Table 7 below). While subsidies for sub-health posts and health posts are significantly progressive, with Gini-coefficients of -0.16 and -0.14, respectively, the subsidisation of hospitals and mobile clinics, as well as ayurvedic care tends to benefit higher income earners more (Gini-coefficients of 0.18, 0.25, and 0.43, respectively).

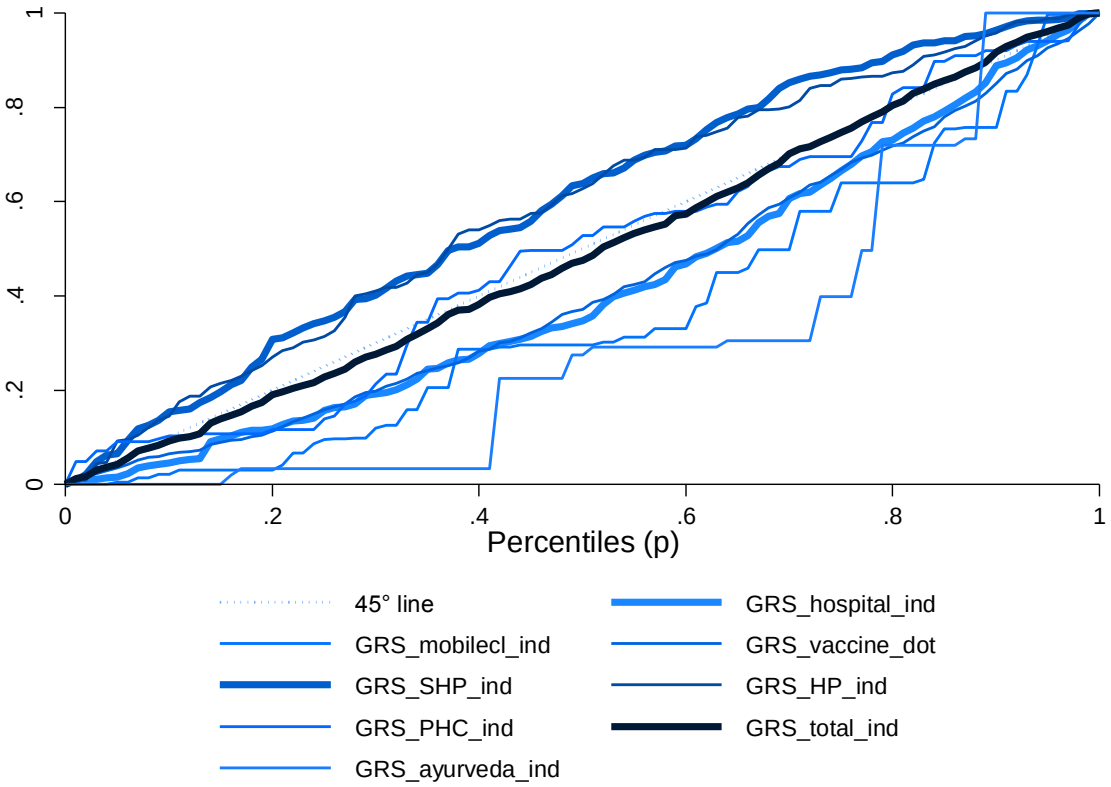
Table 7: Gini-coefficients for distribution of gross public health subsidies, by real per capita income

	Index	:	Concentration		index	
	Ranking variable	:	INC_real_pc			
	Household size	:	wt_hh			
		Variable	Estimate	STE	LB	UB
01:00	CONC_GRS_ayurveda_ind		0.43	0.10	0.24	0.62
02:00	CONC_GRS_mobilecl_ind		0.25	0.08	0.09	0.42
03:00	CONC_GRS_hospital_ind		0.18	0.03	0.12	0.24
04:00	CONC_GRS_SHP_ind		-0.16	0.03	-0.21	-0.10
05:00	CONC_GRS_HP_ind		-0.14	0.05	-0.24	-0.05
06:00	CONC_GRS_PHC_ind		0.04	0.08	-0.12	0.19
07:00	CONC_GRS_total_ind		0.02	0.02	-0.02	0.06
08:00	CONC_GRS_vaccine_dot		0.14	0.02	0.10	0.19

	Index	:	Concentration		index	
	Ranking variable	:	INC_real_pc			
	Household size	:	wt_hh			
		Variable	Estimate	STE	LB	UB
01:00	CONC_NET_ayurveda_ind		0.43	0.10	0.23	0.62
02:00	CONC_NET_mobilecl_ind		0.24	0.09	0.05	0.42
03:00	CONC_NET_hospital_ind		0.08	0.30	-0.51	0.67
04:00	CONC_NET_SHP_ind		-0.18	0.04	-0.25	-0.11
05:00	CONC_NET_HP_ind		-0.16	0.05	-0.26	-0.06
06:00	CONC_NET_PHC_ind		0.10	0.10	-0.10	0.30
07:00	CONC_NET_total_ind		-0.08	0.07	-0.21	0.05
08:00	CONC_NET_vaccine_dot		0.14	0.02	0.10	0.19

Subsidies for primary health centres are regressive at low income levels and then become progressive at higher income levels (see Figure 17 above). This may be due to the high access costs faced by the poor, which prevents low income earners benefiting from those subsidies. When combined, and taking into account different utilisation patterns across income groups, the effects of the various subsidies are essentially distribution neutral with a Gini-coefficient of 0.02 (see thick black curve in Figure 19).

Figure 19: Concentration curves for the distribution of gross public health subsidy, by real per capita income

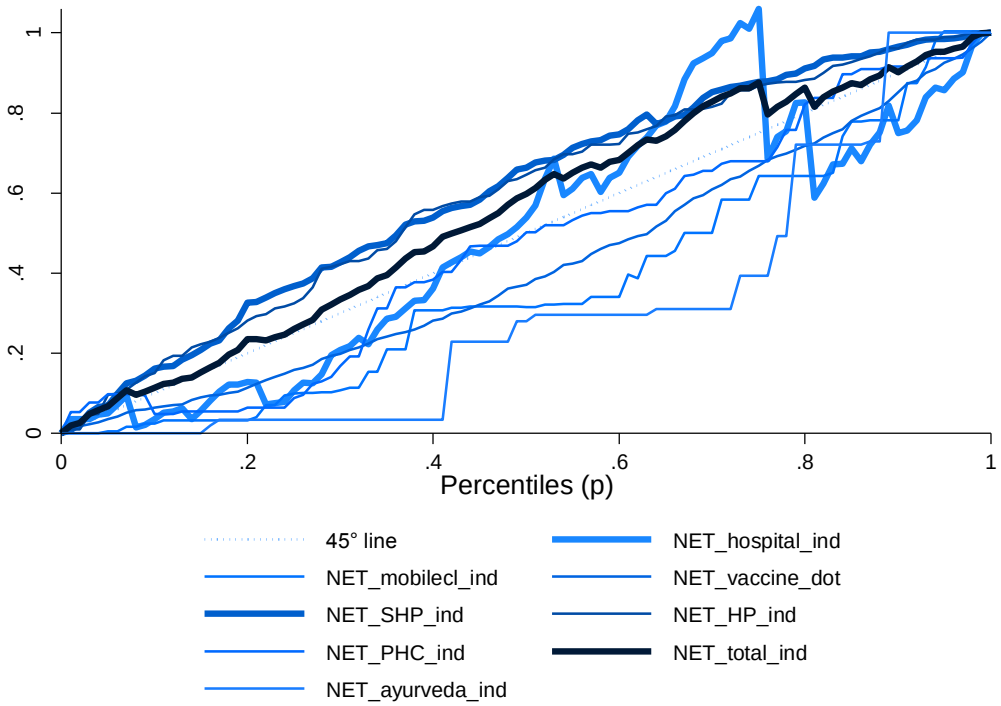


When fee payment is taken into account, the distribution of the net public health subsidy for hospitals becomes significantly less regressive (Gini-coefficient decreasing to 0.08), largely due to the fact that a large part of the cost of hospital services is financed directly by the users, who tend to have higher incomes (see Table 7 above). By contrast, the net subsidy for PHCs is significantly more regressive than the gross subsidy (Gini-coefficient 0.10 against 0.04), suggesting that the fee payment is inversely proportional to an individual's real income level.

It should also be noted that even after accounting for the effect of direct cost recovery through user fees, the distribution of subsidies for hospitals remains significantly biased against the bottom income quintile, due to the prohibitive access costs, and the top quintile, due to the low usage of public health services. Consequently, the progressive nature of the total net health subsidy (thick black line in

Figure 20 below) only sets in gradually from the second income quintile upwards, thus excluding individuals at the bottom of the income distribution.

Figure 20: Concentration curves for the distribution of net public health subsidies, by real per capita income



5.6 By Poverty Status

The analysis by poverty status confirms the above findings. Individuals below the poverty line received on average NPR 49 per capita in gross health subsidy, compared to NPR 56 for non-poor individuals. This is due to the fact that the poor are blocked out of more expensive services due to their prohibitive access costs. However, once payment of fees is taken into account, the net subsidy received by individuals below the poverty line is comparable to that received by non-poor individuals at NPR 36 per capita (see

Table 6 above).

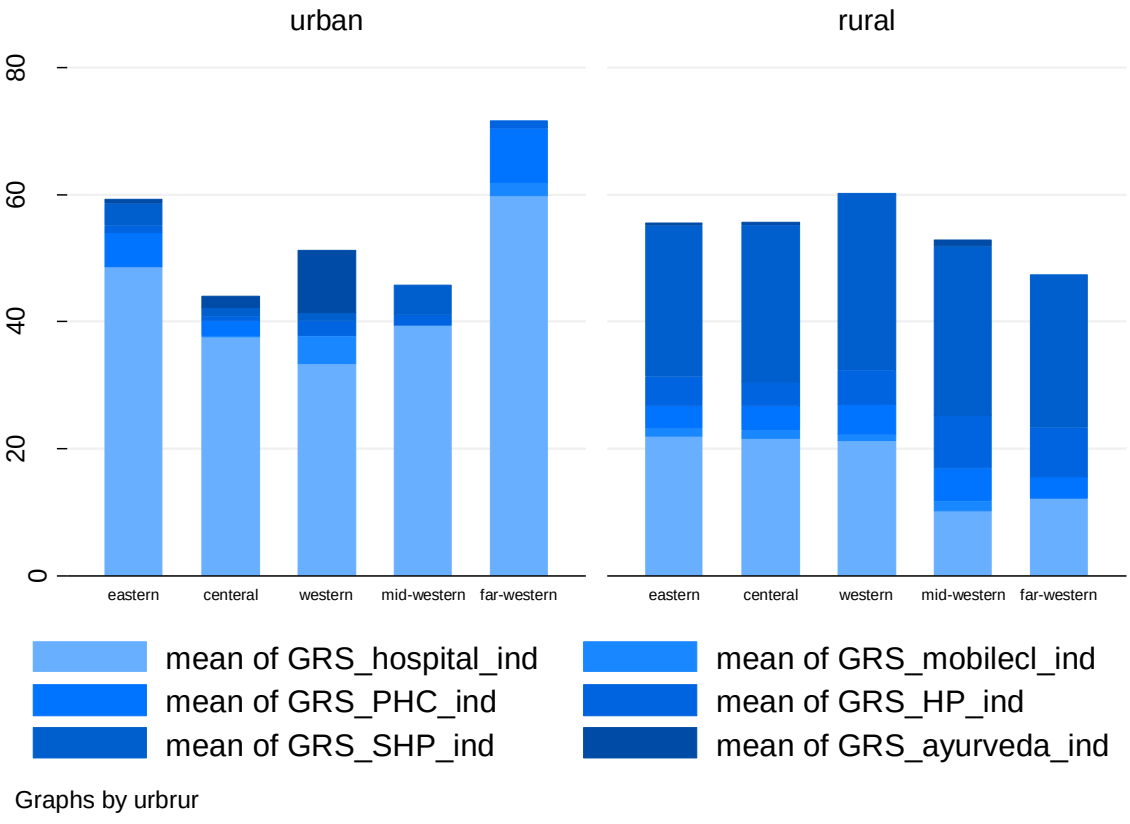
The analysis by multi-dimensional poverty status reveals similar patterns of subsidy distribution for gross figures (see Table 5 above). Interestingly, however, the net subsidy is significantly more biased in favour of multi-dimensionally poor individuals, who receive NPR 46 per capita, compared to just NPR 31 per capita for multi-dimensionally non-poor individuals. This suggests that the subsidy is successfully targeted towards reducing multi-dimensional poverty. The disaggregation of the multi-dimensional poverty index by deprivation shows that the targeting of multi-dimensionally poor individuals is mainly done through health indicators (nutrition, water, sanitation), where deprived individuals receive a larger

net subsidy than non-deprived individuals. By contrast, educationally deprived individuals tend to receive a significantly smaller net subsidy than non-deprived individuals (see Table 14 below).

5.7 Urban/Rural

The analysis by dwelling area reveals that rural areas benefit more from public health subsidies, despite the fact that they tend to use less expensive services. The average urban dwellers received only NPR 50 per month in gross public health subsidies, compared to NPR 55 for rural dwellers (see Table 5 above). This difference is largely due to the virtual non-existence of heavily subsidised health posts and sub-health posts in urban areas (see Figure 21 below). Furthermore, the disaggregated analysis reveals that bias in favour of rural dwellers is not uniform across the country. In the Eastern and Far-Western regions, urban dwellers receive a higher subsidy than rural dwellers.

Figure 21: Per capita gross public health subsidies, by facility type and dwelling area and region

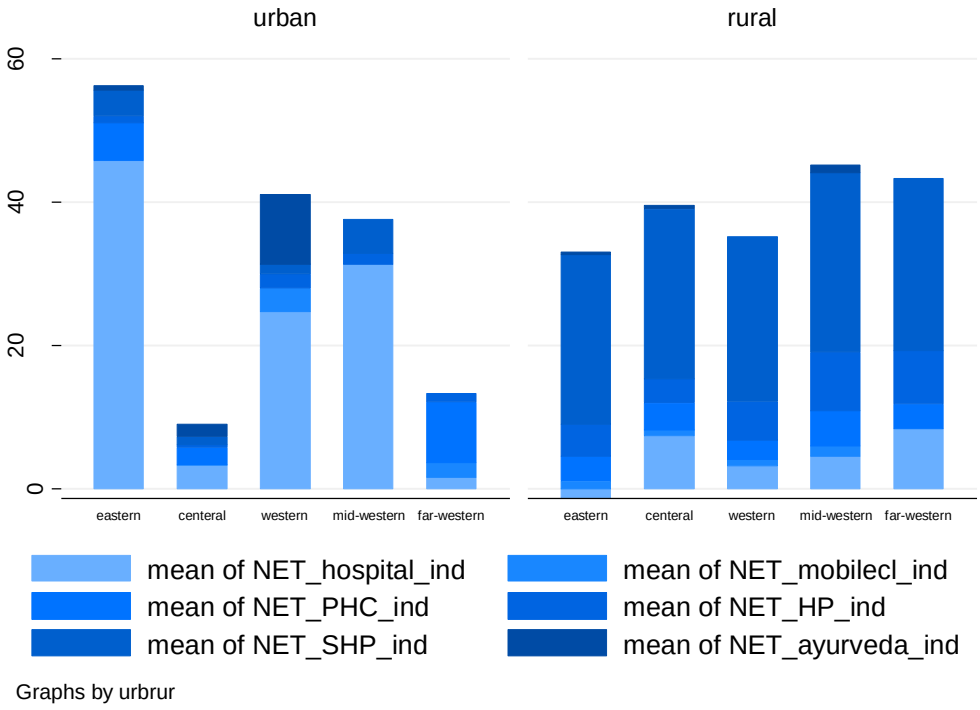


When fee payments are considered, the subsidy gap between urban and rural areas increases significantly to NPR 38 per capita for rural dwellers, compared to just NPR 26 per capita for urban dwellers. Furthermore, the inclusion of fees eliminates the urban advantage in the Far-Western region,

but not in the Eastern region, where urban dwellers continue to receive significantly higher subsidies than rural dwellers (see

Figure 22 below). When fee payments are taken into account urban dwellers in the Western region also receive a higher per capita subsidy than rural dwellers, whereas the subsidy for urban dwellers in the Central region all but disappears.

Figure 22: Net per capital subsidy for public health services, by dwelling area and region



A further decomposition of the subsidy by gender shows that a large part of the difference between urban and rural areas is due to the disadvantages suffered by urban women, in terms of the significantly higher fees they have to incur compared to urban men, as well as rural women. This situation means that urban women are particularly excluded from public health benefits, receiving only NPR 15 per person per month in net health subsidies, compared to NPR 37 for their male counterparts and NPR 37 for rural women (see Table 12 below).

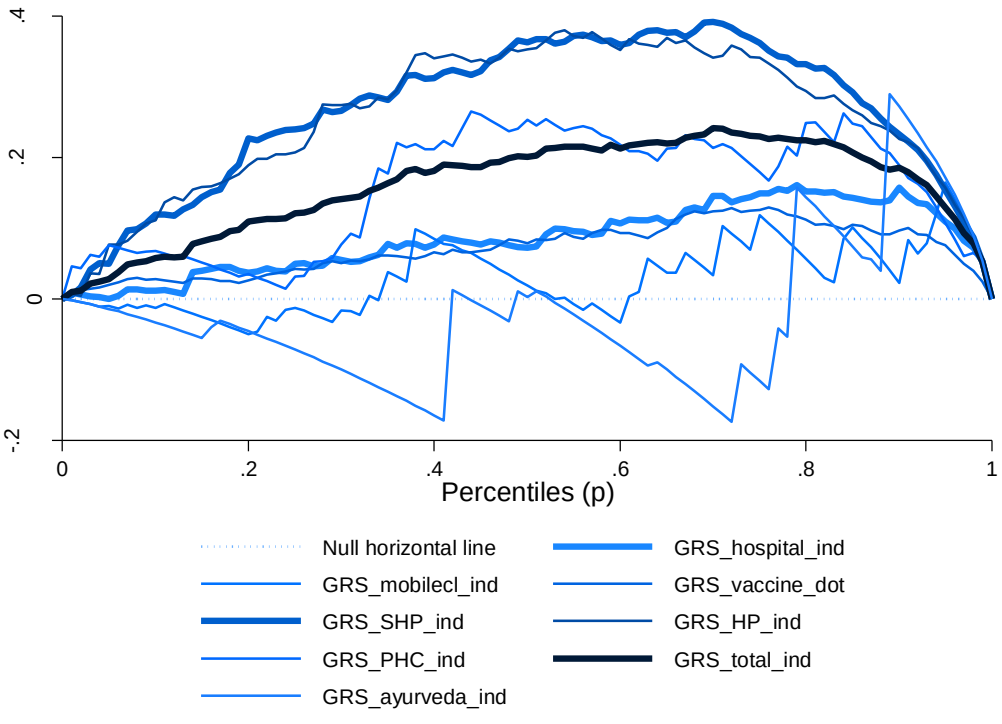
6 PROGRESSIVITY OF HEALTH FINANCING AND TRANSFERS

In order to study the progressivity of health financing and transfers, we use the Kakwani index, which looks at the difference between the concentration curve for the various types of health financing/transfers and the Lorenz curve for the distribution of real per capita household income. A tax is considered progressive if its concentration curve lies outside of the Lorenz curve for incomes, meaning that the poor pay less than the rich. A transfer is considered progressive if its concentration curve lies inside the Lorenz curve for incomes.

Due to the limited availability of the public revenue collection system in general, and tax expenditures in particular in the NLSSIII, our analysis of health financing is restricted to the study of direct payments for health services through user fees. For transfers, we use gross public health subsidy as an indicator of individual consumption of public health transfers.

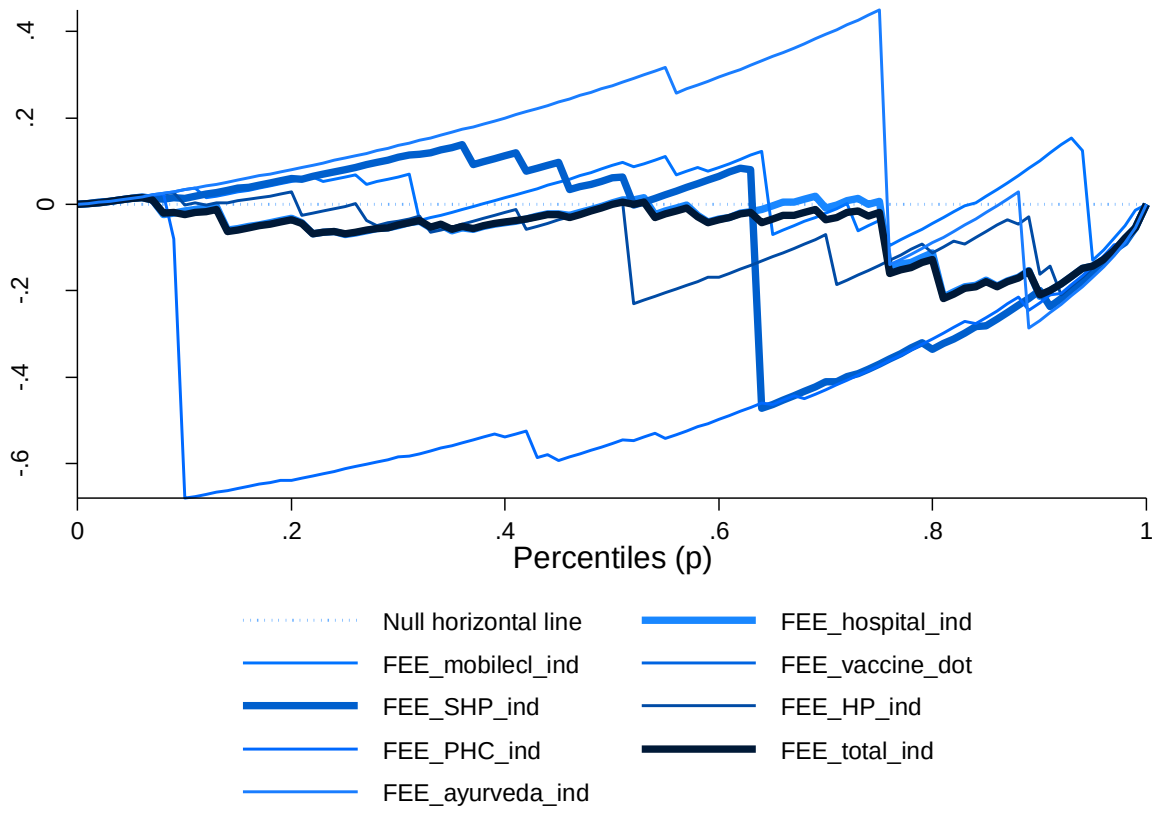
As shown in Figure 23 below, even though some health services are more progressive than others, all of them, except ayurvedic care, are strictly speaking progressive in the sense the transfer affects the income distribution in such a way as to reduce income inequality (i.e. the concentration curves for the distribution of gross public health subsidies lie within the Lorenz curve for real per capita household income).

Figure 23: Difference between concentration curves for gross subsidy of health services and Lorenz curve for real per capita household income



Furthermore, when fee payment is taken into account, the picture changes slightly due to the fact the least progressive services, such as ayurvedic care and hospital care also tend to be the ones with the highest fees, which excludes low income earners from the services. Consequently, the cost for the provision of these services is largely carried by richer users. As Figure 24 below shows, the difference between the Lorenz curve for income and the concentration curves for fee payments for ayurvedic care and mobile health care is positive over most of the distribution, meaning that poor people pay less than rich people for the service. This is due to the fact that these services almost exclusively are used by the top 2 income quintiles. SHP payments are progressive up to and including the third income quintile and regressive thereafter, whereas hospital payments are very slightly regressive up to the top income quintile, for which it is strongly regressive (meaning that the top income quintile is paying less than others in proportion to their income). Financing of PHCs is strongly regressive across the distribution, meaning that poor individuals pay proportionally more for the use of these services.

Figure 24: Differences between concentration curves for fee payments and Lorenz curve for real per capita household income



The overall effects of these distributive patterns is summarised in the table below, which also includes the Kakwani indices for the net health transfer. It shows that the net effect of subsidisation is positive for all types of health facilities, except ayurvedic care centres. However, since ayurvedic care only

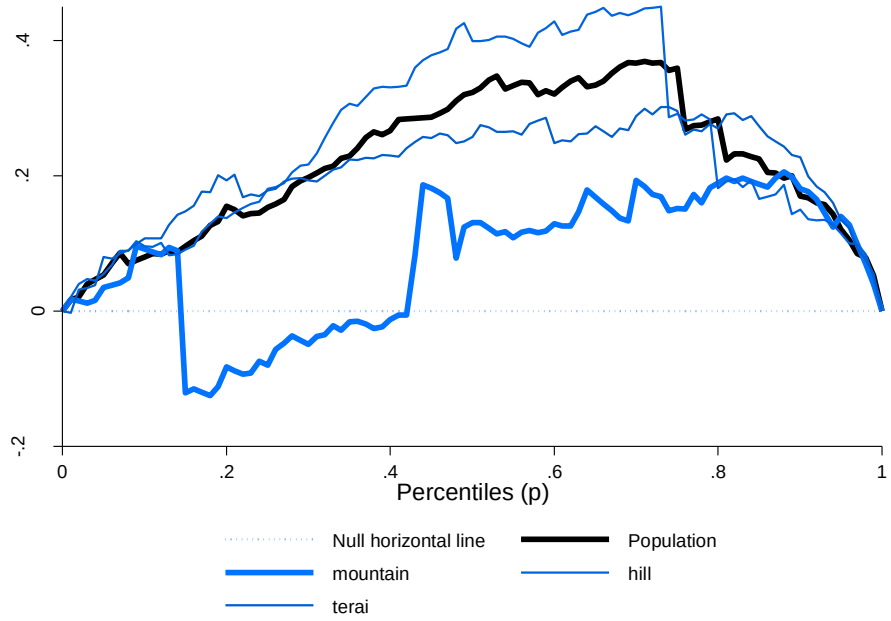
represents a small proportion of all health care expenditures (Figure 11 above), this has little influence on the overall effect of health care spending, which is strongly progressive with a difference of 0.41 between the concentration curve for net subsidies and the Lorenz curve for income.

Table 8: Kakwani coefficients (difference between concentration index for net health subsidy and Gini-coefficient for real per capita household income)

	SHP	HP	PHC	Hospital	Mobilecl	Ayurveda	Total	Vaccine
Gross Subsidy								
Index								
CONC_Dis1	-0.16	-0.14	0.04	0.18	0.25	0.43	0.02	0.14
GINI_Dis2	0.33	0.33	0.33	0.33	0.33	0.33	0.33	0.30
diff.	0.48	0.47	0.29	0.15	0.07	-0.10	0.31	0.16
Fees								
GINI_Dis1	0.33	0.33	0.33	0.33	0.33	0.33	0.33	
CONC_Dis2	0.26	0.12	-0.51	0.22	0.36	0.63	0.21	
diff.	-0.07	-0.21	-0.84	-0.11	0.03	0.30	-0.12	
Net Subsidy								
Index								
CONC_Dis1	-0.18	-0.16	0.10	0.08	0.24	0.43	-0.08	
GINI_Dis2	0.33	0.33	0.33	0.33	0.33	0.33	0.33	
diff.	0.51	0.48	0.23	0.25	0.09	-0.09	0.41	

A further decomposition of the analysis by region shows large variations in the progressivity of health transfers by region. In particular, the analysis reveals that the net health transfer is regressive at lower income levels (bottom two quintiles) in the Mountain region (see Figure 25 below). This is due to the existence of excessively high access barriers in these areas, with average out-of-pocket expenses paid by users representing almost 2/3 disposable household income (see Table 4 above).

Figure 25: Difference between concentration curve for net health transfers and Lorenz curve for real per capita household income, by belt-region



7 INEQUALITY IN HEALTH OUTCOMES

Finally, we carry out an analysis of inequality in health outcomes. It must be noted, however, that the only objective health indicator available in the NLSSIII relates to nutrition, which only covers children under the age of 5. For the other two variables studied here, we have to rely on self-reported health, with the caveats that that implies.

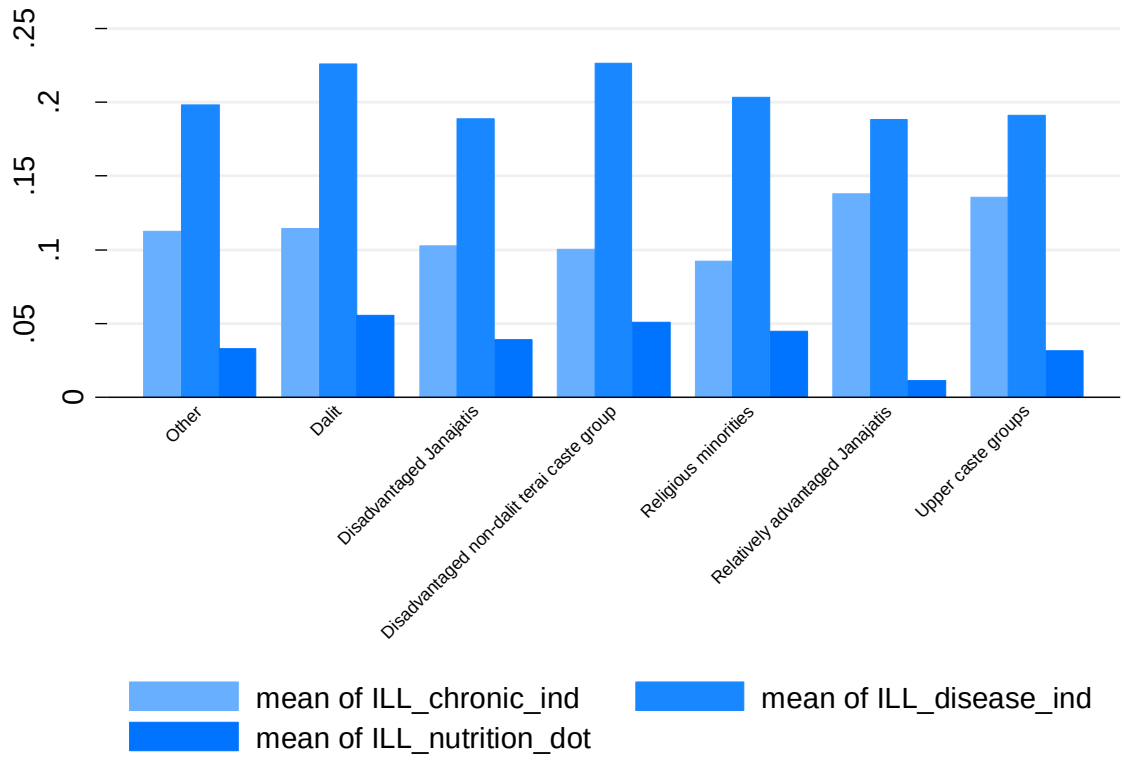
The first self-reported health indicator used relates to chronic health problems. Respondents are asked if they suffer from any of the following chronic illnesses: heart conditions, respiratory illness, asthma, epilepsy, cancer, diabetes, kidney/liver disease, rheumatism, gynaecological problems, occupational illnesses, blood pressure problems, gastrointestinal diseases, other.

The second indicator focuses on recent non-chronic illnesses including the following: diarrhoea, dysentery, respiratory problems, malaria, cold/flu, other fever, TB, measles, jaundice, parasites, injury, dental problems, other.

7.1 By Caste

The rate of non-chronic illnesses is fairly stable across castes, with around 20% of the population on average (slightly more for Dalits and non-Terai groups, and slightly less for advantaged Janajatis and upper caste groups) having suffered from one of the above diseases in the month preceding the interview (see Figure 26 below). By contrast, the reported rate of chronic disease appears to be much higher for the two advantaged groups (around 14% compared to around 10% for the rest of the population). This may reflect a higher level of awareness or lower level of tolerance of these groups with respect to chronic diseases and is consistent with the literature on biases on self-reported health indicators, as well as the findings in section 7.4 below. The rate of malnutrition varies proportionally with income for all castes and is lowest for advantaged Janajatis.

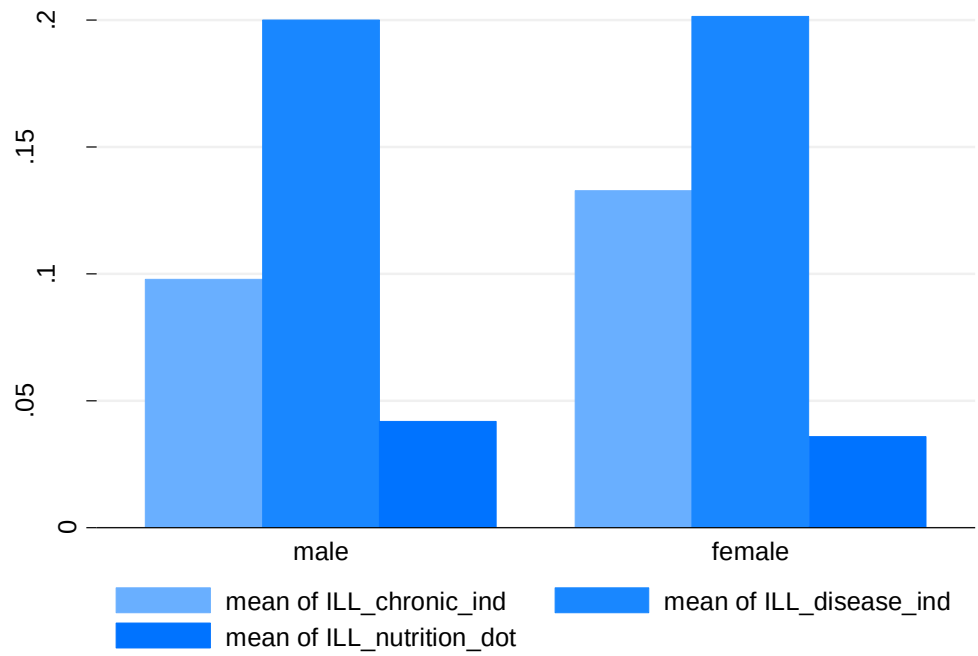
Figure 26: Share of population suffering from illness, by caste



7.2 By Gender

There are no statistically significant differences between the rates of malnutrition and non-chronic disease suffered by men and women. However, women report significantly higher levels of chronic disease (14% of women compared to 10% of men).

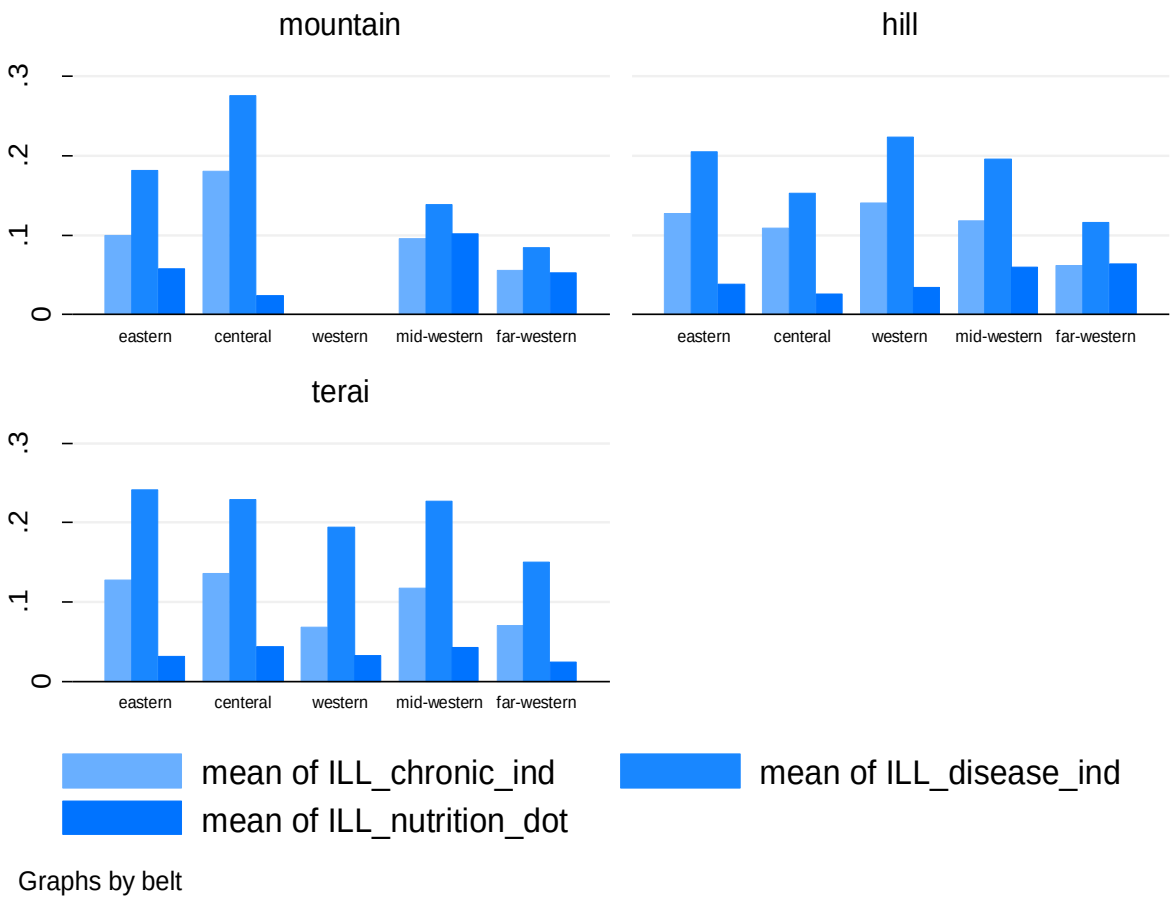
Figure 27: Share of population suffering from illness, by gender



7.3 By Region

The lowest rates of self-reported disease are found in the regions suffering from the highest rates of objectively measureable ill-health in the form of malnutrition. In particular, the Far-Western region appears to be particularly affected by malnutrition, as well as the Mid-Western region in mountain areas, where more than 10% of children under 5 and undernourished (see Figure 28 below). The fact that the low rate of self-reported disease is not found in all mountain regions, suggests that factors other than climatic conditions (i.e. subjective factors) might be affecting the inverse correlation between objective and self-reported health indicators.

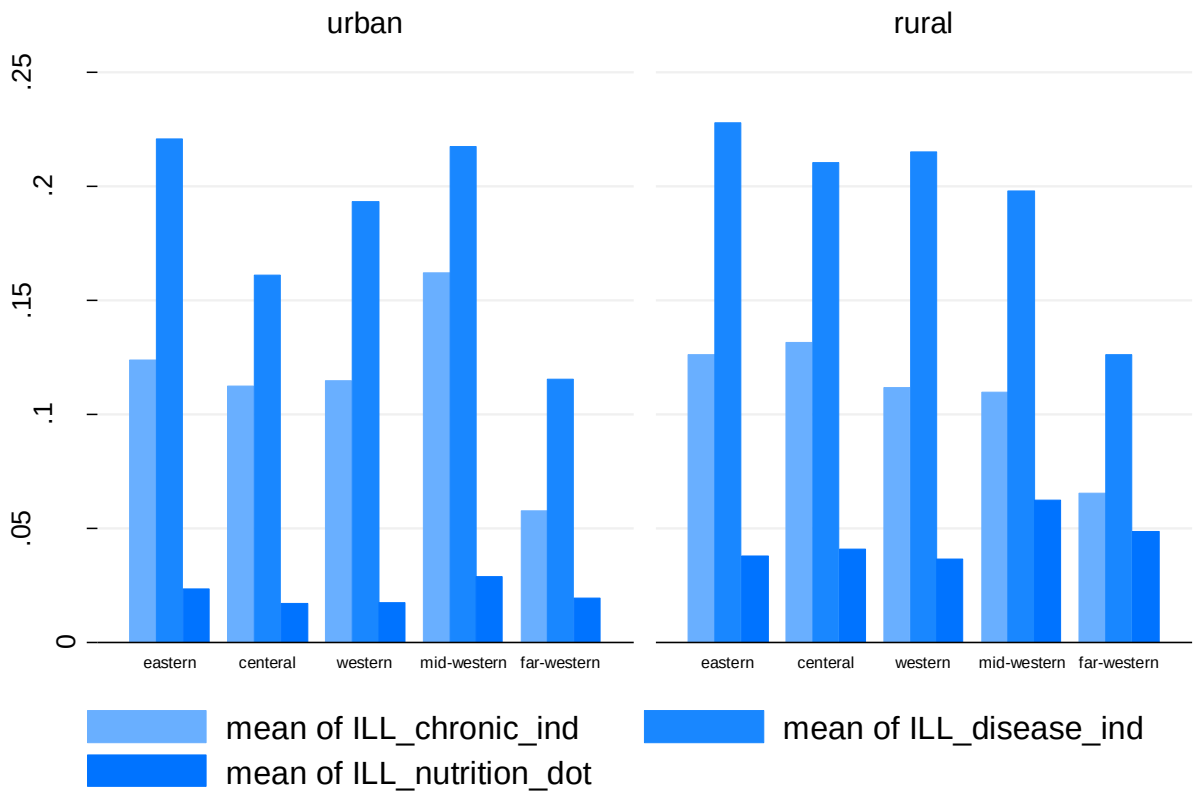
Figure 28: Share of population suffering from illness, by belt/region



The highest rates of malnutrition are found in rural areas, where they are almost twice as high as in urban areas (see

Figure 29 below). The worst rate is found in rural Mid-Western region.

Figure 29: Share of population suffering from illness, by dwelling area/region

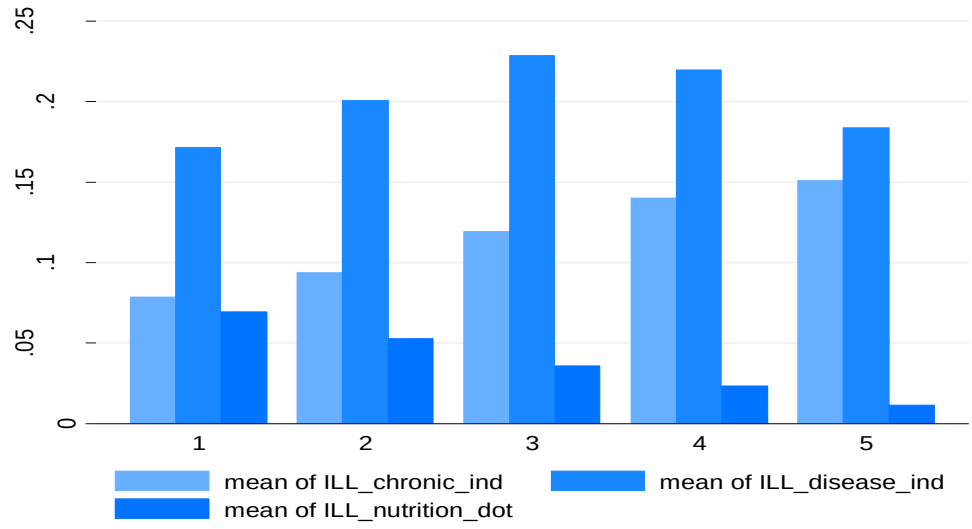


7.4 By Income

As is to be expected, malnutrition rates are inversely proportional to levels of income, ranging from 8% in the lowest income quintile, to less than 2% in the top income quintile (see

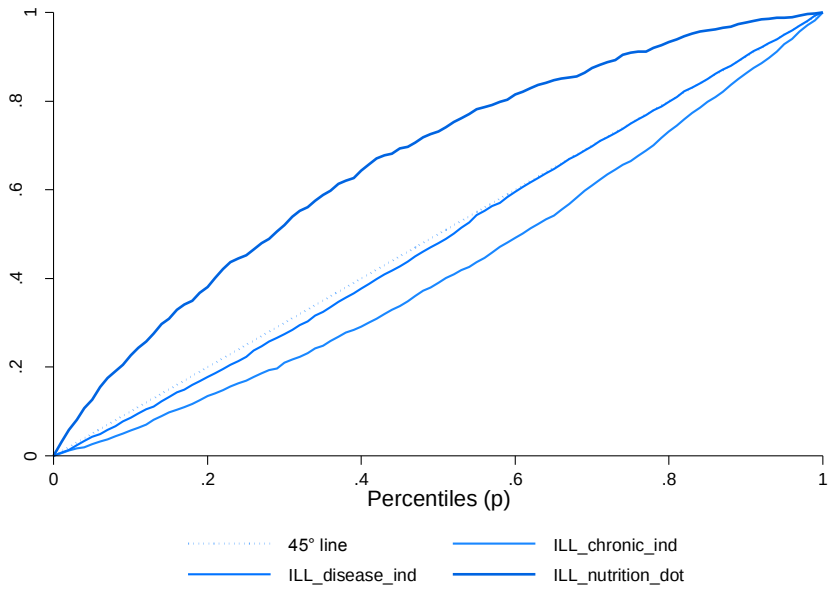
Figure 30 below). Self-reported chronic illness follows an inverse pattern, with the highest levels of illness being reported in the top income quintile (15%) and the lowest rates being reported in the bottom quintile (7%). Non-chronic illnesses exhibit an intermediary pattern, possibly reflecting the interaction of objective and subjective factors. Consequently, the rate of self-reported non-chronic disease increases steadily from the bottom to the third income quintile, and decreases thereafter.

Figure 30: Share of population suffering from illness, by income quintile



The concentration curves presented in Figure 31 below confirm the above finding, with the incidence of undernourishment being strongly concentrated in the lower ends of the income distribution, while self-reported chronic illnesses are concentrated at the upper end of the distribution. The incidence of non-chronic disease is almost distribution neutral.

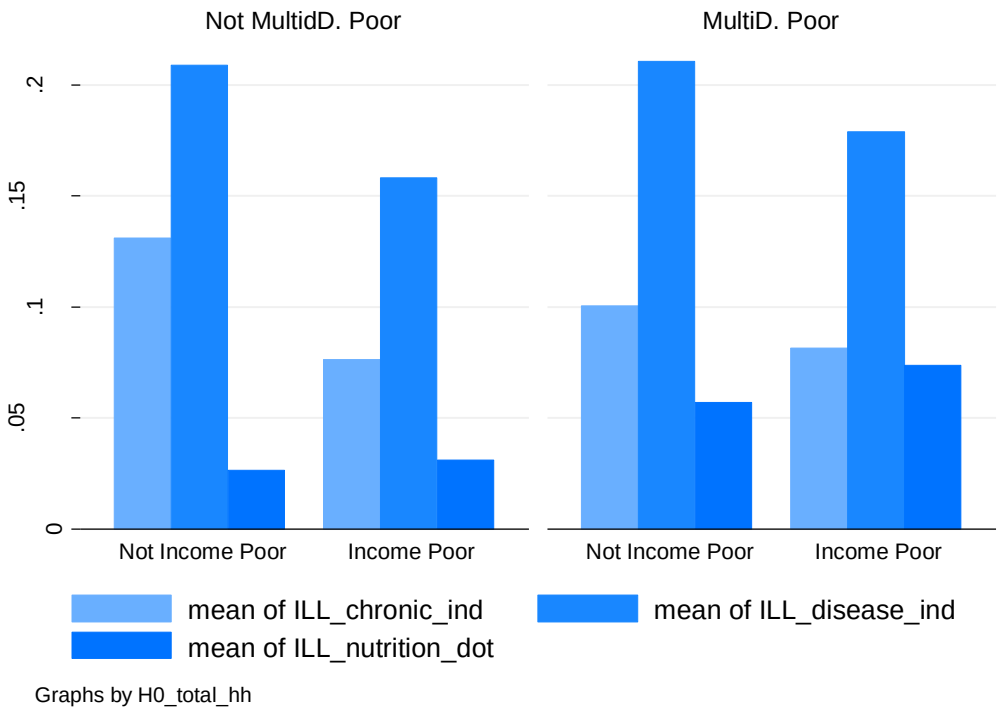
Figure 31: Concentration curves for incidence of ill health on real per capita household income, by type of illness



7.5 By Poverty Status

The analysis by poverty status yields results consistent with those reported in section 7.4 above (see Table 13 below for more details). The analysis in terms of income poverty and multi-dimensional poverty yields similar results with a malnutrition rate of 3% for children under five in non-poor families, compared to 7% in poor families (see Figure 32 below). The decomposition of the multi-dimensional poverty measure reveals that the most significant difference is found among individuals deprived in terms of education, influence and empowerment. Children in households where no adult women are literate are almost twice as likely to be undernourished as children in households in which at least one adult woman is literate. Similarly, children in influence deprived households (i.e. no person in a position of authority of the same caste in the same village) are almost twice as likely to be undernourished as children from households that are not deprived of influence (see below). These findings point in the direction of possible non-monetary barriers to nutrition that may warrant further investigation in future research.

Figure 32: Share of population suffering from ill-health, by number of deprivations suffered


Not MultidD. Poor
MultiD. Poor
0
.05
.1
.15
.2
Not Income Poor
Income Poor
Not Income Poor
Income Poor
mean of ILL_chronic_ind
mean of ILL_nutrition_dot
mean of ILL_disease_ind
Graphs by H0_total_hh

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Annex A Variables

Description of variables

Variables are constructed in the following way:

The prefix defines the type of variable being measures (e.g. utilisation, payment, etc.).

The category or middle part of the variable name describes the category for which the variable is being measured (e.g. primary health care, private health care, etc.)

The suffix describes the reference group over which the variable is being computed (e.g. household, children under 5, etc.).

Table 9: Description of variables used

PREFIX	Description	Category	Description	SUFFIX	Description
UTIL_	Respondent has used the service in past 30 days	SHP	Sub-health post (public)	_ind	decribes variables computed over the entire
FEE_	Fees paid at last usage	HP	Health post (public)		population or population subgroup with zero
MED_	Amount spent on medicines at last usage	PHC	Primary health centre (public)		values attributed to non-users.
OTH_	Amount spent on transport etc. at last usage	primheal	All public primary care, including SHP, HP, PHC		
PAID_	Total amount spent, including fees, medicine and other expenses	hospital	hospital (public)	_dot	describes variables computed over relevant
GRS_	Gross monthly subsidy for service (NPR)	mobilecl	mobile clinic (public)		reference groups only, with missing values
NET_	Gross monthly subsidy for service minus fees paid (NPR)	ayurveda	Ayurveda centre (public)		attributed to non-users/ non-eligible individuals.
UNIT_	Total monthly public expenditure divided by total number of users (NPR)	total	All public services		
COST_	Total monthly public expenditure for provision of service (NPR)	private	All private services	_all	describves aggregate variables computed
NBR_	Total number of individuals in pop. subgroup (using pop. expansion factor)	vaccine	immunization (utilisation = number of vaccines)		as the sum over population or pop. subgroup.
ILL_	Illness	chronic	heart conditions, respiratory illness, asthma, epilepsy, cancer, diabetes, kidney/ liver disease, rheumatism, gynaecological problems, occupational illnesses, blood pressure problems, gastrointestinal diseases, other	_ind	decribes variables computed over the entire population or population subgroup with zero values attributed to non-users.
		disease	diseases suffered over the past 30 days: diarrhoea, dysentery, respiratory problems, malaria, cold/flu, other fever, TB, measles, jaundice, parasites, injury, dental problems, other	_dot	describes variables computed over relevant reference groups only, with missing values attributed to non-users/ non-eligible individuals.
		nutrition	More than 2 standard deviations below the WHO world median for heigh for age or weight for age		
DEP_	Deprivation (1= deprived; 0 = not deprived)	att	individuals living in household with at least on child aged between 6 and 13 not currently attending school	_hh	at least one member of the household fulfills the cr
		com	individuals living in household with at least one child aged between 14 and 20 not having completed primary school		
		health	child under 5 with heigh or weight < WHO median minus 2 standard deviations		
H0_	Multidimensionally poor (1 = 2 deprivations or more; 0 = 1 or less depr.)	income	individual living in household with total consumption adjusted by time and space price index below national poverty line	_ind	indivdual in relevant reference group fulfilling criteria defined in centre column
		water	individuals living in households getting water from spring, river or unprotected well		
		toilet	individuals living in houses with no toilet		
A0_	Number of deprivations per individual	job	individual living in a village in which no member of his/her caste holds a position of influence (official, manager, director, professional, or technician)		
M0_	Average number of deprivations among individuals with 2 or more depriv.	emp	individuals living in households in which no woman over 18 is literate		
INC_		monthly	total monthly household consumption	_pc	total household income per member of the household
		real	total yearly household consumption adjusted by time and space price index	_hh	total household consumption
poor	individual living in household with total consumption adjusted by time and space price index below national poverty line				
gender	Male; Female				
caste	Dalit; Disadvantaged Janajatis; Disadvantaged non-dalit terai; Religious minorities; Relatively advantaged Janajatis; Upper caste groups; Other				
region	Easter; Central; Western; Mid-West; Far-West				
belt	Mountain; Hill; Terai				
quintile	ranked by yearly per capita household consumption adjusted by time and space price index				
urbrur	Residence area: Urban; Rural				

Summary statistics, by population subgroups

Table 10: Multi-dimensional and income poverty rates, by region and gender

region	gender	A0_total_hh	H0_total_hh	DEP_job_hh	DEP_emp_hh	DEP_com_hh	DEP_att_h	DEP_health_hh	DEP_water_hh	DEP_toilet_hh	DEP_income_hh	INC_real_pc	poor
Eastern	Male	0.29	0.22	0.71	0.48	0.12	0.05	0.19	0.12	0.45	0.21	34233	0.21
Eastern	Female	0.29	0.23	0.72	0.47	0.12	0.06	0.2	0.12	0.44	0.21	33847	0.21
Eastern	All	0.29	0.23	0.72	0.48	0.12	0.05	0.19	0.12	0.45	0.21	34024	0.21
Central	Male	0.29	0.27	0.52	0.53	0.2	0.1	0.19	0.11	0.48	0.21	37418	0.21
Central	Female	0.29	0.28	0.53	0.51	0.2	0.09	0.21	0.12	0.48	0.22	36695	0.22
Central	All	0.29	0.28	0.53	0.52	0.2	0.09	0.2	0.12	0.48	0.21	37036	0.21
Western	Male	0.27	0.23	0.6	0.38	0.16	0.07	0.19	0.14	0.38	0.22	37196	0.22
Western	Female	0.26	0.22	0.61	0.37	0.14	0.06	0.2	0.12	0.37	0.22	37583	0.22
Western	All	0.26	0.22	0.61	0.37	0.15	0.07	0.19	0.13	0.37	0.22	37406	0.22
Mid-West	Male	0.37	0.36	0.66	0.58	0.16	0.08	0.33	0.31	0.56	0.32	28230	0.32
Mid-West	Female	0.35	0.34	0.69	0.52	0.16	0.06	0.31	0.3	0.56	0.31	28445	0.31
Mid-West	All	0.36	0.35	0.68	0.55	0.16	0.07	0.32	0.3	0.56	0.32	28345	0.32
Far-West	Male	0.36	0.38	0.57	0.53	0.15	0.05	0.21	0.26	0.53	0.44	25686	0.44
Far-West	Female	0.37	0.42	0.61	0.53	0.15	0.03	0.25	0.28	0.54	0.47	24988	0.47
Far-West	All	0.37	0.4	0.59	0.53	0.15	0.04	0.23	0.27	0.54	0.46	25302	0.46
Population Total	.	0.3	0.27	0.61	0.49	0.16	0.07	0.22	0.16	0.47	0.25	34242	0.25

Table 11: Average values (all variables) and total number of service users (utilisation variables), by type of deprivations

DEP_health_hh	Not deprived health	Health deprived	Not deprived water	Water deprived	Not deprived sanitation	Sanitation deprived	Not deprived educ	Education deprived	Not deprived completion	Completion deprived	Not deprived influence	Influence deprived	Not deprived empowerment	Empowerment deprived
FEE_HP_dot	13.09	42.49	22.93	2.36	13.9	23.38	18.63	25.45	18.52	21.61	43.56	7.94	13.47	24.62
FEE_PHC_dot	31.64	506.88	141.15	12.01	54.04	177.89	111.22	48.06	95.74	255	29.2	167.63	1.95	197.12
FEE_SHP_dot	82.97	38.59	86	23.32	122.27	31.7	73.87	9.33	72.41	47.72	217.22	11.55	126.65	34.02
FEE_ayurveda_dot	38.76	.	28.81	155.58	34.73	51.87	38.76	.	40.29	0	0	69.56	44.31	36.36
FEE_hospital_dot	1209	401.08	1161.54	539.3	1321.09	462.25	1078.93	267.38	1103.99	552.5	881.23	1175.33	1407.09	612.51
FEE_mobilecl_dot	62.08	45.91	66.06	0.67	72.95	49.04	68.24	26.7	54.84	124.23	100.53	38.81	66.28	54.52
FEE_private_dot	203.79	146.86	197.75	140.08	241.69	142.95	193.67	156.11	183.43	230	254.84	152.48	246.1	135.57
FEE_total_dot	415.9	162.63	413.77	154.55	567.06	128.05	376.07	70.91	376.44	210.25	405.77	336.85	545.22	194.93
GRS_HP_ind	4.3	5.46	4.17	6.58	4.45	4.66	4.71	2.35	4.71	3.7	4.3	4.71	4.15	4.97
GRS_PHC_ind	4.29	2.18	3.73	4.42	4.09	3.55	3.88	3.32	4.2	2	3.92	3.78	2.76	4.98
GRS_ayurveda_ind	1.19	0	1.05	0.23	1.56	0.18	1.03	0	1.12	0.11	1.05	0.89	1.14	0.75
GRS_hospital_ind	24.94	16.97	22.26	28.37	30.31	15.15	24.29	9.34	25.14	13.42	27.63	20.44	26.43	19.83
GRS_mobilecl_ind	1.1	0.98	0.89	2.2	0.86	1.34	0.99	2.25	1.12	0.82	1.02	1.11	1.27	0.85
GRS_total_ind	54.62	51.73	50.47	72.84	56.27	51.41	55.44	35.2	58.99	28.5	53.46	54.35	51.12	57.04
GRS_vaccine_dot	21.35	20.12	20.93	19.87	28.8	14.36	21.55	11.95	22.46	13.09	23.31	19.39	26.41	14.61
ILL_chronic_ind	0.13	0.09	0.12	0.11	0.13	0.1	0.12	0.08	0.12	0.1	0.12	0.12	0.12	0.12
ILL_disease_ind	0.2	0.19	0.2	0.2	0.19	0.21	0.2	0.16	0.21	0.18	0.19	0.21	0.19	0.21
ILL_nutrition_dot	0	0.18	0.04	0.05	0.03	0.05	0.04	0.05	0.04	0.04	0.03	0.05	0.03	0.05
INC_monthly_hh	3187.66	1888.57	3052.03	2139.52	3822.69	1865.15	2997.5	1740.18	3094.35	1955.68	3890.75	2287.33	3602.36	2173.72
MED_HP_dot	290.01	345.55	316	239.03	248.63	347.14	304.46	231.02	297.13	325.71	383.69	264.14	295.28	307.1
MED_PHC_dot	303.25	462.54	406.24	97.44	286.63	382.6	318.54	608.32	332.77	289	349.65	314.05	209.53	427.79
MED_SHP_dot	371.02	356.16	366.95	366.65	415.84	330.05	365.63	390.14	348.32	598.56	595.46	274.85	480.34	292.88
MED_ayurveda_dot	854.89	.	821.67	1244.67	918.84	647.41	854.89	.	829.93	1488.52	1025.71	719.21	1923.75	391.21
MED_hospital_dot	2058.8	1155.54	2018.31	1251.59	1947.09	1741.82	1916.04	930.2	1902.58	1693.35	2016.22	1785.4	2020.78	1712.16
MED_mobilecl_dot	3.78E+02	465.68	4.03E+02	256.28	3.54E+02	419.44	402.73	3.36E+02	3.65E+02	699.03	3.66E+02	401.47	330.74	4.40E+02
MED_private_dot	727.91	818.47	786.53	445.72	647.73	843.72	746.4	769.7	671.51	1128.78	718.22	766.6	833.43	661.23
MED_total_dot	8.87E+02	5.81E+02	8.89E+02	5.54E+02	9.86E+02	6.32E+02	8.39E+02	4.71E+02	8.18E+02	8.40E+02	1.06E+03	6.94E+02	9.73E+02	6.82E+02
NBR_HP_Users	2.50E+05	6.19E+04	2.50E+05	6.01E+04	1.50E+05	1.70E+05	3.00E+05	1.43E+04	2.70E+05	4.29E+04	9.59E+04	2.10E+05	1.60E+05	1.50E+05
NBR_PHC_Users	8.35E+04	1.62E+04	7.49E+04	2.49E+04	5.56E+04	4.42E+04	9.61E+04	3.65E+03	9.15E+04	8.25E+03	4.23E+04	5.75E+04	4.51E+04	5.47E+04
NBR_SHP_Users	3.70E+05	1.40E+05	3.90E+05	1.30E+05	2.20E+05	2.90E+05	4.90E+05	2.61E+04	4.80E+05	3.81E+04	1.50E+05	3.70E+05	2.00E+05	3.10E+05
NBR_Total_Group_Pop	2.20E+07	6.10E+06	2.40E+07	4.50E+06	1.50E+07	1.30E+07	2.60E+07	2.00E+06	2.40E+07	4.60E+06	1.10E+07	1.70E+07	1.40E+07	1.40E+07
NBR_Total_Private_Users	1.90E+06	5.50E+05	2.20E+06	2.80E+05	1.20E+06	1.30E+06	2.30E+06	1.60E+05	2.10E+06	4.10E+05	9.40E+05	1.50E+06	1.20E+06	1.20E+06
NBR_Total_Public_Users	1.10E+06	3.20E+05	1.20E+06	3.00E+05	7.70E+05	6.80E+05	1.40E+06	73113.2	1.30E+06	1.40E+05	5.00E+05	9.50E+05	6.90E+05	7.70E+05
NBR_ayurveda_Users	17907.79	0	16501.23	1406.56	13688.41	4219.38	17907.79	0	17229.21	678.58	7927.43	9980.36	5418.16	12489.63
NBR_hosptial_Users	3.60E+05	86713.11	3.70E+05	78672.99	3.10E+05	1.40E+05	4.30E+05	15061.97	4.00E+05	42373.83	1.90E+05	2.60E+05	2.50E+05	2.00E+05
NBR_mobilecl_Users	61539.96	9130.31	64111.63	6558.65	32373.62	38296.66	56635.95	14034.33	65424.04	5246.24	24258.56	46411.71	32894.72	37775.55
NET_HP_ind	4.15	5.03	3.92	6.55	4.31	4.37	4.5	2.17	4.5	3.49	3.91	4.61	4	4.7
NET_PHC_ind	4.17	0.83	3.28	4.36	3.89	2.95	3.47	3.23	3.83	1.54	3.81	3.23	2.75	4.19
NET_SHP_ind	18	25.45	17.45	31.09	13.85	26.17	19.7	18.37	21.82	8.29	13.15	23.69	14.17	25.36
NET_ayurveda_ind	1.14	0	1.02	0.13	1.51	0.16	0.99	0	1.08	0.11	1.05	0.83	1.11	0.7
NET_hospital_ind	5.39	11.25	4.36	18.85	3.49	10.25	6.6	7.34	6.32	8.35	12.51	2.95	2.59	10.94
NET_mobilecl_ind	0.9	0.89	0.68	2.2	0.67	1.16	0.82	2	0.94	0.63	0.75	0.98	1.1	0.66
NET_total_ind	33.22	43.24	30.29	62.51	27.14	44.76	35.59	32.62	37.95	22.24	34.69	35.81	25.19	46.14
NET_vaccine_dot	21.35	20.12	20.93	19.87	28.8	14.36	21.55	11.95	22.46	13.09	23.31	19.39	26.41	14.61
OTH_HP_dot	3.48	18.99	7.96	0.82	5.44	7.57	6.89	0	6.79	5.23	13.39	3.53	3.46	9.8
OTH_PHC_dot	9.46	168.19	45.77	3.7	11.9	64.64	36.61	0	38.45	0	16.5	49.09	0.73	63.75
OTH_SHP_dot	14.86	16.34	16.56	11.33	15.73	14.93	16.09	0	15.33	14.66	27.79	10.24	23.9	9.65
OTH_ayurveda_dot	7.28	.	7.9	0	6.21	10.76	7.28	.	7.57	0	0	13.07	15.69	3.64
OTH_hospital_dot	477.49	388.1	446.21	524.44	542.87	279.11	470	176.49	485.2	221.4	521.53	415.3	590.14	299.51
OTH_mobilecl_dot	10.45	0	8.9	11.11	16.94	2.48	11.36	0	9.83	0	20.46	3.16	16.67	2.51
OTH_private_dot	73.01	61.63	72.75	52.86	67.19	73.66	70.74	66.98	65.53	95.22	82.3	63.34	82.4	58.43
OTH_total_dot	156.97	125.81	151.76	144.04	221.68	69.53	156.2	36.36	158.13	73.92	206.46	120.31	219.02	88.3
PAID_HP_dot	306.58	407.03	346.89	242.21	267.97	378.09	329.99	256.47	322.44	352.56	440.63	275.6	312.21	341.52
PAID_PHC_dot	344.35	1137.61	593.15	113.15	352.57	625.12	466.37	656.38	466.96	544	395.34	530.77	212.21	688.66
PAID_SHP_dot	468.85	411.09	469.51	401.3	553.84	376.69	455.59	399.47	436.06	660.94	840.47	296.63	630.88	336.55
PAID_ayurveda_dot	900.94	.	858.38	1400.25	959.78	710.04	900.94	.	877.8	1488.52	1025.71	801.83	1983.76	431.2
PAID_hospital_dot	3745.29	1944.73	3626.06	2315.33	3811.05	2483.19	3464.96	1374.07	3491.77	2467.25	3418.98	3376.04	4018	2624.18
PAID_mobilecl_dot	450.61	511.59	477.97	268.06	443.75	470.95	482.33	362.29	429.24	823.26	487.29	443.44	413.69	497.51
PAID_private_dot	1004.71	1026.96	1057.02	638.66	956.61	1060.32	1010.8	992.78	920.48	1454	1055.37	982.41	1161.93	855.23
PAID_total_dot	1459.48	869.7	1454.12	852.42	1775.21	830.07	1370.85	578.08	1352.57	1124.64	1669.6	1151.35	1737.5	965.7
UTIL_HP_ind	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
UTIL_PHC_ind	0	0	0	0	0	0	0	0	0	0	0	0	0	0
UTIL_SHP_ind	0.02	0.03	0.02	0.03	0.02	0.02	0.02	0.02	0.02	0.01	0.02	0.02	0.02	0.03
UTIL_ayurveda_ind	0	0	0	0	0	0	0	0	0	0	0	0	0	0
UTIL_hospital_ind	0.02	0.01	0.02	0.02	0.02	0.01	0.02	0.01	0.02	0.01	0.02	0.02	0.02	0.02
UTIL_mobilecl_ind	0	0	0	0	0	0	0	0.01	0	0	0	0	0	0
UTIL_private_ind	0.09	0.09	0.09	0.06	0.08	0.1	0.09	0.08	0.09	0.09	0.09	0.09	0.09	0.09
UTIL_total_ind	0.06	0.06	0.05	0.08	0.06	0.06	0.06	0.04	0.06	0.03	0.05	0.06	0.05	0.06
UTIL_vaccine_dot	4.73	4.21	4.62	3.77	5.41	3.73	4.52	3.97	4.69	3.5	5.25	4.06	5.08	3.82

Table 12: Average values (all variables) and total number of service users (utilisation variables), by gender and dwelling area

urbrur	Urban	Urban	Urban	Rural	Rural	Rural
gender	Male	Female	All	Male	Female	All
FEE_HP_dot	67.4	107.37	88.15	23.53	9.99	16.22
FEE_PHC_dot	9.97	9.41	9.74	71.27	143.34	116.34
FEE_SHP_dot	55.26	154.1	112.06	32.02	100.04	69.98
FEE_ayurveda_dot	0	5.85	4.53	75.5	31.05	50.91
FEE_hospital_dot	433.36	1277.37	881.02	1028.97	1215.18	1131.91
FEE_mobilecl_dot	251.48	50.49	150.06	68.64	35.19	50.67
FEE_private_dot	212.97	268.62	242.66	212.02	146.98	178.51
FEE_total_dot	361.86	1023.67	714.36	272.55	341.44	310.88
GRS_HP_ind	1	1.31	1.17	5.26	5.41	5.34
GRS_PHC_ind	3.04	2.7	2.86	3.7	4.38	4.07
GRS_ayurveda_ind	1.86	3.07	2.49	0.47	0.47	0.47
GRS_hospital_ind	40.92	40.78	40.85	18.52	19.56	19.08
GRS_mobilecl_ind	0.87	0.59	0.72	1.24	1.12	1.17
GRS_total_ind	49.32	49.78	49.56	53.42	56.42	55.04
GRS_vaccine_dot	26	23.96	25.01	21.51	18.5	20.03
ILL_chronic_ind	0.1	0.13	0.11	0.1	0.13	0.12
ILL_disease_ind	0.18	0.18	0.18	0.21	0.21	0.21
ILL_nutrition_dot	0.02	0.02	0.02	0.05	0.04	0.04
INC_monthly_hh	5052.22	4986.56	5017.75	2427.3	2399.81	2412.46
MED_HP_dot	591	1878.78	1259.62	252.28	272.71	263.31
MED_PHC_dot	303.96	164.2	245.18	471.08	254.23	335.44
MED_SHP_dot	185	1841.45	1136.91	294.18	404.38	355.68
MED_ayurveda_dot	6371.07	809.42	2064.43	544.06	330.09	425.69
MED_hospital_dot	1663.88	1648.1	1655.51	1844.39	2107.6	1989.89
MED_mobilecl_dot	281.95	285.4	283.69	423.64	380.25	400.33
MED_private_dot	650.04	894.03	780.19	848.92	637.42	739.95
MED_total_dot	1476.88	1546.72	1514.08	674.05	760.69	7.22E+02
NBR_HP_Users	5.65E+03	6.11E+03	1.18E+04	1.40E+05	1.60E+05	3.00E+05
NBR_PHC_Users	4031.16	2926.41	6957.56	3.48E+04	5.81E+04	9.28E+04
NBR_SHP_Users	3128.35	4226.68	7355.04	2.20E+05	2.80E+05	5.10E+05
NBR_Total_Group_Pop	2.50E+06	2.80E+06	5.40E+06	1.10E+07	1.20E+07	2.30E+07
NBR_Total_Private_Users	2.30E+05	2.60E+05	4.90E+05	9.60E+05	1.00E+06	2.00E+06
NBR_Total_Public_Users	84125.37	95874.09	1.80E+05	5.70E+05	7.10E+05	1.30E+06
NBR_ayurveda_Users	1058.35	3631.82	4690.17	5905.68	7311.93	13217.62
NBR_hosptial_Users	66969.34	75638.58	1.40E+05	1.40E+05	1.70E+05	3.00E+05
NBR_mobilecl_Users	3283.26	3343.88	6627.14	29641.08	34402.06	64043.14
NET_HP_ind	0.85	1.08	0.97	4.96	5.27	5.13
NET_PHC_ind	3.02	2.69	2.85	3.46	3.71	3.59
NET_SHP_ind	1.97	1.71	1.83	23.98	23.61	23.78
NET_ayurveda_ind	1.86	3.06	2.49	0.4	0.44	0.42
NET_hospital_ind	29.53	6.47	17.43	5.31	3.1	4.12
NET_mobilecl_ind	0.51	0.52	0.52	0.99	1	0.99
NET_total_ind	37.37	14.93	25.59	38.75	36.75	37.67
NET_vaccine_dot	26	23.96	25.01	21.51	18.5	20.03
OTH_HP_dot	0	0	0	9.35	4.69	6.83
OTH_PHC_dot	8.19	0	4.75	2.09	58.79	37.56
OTH_SHP_dot	13.81	81.99	52.99	8.66	19.53	14.73
OTH_ayurveda_dot	0	23.41	18.13	0	6.21	3.43
OTH_hospital_dot	247.83	185.55	214.8	621.45	538.99	575.87
OTH_mobilecl_dot	33.96	29.12	31.52	12.9	1.51	6.78
OTH_private_dot	40.46	65.89	54.03	79.38	70.02	74.56
OTH_total_dot	199.52	151.9	174.16	154.73	140.48	146.8
PAID_HP_dot	658.39	1986.15	1347.77	285.16	287.39	286.37
PAID_PHC_dot	322.13	173.61	259.66	544.44	456.35	489.35
PAID_SHP_dot	254.07	2077.53	1301.95	334.86	523.96	440.38
PAID_ayurveda_dot	6371.07	838.69	2087.09	619.56	367.35	480.04
PAID_hospital_dot	2345.06	3111.02	2751.32	3494.81	3861.78	3697.67
PAID_mobilecl_dot	567.39	365	465.27	505.18	416.96	457.79
PAID_private_dot	903.48	1228.54	1076.87	1140.33	854.42	993.02
PAID_total_dot	2038.26	2722.29	2402.6	1101.33	1242.6	1179.94
UTIL_HP_ind	0	0	0	0.01	0.01	0.01
UTIL_PHC_ind	0	0	0	0	0	0
UTIL_SHP_ind	0	0	0	0.02	0.03	0.02
UTIL_ayurveda_ind	0	0	0	0	0	0
UTIL_hospital_ind	0.03	0.03	0.03	0.01	0.01	0.01
UTIL_mobilecl_ind	0	0	0	0	0	0
UTIL_private_ind	0.09	0.09	0.09	0.09	0.08	0.09
UTIL_total_ind	0.04	0.04	0.04	0.06	0.06	0.06
UTIL_vaccine_dot	5.8	6.06	5.93	4.28	4.18	4.23

Table 13: Average values (all variables) and total number of service users (utilisation variables), by gender and poverty status

poor	Not income	Not income	Not income	Income poor	Income poor	Income poor	Not MD poor	Not MD poor	Not MD poor	MultidD. poor	MultidD. poor	MultidD. poor
gender	Male	Female	All	Male	Female	All	Male	Female	All	Male	Female	All
FEE_HP_dot	28.01	14.22	20.76	14.32	11.43	12.63	29.72	15.05	22	11.4	9.72	10.43
FEE_PHC_dot	37.74	30.45	33.28	232.91	800.23	578.79	12.14	31.59	24.31	253.56	653.2	473.07
FEE_SHP_dot	45.24	144.4	101.24	6.09	4.7	5.33	33.99	149.12	97.76	28.9	5.79	15.79
FEE_ayurveda_dot	64.03	28.03	43.87	.	0	0	64.03	28.03	43.87	.	0	0
FEE_hospital_dot	812.28	1241.12	1048.5	925.14	1198.29	1066.73	937.68	1476.1	1229.03	283.77	114.1	187.5
FEE_mobilecl_dot	94.02	36.63	64.26	0	36.02	23.96	94.4	38.08	63.92	53.73	28.61	41.16
FEE_private_dot	250.25	202.74	225.24	85.47	53.04	69.53	246.51	203.01	223.76	118.48	80.53	99.25
FEE_total_dot	298.77	462.35	389.2	233.33	286.57	262.92	344.64	545.57	454.85	91.86	62.6	75.23
GRS_HP_ind	4.11	4.46	4.3	5.4	5.18	5.28	4.07	4.46	4.28	5.42	5.14	5.27
GRS_PHC_ind	4.16	4.68	4.44	1.78	2.28	2.05	3.74	4.72	4.27	3.11	2.35	2.7
GRS_ayurveda_ind	1.04	1.28	1.17	0	0.38	0.2	1.09	1.34	1.22	0	0.33	0.18
GRS_hospital_ind	26.3	27.36	26.87	12.54	12.16	12.34	26.63	27.07	26.87	12.84	14.17	13.56
GRS_mobilecl_ind	1.45	1.18	1.31	0.14	0.46	0.32	1.3	0.98	1.13	0.72	1.1	0.93
GRS_total_ind	54.08	57.22	55.76	48.18	49.19	48.73	54.58	56.91	55.83	47.37	50.66	49.15
GRS_vaccine_dot	25.35	22.09	23.77	16.16	14.2	15.19	26.79	23.38	25.15	14.27	12.86	13.57
ILL_chronic_ind	0.11	0.15	0.13	0.07	0.09	0.08	0.11	0.15	0.13	0.08	0.09	0.09
ILL_disease_ind	0.21	0.21	0.21	0.18	0.17	0.18	0.21	0.21	0.21	0.19	0.19	0.19
ILL_nutrition_dot	0.03	0.03	0.03	0.08	0.06	0.07	0.03	0.03	0.03	0.08	0.06	0.07
INC_monthly_hh	3504.85	3450.79	3475.93	1221.72	1201.87	1210.95	3517.88	3461.39	3487.65	1385.05	1359.3	1371.11
MED_HP_dot	272.21	321.11	297.94	239.63	363.42	312.09	293.52	308.73	301.52	178.9	388.83	299.87
MED_PHC_dot	507.85	259.43	355.96	118.83	190.57	162.57	500.57	257.39	348.45	286.14	213.22	246.09
MED_SHP_dot	299.51	506.09	416.18	278.77	247.9	261.96	290.47	482.12	396.62	297.25	314.29	306.91
MED_ayurveda_dot	1429.62	482.05	899.1	.	519.4	519.4	1429.62	482.05	899.1	.	519.4	519.4
MED_hospital_dot	1815.16	1875.21	1848.23	1635.74	2458.15	2062.05	1842.22	2243.5	2059.36	1486.98	669.19	1022.94
MED_mobilecl_dot	407.9	351.37	378.58	429.12	506.91	480.85	3.77E+02	3.55E+02	3.65E+02	552.61	457.51	505.02
MED_private_dot	844.16	749.86	794.52	699.4	459.1	581.27	818.57	730.38	772.44	789.34	570.83	678.62
MED_total_dot	832.58	890.31	864.49	588.61	730.61	6.68E+02	8.56E+02	1.01E+03	9.39E+02	530.77	407.07	4.60E+02
NBR_HP_Users	1.10E+05	1.30E+05	2.40E+05	2.86E+04	4.04E+04	6.91E+04	1.10E+05	1.20E+05	2.30E+05	3.47E+04	4.72E+04	8.19E+04
NBR_PHC_Users	33393.83	52543.77	85937.59	5.40E+03	8.43E+03	1.38E+04	3.03E+04	5.06E+04	8.10E+04	8.48E+03	1.03E+04	1.88E+04
NBR_SHP_Users	1.50E+05	2.00E+05	3.50E+05	7.47E+04	8.93E+04	1.60E+05	1.50E+05	1.90E+05	3.40E+05	7.37E+04	9.65E+04	1.70E+05
NBR_Total_Group_Pop	9.80E+06	1.10E+07	2.10E+07	3.20E+06	3.80E+06	7.10E+06	9.50E+06	1.10E+07	2.00E+07	3.50E+06	4.20E+06	7.70E+06
NBR_Total_Private_Users	9.20E+05	1.00E+06	1.90E+06	2.80E+05	2.70E+05	5.40E+05	8.70E+05	9.60E+05	1.80E+06	3.20E+05	3.30E+05	6.50E+05
NBR_Total_Public_Users	5.00E+05	6.20E+05	1.10E+06	1.50E+05	1.80E+05	3.30E+05	4.90E+05	6.00E+05	1.10E+06	1.60E+05	2.10E+05	3.60E+05
NBR_ayurveda_Users	6964.04	8858.61	15822.64	0	2085.15	2085.15	6964.04	8858.61	15822.64	0	2085.15	2085.15
NBR_hosptial_Users	1.70E+05	2.10E+05	3.70E+05	34459.66	37087.21	71546.88	1.70E+05	2.00E+05	3.70E+05	32794.67	43017.89	75812.57
NBR_mobilecl_Users	30421.34	32775.78	63197.12	2503	4970.16	7473.16	26830.17	31641.44	58471.61	6094.17	6104.5	12198.67
NET_HP_ind	3.79	4.3	4.06	5.27	5.06	5.16	3.73	4.29	4.03	5.31	5.03	5.16
NET_PHC_ind	4.03	4.53	4.3	1.39	0.52	0.92	3.7	4.58	4.17	2.5	0.74	1.55
NET_SHP_ind	16.88	16.36	16.6	28.22	28.9	28.59	17.77	16.37	17.02	24.84	27.83	26.46
NET_ayurveda_ind	0.97	1.25	1.12	0	0.38	0.2	1.02	1.31	1.17	0	0.33	0.18
NET_hospital_ind	12.45	4.8	8.36	2.69	0.59	1.55	9.97	0.2	4.74	10.22	12.99	11.72
NET_mobilecl_ind	1.11	1.05	1.08	0.14	0.4	0.28	0.98	0.85	0.91	0.6	1.05	0.84
NET_total_ind	38.74	31.72	34.98	37.67	35.58	36.54	36.67	27.01	31.5	43.33	47.59	45.64
NET_vaccine_dot	25.35	22.09	23.77	16.16	14.2	15.19	26.79	23.38	25.15	14.27	12.86	13.57
OTH_HP_dot	11.23	3.86	7.35	0	6.6	3.86	11.86	4.08	7.77	0	5.65	3.26
OTH_PHC_dot	3.17	13.71	9.62	0	319.27	194.65	3.49	14.23	10.21	0	260.61	143.14
OTH_SHP_dot	12.75	28.84	21.84	0.56	1.93	1.31	12.67	26.99	20.6	0.57	7.57	4.54
OTH_ayurveda_dot	0	14.72	8.24	.	0	0	0	14.72	8.24	.	0	0
OTH_hospital_dot	531.08	458.1	490.88	334.77	266.4	299.33	549.96	502.84	524.46	227.4	85.26	146.74
OTH_mobilecl_dot	16.23	4.56	10.18	0	0	0	18.4	4.72	11	0	0	0
OTH_private_dot	78.84	79.56	79.22	48.84	29.43	39.3	78.71	77.98	78.33	53.34	43.5	48.35
OTH_total_dot	183.94	162.44	172.05	79.45	71.36	74.95	195.91	178.05	186.11	48.15	35.84	41.15
PAID_HP_dot	311.45	339.19	326.05	253.95	381.45	328.58	335.1	327.86	331.29	190.29	404.2	313.55
PAID_PHC_dot	548.76	303.59	398.86	351.74	1310.07	936	516.2	303.21	382.96	539.71	1127.03	862.3
PAID_SHP_dot	357.51	679.34	539.26	285.43	254.53	268.6	337.13	658.24	514.99	326.71	327.65	327.24
PAID_ayurveda_dot	1493.65	524.8	951.22	.	519.4	519.4	1493.65	524.8	951.22	.	519.4	519.4
PAID_hospital_dot	3158.52	3574.42	3387.61	2895.66	3922.84	3428.11	3329.86	4222.44	3812.85	1998.15	868.54	1357.18
PAID_mobilecl_dot	518.15	392.55	453.01	429.12	542.93	504.81	489.82	398.12	440.2	606.34	486.12	546.18
PAID_private_dot	1173.25	1032.16	1098.98	833.7	541.57	690.09	1143.79	1011.38	1074.52	961.16	694.85	826.22
PAID_total_dot	1315.29	1515.1	1425.74	901.38	1088.54	1005.4	1396.28	1730.55	1579.62	670.79	505.51	576.82
UTIL_HP_ind	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
UTIL_PHC_ind	0	0	0	0	0	0	0	0	0	0	0	0
UTIL_SHP_ind	0.02	0.02	0.02	0.03	0.03	0.03	0.02	0.02	0.02	0.02	0.03	0.02
UTIL_ayurveda_ind	0	0	0	0	0	0	0	0	0	0	0	0
UTIL_hospital_ind	0.02	0.02	0.02	0.01	0.01	0.01	0.02	0.02	0.02	0.01	0.01	0.01
UTIL_mobilecl_ind	0	0	0	0	0	0	0	0	0	0	0	0
UTIL_private_ind	0.09	0.09	0.09	0.09	0.07	0.08	0.09	0.09	0.09	0.09	0.08	0.08
UTIL_total_ind	0.06	0.06	0.06	0.05	0.05	0.05	0.06	0.06	0.06	0.05	0.05	0.05
UTIL_vaccine_dot	4.99	4.99	4.99	3.57	3.47	3.52	5.1	5.08	5.09	3.48	3.45	3.46

Table 14: Average values (all variables) and total number of service users (utilisation variables), by gender and belt

belt	Mountain	Mountain	Mountain	Hill	Hill	Hill	Terai	Terai	Terai
gender	Male	Female	All	Male	Female	All	Male	Female	All
FEE_HP_dot	0	6.53	3.68	10.78	14.89	13.1	44.94	12.78	28.73
FEE_PHC_dot	2.26	39.71	23.09	77.94	188.26	149.73	66.01	52.89	58.75
FEE_SHP_dot	154.08	17.93	79.74	2.79	135.62	78.38	46.62	59.24	53.46
FEE_ayurveda_dot	.	.	.	0	0	0	75.5	28.64	47.63
FEE_hospital_dot	1345.67	517.11	915.77	757.43	2495.93	1677	786.34	494.57	622.19
FEE_mobilecl_dot	.	.	.	164.69	1.96	82.17	60.77	46.62	53.09
FEE_private_dot	1018.13	204.69	634.27	162.88	209.91	187.56	188.17	149.95	168.36
FEE_total_dot	554.65	185.6	355.33	207.68	634.92	448.73	314.33	216.72	261.25
GRS_HP_ind	10.22	11.7	11	5.53	6.15	5.87	2.6	2.25	2.41
GRS_PHC_ind	3.57	3.36	3.46	3.61	4.57	4.13	3.53	3.71	3.63
GRS_ayurveda_ind	.	.	.	1.08	1.54	1.33	0.61	0.74	0.68
GRS_hospital_ind	22.46	29.02	25.92	29.57	28.32	28.89	16.99	18.29	17.68
GRS_mobilecl_ind	.	.	.	1.64	1.36	1.49	0.68	0.66	0.67
GRS_total_ind	61.19	73.73	67.81	63.5	65.39	64.52	41.64	43.14	42.44
GRS_vaccine_dot	31	21.4	26.82	35.86	28.74	32.29	9.69	10.86	10.26
ILL_chronic_ind	0.09	0.13	0.11	0.1	0.13	0.12	0.1	0.13	0.12
ILL_disease_ind	0.18	0.18	0.18	0.18	0.18	0.18	0.22	0.22	0.22
ILL_nutrition_dot	0.07	0.04	0.06	0.04	0.04	0.04	0.04	0.03	0.04
INC_monthly_hh	2233.26	2317.47	2277.71	3341.97	3216.96	3274.29	2683.71	2652.38	2666.97
MED_HP_dot	185.61	172.05	177.97	247.83	339.45	299.5	296.33	346.25	321.49
MED_PHC_dot	195.2	221.2	209.65	360.76	141.02	217.77	679.85	506.89	584.16
MED_SHP_dot	709.01	716.95	713.35	214.12	427.47	335.53	302.61	332.47	318.8
MED_ayurveda_dot	.	.	.	6371.07	371.65	2276.69	544.06	520	529.75
MED_hospital_dot	799.21	2898.41	1888.38	1668.07	2500.07	2108.15	2073.19	1441.72	1717.94
MED_mobilecl_dot	.	.	.	197.5	348.31	2.74E+02	480.65	378.7	4.25E+02
MED_private_dot	505.48	739.53	615.93	635.53	660.93	648.86	919.47	702.26	806.88
MED_total_dot	622.52	1317.71	997.97	6.25E+02	8.39E+02	7.46E+02	974.88	781.88	8.70E+02
NBR_HP_Users	8.31E+03	1.07E+04	1.90E+04	7.14E+04	9.23E+04	1.60E+05	6.33E+04	6.43E+04	1.30E+05
NBR_PHC_Users	4531.58	5676.83	10208.41	2.06E+04	3.84E+04	5.90E+04	1.37E+04	1.69E+04	3.06E+04
NBR_SHP_Users	22610.26	27192.53	4.98E+04	1.30E+05	1.70E+05	3.00E+05	7.48E+04	8.85E+04	1.60E+05
NBR_Total_Group_Pop	9.40E+05	1.10E+06	2.00E+06	5.70E+06	6.80E+06	1.20E+07	6.40E+06	7.30E+06	1.40E+07
NBR_Total_Private_Users	46370.96	41435.96	87806.92	3.90E+05	4.30E+05	8.20E+05	7.60E+05	8.10E+05	1.60E+06
NBR_Total_Public_Users	55892.98	65632.88	1.20E+05	3.10E+05	4.00E+05	7.10E+05	2.80E+05	3.40E+05	6.20E+05
NBR_ayurveda_Users	0	0	0	1058.35	2274.65	3333.01	5905.68	8669.1	14574.78
NBR_hosptial_Users	20441.08	22042.81	42483.9	79658.21	89447.8	1.70E+05	1.00E+05	1.30E+05	2.30E+05
NBR_mobilecl_Users	0	0	0	8271.7	8508.92	16780.62	24652.64	29237.02	53889.66
NET_HP_ind	10.22	11.63	10.96	5.4	5.94	5.69	2.15	2.14	2.15
NET_PHC_ind	3.55	3.14	3.34	3.33	3.49	3.42	3.39	3.59	3.5
NET_SHP_ind	21.25	29.19	25.44	22.51	20.72	21.54	16.94	17.06	17
NET_ayurveda_ind	.	.	.	1.08	1.54	1.33	0.52	0.69	0.61
NET_hospital_ind	-6.72	18.21	6.44	19.03	-4.75	6.16	4.46	9.45	7.13
NET_mobilecl_ind	.	.	.	1.38	1.36	1.37	0.4	0.44	0.42
NET_total_ind	28.31	62.17	46.18	52.23	27.62	38.91	27.68	33.14	30.6
NET_vaccine_dot	31	21.4	26.82	35.86	28.74	32.29	9.69	10.86	10.26
OTH_HP_dot	0	0	0	0	7.26	4.09	20.3	1.34	10.74
OTH_PHC_dot	0	0	0	1.6	72.52	47.75	5.33	37.18	22.95
OTH_SHP_dot	0	20.51	11.2	3.45	17.45	11.42	20.51	26.21	23.6
OTH_ayurveda_dot	.	.	.	0	0	0	0	15.05	8.95
OTH_hospital_dot	390.13	275.08	330.44	644.21	834.64	744.93	404.57	177.72	276.95
OTH_mobilecl_dot	.	.	.	13.48	17.55	15.55	15.51	0	7.09
OTH_private_dot	80.56	51.87	67.02	66.48	116.51	92.74	74.17	45.11	59.1
OTH_total_dot	142.68	100.88	120.11	167.31	202.25	187.02	156.63	78.13	113.94
PAID_HP_dot	185.61	178.58	181.65	258.61	361.6	316.69	361.57	360.37	360.96
PAID_PHC_dot	197.46	260.91	232.74	440.3	401.8	415.25	751.19	596.96	665.87
PAID_SHP_dot	863.08	755.4	804.29	220.36	580.54	425.33	369.74	417.93	395.87
PAID_ayurveda_dot	.	.	.	6371.07	371.65	2276.69	619.56	563.69	586.33
PAID_hospital_dot	2535.01	3690.6	3134.59	3069.7	5830.63	4530.08	3264.11	2114.01	2617.08
PAID_mobilecl_dot	.	.	.	375.67	367.82	371.69	556.92	425.31	485.52
PAID_private_dot	1604.17	996.09	1317.22	864.89	987.35	929.15	1181.8	897.31	1034.34
PAID_total_dot	1319.85	1604.2	1473.42	1000.46	1676.59	1381.94	1445.85	1076.72	1245.12
UTIL_HP_ind	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
UTIL_PHC_ind	0.01	0.01	0.01	0	0	0	0	0	0
UTIL_SHP_ind	0.03	0.03	0.03	0.03	0.03	0.03	0.01	0.01	0.01
UTIL_ayurveda_ind	0	0	0	0	0	0	0	0	0
UTIL_hospital_ind	0.02	0.03	0.02	0.02	0.02	0.02	0.02	0.02	0.02
UTIL_mobilecl_ind	0	0	0	0	0	0	0	0	0
UTIL_private_ind	0.05	0.04	0.04	0.07	0.06	0.07	0.12	0.11	0.11
UTIL_total_ind	0.07	0.07	0.07	0.06	0.06	0.06	0.05	0.05	0.05
UTIL_vaccine_dot	4.52	3.31	3.99	4.86	4.38	4.62	4.2	4.65	4.42

Table 15: Average values (all variables) and total number of service users (utilisation variables), by caste

caste	Other	Dalit	Disadvantaged Janajatis	Disadvantaged non-dalit terai	Religious minorities	Relatively advantaged Janajatis	Upper caste groups
gender	All	All	All	All	All	All	All
FEE_HP_dot	0	45.28	6.78	11.14	4.14	24.54	16.72
FEE_PHC_dot	.	0	11.23	101.19	3.17	752.82	21.78
FEE_SHP_dot	82.19	48.26	23.59	21.65	18.39	15.28	140.62
FEE_ayurveda_dot	.	.	44.83	98.2	0	0	0
FEE_hospital_dot	1374.95	498.33	3419.02	495.36	167.63	865.85	566.49
FEE_mobilecl_dot	.	87.39	35.49	49.9	107.31	.	93.3
FEE_private_dot	165.06	130.59	222.95	133.62	184.23	380.81	197.92
FEE_total_dot	824.65	181.87	815.3	145.39	82.47	483.52	247.2
GRS_HP_ind	0.94	7.68	3.19	3.15	2.78	3.83	5.61
GRS_PHC_ind	0	2.21	3.62	4.55	1.47	6.64	4.13
GRS_ayurveda_ind	0	0	1.14	1.28	1.68	1.13	0.86
GRS_hospital_ind	16.34	26.45	19.8	11.63	20.81	26.86	29.97
GRS_mobilecl_ind	0	0.63	1.72	0.84	0.64	0	1.21
GRS_total_ind	28.88	70.63	49.09	42.14	37.49	48.52	61.49
GRS_vaccine_dot	5.33	23.34	24.78	11.3	13.08	33.07	22.13
ILL_chronic_ind	0.11	0.11	0.1	0.1	0.09	0.14	0.14
ILL_disease_ind	0.2	0.23	0.19	0.23	0.2	0.19	0.19
ILL_nutrition_dot	0.03	0.06	0.04	0.05	0.04	0.01	0.03
INC_monthly_hh	2202.57	1942.27	2552.49	2339.72	2414.1	4983.09	3457.5
MED_HP_dot	0	295.65	251.58	353.69	394.76	422.28	288.23
MED_PHC_dot	.	277.83	434.77	622.34	354.24	126.54	246.26
MED_SHP_dot	547.91	307.77	191.6	365.34	305.61	429.9	519.97
MED_ayurveda_dot	.	.	902.59	506.79	253.06	581.87	6052.53
MED_hospital_dot	6586.29	1320.83	3053.84	1117.53	1306.9	3159.37	1495.14
MED_mobilecl_dot	.	741.87	289.49	373.68	721.9	.	2.98E+02
MED_private_dot	497.29	670.98	628.34	983.68	870.81	602.3	733.04
MED_total_dot	3994.11	6.23E+02	9.09E+02	568.95	777.14	1559.79	7.83E+02
NBR_HP_Users	1.35E+03	5.61E+04	7.26E+04	3.76E+04	1.07E+04	2.25E+04	1.10E+05
NBR_PHC_Users	0	1.25E+04	2.02E+04	1.35E+04	3.04E+03	1.12E+04	3.93E+04
NBR_SHP_Users	2884.9	1.10E+05	1.30E+05	6.73E+04	8825.1	12651.88	1.80E+05
NBR_Total_Group_Pop	3.50E+05	3.70E+06	7.50E+06	4.20E+06	1.20E+06	2.20E+06	8.90E+06
NBR_Total_Private_Users	49697.77	3.70E+05	5.30E+05	5.10E+05	1.50E+05	1.70E+05	6.80E+05
NBR_Total_Public_Users	10139.11	2.70E+05	3.30E+05	1.90E+05	56617.89	82043.39	5.20E+05
NBR_ayurveda_Users	0	0	5356.29	4624.08	6459.31	436.73	1031.4
NBR_hosptial_Users	5908.65	81015.95	76742	45802.29	24679.87	35242.59	1.80E+05
NBR_mobilecl_Users	0	8976.63	26094.03	19200.85	2945.9	0	13452.87
NET_HP_ind	0.94	6.99	3.13	3.05	2.74	3.58	5.41
NET_PHC_ind	0	2.21	3.59	4.23	1.47	2.9	4.03
NET_SHP_ind	10.91	32.33	19.83	20.76	10.54	10.15	17.51
NET_ayurveda_ind	0	0	1.09	1.14	1.68	1.13	0.86
NET_hospital_ind	-7.17	15.63	-14.99	6.26	17.48	13.27	18.79
NET_mobilecl_ind	0	0.38	1.58	0.56	0.31	0	1.02
NET_total_ind	4.69	57.48	13.64	35.67	33.73	30.85	46.97
NET_vaccine_dot	5.33	23.34	24.78	11.3	13.08	33.07	22.13
OTH_HP_dot	0	19.87	0.58	0	0	14.94	4.99
OTH_PHC_dot	.	0	8.15	2.68	0	241.04	15.91
OTH_SHP_dot	0	13.09	7.87	12.83	0	3.42	24.4
OTH_ayurveda_dot	.	.	24.35	0	0	0	0
OTH_hospital_dot	30.74	275.3	843.23	161.8	110.49	292.36	553.06
OTH_mobilecl_dot	.	0	1.99	0	32.19	.	36.89
OTH_private_dot	49.5	67.21	88.96	54.6	50.1	50.9	80.99
OTH_total_dot	17.91	92.21	201.64	44.19	49.84	163.03	197.45
PAID_HP_dot	0	360.8	258.94	364.83	398.9	461.76	309.95
PAID_PHC_dot	.	277.83	454.15	726.21	357.41	1120.4	283.95
PAID_SHP_dot	630.09	369.12	223.05	399.82	324	448.59	684.99
PAID_ayurveda_dot	.	.	971.77	604.99	253.06	581.87	6052.53
PAID_hospital_dot	7991.98	2094.47	7316.09	1774.69	1585.02	4317.59	2614.69
PAID_mobilecl_dot	.	829.26	326.96	423.58	861.4	.	427.8
PAID_private_dot	711.85	868.78	940.26	1171.89	1105.14	1034.01	1011.95
PAID_total_dot	4836.67	896.63	1926.31	758.53	909.45	2206.35	1228.06
UTIL_HP_ind	0	0.02	0.01	0.01	0.01	0.01	0.01
UTIL_PHC_ind	0	0	0	0	0	0.01	0
UTIL_SHP_ind	0.01	0.04	0.02	0.02	0.01	0.01	0.02
UTIL_ayurveda_ind	0	0	0	0	0	0	0
UTIL_hospital_ind	0.02	0.02	0.01	0.01	0.02	0.02	0.02
UTIL_mobilecl_ind	0	0	0	0	0	0	0
UTIL_private_ind	0.14	0.1	0.07	0.12	0.12	0.08	0.08
UTIL_total_ind	0.03	0.08	0.05	0.05	0.05	0.04	0.06
UTIL_vaccine_dot	4.45	3.77	5.02	3.95	3.65	5.81	4.66

Table 16: Average values (all variables) and total number of service users (utilisation variables), by region

region	Eastern	Central	Western	Mid-West	Far-West	.
gender	All	All	All	All	All	Population Total
FEE_HP_dot	6.3	47.9	5.88	12.3	12.86	18.95
FEE_PHC_dot	12.21	71.02	264.67	18.64	47.72	108.91
FEE_SHP_dot	6.7	65.4	179.98	47.99	8.65	70.58
FEE_ayurveda_dot	43.05	111	0	0	.	38.76
FEE_hospital_dot	1187.21	1302.49	939.92	386.67	902.66	1051.43
FEE_mobilecl_dot	56.69	81.53	181.37	10.64	0	60
FEE_private_dot	195.98	251.17	158.25	107.9	50.96	191.21
FEE_total_dot	349.66	523.27	392.16	104.65	330.82	360.75
GRS_HP_ind	3.98	3.05	4.89	7.71	6.74	4.55
GRS_PHC_ind	3.81	3.49	3.83	4.59	4.2	3.84
GRS_ayurveda_ind	0.5	0.89	1.77	0.91	.	0.96
GRS_hospital_ind	26.56	25.78	23.2	13.09	18.98	23.22
GRS_mobilecl_ind	1.02	0.89	1.71	1.31	0.48	1.08
GRS_total_ind	55.93	52.53	57.69	51.34	50.79	54
GRS_vaccine_dot	10.54	10.92	68.17	9.49	10.39	20.74
ILL_chronic_ind	0.13	0.13	0.11	0.11	0.06	0.12
ILL_disease_ind	0.23	0.2	0.21	0.2	0.12	0.2
ILL_nutrition_dot	0.04	0.03	0.03	0.06	0.04	0.04
INC_monthly_hh	2610.41	3595.89	2926.43	2151.61	1970.47	2907.95
MED_HP_dot	295.98	350.27	200.36	375.57	196.58	301.09
MED_PHC_dot	434.44	304.49	325.12	170.48	982.78	329.15
MED_SHP_dot	238.57	418.2	373.51	513.99	179.76	366.87
MED_ayurveda_dot	865.41	2143.05	443.8	108.03	.	854.89
MED_hospital_dot	1547.95	2057.7	1962.97	1057.52	3401.17	1882.64
MED_mobilecl_dot	396.51	479.08	369.34	287.96	392.02	389.4
MED_private_dot	697.41	995.89	582.89	513.86	404.41	747.92
MED_total_dot	655.07	1.03E+03	8.30E+02	542.43	1373.75	820.12
NBR_HP_Users	9.49E+04	8.29E+04	5.20E+04	5.61E+04	2.43E+04	3.10E+05
NBR_PHC_Users	16988.39	2.48E+04	3.13E+04	2.27E+04	3.91E+03	99769.14
NBR_SHP_Users	1.40E+05	1.20E+05	1.20E+05	1.10E+05	28166.55	5.10E+05
NBR_Total_Group_Pop	6.60E+06	1.00E+07	5.40E+06	3.70E+06	2.50E+06	2.80E+07
NBR_Total_Private_Users	6.30E+05	9.20E+05	5.50E+05	2.50E+05	1.40E+05	2.50E+06
NBR_Total_Public_Users	3.80E+05	4.10E+05	3.10E+05	2.70E+05	89867.59	1.50E+06
NBR_ayurveda_Users	5576.55	4090.96	2459.56	5780.72	0	17907.79
NBR_hosptial_Users	1.10E+05	1.50E+05	95534.52	56308.59	32113.65	4.40E+05
NBR_mobilecl_Users	16434.82	24965.96	5718.19	22132.93	1418.37	70670.27
NET_HP_ind	3.89	2.65	4.83	7.52	6.62	4.34
NET_PHC_ind	3.78	3.32	2.29	4.47	4.12	3.45
NET_SHP_ind	20.16	17.78	19.56	23.08	20.56	19.61
NET_ayurveda_ind	0.44	0.84	1.77	0.91	.	0.92
NET_hospital_ind	6.82	6.26	6.51	7.13	7.37	6.65
NET_mobilecl_ind	0.87	0.67	1.39	1.24	0.48	0.89
NET_total_ind	35.75	31.43	35.11	43.61	38.88	35.37
NET_vaccine_dot	10.54	10.92	68.17	9.49	10.39	20.74
OTH_HP_dot	2.24	20.22	0	1.63	2.45	6.58
OTH_PHC_dot	4.29	2.78	88.96	26.06	0	35.27
OTH_SHP_dot	8.5	19.4	14.11	24.22	1.54	15.28
OTH_ayurveda_dot	23.39	0	0	0	.	7.28
OTH_hospital_dot	488.99	348.9	432.26	329.45	1198.07	460.05
OTH_mobilecl_dot	0	3.8	45.62	12.99	0	9.1
OTH_private_dot	75.01	76.78	65.26	65.97	36.79	70.49
OTH_total_dot	145.02	139.83	148.66	81.9	429.27	150.18
PAID_HP_dot	304.52	418.38	206.24	389.5	211.9	326.61
PAID_PHC_dot	450.93	378.29	678.75	215.18	1030.5	473.33
PAID_SHP_dot	253.78	503	567.6	586.2	189.95	452.73
PAID_ayurveda_dot	931.86	2254.05	443.8	108.03	.	900.94
PAID_hospital_dot	3224.15	3709.09	3335.15	1773.63	5501.91	3394.13
PAID_mobilecl_dot	453.2	564.41	596.33	311.59	392.02	458.49
PAID_private_dot	968.39	1323.84	806.4	687.73	492.16	1009.63
PAID_total_dot	1149.76	1690.75	1370.81	728.98	2133.84	1331.05
UTIL_HP_ind	0.01	0.01	0.01	0.02	0.01	0.01
UTIL_PHC_ind	0	0	0.01	0	0	0
UTIL_SHP_ind	0.02	0.01	0.02	0.04	0.01	0.02
UTIL_ayurveda_ind	0	0	0	0	0	0
UTIL_hospital_ind	0.02	0.02	0.02	0.02	0.02	0.02
UTIL_mobilecl_ind	0	0	0	0.01	0	0
UTIL_private_ind	0.1	0.09	0.1	0.07	0.05	0.09
UTIL_total_ind	0.06	0.04	0.06	0.08	0.04	0.06
UTIL_vaccine_dot	5.14	4.63	4.27	3.85	3.74	4.47

Table 17: Average values (all variables) and total number of service users (utilisation variables), by income quintile

quintile	Bottom Quintile	2nd Quintile	3rd Quintile	4th Quintile	Top Quintile
gender	All	All	All	All	All
FEE_HP_dot	8.1	12.95	27.68	5.13	63.31
FEE_PHC_dot	404.77	0.48	53.72	22.37	64.68
FEE_SHP_dot	6.46	2.07	66.87	252.95	94.82
FEE_ayurveda_dot	0	0	0	89.65	46.17
FEE_hospital_dot	1766.95	435.39	828.98	1234.83	1235.56
FEE_mobilecl_dot	23.96	14.37	46.41	142.06	72.88
FEE_private_dot	52.53	136.01	202.1	195.9	340.06
FEE_total_dot	289.08	112.23	253.23	564.82	714.69
GRS_HP_ind	5.54	5.91	5.45	3.56	2.3
GRS_PHC_ind	3	3.24	5.04	3.43	4.47
GRS_ayurveda_ind	0.16	0.11	0.34	1.16	2.37
GRS_hospital_ind	8.35	18.75	22.71	32.55	33.62
GRS_mobilecl_ind	0.4	0.86	1.08	1.87	1.08
GRS_total_ind	44.95	55.41	56.68	62.41	50.53
GRS_vaccine_dot	13.81	19.09	25.73	25.19	27.51
ILL_chronic_ind	0.08	0.09	0.12	0.14	0.15
ILL_disease_ind	0.17	0.2	0.23	0.22	0.18
ILL_nutrition_dot	0.07	0.05	0.04	0.02	0.01
INC_monthly_hh	1097.65	1609.74	2187.72	3078.71	6534.71
MED_HP_dot	287.63	261.48	270.46	340.81	466.2
MED_PHC_dot	120.85	139.01	404.76	641.12	420.32
MED_SHP_dot	239.79	262.98	365.71	585.98	663.46
MED_ayurveda_dot	51.86	1488.52	108.03	803.93	1970.42
MED_hospital_dot	2665.65	1649.33	2033.7	1478.51	2083.55
MED_mobilecl_dot	480.85	352.62	356.1	531.34	299.09
MED_private_dot	567.71	647.96	909.25	684.62	892.58
MED_total_dot	594.18	6.05E+02	7.77E+02	886.63	1408.4
NBR_HP_Users	5.94E+04	7.16E+04	9.36E+04	6.09E+04	2.47E+04
NBR_PHC_Users	19777.71	2.13E+04	2.88E+04	1.48E+04	1.50E+04
NBR_SHP_Users	1.40E+05	1.30E+05	1.20E+05	9.43E+04	34367.47
NBR_Total_Group_Pop	5.60E+06	5.60E+06	5.60E+06	5.60E+06	5.70E+06
NBR_Total_Private_Users	4.30E+05	4.60E+05	5.20E+05	5.60E+05	5.10E+05
NBR_Total_Public_Users	2.60E+05	3.20E+05	3.60E+05	3.10E+05	2.10E+05
NBR_ayurveda_Users	1406.56	678.58	5780.72	5302.35	4739.57
NBR_hosptial_Users	37244.34	79119.03	94105.42	1.20E+05	1.20E+05
NBR_mobilecl_Users	7473.16	17018.88	17815.23	13334.03	15028.98
NET_HP_ind	5.45	5.74	5	3.51	2.02
NET_PHC_ind	1.58	3.24	4.77	3.37	4.3
NET_SHP_ind	27.51	26.76	20.95	16.23	6.71
NET_ayurveda_ind	0.16	0.11	0.34	1.04	2.32
NET_hospital_ind	-3.35	12.62	8.88	6.55	8.52
NET_mobilecl_ind	0.36	0.8	0.9	1.48	0.86
NET_total_ind	31.55	49.03	40.55	31.66	24.19
NET_vaccine_dot	13.81	19.09	25.73	25.19	27.51
OTH_HP_dot	0.71	3.97	12.91	8.3	0
OTH_PHC_dot	136.13	0	4.46	7.13	39.39
OTH_SHP_dot	1.59	8.47	26.47	28.41	20.14
OTH_ayurveda_dot	0	0	0	24.6	0
OTH_hospital_dot	406.44	228.42	420.08	777.93	340.96
OTH_mobilecl_dot	0	3.06	0	7.11	33.02
OTH_private_dot	42.9	45.09	82.52	57.37	118.38
OTH_total_dot	69.39	60.99	122.59	312.22	196.35
PAID_HP_dot	296.44	278.39	311.04	354.24	529.51
PAID_PHC_dot	661.75	139.49	462.94	670.62	524.39
PAID_SHP_dot	247.84	273.53	459.05	867.34	778.43
PAID_ayurveda_dot	51.86	1488.52	108.03	918.18	2016.59
PAID_hospital_dot	4839.04	2313.14	3282.77	3491.27	3660.07
PAID_mobilecl_dot	504.81	370.05	402.51	680.51	404.99
PAID_private_dot	663.14	829.05	1193.87	937.9	1351.02
PAID_total_dot	952.65	777.85	1152.33	1763.67	2319.44
UTIL_HP_ind	0.01	0.01	0.02	0.01	0.01
UTIL_PHC_ind	0	0	0.01	0	0
UTIL_SHP_ind	0.03	0.03	0.02	0.02	0.01
UTIL_ayurveda_ind	0	0	0	0	0
UTIL_hospital_ind	0.01	0.02	0.02	0.02	0.02
UTIL_mobilecl_ind	0	0	0	0	0
UTIL_private_ind	0.08	0.08	0.09	0.1	0.09
UTIL_total_ind	0.05	0.06	0.07	0.06	0.04
UTIL_vaccine_dot	3.37	4.16	4.71	5.47	6.18