

Examining out of pocket payments for maternal health in rural Ethiopia: Paradox of free health care un-affordability

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Abstract

Background: One of the components of reproductive health is maternal care. Maternal health care is supposed to be provided free of charge for public health concerns thus women have the right to get services related to maternal care free of charge at government health care facilities. But there is low utilization of the services. Only 12% of women receive ANC and only 6% get assistance of skilled health worker during delivery in Ethiopia. There are different factors for the low utilization of services. Un-affordability of services is cited as the first main reason contributing to the low utilization.

Objectives: To examine the magnitude of out of pocket expenditure for maternal health series in rural Ethiopia.

Methods: This study was conducted within ten randomly selected *kebeles* of the Butajira DSS from October 2007 to May 2008 using a cross-sectional survey design and a source population of households that expend out-of-pocket on RH services during the period of 12 months prior to the study.

Results: In the study, nearly three fifth of the studied families paid out of pocket expenditures exceeding 20% of their monthly household expenditure for maternal health care seeking. Excluding expenditures for food, about 61% of them paid more than 40% of their non-food expenditure on maternal health care. Households in the lower wealth quintiles are paying greater proportion of their income (49%) than those in the highest wealth quintile who paid 19% of their income. In addition to the direct expenditures made at point of service, the indirect expenditures of reaching to the services are also found to be substantial. These indirect expenditures share 32% of ANC, 31% of obstetric care, and 44% of abortion services. Thus even if direct expenditures at point of service in public providers are assumed to be negligible, women are obliged to go to expensive private providers to reduce the indirect costs of care seeking such as waiting time. Regarding coping mechanism to respond to expenditure, households usually borrow from relatives and friends and 4.4% of the households resorted to distress sale of their assets.

Conclusions: This study identified the presence of price elasticity among the poor that suggests out-of-pocket expenditure has a regressive distributional impact and poor and very poor people were expending more. On top of this, all expenses were covered from regular income which leads to catastrophic household economic crises.

Recommendations: Health care providers should be evenly distributed, easily accessible and work on awareness creation on the advantages of early care seeking and preventive care. On the other hand, health care financing should also be based on the principle of cost sharing and move into prepayment schemes or insurance. [*Ethiop. J. Health Dev.* 2012;26 Special Issue 1:251-257]

Introduction

Maternal health is part of Reproductive Health (RH) and it refers to the health of women during pregnancy, childbirth and the postpartum period. It also includes family planning and preconception care. Preconception care can include providing education, health promotion, screening and interventions for women of reproductive age to reduce risk factors that might affect future pregnancies (1).

In 2005, there were an estimated 536,000 maternal deaths; and every day, 1,500 women die from pregnancy or childbirth-related complications worldwide. A total of 99% of all maternal deaths occur in developing countries where 85% of the population lives and more than half of these deaths occur in sub-Saharan Africa. Moreover, over 300 million women in the developing world currently suffer from short-term or long-term illness brought about by pregnancy and childbirth (1).

The Maternal Mortality Ratio (MMR) in developing countries is 450 maternal deaths per 100,000 live births much higher than in developed countries (9 maternal deaths per 100,000 live births). In case of Ethiopia, MMR is among the highest in the world with 590

maternal deaths per 100,000 live births (2). Among the reasons of this mortality, very high total fertility rate as well as high parity and short birth interval mainly due to early age (16 years) of first marriage (3). This contributes to ill health and in some instances premature death of both the mother and the child. In addition, about one in three births are unwanted, and a larger proportion is unplanned with consequences of unsafe abortions.

Factors that prevent women in developing countries from getting the health care include; unavailability and/or inaccessibility of health services, un-affordability of the services because they are too expensive or reaching them is too costly (direct fees as well as the cost of transportation, drugs, and supplies), multiple demands on the time that will be spent on health care seeking, low status of women etc. The poor quality of services, including poor treatment by health providers, also makes some women reluctant to use services. Moreover, health care and health education are limited in developing countries which limit their awareness.

Many factors make reproductive health related problems the most important threat to individual and social wellbeing. Among the factors is high fertility rate, low

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ANC follow up and low institutional delivery which lead to complications. In low- and middle-income countries, just above two thirds of women get at least one antenatal care visit, but in case of Ethiopia only 50% of them get the service (4). In developing countries about 63.1% of women receive assistance from a skilled health worker when giving birth (1). However, only 15% of births get assistance from skilled workers in cases of Ethiopia (4). The vast majority of women who give birth in Ethiopia are more at risk from delivery complications and infections leading to death or serious illness. The high prevalence (74%) of female genital mutilation is another factor contributing to female morbidity and mortality. Access to care is also another difficulty. In the 2005 DHS, women were asked the main problems that they face in accessing health care, and 76% were concerned with getting money for treatment, showing that expenditure is one of the main factors cited by the women discouraging utilization (3).

RH expenditure per woman of reproductive age is found in various ranges in developing countries. In cases Namibia it was US\$ 148 in the 2007/08. This was by far higher than what was observed in most African countries. RH expenditure constituted more than 10-12% of the total expenditure on health. Out-of-pocket payment for RH was minimal, and government is the key source of RH spending (5). However, RH expenditures in 2007/2008 in Ethiopia was about 13% (ETB 1,411,728,484) of the national health expenditure. The per capita expenditure for the relevant group, women age 15-49 years was only US\$8. The government managed the largest share (45%) of RH expenditures, the private sector managed 33% of RH resources, and the rest of the world managed 22 % of RH resources (6). Studies in other SSA countries on Out-of-pocket costs for facility-based maternity care revealed that out-of-pocket cost for normal and complicated deliveries in Kenya was on average US\$18.4, in Burkina Faso US\$ 7.9 and in US\$5.1 (7).

As it has been said, the main factor for women discouraged to utilize RH services is related to getting money for treatment, showing that expenditure is one of the main factors and particularly a concern since private expenses are paid out of pocket. Therefore, the objective of this study is to examine out of pocket expenditures related to seeking maternal health care.

Methods

Study Design

The study was conducted within the Butajira Demographic Surveillance Site (DSS), a community based DSS for School of Public Health since 1987. The DSS is located in the Meskan and Mareko District of the Southern Nations Nationalities and People's (SNNP) Region of Ethiopia. The district is located at a distance of 130 km mid-south of the capital Addis Ababa. The health coverage of the district showed that, there were 12 Health Posts, 3 Health Stations, 2 Malaria Control Centers, 2

Health Centers and 2 Hospitals. Coverage with preventive Reproductive Health services in the district was estimated at 42% for antenatal care, 89% for total deliveries, and 64% for the contraceptive acceptance rate (8).

The DSS covers a population of about 54,096 distributed within ten randomly selected *kebeles* of which one is an urban *kebele* (9), with estimated number of women under reproductive age group were 12,604 (23.3%) of the total population.

In this study, a cross-sectional survey design was employed for collecting household level data, within ten randomly selected *kebeles* and this was utilized as source population for examination of out-of-pocket expenditure on RH services on the pattern of health care utilization (preventive and curative, modern public and private as well as traditional) and expenditures during the period of 12 months prior to the study period.

Prior to conducting the actual survey, screening of all the DSS households (12,798 HHs) was done for identifying those individuals that have utilized RH related services, with the documentation of the specific types of services they utilized. Interview teams have conducted the screening 'house-to-house' with use of a short screening questionnaire for each household in DSS. After these individuals were identified (1,015 HHs), a selected number of them were revisited for administering the actual survey interviews with the details of the expenditures they made.

Sample Size Calculation

Determination of the minimum sample size was made using the assumption that 50% of the households will pay out-of-pocket for reproductive health care in rural Ethiopia. Accordingly, by using a single population proportion and a 3% of margin of error with non-response rate of 5%, a sample size of 1,120 households was calculated for the study. The number of household per each *kebele* has been obtained from ten randomly selected *kebeles* data in the DSS. Equal number of households was assumed to be selected from each *kebele* and hence 112 households per each *kebele* have been selected by simple random sampling. The inclusion criteria was household heads or responsible persons for household survey, female household members, aged 15-49 with RH service user in the last 12 months period; whereas the exclusion criteria was households not fulfilling the inclusion criteria.

Data Collection and Analysis

The study was conducted from October 2007 to May 2008. Data were collected using a structured questionnaire and interviewing members of households at household level. Primarily, screening was done on the whole households in the randomly selected *kebeles* and then a total of 1015 households (90.6% of the target sample size) were screened out and revisited by using

survey questionnaires. Information was taken from the members who faced problems related to RH on details of household members and their pattern of utilization of health services according to their wealth quintile group within 12 month prior to the survey.

The data set includes basic socio-economic characteristics of the households, the pattern of utilization of health services, total financial expenditures (direct expenditures those incurred for consultancy, laboratory tests, treatment and drug, and indirect costs include transportation and accommodation costs of the mother and the attendant) for RH services (ANC, obstetric care, abortion) throughout the period, and sources of finance for visiting health services for illness. Items related to costing the out-of-pocket during visits to health care providers (public, private as well as traditional facilities) for utilizing the preventive as well as the curative services were also included in the questionnaire administered. Information on household income/economic status was complemented with the determination of wealth ranking index that was generated from the household assets. Accordingly, a statistical procedure called principal components analysis was applied to place households on a continuous scale of relative wealth in wealth quintiles (from poorest to richest) by ranking each household by its score, and then dividing the ranking into equal categories, each comprising 20 percent. Since the selected assets, in this specific study, were including expensive materials like availability of vehicle, motor cycle, refrigerator, only four wealth quintiles (from poorest to rich) were identified.

Twenty (12 grade complete) trained enumerators, two coordinators, and the researcher participated in the actual data collection. The twenty enumerators participated in the data collection; while the rest of the DSS team facilitated the data collection process. Enumerators were properly trained on interview technique and interviews were conducted with the person who suffices the inclusion criteria.

Out of pocket expenditure is any direct outlay by households, including gratuities and in-kind payments, to health practitioners and suppliers of pharmaceuticals, therapeutic appliances, and other goods and services whose primary intent is to contribute to the restoration or enhancement of the health status of individuals or population groups. It is a part of private health expenditure.

Results

Socio-demographic Characteristics of the Study Population

The study included 1015 households from 9 rural and 1 urban *kebeles*. From these households, 1003 women fulfilling the inclusion criteria were interviewed. Nine hundred and fifty three (95%) of the women were married. The mean age of the respondent mothers was 28

years. About 642 (64%) of the women are illiterate; only 361 (26%) of them have formal education. About 832 (83%) of the women are housewives. Cultivation in own or leased land is the major economic activity of the households and 692 (69%) of them earn their living from it. Non-agricultural business is found to be the second economic activity 124 (12%), while only 28 (3%) of the households have regular government jobs.

Table 1 shows the surveyed households categorized by wealth quintile. Accordingly, most of the households fall in the four lower quintiles (from poorest to rich), and large majority are found in the two lower quintiles. There are only 0.6% of the households in the upper fourth quintile.

Table 1: **Socio-economic class using wealth index, 2007GC, Butajira DSS.**

Wealth quintile	Households		Cumulative percent
	Number	%	
Quintile 1 (Poorest)	114	11.2	11.2
Quintile 2 (Poor)	692	68.2	79.4
Quintile 3 (Middle)	203	20.0	99.4
Quintile 4 (Rich)	6	0.60	100.0
Total	1015	100	

Maternal Health Care Utilization and Expenditure

Among the women included in the survey, 768 (76.6%) reported that they were pregnant in the last 12 months prior to the survey. But only 142 (18.5%) were pregnant at the time of interview. From the 626 (81.5%) women who were pregnant during 12 months prior to the survey but not in the survey time, 587 (91.3%) of them gave live births while 5.9% faced spontaneous termination and 0.4% procured termination of pregnancy by a recognized medical institution because of continuation of the pregnancy endangers the health of the mother. The remaining (2.1%) mothers faced still birth and death of their children after birth and 3 women died due to labor.

Among the respondents, 296 (38.5%) revealed that there were costs to get antenatal care from public and private including NGO facilities. Out of these, 279 (94.3%) received ANC service from public facilities, 16 (5.4%) from private facilities and 1 (0.3%) from NGO. The major providers of maternal health services in the study area were public health institutions. Private providers' services were limited to some investigations like laboratory and ultra-sound; moreover, since services are expensive in private ones large majority of mothers utilize services from the public facilities.

As depicted in tables 2 and 3, even if it is assumed that maternal health services are free of charge; mothers are paying for the services like ANC for consultancy, laboratory tests, treatment and drugs; whether it is public or private facility. The median out of pocket expenditures for antenatal care is found to be USD 7.30 in both public and private facilities.

Table 2: Out of pocket expenditures in USD for ANC, obstetric care and abortion services at different public health facilities, 2007GC, Butajira DSS.

Items	ANC		Obstetric Care (in-case of complications)		Abortion	
	Median*	Range*	Median*	Range*	Median*	Range*
Consultancy	0.54	0.11-1.09	0.54	0.22-1.09	0.54	0.54-0.54
Laboratory tests	1.09	0.22-10.89	1.09	0.16-12.53	-	-
Treatment	2.94	0.16-43.57	2.18	0.54-32.68	2.66	0.65-3.92
Drug	3.49	0.49-32.68	3.27	0.65-108.93	5.23	2.61-9.80
Total direct expenditure	7.30	0.16-76.25	7.41	2.51-141.61	10.89	4.68-15.36
Travel	1.31	0.11-34.86	1.31	0.11-4.36	2.61	0.44-4.36
Accommodation	1.25	0.22-65.36	1.63	0.14-21.79	3.27	0.44-32.68
Other	5.45	1.31-21.79	1.09	0.54-21.79	1.47	0.54-3.27
Total indirect expenditure	2.40	0.11-111.11	16.34	0.11-72.33	6.10	0.87-33.55
Grand Total	10.73	0.16-166.67	24.78	5.66-208.71	16.12	6.86-44.99

*Currency in USD: 1USD is equivalent to ETB 9.18

Table 3: Out of Pocket expenditure in USD for ANC, obstetric care and abortion services at different private health facilities, 2007GC, Butajira DSS.

Items	ANC		Obstetric Care (in-case of complications)		Abortion	
	Median*	Range*	Median*	Range*	Median*	Range*
Consultancy	0.82	0.33-1.09	1.09	0.54-2.18	0.54	0.54-0.54
Laboratory tests	1.31	0.11-6.54	3.81	0.44-16.34	-	-
Treatment	2.51	0.54-16.34	5.45	0.33-32.68	5.31	2.18-8.71
Drug	4.19	0.22-21.79	4.63	0.22-27.23	5.04	3.27-10.89
Total direct cost	7.30	2.18-30.72	12.20	3.49-56.36	8.71	6.54-32.68
Travel	1.63	0.22-10.89	3.27	0.44-26.14	1.31	0.44-1.31
Accommodation	2.18	1.09-4.36	4.36	0.65-32.68	1.91	1.09-2.72
Other	7.08	0.33-16.34	9.80	2.18-16.34	1.09	1.09-1.09
Total indirect cost	2.51	0.22-18.52	13.07	1.96-124.18	1.31	0.44-3.49
Grand Total	9.91	2.83-40.31	22.33	5.45-163.40	10.73	7.63-32.68

*Currency in USD: 1USD is equivalent to ETB 9.18

Direct expenditures related to delivery were found to be nil. Delivery service in the study area was solely provided by public facility and it was free of charge as 99.6% of them revealed there were no direct costs related to delivery. But if the women face complications during delivery they were expected to pay for procedures, investigations and drugs related to obstetric care. Among the women who gave birth prior to the survey 300 (39%) of them faced complications and received obstetric care. Among the women who faced complications, 89 (29.7%) of them paid out of pocket to get medication.

The total expenditures for obstetric care range from USD 0.27 to USD 186.93; costs being higher in private health facilities. Drug costs took the lion's share of expenditure, 77 (81.9%) of them paid for drugs. Drug costs range from USD 0.22 to USD 108.93. The median drug expenditure in public and private providers was USD 3.27 and USD 4.63 respectively. In contrast to the drug costs which were more or less the same across providers, treatment costs are found to be relatively higher in private providers than the public ones. A limited number of women 21(3.35%) used abortion services. The median direct expenditures in public and private are USD 10.89 and USD 8.71 respectively.

In addition to the direct payments made at the point of services, there are indirect costs incurred by the clients. These costs are also substantial particularly if there are more follow ups and long waiting times. On average, the

indirect costs share about 32% of the total expenditure on ANC, 31.2% for obstetric care, 43.7% for abortion services.

Out of the 768 women, 145 (18.9%) of them are accustomed to using family planning services. Oral pills and injectibles are the common methods used. One hundred and five (72.4%) of them used injectibles while the remaining used oral pills. Almost all of the respondents revealed that there are no direct payments to get family planning services. All the costs are exempted at public health care providers and thus about 141 (97%) of women seek such services from public facilities. However, these indirect costs are involved to get the services.

Those who sought care from private providers revealed that they have paid for consultation, treatment, and drug costs and these costs range from USD 0.22 to USD 19.93. Moreover, there are also indirect costs related to getting family planning services from private providers.

Regarding affordability, there is large variation in monthly maternal health expenditures and total household expenditures among those in the lower and upper wealth quintiles (table 4). Households from lower wealth quintile are paying relatively significant proportion of their monthly income than those found in the higher quintiles.

Table 4: Average monthly total and maternal health expenditures across wealth quintiles at different health public and private health facilities, 2007GC, Butajira DSS.

Wealth quintile	Total monthly expenditure	Maternal health expenditure
	Median*	Median*
Quintile 1 (Poorest)	26.80	19.06
Quintile 2 (Poor)	32.68	23.97
Quintile 3 (Middle)	41.76	31.81
Quintile 4 (Rich)	69.28	55.88
Total	33.77	7.63

*Currency in USD: 1USD is equivalent to ETB 9.18

As shown in table 4, the median monthly household expenditure for the first quintile is USD 26.80 while households in the fourth quintile spend two and half times more than those in the first quintile. Similarly, the median maternal out of pocket payments across the wealth quintiles has an increasing pattern as the wealth quintile increase. Thus, in absolute terms the fourth quintile spends more on maternal health but the proportion of their monthly income going to maternal health is lower for those in the higher income quintile compared to the percentage of expenditure for those in the higher quintile.

As indicated in the table 5, the percentage share of maternal health care expenditure from the total monthly expenditure decrease as the wealth index increases. Women from the two lower quintiles on average paid 49% of their expenditure for maternal care while those in the third and fourth quintile paid 38% and 19% of their expenditures respectively. This indicates that those in the lower quintile are disadvantaged by paying greater proportion of their expenditure for maternal care compared to the better off households.

Table 5: Percentage of maternal health expenditure from the total consumption expenditure, 2007GC, Butajira DSS.

Wealth quintiles	Percentage of maternal health expenditure
Quintile 1 (Poorest)	49
Quintile 2 (Poor)	49
Quintile 3 (Middle)	38
Quintile 4 (Rich)	19
Overall	24.7

Maternal health expenditure as percentage of total consumption expenditure is calculated excluding post delivery dietary supplements and home care because these expenditures account for quite large proportion of total expenditure. Post delivery dietary supplements on average accounted for 73 percent of the total expenditure on maternal health care. Still maternal expenditures constitute substantial proportion of consumption expenditure and this is due to the fact that households do not solely depend on their regular monthly income to pay unexpected health care costs. To finance the costs, they usually borrow from relatives, neighbors, or from local money lenders. In case the expenditure is so large that they could not finance by these means, they will resort to sell their assets. This is the reason for the percentage of maternal health expenditure as percentage of consumption expenditure became quite large.

As shown in table 6, about 89 (40%) of the women got maternal health services free of charge. For those who paid, the main source of finance was regular income since their economic status is so low they do not have savings. The second main source of finance in the first and second quintile is borrowing from relatives and friends while for the third quintile the second source is own saving. Borrowing from money lenders is the last resort since the households have no capacity to pay the high interest rate. Rather than borrowing from the money lenders they prefer to sell articles. They do not solely depend on one source of finance rather they use multiple of sources.

Table 6: Main source of finance for maternal health services, 2007GC, Butajira DSS.

Source of finance	Number of Women in each Wealth Quintile				Total
	Quintile 1 (Poorest) (n=26)	Quintile 2 (Poor) (n=139)	Quintile 3 (Middle) (n=56)	Quintile 4 (Rich) (n=4)	
Out of regular Income	5 (19.2%)	47 (33.8%)	14 (25%)	2 (50%)	68
Own savings	3 (11.5%)	13 (9.4%)	9 (16.1%)	-	25
Borrowings from relatives & friends	6 (23%)	18 (12.9%)	3 (5.4%)	-	27
Borrowings from money lenders	1 (3.8%)	5 (3.6%)	-	-	6
Distress sale of articles	-	4 (2.9%)	5 (8.9%)	1 (25%)	10
Waiver	11 (42.3%)	52 (37.4%)	25 (44.6%)	1 (25%)	89

Nearly three fifth of the studied families paid out of pocket expenditures exceeding 20% of their monthly household expenditure for maternal health care seeking. Excluding expenditures for food, about 61.3% of them paid more than 40% of their non-food expenditure on maternal health care. This implies that approximately three of every five families face financial burden due to maternal health care seeking.

Discussion

The study was intended to see the financial burden of out of pocket expenditures for maternal health care among respondents with significant level of poverty (about 79.4% being in the lowest two wealth quintiles).

Utilization of maternal and family planning services was shown to be low among the respondent households. As a result, significant numbers of women face complications during pregnancy and delivery. Maternal health services are thought to be provided free of charge in public health facilities (10) but 38.5% of the respondent mothers reported that they have made expenditures to get the services whether it is public or private. In addition, there are indirect costs of care seeking maternal health even if out of pocket expenditures at point of service are assumed to be negligible; such as travel, accommodation, time, etc. Thus, unless indirect costs of care seeking are included in the analysis of burden of maternal health expenditures of households, the consequences of the payments will be underestimated. In this study, some of the indirect costs of care seeking are included such as transportation and accommodation. But the opportunity cost of time is not included. The opportunity cost of care seeking to the patient or the attendant will be significant since the economic activity is mainly agriculture which needs the labor of the individuals intensively. Thus, the burden of health care seeking in this study is a little bit underestimated. Thus, these costs are among the factors that found to discourage utilization.

Out of pocket payments are the common way of paying for health in developing countries. These payments have differential impact with respect to health outcomes, health service utilization, and financial burden based on socio-economic status of the population. Usually out of pocket expenditures result in financial difficulties by households. Expenditure for medical care becomes financially catastrophic when it endangers the family's ability to maintain its customary standard of living. Thus, it is determined by the level of income. If the proportion of the expenditure is low compared to the income it will not be catastrophic. Moreover the part or all of the costs are borne by other body such as insurance it will not be catastrophic. But in this study, most of the expenditures are paid out of pocket and the households are found the poorest quintile. On the other hand, in the absence of financial protection for the poor, small costs are financially disastrous for poor households because it will take large proportion of their income.

It is expected that expenditures will be higher in case of private facilities but in collective amount for some services such as treatment for obstetric care and related procedures, higher in public than private facilities. This is due to public facilities are providing a comprehensive obstetric service. Therefore, the additional services given at public providers will need additional direct payments. Moreover, the subsequent visits increase the number of services provision since the procedures need more time and this by itself increases both the direct and indirect expenditures made at the facilities.

Based on the belief that the basic spending unit is the family and not the individual (since the welfare of each individual within the family is interdependent), expenditures per family rather than per capita are the appropriate units of analysis and of policy (11). Two fifth of the households are found paying 20% and more of their monthly family income and 61.3% of their non food income. Thus the costs are found to be unbearable for the households. A similar study in Bangladesh revealed that the economic burden of apparently free hospital maternity care is significant and likely to deter utilization by majority of the mothers (12).

Conclusion

The distribution of out-of-pocket payments across the wealth quintiles shows that households having better socioeconomic status pay more than their counterparts in absolute terms. However, the proportion of out-of-pocket expenditure from their total consumption expenditure is higher for the worse-off implying out-of-pocket expenditures are regressive. Thus, the poor are the most vulnerable as they are less able to recover from the financial consequences of out-of-pocket payments and the loss of income associated with ill health. The healthcare costs deepen the socio-economic status of the population so that those having higher status will not be affected while those having poor status will be further pushed to poverty as a result of out of pocket payments.

Unavailability of prepayment or insurance scheme and inaccessibility of healthcare providers are the major problems behind the catastrophic expenditures. If there were insurance scheme, it would have helped the population to spread financial burden across time. Similarly were the health service providers easily accessible, it would have reduced travel and related expenditures. Especially when there are emergencies due to labor or complications of pregnancy or other problems, accessing the health care services is very difficult and the households are expected to spend even higher (13).

Expensiveness of the service is the one of problem for not getting medical care at health facility (14). Meanwhile, quality of care from the patient's perspective has a significant association with the payment status (15). Therefore, there is a need to be improvement on the health care service responsiveness to the clients with regard to payment.

Therefore, significant proportion of out-of-pocket payments for maternal health services remains a paradox for provision of health services at low/no cost and leads to low utilization of maternal health services due to unaffordability.

Recommendations

The financing system of health care should be based on the principle of cost sharing so that there will be resource pooling among the poor and the rich. The financing mechanism should also move into prepayment schemes or insurance to protect the poor from unanticipated health care costs. At the same time, it protects the health care providers from resource constraints. Besides, fee waiver system should be strengthened for enhanced equity of access to health service.

The health care providers should increase awareness among the population about the advantages of early care seeking and the advantages of preventive care such as ANC and PNC and the advantage of institutional delivery to reduce maternal health complications.

Geographical distribution of health care providers should also be even and easily accessible to the poor to reduce the travel and waiting time of care seeking and the transportation expense.

The government should work with the private sector to increase the availability of health services and health care resources including the human resource through private wing and out-sourcing.

It is good to do further study on the issue and analysis on both demand and supplier side.

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