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About the Authors

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Declaration

"We have read the research report titled *An Analysis of Equity Issues in Public Spending on MNCH in Pakistan*, and acknowledge and agree with the information, data and findings contained."

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A. Introduction

Health is an important dimension of human wellbeing and is recognised by many as the ultimate objective of development. It is also an important component of human development, which is widely used as a comprehensive yardstick to gauge the development of a country. Within the health sector, it is not only the average status of health but also the disparities in health outcomes of various population groups that are now considered as indicators of the overall performance of health systems.

Pakistan stands out at the international level not only in terms of its high level of infant and child mortality rate but also in terms of its extremely high levels of within-country health inequalities. The analysis of household level datasets – such as the Pakistan Standard of Living Measurement (PSLM) survey, the Pakistan Demographic and Health Survey (PDHS), and the Multiple Indicators Clusters Survey (MICS) – reveals large scale spatial and socioeconomic disparities in crucial health indicators related to MaternalNewborn and Child Health (MNCH).

From a policy perspective, public spending on health that increases the availability of and access to public healthcare services may serve as a potentially important instrument to reduce disparities in health outcomes. Quite the contrary, public spending on health, if spent in an ineffective and inequitable manner, may exacerbate health inequalities. Evidence on many developing countries indicates that public spending on health is not only low but is ineffective and is often spent in a manner that disproportionately benefits the rich more than the poor.

Public spending on health - if spent in an equitable manner- is not only important to reduce disparities in health but may also be used as an instrument to reduce poverty. The government of Pakistan recognises public sector investment in health as a pro-poor endeavour and includes it in the government's Poverty Reduction Strategy Programme (PRSP).

In general, the effectiveness of public spending in tackling health inequalities and reducing poverty depends upon the following key questions: How much does the government spend on health? On what services and health interventions does it spend its money? Is public spending equitable? Who benefits from these services? The present study is an attempt to answer these questions, particularly in the context of MNCH in Pakistan.

B. Methodology and Data

The study employs the Utilization Incidence Analysis (UIA), which is a well-known approach to determine the distribution of utilisation of public health spending across individuals ranked by their living standards. In simple terms, UIA is like an accounting procedure that estimates who utilises how much of a particular public service. The key objective is to determine whether the distribution of benefits from public health spending (where benefits are measured in term of public health services utilisation) is pro-poor and/or progressive.

The study focusses on seven MNCH related health services and facilities: i) pre-natal consultation ii) post natal consultation iii) institutional delivery iv) Tetanus Toxoid (TT) injections for pregnant women v) child immunization services vi) Basic Health Units (BHUs) facilities and vii) Family Planning Units (FPUs) facilities. These services are selected because data on the utilisation of these services by type of facility (public vs. private) is readily available in micro level, nationally representative household data collected through the PSLM survey. We use both PSLM 2007-08 and the recently available PSLM 2010-11 data. This allows us to compare the distribution of utilisation benefits over these time periods.

C. Key Empirical Findings

Our analysis yields some interesting results:

- We find that in 2007-08, the distribution of benefits from all MNCH related health services that we analysed in our study was pro-rich to varying degrees. More specifically, the share of benefits received by low income groups was less than their share in the total population. In contrast, the share of benefits received by high income groups was higher than their respective population shares. The distribution of benefits improved and became pro-poor in some services, such as pre-natal consultation and immunisation in 2010-11. This is a positive trend and could be due to many reasons such as the expansion and effectiveness of publicly funded basic healthcare programmes like the National Programme for Family Planning and Primary Health Care, the Expanded Programme of Immunization, the Lady Health Worker (LHW) Programme, and the National Maternal Neonatal and Child Health (MNCH) Programme.
- For some services such as post-natal consultation, institutional delivery, and TT injections for pregnant women, the utilisation incidence of public spending remains prorich in 2010-11.
- The utilisation of BHUs is clearly found to be pro-poor, suggesting that increasing the provision of basic health facilities can potentially address the goals of achieving equity in healthcare and reducing poverty. This finding appears to be consistent with international evidence that shows that in most developing countries, the incidence of public health spending on primary health care facilities is pro-poor whereas that on tertiary care such as hospital services is pro-rich.
- The extent of inequality in the distribution of benefits is higher in some services than in others. In 2007-08, the distribution of benefits from services for post-natal consultation was the most pro-rich, followed by institutional delivery and pre-natal consultation. In 2010-11, the distribution of benefits from prenatal services improved markedly and now shows a pro-poor orientation. The distribution of benefits from post-natal services and maternal delivery also improved in 2010-11 but still remains pro-rich in most regions. Interestingly, the distribution of benefits from TT injections worsened in 2010-11. The distribution of benefits from immunisation services remained, by and large, relatively equal. In general, the utilisation of services that fall within the purview of basic health services such as immunisation, and prenatal consultation were relatively more equitably distributed than specialised services such as institutional delivery.
- At the provincial level, we find that the extent of inequality in the distribution of benefits is much higher in Balochistan and to some extent in Punjab, compared to the rest of the two provinces. The plausible reasons for this finding are discussed in Section D.1.5 below.
- In terms of progressivity, our findings indicate that the utilisation incidence of almost all MNCH related services is progressive in Pakistan at the national and provincial level. This implies that the benefits in terms of utilisation of MNCH related public services are more equally distributed than the distribution of income implying that investment in MNCH related public health services can help reduce income inequality.

• Finally, our estimates of overall participation rate of MNCH related public health services indicate that the overall uptake of these services in a public facility is low, particularly for institutional delivery, post natal consultation, and prenatal consultation. For prenatal consultation, only 26 percent of the total women who qualified for the service utilised public health facility in 2010-11. For postnatal consultation, this ratio is as low as 8 percent. For institutional delivery, only 13 percent of women who qualified for this service actually used the public health facility. The low participation could either be due to low overall demand for health services, owing to economic, cultural, and religious factors¹ or due to low demand for public health services in particular.

D. Policy Implications

D.1 Policy Insights from Utilization Incidence Analysis

Based upon our empirical findings from the UIA, as presented above, we recommend the following policies:

D.1.1 Expand basic reproductive health facilities

Our findings indicate that the distribution of benefits from public health spending on some MNCH related services such as post-natal consultation and institutional delivery are pro-rich. This could be due to both demand side factors such as the inability to pay for access costs thatare higher especially for maternal delivery, or due to supply side factors such as the inadequate availability of emergency obstetric care, especially in remote rural areas where the majority of the poor reside. The government can achieve equity by expanding the availability of basic reproductive health facilities such as trained midwives and LHWs across rural and urban areas. The national MNCH programme, whichaims to increase the proportion of deliveries by skilled birth attendants, can go a long way - if implemented effectively – in achieving equity in maternal health outcomes.

D.1.2 Increase resource allocation for MNCH in hospital based services

Hospital based facilities for obstetric care and other MNCH related services need to be expanded as well. At present, budgetary allocations for MNCH within hospital based services is extremely meagre. For example, disaggregated data on budgetary allocations obtained from PIFRA (Project to Improve Financial Reporting and Auditing) in Pakistan shows that out of a total of PKR 905 million budgeted for hospital care in 2010-11, MNCH received PKR 0.9 million, which is merely 0.1 percent of the total allocation for hospital care.

¹The overall utilisation of any health facility, public or private, is woefully low in Pakistan. According to PSLM 2010-11, only 28 per cent of the mothers used a medical facility for post-natal consultation. Similarly, in case of maternal delivery, around 58 per cent of births are still delivered at home. 29 per cent of the total births are delivered in private health facilities and only 12 per cent are delivered in public health facilities.

²There are five major functional classifications of Ministry of Health's budget, according to PIFRA. These include: Medical Products, Appliances and Equipment; Outpatient Services; Hospital Services; Public Health Services; R&D Health; and Health Administration. These categories are further divided into minor functions. For example, hospital services are further categorised into General Hospital Services; Special Hospital Services (mental hospitals); Medical and Maternal Services; and Nursing and Convalescent Home Services. The budgetary data obtained from Ministry of Health does not show any allocation for 'Nursing and Convalescent Home Services.' 'Medical and Maternal Services' account for 0.1 percent of the total budget classified under 'hospital services.'

D.1.3 Improve targeting of institutional services

Since institutional delivery is found to be pro-rich, public spending on these services need to be targeted effectively towards the poor. This can be accomplished, for example, through a voucher scheme that provides free or subsidised treatment to women below the poverty line.

D.1.4 Continue to expand Basic Health Units (BHUs)

Our findings indicate that the distribution of utilisation from BHUs is pro-poor. This is consistent with evidence from other developing countries that shows that public spending on basic health services is pro-poor whereas that on curative hospital care is pro-rich. At present, government spending on healthcare in Pakistan is heavily tilted towards specialised hospital care while leaving little resources for basic health facilities. While curative healthcare is relatively expensive, thereby justifying higher budgetary allocations, additional resources may be mobilised to allow for more spending on basic health facilities. In order to ensure that additional resources are used effectively, governments at the provincial level may consider providing conditional health insurance or vouchers that enable low income households to procure these services from the public as well as the private sector. This can increase the efficiency as well as equity of public health spending.

D.1.5 Increase budgetary allocations and improve targeting of public health subsidies in Balochistan

Our empirical findings indicate that the extent of inequality in the distribution of public health benefits is higher in Balochistan, with benefits from most services captured by the rich rather than the poor. This could be an indication of poor governance and institutional weakness in public service delivery in the province. It could also be due to deteriorating law and order, and sparse availability of public health services, because of which poor people, especially those who live in remote areas, are not able to bear access costs related to transportation (Balochistan is the largest province in terms of area and has low population density). This can be addressed by the province through increasing its overall allocation for health services. This may not be very cost effective - given the peculiar terrain and low population density in Balochistan - but at the same time, may have huge dividends in terms of achieving equity and reducing poverty. Balochistan has one of the worst health indicators³, and on the basis of equity, more resources per capita need to be allocated for health services in this province. At the same time, it is equally important to improve the law and order situation in the province and improve governance of public services delivery so as to target these resources effectively towards the poor.

³ According to PLSM 2007-08, infant mortality is highest in Balochistan. The Pakistan Demographic and Health Survey 2006-07 indicates that the maternal mortality ratio in Balochistan is 785 per 100,000, which is significantly higher than in other provinces.

D.1.6 Demand side interventions must accompany the expansion in supply of public health services

Finally, our findings reveal an extremely low overall participation in public health services utilisation, particularly for prenatal consultation; postnatal consultation; and institutional delivery. This underscores the need for demand side interventions that help boost the overall uptake of these services. These interventions could range from raising awareness and increasing literacy to reducing access cost and improving the quality of public health services delivery.

D.2 General Recommendations

D.2.1 Increase overall budgetary allocations for health

The overall budgetary allocations for health in Pakistan are quite low compared to other developing countries that are at similar stages of development and have an epidemiological and demographic profile that is similar to or even better than Pakistan. As percentage of GDP, public spending on health has never exceeded 0.7 per cent and this percentage has been dwindling over time. In other countries of the region, such as India and Bangladesh, the corresponding percentage is 1.2 and 1.3 percent respectively, and has remained at this level between 2008 and 2010.

Public spending on health is considered as pro-poor in Pakistan, and is monitored and reported under the PRSP. Although poverty reduction has been an overarching goal of successive governments in Pakistan, public contribution in financing health of its population remains extremely limited. Around 72 percent of the total health expenditure is financed by private sources, out of which 92 percent are out of pocket expenses. This feature of healthcare finance in Pakistan puts many households, especially those belonging to marginalised groups, into a vulnerable situation. A sudden illness, accident or medical emergency can push many households - especially those who do not have any assets to fall back upon - below the poverty line.

D.2.2 Increase efficiency and equity in public health sector spending

In terms of the existing pattern of allocation of the health sector budget across regions and across sectors, there is considerable room to improve the efficiency and equity of these allocations. To improve efficiency, public spending needs to be allocated for those subsectors and interventions that matter the most and have the biggest impact on mortality rates. Maternal and perinatal conditions have been identified as one of the leading causes of mortality in Pakistanbut attract less than 0.2 percent of the total budgetary allocations on health⁴. The chunk of the budget is spent on specialised hospital and curative care (71.75 percent). Although hospital care is important to treat maternal and perinatal conditions, existing allocations within hospital care show a meagre amount being allocated for MNCH related services.

 $^{^4}$ PRSP – II Period Progress Report FY 2008/09 – FY 2010/11z

Infectious diseases such as diarrhoea, pneumonia and ARI are other leading causes of mortality, especially among children under five years of age. These diseases can be prevented effectively through basic public health measures aimed at improving nutrition, creating awareness on hygiene and other public health matters, immunisation programmes, and improving sanitary conditions etc. According to the PRSP, currently around 20 percent of the total budget on health sector is devoted to "Health Facilities and Preventive Measures." This category includes primary healthcare facilities such as rural health centres, BHUs, dispensaries, first aid posts, mother and child health centres, and programmes such as the LHW Programme, the Malaria Control Programme, the Tuberculosis and HIV/AIDS Control Programme, National Maternal and Child Health Programme, the Expanded Programme on Immunisation, and the Food and Nutrition Programme. Our empirical findings from the UIA show that the poor tend to use basic health facilities more than the rich. Increasing budgetary allocations on this category are therefore likely to enhance both the efficiency as well as equity in public health spending.

D.2.3 Integrate MNCH programmes into income support programmes

The social protection initiatives in Pakistan can be strengthened by integrating MNCH and other programmes aimed at addressing nutritional deficiencies with the income support programmes. The social health protection initiatives implemented through the Benazir Income Support Programme (BISP) have been designed to address MNCH as well. Integrating MNCH related programmes with income support programmes can potentially increase the effectiveness of all programmes involved. Such integrated programmes are effectively run in developed countries like the United States through basic and primary health care units.

D.2.4 Promote equity in regional allocation of public health resources

In terms of the regional allocation of health sector budget, more resources need to be allocated towards regions that have poor health indicators and where the ability to pay for healthcare is low. After the recent enactment of the National Finance Commission (NFC) award, health is now a provincial subject in Pakistan. Within the provinces, there are significant spatial disparities. For instance, in Punjab, the southern districts have higher poverty and poor human development indictors. In order to achieve equity, provinces should take district level poverty and human development indicators while distributing resources at the inter-provincial level. Regions that show poorer health status and a greater proportion of marginalised population should receive more funds per capita than others.