

Out of pocket spending by the sick segments of the community in a publically funded tertiary care hospital in Peshawar, Pakistan

Muhammad Tariq Mehr, Mushtaq Ahmad, Noor Ul Iman

Departments of Medicine, Hayatabad Medical Complex and Khyber Teaching Hospital, Peshawar Pakistan

Objective: To assess the Out of pocket spending (OOPS) by the sick patients admitted in publically funded tertiary care hospital in Peshawar, Pakistan.

Methodology: This descriptive study using consecutive non probability sampling technique was conducted in Khyber Teaching Hospital, Peshawar, Pakistan from January 2015 and June 2015. All admitted patients between 18 to 70 years of age, through outpatients, casualty or private consulting clinics expected to stay in hospital for more than three days were included. The cost incurred on inpatient care was divided in to "Direct Cost" which was the amount spent by the patient, the "Indirect Cost" that was spent by the

attendants and the "Hospital Cost" that was the cost of treatment provided by hospital.

Results: A total of 120 patients were included of which, 80 were males and 40 were females. During the five days of stay in the hospital, the Direct Cost was 78%, Indirect Cost was 5% and the Hospital Cost was 17%. The total OOPS was average 83% by all the admitted patients.

Conclusion: The present tertiary health care system needs to revamped and modified with an aim that the poor and most vulnerable segments of the society are protected in the form of reduced OOPS. (Rawal Med J 201;41:104-107).

Key words: Out of pocket spending, public health facilities, tertiary health care.

INTRODUCTION

Health is an intrinsic human right as well as a central input to poverty reduction and socioeconomic development. To save millions of lives in most developing countries like Pakistan with a total population exceeding 20 million, an ever increasing investment in health is needed.¹ A total of 66% of the Pakistanis live in rural part of the country, the ever increasing poverty coupled with illiteracy and inadequately organized healthcare compound the already slowed health indicators in the country.² Over the last 10 years, the government of Pakistan has been spending 5.1 to 11.6% of its development expenditure on health from the allocated 0.6 to 1.19% of its GDP. A major chunk of 45% of this meager budget for the huge health care burden is allocated for the tertiary care hospitals catering for curative needs.³ The private health care sector has complemented health service delivery functions with positive outcomes and equitable access.⁴ There is one common message from almost all previous research all the governments, both developed and developing

across the globe cannot afford to provide complete free health care to all the segments of the society.⁵ Publically funded health care facilities are universally unable to provide a full range of free services or provide free medicines leading to much criticized user charges to cope with the demands despite the efforts of many countries in trying to abolish them.⁶ The average annual income in Pakistan is around US\$ 430. The health budget is less than 1% of the GDP while 35% of the population lives below the poverty line.^{2,3} Only a small segment of society is privileged enough to afford the costliest treatment. There are limited facilities for insurance. On their total income, many families cannot afford the cost of care, and government hospitals cater to large segments of the poor but fail to provide appropriate medicines completely free of charge leading to Out of pocket spending (OOPS). There is a general increase in health care costs and OOPS for health care is becoming increasingly important in a starved economies and the inhabitant population. To cope with the increased OOPS, there is a pressure

on the primary health care provider to refer the diseased to a lowest level of provider who can address their immediate needs and to treat them in the least restrictive, most cost-sensitive environment. This pressure stays on the attending health care provider and the facility leading to uncoupling of admission and premature discharge criteria in an attempt to limit costs, placing patients and clinicians at significant risk. In this study, we wanted to quantify the amount of OOPS by all the admitted patients in a leading teaching hospital of the province.

METHODOLOGY

This descriptive study was conducted in Khyber Teaching Hospital, Peshawar, Pakistan between January and June 2015. The study was approved by the hospital ethical review committee and strict confidentiality of all the participants was ensured. The sampling technique was consecutive non-probability. All admitted patients of either gender between 18 to 70 years of age, admitted through outpatients, casualty or private consulting clinics expected to stay in hospital for more than three days were included in the study.

A simple questionnaire was devised to be filled in daily by all the participating patients, their accompanying attendants brought by the patients for the care and the house staff doctor involved in direct care of the patient. The cost incurred on inpatient care was divided in three parts. The "Direct Cost" was the amount spent by the patient for the purchase of medicines, investigations, transportation and meals. The "Indirect Cost" questionnaire was to be filled in by the attendants with the patient mentioning the amount spent on boarding and lodging and transport, if any. The "Hospital Cost" questionnaire was filled in by the attending house doctor mentioning the cost of the provided medicines, transportation in an ambulance, if any and the investigations done free of cost by the hospital. The OOPS was calculated by adding the direct and the Indirect cost estimate. The data were analyzed using SPSS version 20.

RESULTS

A total of 120 patients were included in the study of which, 80 were males and 40 were females. The OOPS by the patients is shown in Fig. 1 and 2.

Fig. 1. Out Of Pocket (Direct & Indirect) spending versus hospital spending.

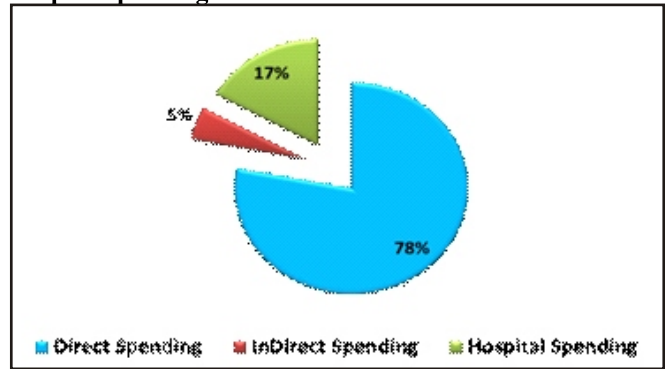
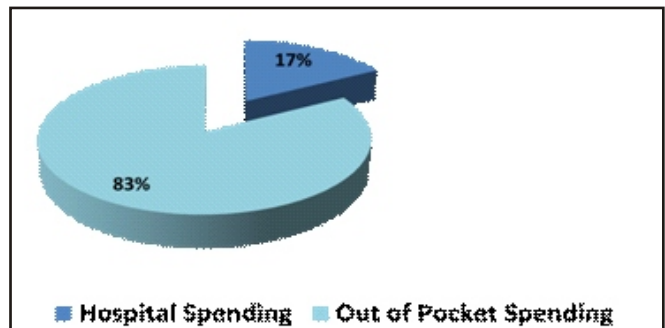
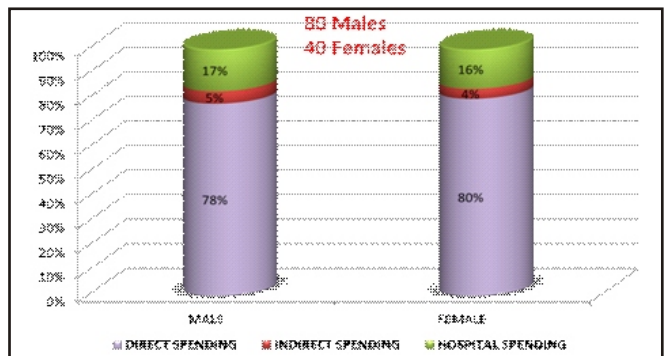


Fig. 2. Total Out Of Pocket Spending.



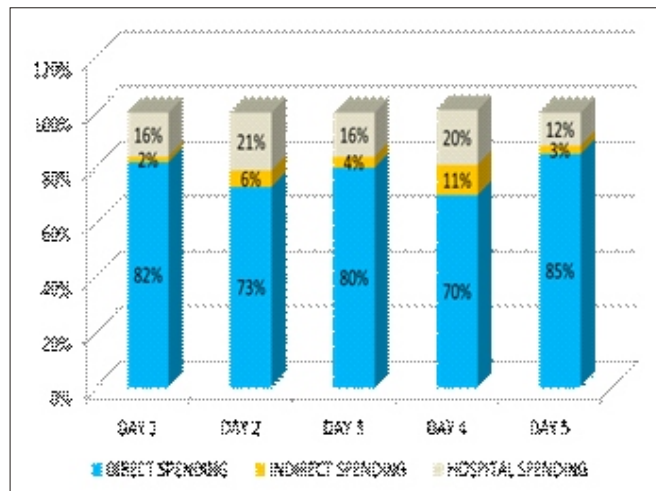
The gender wise breakup in OOPS is shown in Fig. 3.

Fig. 3. Gender wise breakup of spending



The cost breakup percentages of all the patients during five days of stay in hospital are shown in Fig. 4.

Fig. 4. Cost breakup of spending during five days of inpatient stay.



DISCUSSION

WHO Member states have set themselves the target of developing their health financing systems to ensure that all people can use health services; which being protected against financial hardship associated with paying from them.⁷ In Pakistan, OOPS remains the major health financing mechanism, leading to enormous burden on underprivileged households.^{8,9} The households find it difficult to recuperate from existing resources and ultimately slip deeper into poverty. Unfortunately, any mechanism to mitigate the burden of financial strain doesn't exist in most of the developing countries.⁸

The results of our study clearly show that only 17% of the total cost incurred on the care of the diseased is born by the public sector hospital while the rest of 83% is born by the patient himself. Out of the 83% of OOPS, 5% is the Indirect cost incurred on the attendants coming with the patients. The attendants are responsible to bring in the medicines and rushing the samples for the required tests to the laboratories outside the hospital. In rush hours even carrying the patient on a stretcher or trolley also becomes their responsibility.

On further dissecting the results, it is evident that the OOPS stays almost the same around 83% during the 5 days stay in the hospital. The implications of the results become painful knowing the fact that the poor and the affluent coming to the public sector hospitals have to pay OOPS the same. There is no

discrimination in the access to the healthcare facility in government hospitals for both the groups of patients. We have not segregated the patients into affording and nonaffording groups because it was beyond the scope of this study project. Nevertheless, it would be very interesting data to see how many the poor and rich attend the public sector health care facilities and what are the implications of the OOPS on both.

The healthcare situation in India is no exception. Numerous studies have indicated that major illnesses requiring major interventions put the poor at particular risk.¹⁰ Peters et al have found that on availing medical care for the illness, about 25% of the hospitalized population slip into poverty every year.¹¹ A similar study found a robust association between the health care cost and poverty creation in population.¹² A recent study by WHO on OOPS and poverty has shown an OOPS account for an average increase in poverty by as much as 3.6 and 2.9 percent for rural and urban India, respectively.^{13,14}

There is reported 0.05% decrease in economic growth for every percent increase in chronic disease mortality rate.¹⁵ Several studies found an increase from 32.4% to 63.1% of people with at least one chronic condition, there was a 9.7% increase in adults between the ages of 45 and 64 who had more than three chronic conditions.^{16,17}

Introducing blanket policies of abolishing user fees including the consultation fees in public facilities do not solve the whole problem, as they are not sustainable in the long run.^{18,19} A recent study from Australia, showed that out of the pocket cost burden falls most heavily on patients who are least able to bear it.²⁰ The governments need to find funding mechanisms other than direct payments for improving access to services and medicines besides lowering transportation costs. A study also found that consultation fees in public facilities account for only 10% of total OOPS, as the major part of OOPS are for the purchase of medicines.²¹

On average, medicines represent over 57% & 45% of outpatient OOPS at public and private facilities, respectively. Exceptions are countries such as Swaziland and South Africa, where consultation fees represent the largest component of outpatient OOP.²² The consultation fees are the second largest

component, representing on average, 22% & 40% of OOPS at public and private facilities, respectively.²³

CONCLUSION

There are a lot of flaws in our health care system at present. Efforts by the government to allow complete free health care to individuals at tertiary care level have miserably failed resulting in huge OOPS by the poor and the rich alike. The present tertiary health care system needs to be revamped and modified with an aim that the poor and most vulnerable segments of the society are protected in the form of reduced OOPS.

Author Contributions:

Conception and design: Noor Ul Iman
 Collection and assembly of data: Mushtaq Ahmad
 Analysis and interpretation of the data: Muhammad Tariq Mehr
 Drafting of the article: Muhammad Tariq Mehr
 Critical revision of the article for important intellectual content: Muhammad Tariq Mehr
 Statistical expertise: Noor Ul Iman
 Final approval and guarantor of the article: Muhammad Tariq Mehr
Corresponding author email: Dr. Muhammad Tariq Mehr:tariq_mehr@yahoo.com
Conflict of Interest: None declared
 Rec. Date: Sep 23, 2015 Accept Date: Jan 4, 2016

REFERENCES

- Report of the Commission for Macroeconomics and Health. World Health Organization, 2001.
- World Bank. Pakistan Poverty Assessment. Poverty in Pakistan: Vulnerabilities, Social Gaps, and Rural Dynamics. Poverty Reduction and Economic Management Sector Unit South Asia Region, 2002.
- Nishtar S. The Health Budget 2006-the policy context. Viewpoint: Pakistan Health Policy Forum, Islamabad: Heartfile, 2006.
- Liu X, Hotchkiss DR, Bose S. The effectiveness of contracting-out primary health care services in developing countries: a review of the evidence. *Health Policy Planning* 2008; 23:1-13.
- Hanson K, Gilson L, Goodman C, Mills A, Smith R, Feachem R, et al. Is Private Health Care the Answer to the Health Problems of the World's Poor? *PLoS Med* 2008;5:e233.
- Yates R. Universal health care and the removal of user fees. *Lancet* 2009;373(9680):2078-81.
- www.who.int/gho/health_financing/out_pocket_inexpenditure/en. Retrieved on 19/9/2015.
- Flores G, Krishnakumar J, O'Donnell O, Doorslaer EV. Coping with health-care costs: implications for the measurement of catastrophic expenditures and poverty. *Health Economics* 2008; 12 :1393-1412.
- Sun Xi, Jackson S, Carmichael G, Sleigh AC. Catastrophic medical payment and financial protection in rural China: evidence from the New Cooperative Medical Scheme in Shandong Province. *Health Economics* 2009;18:103-19.
- Pradhan M, Prescott N. Social Risk Management Options for Medical Care in Indonesia. *Health Economics* 2002;11:431-6.
- Peters DH, Yazbeck AS, Sharma RR, Ramana GNV, Pritchett LH, Wagstaff A. Better Health Systems for India's Poor: Findings, Analysis, and Options. Human Development Network, (Health, nutrition, and population series). Washington DC: World Bank. 2002: 1376
- Krishna A. Pathways Out of and Into Poverty in 36 Villages of Andhra Pradesh, India *World Development* 2006;34:271-88.
- WHO. Countries test new ways to finance health care; Pakistan, Afghanistan look to women to improve health care; Maternal health care wins district vote in Uganda. *Bull World Health Org* 2006;84:844-9.
- Priyanka S, Ke X, Riku E & Jean P. Health services utilization and out-of-pocket expenditure at public and private facilities in low-income countries *World Health Report Background Paper*, 2010: No 20
- Stuckler D. Population causes and consequences of leading chronic diseases: a comparative analysis of prevailing explanations. *Milbank Q* 2008;86:273326.
- Paez KA, Zhao L, Hwang W. Rising out-of-pocket spending for chronic conditions: a ten-year trend. *Health Aff (Millwood)* 2009;28:1525.
- Thorpe KE, Ogden LL, Galactionova K. Chronic conditions account for rise in medicare spending from 1987 to 2006. *Health Aff (Millwood)* 2010;29:718-24.
- Meessen B, Hercot D, Noirhomme M, Ridde V, Tibouti A, Bicaba A, et al. Removing user fees in the health sector in low-income countries: a multi-country review. 2009. United Nations Children's Fund (UNICEF).
- National Health Service England. Healthcare Travel Costs Scheme. <http://www.nhs.uk/nhsengland/Healthcosts/pages/Travelcosts.aspx>.
- Islam MM, Yen LV. Out of pocket expenditure by Australian seniors with chronic disease: the effect of specific diseases and morbidity clusters. *BMC Public Health* 2014;14:1008.doi:10.1186/1471-2458-14-1008.
- Noirhomme M, Meessen B, Griffiths F, Ir P, Jacobs B, Thor R, et al. Improving access to hospital care for the poor: comparative analysis of four health equity funds in Cambodia. *Health Policy Planning* 2007;22:246-62.
- Prata N, Montagu D, Jefferys E. Private sector, human resources and health franchising in Africa. *Bull World Health Organ* 2005;83:274-9.
- World Health Organization. World health report. Primary health care: now more than ever. 2008. Geneva, Switzerland