Original Article

Healthcare Financing

Need Improvement in Healthcare Via Demand Side Financing in Pakistan

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ABSTRACT

Objective: To see the effect of maternal mortality rate and life expectancy on the death rate via demand side financing intervention in Pakistan.

Study Design: Time Series Experimental Study.

Place and Duration of Study: The study was conducted in IBM, UET,Lahore during August to September, 2015.

Materials and Methods: This was a time series experimental study where time series data from World Bank Indicators (WBI) from 2000 to 2013 was used to see the effect of maternal mortality rate and life expectancy on the death rate. Dependent variable is death rate in the country and independent variables are maternal mortality rate and life expectancy of the country of Pakistan. I have applied regression through Eviews software to see the effect and results are significant.

Results: There is a positive significant effect of MMR on the death rate and negative significant effect of LE on the death rate. MMR has significant positive impact on the death rate its P value is .0004 and Life expectancy has negative significant impact on the death rate its P value is .0000.There is no multicollinearity as Durbin Watson value is 1.785 which is near 2.There is no heteroscedasticity as R-Squared value is 99 almost 1.

Conclusion: It is essential to decrease the death rate by providing healthcare facilities although government allocate budget to healthcare and trying to facilitate especially poor via providing free medicines and many other healthcare incentives (Primary and Secondary healthcare) which somehow affect the death rate. However healthcare needs more funds to increase the usage of accessible and timely healthcare facilities to people. This can be possible via acquiring fund to facilitate poor through a proper system i.e Demand side financing.

Key Words: LE (Life Expectancy), MMR (Maternal Mortality Rate), Healthcare Financing.

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INTRODUCTION

Maternal deaths all over the world are around 25,000 out of which 16,000 mothers die each year in Pakistan. There are many factors including low income, poor healthcare. This could be affected through demand side financing which is essential to enhance and fuel up the healthcare system in low income countries. Maternal mortality rate and life expectancy may control and decrease the overall death rate in the country.Healthcare Financing Model: Financing quality healthcare is worldwide challenge for industrialized and developing nations respectively. There is no per capita measure of per head spending, upcoming 2015 measures has forecasted that there is less spending on the healthcare services which is US$ 45. Selected countries by UN lagging behind achievement of health-related Millennium Development Goals (MDGs) identified by the Countdown to 2015 initiative (including Pakistan) which is sustainable development goals now and maternal health is still one of the outcome, 21 have spending of less than US$45 per capita.[1]

Countries which have low spending on healthcare have less health output, appropriate HR, and low investment in healthcare infrastructure and logistics. There was 2.6 percent expenditure of gross domestic product for developing countries were reported and 7 percent reported in developed nations. South region had the lowest spending on healthcare, which is 1.1 percent and Pakistan is one of them. Countries along with funding agencies are tremendously feeling the importance of delivering essential health care. Governments are developing different programs to help families to handle the usual and emergency expense for healthcare. There are many ways to reduce direct user cost by take into effect the cash transfer or vouchers along with some specific or unspecific conditions, offering health insurance nationwide or community based for the poor.[2] To be truly efficient these measures must take place within a development outcomes that further grow and correlate strategies with healthcare and an environment supportive of communities' rights.

Eliminating fee: Important factor in health financing is the cost which is directly imposed to the user which is a problem especially for the poor. There are many countries which have removed the direct cost partially or completely and result in increases the access to healthcare services. There is no action taken in Pakistan to remove such cost. Previous researches show where there is no policy or action taken to remove fee;

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increase in the budget for healthcare or vigilant planning and calculated implementation strategies, healthcare quandary increased and less output. Countries where fee removal implemented there is increase in the health status of the people and decrease in the expenditure of the poor and poor got the most benefit.[3]

There are not just the direct cost, cost of medicine, x-ray and laboratory and emergency check up cost, accommodation, food and traveling cost incurred informally by the poor which health facilities of government do not provide. These cost make most of the total cost and affect the poor. Without doing effort for the change in cultural hurdles poor are not able to get benefit of healthcare services. We have seen that these hurdles also affect the poor. User fee and these costs are the willing areas of action by the effective and appropriate policy. In Uganda fee removal shown Government and policy makers to foster other issues, such as purchase and supply of the medicines, allocation of funds, which is a hurdle in the progress. There is no proper policy to address the issue or to support the decisions.

Insurance, cash transfers and cost sharing: There is a health insurance scheme which increases the access for the poor women to maternal care. Due to low incomes these kind of financing are not possible. Community health insurance work informally compared to social insurance schemes had increased the organizational outputs in Rwanda and Gambia 45 and 12 percent respectively. In Burkina Faso cost sharing scheme in a year has increased the emergency referrals by 599.[4]It is difficult to inflate such schemes without any hurdle and without the help of government and donor agencies.

Conditional cash transfers and voucher schemes are also effective in generating demand for specific services among the poor. In Mexico and Honduras conditional cash transfer increased antenatal care during among needy women. India has provided financial incentives for women from marginalized cluster in Gujrat. This measure has increased easy approach to healthcare services on the other hand proper improvement in MNCH along with quality of healthcare is required.

Experience of social safety nets in Pakistan: SehatSahulat Cards (SSCs) scheme was implemented on a pilot basis in districts of Kasur and Rawalpindi through a public private partnership between Contech International and Punjab Devolved Social Services Program, funded by Asian Development Bank. Under this scheme, social safety nets were provided to pregnant women living below poverty line in rural union councils of these districts for ensuring free and quality MNCH services. The selection of beneficiaries was made on the basis of poverty scoring of pregnant ladies in catchment areas. Besides providing the resources, community awareness was also emphasized in this initiative as in Pakistan; in rural areas women are restricted due to culture and religion. Findings of the pilot revealed substantial improvement in health indicators (Figure 1). A third party evaluation was also commissioned which validated the impact of the scheme[6] and scaling up of the initiative for achieving maximum impact was proposed by the Asian Development Bank.[7]

This is clear from the intervention and results that Demand side financing i.e social safety net can increase the Antenatal care, postnatal care, Newborn Immunization and ultimately maternal mortality rate may decrease.

MATERIALSAND METHODS

This is time series experimental study and conducted in the IBM, UET from August-September, 2015.I have collected data from World Development Indicators (WBI) from 2000 to 2013 of independent variables Life Expectancy and Maternal Mortality Rate and Dependent variable Death Rate. I have applied Ordinary Least Square method in Eviews software to check the regression and results are significant.

Inclusion Criteria:

1) All indicators of demand side financing.
2) All Population of Pakistan for death rate.
3) All Population of Pakistan for Life expectancy.

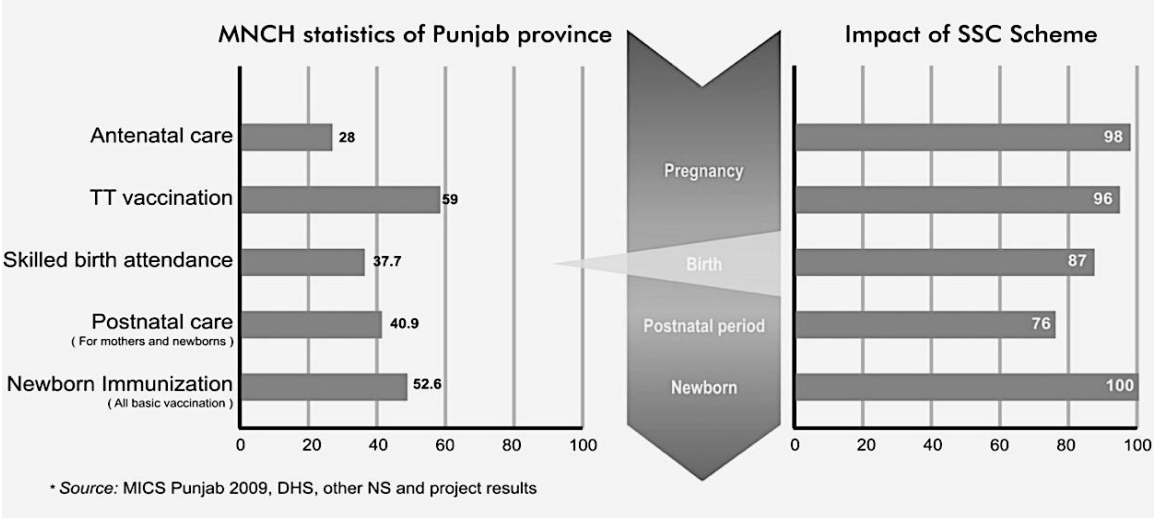
Exclusion Criteria:

Deaths of population other than pregnant women for maternal mortality rate.

RESULTS

Maternal Mortality rate significant positive impact on the death rate its P value is .0004 and Life expectancy has negative significant impact on the death rate its P value is .0000. There is no multicollinearity as Durbin Watson value is 1.785 which is near 2. There is no heteroscedasticity as R-Squared value is.99 almost 1.

Death rate could be addressed if we control the maternal mortality rate through providing proper healthcare services well in time and especially to poor as we have the examples of Bangladesh, Nigeria, and India even in Pakistan. However more quick and efficient actions are required to enhance demand side financing to empower people of Pakistan to access healthcare services. Approaches may be different but efficient and effective. Health Insurance, health vouchers, social safety net, and health package may address this serious phenomena. We cannot control or remove the Life expectancy directly but we can reduce it through providing better and in time healthcare services.



Indicators from MICS and implemented by Contech International

Figure No.1: Outcomes of piloting SSC Model on MNCH services

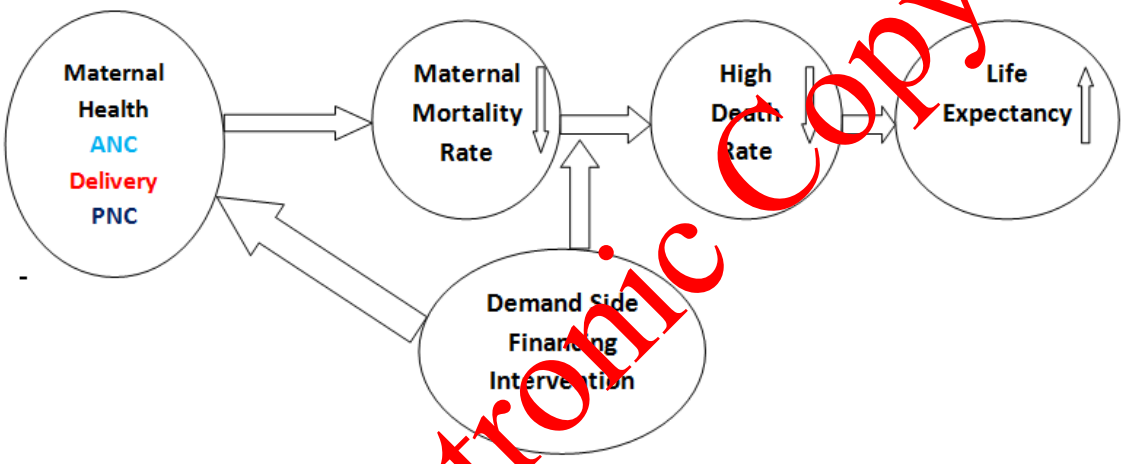
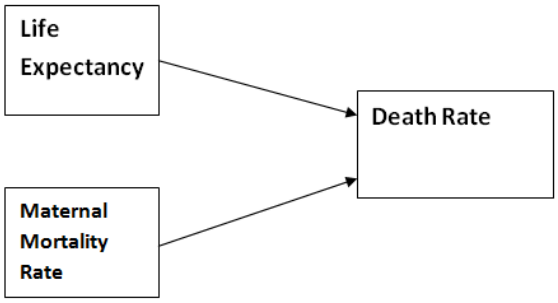


Figure No.2: Theoretical Model - Impact of Demand Side Financing Intervention

Table No.1: Results in EViews

Dependent Variable: DR				
Method: Least Squares				
Date: 09/29/15 Time: 10:06				
Sample: 2000 2013				
Included observations: 14				
Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	27.43724	1.660021	16.52825	0.0000
LE	-0.309124	0.025082	-12.32434	0.0000
MMR	9.48E-05	1.90E-05	4.996995	0.0004
R-squared	0.991104	Mean dependent var		7.432857
Adjusted R-squared	0.989486	S.D. dependent var		0.389552
S.E. of regression	0.039944	Akaike info criterion		-3.415284
Sum squared resid	0.017550	Schwarz criterion		-3.278343
Log likelihood	26.90699	Hannan-Quinn criter.		-3.427960
F-statistic	612.7280	Durbin-Watson stat		1.785850
Prob(F-statistic)	0.000000			



Equation

$Y=\beta 0 + \beta 1LE + \beta 2MMR + e$

Y= Death Rate

LE= Life Expectancy

MMR= Maternal Mortality Rate

Figure No.3: Relationship of Variables

DISCUSSION

Better the use of maternity care better the maternal and new born care.[8] Developing countries posing serious situation regarding maternal care which allow controlling the death rate in the country including Pakistan. Many International and National Organizations are focusing on this problem that how to reduce this maternal mortality rate as it is not possible put aside this issue in the development of the healthier Nation. However, it is critical even after providing free facilities in the Government hospitals like free medicine and round the clock examination of patients in the hospitals we are unable to control the Maternal Mortality Rate.

Higher the family planning higher the healthier birth spacing.[9] Birth spacing is another important factor which can reduce the Maternal Mortality Rate. Family planning utilization result the Healthier birth spacing. In low income countries like Pakistan people do not bother to get their women admit into the Male Hospital whether it is necessary for Patient or not. Religious factor involved regarding birth spacing also impose some hurdles in the utilization of family planning.

Mortality is also associated with other sexually transmitted infections and*human immunodeficiency virus* Aids.[10]These kinds of diseases may kill the mother before giving birth. Many researchers, organizations are working to control these diseases including UNDP agencies. There are different strategies available to increase the reproductive health services use like voucher scheme, conditional cash transfer and safety nets. Demand side financing may decrease the maternal mortality rate whether in any one of the strategies. In voucher scheme where Government and organization stimulate demand by association of benefits to the user and focused on the outcomes rather inputs.[11]

Voucher scheme or consumer led finance refer to the situation where money is associated to complete specific task or results whether it is quality or quantity indications or outcomes.[12] There is also a condition between choosing Public oriented or Private oriented demand side financing. Public oriented approach is more effective because through this most of the people get benefit rather as it focus on the demand and without increasing supply. Private oriented approach may lead to increase the competition and ultimately increase the supply.[13] Public sector approaches are suitable for the developing countries along with the private sector approaches like Pakistan.

Transparency in the voucher system is greater than the other strategies as we can record data, view data and track voucher distribution.[11] Funds required to initiate voucher schemes are high in the starting phase of registration and reimbursements.[14] The mortality rate in developing countries is getting lower but further enhancements require more investment on low income household.

Crucial dilemma that communities and household with low income countries are the main target of consumer led financing. Countries where vouchers scheme implemented as in Pakistan also selection of the community and household is based on poverty scoring approach in the areas where it need the most.

Conditional cash transfer is an approach where cash is transferred to low income families to cater the need of preventive healthcare services.[15] conditional cash transfer tremendously increases the antenatal care in Honduras.[16]

In Mexico conditional cash transfer decrease mortality.[17] we need proper planning to implement the demand side financing whether in any of the form to ultimately decrease the overall death rate. There is very low investment in the consumer led finance which needs proper attention and immediate course of action by policy makers and donors get better results.

CONCLUSION

This study shows the high impact of maternal mortality rate on death rate in the country. Maternal Mortality rate could be boost up with the easy access of people to healthcare services and this is achievable if demand side financing is implemented via Public or Private Channel whatever the form is the results are toward betterment. If we want to decrease death rate in the country we should provide good healthcare to every individual at affordable prices or at low cost. And Healthcare should be provided to everyone everywhere because access to medical facilities Pathological and diagnostic procedures are necessary parts of heath providence. Ample budget should be allocated to the Healthcare Staff. Correct and realistic policies both long term and short term should be designed to co-op with the normal treatment procedures as well as for the emergency needs. Demand side financing need funds from Government and agencies and lead to policy

maker's behavior. If policy makers are averse to social policy makers behavior to benefit the low income people.

Conflict of Interest: The study has no conflict of interest to declare by any author.

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