Dynamics of health poverty status in Pakistan ; a new insight of Pakistan panel house hold survey

***Health Economics Policy Brief* No 6.2019**

Author: Ms. Hina Rehman

Co-Author: Dr. Ahsan ul Haq Satti, Dr. Fazli Hakim Khattak , Mr. Muhammad Imran and Dr M. Afzal (JCE)

Pakistan Institute of Development Economics

DYNAMICS OF HEALTH POVERTY STATUS IN PAKISTAN
A NEW INSIGHT OF PAKISTAN PANEL HOUSEHOLD SURVEY

By
[1]Ms. Hina Rehman
[2]Dr. Ahsan ul Haq
[3]Dr. Fazli Hakim Khattak
[4]Mr. Muhammad Imran Khan And Dr M.Afzal

Pakistan is a developing country with rapid growing population but investment in human capital is not sufficient. That's why the GDP per capita is also very low. Investment in health and education sector is essential for the improvement of the human capital in the economy, Pakistan Economic survey (2017). Corresponding to other developing countries, Pakistan has got limited achievement in the field of health sector and has improved overall health status in last few years. In Pakistan; the investment in health sector is very low as compared to other countries in the region. The Government of Pakistan (GOP) has made a lot of efforts to improve the quality of healthcare facilities for the people in the country. New and the latest technologies are introduced in private and public sectors in last few years. GOP has increased the financial allocations and has adopted modern technologies in prevention, promotion and treatment of healthcare.

But there is a need of certain alarming alterations that are necessary to maintain the health status in4 country like there is one doctor is available for 1099 individuals. Only one dentist is serving for 13441 individuals, which is not sufficient to take good care of health and hygiene. The problem is not only confined to the limitations in services availability but also the ratio of population and number of beds available indicates health sector is facing serious resource allocations issues Pakistan Economic Survey (2014).

Different programs have been introduced to tackle down these critical issues to move closer to Millennium development goals and Sustainable development goals for the betterment of humankind which are covering all aspect of life, including the health, education, environment, hunger and poverty. The goals focus to reduce the child mortality, to improve maternal health, Combat HIV/AIDS, malaria and other diseases.

Poverty trend indicates that there is significant decline in the poverty in Pakistan which was once 34.4% in 2000-01 and declined to 29.5% in 2013-14 by using the income poverty approach GOP (2013-14). The data of health sector in Pakistan indicates that completely immunized children 12-23 months are also increasing over the time in Pakistan PDHS, (2015-16). The inequality in the access of health facilities vary from province to province in Pakistan. The traveling distance to reach basic health care

[1] Hinarehman_16@pide.edu.pk
[2] Ahsansatti@pide.org.pk
[3] Khattakfh20@pide.org.pk
[4] Imran_14@pide.edu.pk

unit indicates that people in KPK have to travel for 16 kilometers on average to get access of health facilities which is lower distance as compare to Baluchistan with average travel distance of 39 kilometers. However, the distance in Sindh is lower with average value of 13 kilometers and in Punjab it is only 8 kilometers. This indicates the density of hospitals in the province with respect to population density Iqbal and Nawaz, (2015). Remarkably, the literature on the dynamics of health poverty in Pakistan don't exist which highlights a vivid picture of health poverty.

This policy paper guides towards for remarkable policy questions, with relevant strategic upshots. This study tries to evaluate health poverty status based on intervening and influencing factors. Firstly, this study highlights disparity related to health status at national and sub nation level. Secondly, this study reveals the dynamics of health poverty in Pakistan during 2001 to 2010. Thirdly this study also highlights the determinants of these disparities. Alkire and Foster (2007, 2011) methodology has been used to measure the health poverty status. Structural equation model has been used to check the determinants of health poverty status in Pakistan.

In this study, Pakistan panel household survey (PPHS) dataset has been used to estimate the health poverty index and its determinants in case of Pakistan.

Health Poverty Index at Province level

Time	2001			2010		
Province	H	A	HPI	H	A	HPI
Punjab	0.84	0.45	0.38	0.37	0.50	0.18
Sindh	0.85	0.49	0.42	0.37	0.48	0.17
KPK	0.65	0.34	0.22	0.47	0.49	0.23
Baluchistan	0.95	0.66	0.62	0.79	0.59	0.47

Source: Author's calculation from the micro-data set of PRHS 2001 and PPHS 2010

The health poverty index and its components indicate the frequency of health poverty and the intensity of health poverty for the year 2001 and 2010 at sub-national (province) level by using Pakistan Panel Household Survey (PPHS). Results for PRHS-2001 shows that KPK lie in that category in which the minimum level incidence of health poverty, intensity of health poverty as well a HPI. Similarly,

Baluchistan is a head in health poverty the intensity of health poverty, is shown as HPI. While results for PPHS-2010 shows that Sindh and Punjab are almost same with respect to the status of health poverty.

Dynamics of Health Poverty

Health Poverty Dynamics	2001-10 (All Provinces)
Chronic Poor	41.33
Transitory Poor	47.19
Never Poor	11.48
Total	100.00

Structure Regression Model Results

Health Poverty Index		
	PRHS-I	**PPHS-2010**
Use of Healthcare Service	0.969 (0.000)	0.037 (0.071)
Maternal Healthcare Service	0.076 (0.665)	0.004 (0.0146)
Quality of Healthcare Service	0.909 (0.000)	0.035 (0.072)
Education	0.135 (0.094)	0.13 (0.016)
Living Standard	0.094 (0.023)	-0.147 (0.000)
Wealth and HH Assets	-0.066 (0.111)	-0.068 (0.005)
Biological Issues	0.108 (0.011)	0.033 (0.072)

Source: Author's calculation from the micro-data set of PRHS 2001 and PPHS 2010

Balochistan was ranked at the top in which major proportion of population is facing deprivations by using the both panel datasets i.e PRHS-2001 and PPHS-2010. In 2001 about 95 percent of population was facing the multidimensional health poverty while till 2010 this ratio was declined up to 79.9 percent in case of Baluchistan. Micro data estimation results indicate that incidence of health poverty declined in all the provinces over this extended period of time. Similarly, the intensity of health poverty declined only in Sindh and Baluchistan during this time period. But in case of Punjab and KPK the intensity of health poverty in increased from 2001 to 2010.

The dynamics of health poverty status highlights that 41.33 percent households lie in the category of chronic poor or poverty, about 47.19 percent households lie in the category of temporary poor and about 11.48 percent households lie in the category of never poor.

Moreover, the transitory poor are sub-divided into groups, where the results indicate that about 10 percent households lie in the category of "moved into poverty pool" and about 90 percent of the households lie in category of "moved out of poverty pool". There is an association between of use of healthcare service, quality of healthcare service, education, biological issues and the health poverty status. Only Wealth and Assets has a negative effect on health poverty status in both years. Maternal health status has a negative effect on health poverty index in 2001 while living standard has reduced health poverty in 2010. All determinants are significantly associated with health poverty index expect maternal health status and education by using the PRHS-2001 dataset. Similarly, all determinants are significantly associated with health poverty index expect use of healthcare service, quality of healthcare service and biological issue by using the PPHS-2010 dataset.

Measuring Health Poverty Index is necessary but still it's no enough. The researcher should concentrate on the dynamics of deprivation related to health status instead of trends in

deprivation. Similarly, Government of Pakistan should have introduced new surveys on health issues to draw better policy inferences. The intensity of deprivation is the key component during estimating the Health poverty index. Almost 47% face the "transitory health poverty" over. This can be reduced by refining the dimension of cost and quality of healthcare service.

Multidimensional poverty index uses only four indicators to capture the health dimension. This framework consisting eight indicators related to health dimension in this study can be replace with official poverty measures for the better health policy outcomes in Pakistan.