

Access to Drugs and Out of Pocket Expenditure in Primary Health Facilities

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ABSTRACT

Background: The Government of Nepal promulgated health as a human right via Interim constitution and implemented Free Health Service Program in 2008 as a commitment to universalize basic health care services. So, the aim of this study was to understand reported access to medicine and health care services received by outpatients in public primary facilities.

Methods: The study followed cross sectional study design. Two hundred and thirty-four For data 234 out patients were interviewed on the day of the field visit in March and October 2014 across 28 primary health facilities of seven purposively selected districts representing three ecological belts and five development regions of the country.

Results: Our study revealed that the average number of medicines prescribed per patient was 2.65 per case in primary public health facilities, of which 91.2% were dispensed. Around 86.6% dispensed medicines were appropriately labeled and 84% of outpatients had proper knowledge of dosage and timing of medicine use. Around 55.6% of outpatients purchased some or all prescribed medicines from nearby private facilities which were not available in public facilities. Around 40% of them travelled more than half an hour to reach the facility.

Conclusions: The gap in medicines prescribed and dispensed, Out of Pocket expenditure coupled with opportunity cost of travelling, appear as hurdles in access to basic health care services. So increasing free medicines list in public primary facilities with all round the year availability might answer major part of the problem.

Keywords: Free health care; out of pocket payment; primary facilities.

INTRODUCTION

Nepal implemented Free Health Care Program (FHCP) in 2008.¹ It was targeted to ensure right to basic health care services to all Nepalese citizens; to increase coverage and utilization of health services by poor, disadvantaged and targeted groups; to scale down morbidity and mortality by ensuring quality services; as well as to ensure prompt availability of essential health care services by realizing common citizen's health as state's prime responsibility.² The primary health care services are made universal for all across the country but how effective has this policy been is a matter of quest in the post FHCP phase. This study investigates access to medicines and health care services and Out of Pocket (OOP) expenditure endured by outpatients receiving health care from public primary facilities in the post FHCP context.

METHODS

A cross sectional study was conducted during early spring and autumn 2014 among the OPD patients in various public primary health centers across Nepal. The survey questionnaire and interview guidelines were adopted from WHO documents.³ For countrywide representation, seven districts (10% of 75 districts): Baitadi, Jumla, Arghakhanchi, Lamjung, Parsa, Ramechhap and Sunsari were purposively selected to reflect balance and diversity of both development regions and ecological belts. Then, all the Primary Health Care Center (PHCC), Health Post (HP) and Sub Health Posts (SHP) of each district were listed and four facilities (1PHCC, 1HP and 2 SHP) were selected from each of these selected districts using the stratified random sampling method. So the total number of health facilities selected for the study was 28. The survey was carried out in between February

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27 to March 27, 2014 and October 8 to 12, 2014. As per the given instruction of WHO³ the client exit interview was ascertained not to cross maximum limit of 30 patients on the day of the visit to these facilities. Our basic unit of analysis was OPD clients of the facilities. A total of 232 clients were interviewed by surveying questionnaire schedule developed by WHO³ on the day of our visit to the facilities. Data analysis of the variables was done using the descriptive (percentage, mean and standard deviations) and advance statistical method (univariate logistic regression). The data was entered and processed using SPSS version 16. Ethical permission was obtained from Ethical Review Board of Nepal Health Research Council and a written permission was obtained from concerned organizations and prior consent was also taken from individuals participating in the interview.

The access to health service variables were: number of medicines prescribed, the number of medicines dispensed, medicines labeled, knowledge of medicine use, cost of medicines, travel cost, and distance travelled to the facility. The demographic variables were age and sex.

RESULTS

The main intention of this study was to understand the coverage and availability of medicines and out of pocket expenditure for utilizing outpatient health care services in public primary facilities in selected districts of Nepal.

Characteristic	Value	95% CI
Number of cases	Out of total (n = 234)	234 (95%)
% of females	63.20%	
Average age (years)	28.5	25.6 - 31.45
Medicines prescribed per case	2.63	2.47 - 2.87
Average number of medicines dispensed per case	1.97	2.47 - 2.82
Medicines dispensed per case	91.20%	
Medicines adequately labeled	86.50%	
Knowledge to take medicines	84.20%	

Unavailability of medicines	33.3%	
Average medical cost	Rs. 27.2	12.11 - 34.16
Average travel costs	Rs. 8.7	
Total cost	Rs. 35.9 ;	19.5 - 52.3
Travelled facility within 1/2 hours	62.4 %	
Out of pocket expenditure by case	55.2%	

Table 2. Association of selected variables with OOP expenditure.

Characteristics	No OOP (%)	OOP (%)	P value
Age			0.006
Below 14 (N=75)	46.7		53.3
15 to 59 (N=125)	37.6	62.4	
60 above(N=32)	68.8		31.3
Sex			0.03
Male(N=85)	54.1	45.9	
Female (N=147)	39.5	60.5	
Medicines unavailability			0.000
No gap (N=144)	52.8	47.2	
one (N=46)	41.3	58.7	
two (N=27)	22.2	77.8	
three (N=15)	20.0	80.0	
Facility type			0.000
SHP(N=107)	14.0	86.0	
HP(N=71)	69.0	31.0	
PHCC(N=54)	74.1	25.9	
Ecological Belt			0.000
Hill Mount(N=181)	38.7	61.3	
Terai(N=51)	66.7	33.3	

Table 1 shows that the majority (63.2%) of clients were female and the average age of service recipients was 28.5 years. The average number of medicines prescribed was 2.63 and medicines dispensed were 1.97 per case per facility visit; well within the confidence interval respectively. Around 91 % of medicines prescribed were dispensed. Out of total medicines dispensed, 86.5% of medicines were found to be adequately labeled and around 84% of service recipients had proper knowledge of medicine use. The opportunity cost (here travel

cost) is around a fourth of total cost. As per this study around 62% travelled less than half an hour to reach the facility (but it does not mean same as distance to the nearest facility from home). Out of the total, 33.3% of respondents reported medicines shortage while more than half of the outpatients visiting these facilities faced OOP

In this study demographic factors, unavailability of medicines, type of facility and ecological belts were considered to test their association with OOP expenditure (Table 2).

Medicines unavailability was calculated by subtracting medicines dispensed from medicines prescribed.

The age is categorized into children, economically active and adult population. Among this age category, higher percentage (62.4%) of age group falling in 15 to 59 years encounters OOP expenditure while lesser percentage of 60 years and above population encounters OOP. The association is statistically significant. Regarding the sex, higher percentage of females seeking health care services face OOP expenditure than males, and is statistically significant.

The OOP health care expenditure is taken as the proxy of affordability of health care services. The medical costs comprised of prescription fee and the cost of medicines, while opportunity cost is the transportation cost. Around 55% of cases faced OOP expenditure. The OOP expenditure increases with increase in the unavailability of medicine. Statistically, there is a significant association between medicines gap and OOP expenditure. The OOP is higher in SHPs, followed by HP. There is an association between facility type and OOP. The study shows higher OOP in Hill-Mountain region than in Terai belt. The chi square test shows a strong statistical association between ecological belt and OOP expenditure.

DISCUSSION

The total number of qualified respondents incorporated in the study was 234, of whom majority comprised of females (63.2%).

Like in most of the studies, the common range of drugs prescribed per patient was 2 to 3. For instance a study in primary health care facilities of Kaski and tertiary care teaching hospital of Western Nepal found 2.29 and 2.53 units drugs prescribed per case respectively.^{4,5} But the average number of drugs prescribed in our study was 2.63, a little higher (Table 1). The number of prescribed

drugs does not give any idea about rationality for prescription of medicines, but only a rough idea of the availability of drugs in the facility.

As per the FHCP directives all health services and medicines from selected drugs list are supposed to be freely available in all primary health facilities across the country. Contrary to it over two thirds (64%) of surveyed outpatient clients purchased drugs from the nearby private pharmacy because of unavailability of drugs in public health facility.⁶ Similarly, a study by RTI has shown that nearly one fourth of the people rely on out of pocket expenditures for their OPD health services in the nearest facilities in Nepal and a quarter of the clients reported unavailability of drugs prescribed in the health facilities.⁷ In our study (Table 1) more than half (55.2%) OPD clients encountered OOP expenditure in comparison to WHO's (45%) OOP expenditure in public facilities of poor and low-middle income countries; and around 33% clients reported unavailability of medicines or gap in medicines prescribed and medicines dispensed from the facility.⁸ The reason for the upsurge in OOP might be attributed to the implementation of user fees in many of the facilities in recent years. Service tracking study showed that outpatients in mountain regions (23%) were more likely to have paid for health care services than outpatients in Hill (14%) and Terai (18%) districts which should have been free.⁹ On the contrary, our study shows more than 60% in Hill-Mountain and 33% in Terai paid from their pocket for health care services while visiting these facilities.

Regarding geographic accessibility, 35% of the population lived within 30 minutes travel of a health post or SHP.⁹ This study has not interrogated distance to the nearest facility from a client's house, but only asked about how much time did it took them to come up to the service receiving facility. As many OPD clients were visiting PHCC's to see MBBS physicians rather than paramedics of nearest facilities. We found more than 60% of people travelling less than half an hour to reach the facility.

Proper labeling and client's knowledge in medicines use is a proxy of efficacy. Our study's labeling (86.5%) of dispensed medicines was closer to WHO's findings on low and middle income countries.¹⁰ It was surprising that the correct knowledge in the use of medicines in Nepal was way above WHO data (50%) of correct medication.¹⁰ The findings of our study align with health facilities experiences in implementing FHCP conclusion that Nepalese facilities have better quality indicators in terms of adequate staffing and well oriented providers.¹¹

The chi square test shows significant association of OOP expenditure with medicine unavailability, facility type and region which are conducive to our general conception (Table 2). The OOP expenditure of clients increased with increase in number of unavailable medicines at the facilities. Increase in medicine unavailability would push clients visiting public facilities to purchase from private sources. Higher percentage of Mountain Hills clients depend on OOP expenditure. It was obvious that clients visiting PHCCs were likely to purchase one or other services or medicines, but on the contrary, our study shows a higher percentage of clients visiting SHPs had OOP expenditure which is also statistically significant. Out of many reasons, one of the important causes may be the unanimous trend of charging registration fee or user fees by most of the facilities in recent years.

CONCLUSIONS

The study shows that there is higher health seeking behavior among economically active female population. The gap in medicine prescription and dispensed pattern is similar to other studies, signifies unavailability of medicines in the facilities. But most of the clients were within half an hour geographic access. The knowledge gap in medicine use and improper labeling can be attributed to lack of proper counseling and time availability per patient by paramedics or lack of health human resource in the facility. Dependence of most of the clients on OOP expenditure for health care in primary facilities indicates lacunae in Nepal's Free Health Care Program. Implementation of FHCP has increased people's health seeking behavior towards modern medicines, but there is a strain on existing health infrastructures and human resource. All round availability is crucial as there is a significant association between OOP and medicine gap.

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