

International Remittances, Healthcare Expenditures and Access: Evidence from Kerala, India



M Imran Khan & Valatheeshwaran C.
Centre for Development Studies, Thiruvananthapuram, Kerala, India



Introduction

In recent decades, the world has witnessed enormous progress in improving health and longevity. However, rising out-of-pocket health expenditure poses a great challenge for many countries. The **World Health Report 2015** highlighted that every year **150 million** people around the world suffer financial catastrophe due to **out-of-pocket expenditure on healthcare services** and **100 million** are pushed into **poverty** as a result of this problem. Inadequate social security programmes and institutionalized care, especially in developing countries, pushes families to resort to various strategies to finance health expenditure, such as formal and informal borrowing, use of past savings or sale of household assets (Gertler et al., 2009; Islam and Maitra, 2012). International remittances are considered to be one of the important external income sources for households to meet unexpected health shocks and to escape from poverty. The **New Economics of Labour Migration (NELM)** argues that remittances reduce a household's financial constraints that limit production and investment activities in an imperfect credit market environment and enable them to invest more in human and physical capital (Stark and Bloom, 1985; Taylor, 1999). In this way, remittances provide an insurance mechanism to the migrant family staying behind.

Case of Kerala

The state received **INR497 billion** as remittances in **2011** which accounts for **31.2 per cent** of the **gross state domestic product (GSDP)**. Kerala is comparable to that in major remittance dependent economies such as Tajikistan, Kyrgyz Republic and Nepal (Zachariah and Rajan, 2011; World Bank, 2016). Kerala sends **2.2 million emigrants abroad** majority of them migrate to gulf countries. Emigrants comprised **10 per cent** and **17 per cent** of the **total labour force** in Kerala in **2004** and **2011**, respectively. Furthermore, the proportion of households receiving remittances in Kerala increased from **12.2 per cent** in **1993** to **16.3 per cent** in **2007-08** (Tumbe, 2011). This indicates that remittances have been one of the important income sources not only for the economy, but also for remittance-receiving households.

Health care in Kerala

Kerala's performance in human development indicators is far ahead that of the other states in India despite slow economic growth and low per capita income. The state has succeeded in significantly reducing mortality and fertility rates and in improving the health status of its population (Bhat and Rajan, 1990). This success can be attributed largely to the effective use of healthcare services, higher literacy (especially women's education), political awareness, the minimum level of nutrition through public distribution system, social movements, development of road networks and transportation (Nag, 1989; George and Nair, 2004). Despite Kerala's Higher performance in human development indicators, the state has the **highest percentage of morbidity among India states**, which has been increasing since the last two decades both in the rural and urban areas (NSSO, 1998, 2014). The morbidity rate in rural areas increased from 118 persons to 310 persons per 1,000 population during the period 1995-96 to 2014 and in urban areas, it increased from 88 persons to 306 persons per 1,000 population during the same period. The state govt. has drastically reduced the prevalence of communicable diseases by implementing various immunisation programmes and expansion of healthcare facilities, whereas non-communicable diseases have been rising in the recent decades (Kutty, 2000; Thresia and Mohindra, 2011). In 2007, nearly **6.26 million persons** had suffered from **one health problem**. Of this, **4.48 million persons** suffered from **one or more** of the eight chronic diseases, viz., **diabetes, heart problem, arthritis, cholesterol, blood pressure, asthma, cancer and kidney disease**. (Zachariah and Rajan, 2008). In 2014, more than 65 per cent of spells of ailments were treated in the private healthcare sector in Kerala which is almost two times higher than that treated in the public sector (NSSO, 2015). The higher utilization of private healthcare services increased households' health expenditure, pushing families into impoverishment. In 2005, out-of-pocket healthcare expenditure was one of the main reasons for impoverishment in India and Kerala ranked the highest in both out-of-pocket expenditure and impoverishment due to healthcare expenditure (Ghosh, 2011; Ladusingh & Pandey, 2013). In 2013-14, Kerala spent 6.5 per cent of its gross state domestic product (GSDP) on health, out of which public expenditure constitutes 1.5 per cent of the GSDP and rest is private expenditure. The rapid change in the disease pattern in the state poses an economic burden for households because non-communicable diseases account for higher out-of-pocket expenditure.

Health care in Kerala (contd.)

The state government failed to increase investment in the health sector due to the rising fiscal deficit in the budget during the last two decades. Expenditure on healthcare increased slightly from **1.02 per cent to 1.5 per cent of Gross State Domestic Product (GSDP)** between **2001-02** and **2013-14** (Economic Review, 2015). The **lack of public spending on health** led to deterioration in the quality of healthcare services in the government hospitals. As a result, the government hospitals are unable to meet the increased demand for healthcare services and the public responded to this shortfall by **relying more on private healthcare services** (Rajesh and Thomas, 2012). In 2014, more than **65 per cent** of spells of ailments were **treated** in the **private healthcare sector** in Kerala which is almost **two times higher** than that **treated in the public sector** (NSSO, 2015). The higher utilisation of private healthcare services increased households' health expenditure, pushing families into impoverishment. In 2005, out-of-pocket healthcare expenditure was one of the main reasons for impoverishment in India and Kerala ranked the highest in both out-of-pocket expenditure and impoverishment due to healthcare expenditure (Ghosh, 2011; Ladusingh and Pandey, 2013). In 2013-14, Kerala spent 6.5 per cent of its gross state domestic product (GSDP) on health, out of which public expenditure constitutes 1.5 per cent of the GSDP and rest is private expenditure. Kerala has a comparatively higher rate of morbidity and remittance receipts among the Indian states, research on the responsiveness of healthcare expenditure to remittance receipts has not received much attention among researchers in India.

Objectives

- To examine the impact of international remittances on health care expenditure and choice of hospitals in Kerala.

Theoretical Understanding

International migration may affect health outcomes in different ways. Income effect
Migration is considered a beneficial household strategy that decreases vulnerability to negative shocks by *diversifying household income* (Stark and Bloom, 1985; Taylor, 1999). Remittances can relax households' budget constraints and enable them invest more resources in improving health. Remittances also allow households access to high quality private healthcare services (Drabo and Ebeke, 2010). Though healthcare costs are higher in the private sectors, remittances ease the financial burden of households and allow them to access to these healthcare services. Moreover, remittances have the potential to raise the household's ability to make nutritious food choices and hygiene related services which improves health outcomes (Anton, 2010; Azzarri and Zezza, 2011).
Absence of productive member
When households are deprived of the main working member due to migration, families may face income constraints in the short-run which would force them to resort to borrowing to meet unexpected healthcare expenditure. Loans to meet expenditure on healthcare can also create a heavy and lasting financial burden for families.
Absence of parents
when parents migrate, children who are left behind may experience psychological distress because caretakers fail to provide appropriate care or emotional support (Mazzucato, et al 2015). Parental migration can cause conduct problems among children due to lack of supervision. Migration can disturb family life, even resulting in divorce, which affects children's' wellbeing (Mincer, 1978).

Data

The study uses Kerala Migration survey 2010 funded by Government of Kerala in collaboration with Centre for Development Studies, Trivandrum, Kerala. The sample households were selected based on the stratified random sampling method. The total sample size is 65,000 individuals corresponding to 15,000 households. Out of total individuals, 12,990 persons had ailment during the last month prior to the survey. Of this, 2575 persons (19.8 per cent) live in remittances receiving households and 10,415 persons (80.2 per cent) live in non-remittance receiving households. Out of this, 11,035 persons (85 per cent) consulted doctors, in which 61 per cent went to private hospitals.

Empirical Specification

$$Y_i = \rho_0 + \rho_1 R_i + \rho_2 X_i + \varepsilon_i \quad (1)$$

Where, Y_i is a continues variables in case of per capita health care expenditure and also represents binary outcome variable for access to private hospital as one and zero for government and other hospitals. R_i is a binary variable which is equal to 1 if household received remittances from international migrants and the reference group is household that has not experienced migration and has not received any remittances. For robustness check we use remittances as continues variable, where non-remittance receiving households are assigned value zero. X_i represents a set of vectors related to covariates describing individual, household, community, regional and wealth characteristics and ε_i is the error term.

Problem of Endogeneity and Instrument variable

However the model estimates in equation (1) may be biased because of the correlation between error term and remittance income. The correlation arises mainly from two sources. **First** originates from the unobservable and omitted variable bias. Remittances income and household health care expenditure may be correlated by wide range of characteristics we lack information on such as household wealth or even the family genetic problems affecting the employment, wealth and in turn affects the health expenditure incurred by the household. **Second** potential endogeneity originates due to joint determination of remittance income and health expenditure. To address the potential omitted variable bias and joint determination of remittance income and health expense, we instrument remittance variable in equation (1) by using information on migration networks as instruments for migration and remittances (McKenzie and Rapport, 2007; Khan and Valatheeswaran, 2016).

Empirical Results

Table 1. Impact of remittances on household per-capita health expenditure (IV estimates)

Variables	Total	Rural	Urban
Remit_hhd	0.106*** (0.018)	0.097*** (0.020)	0.151*** (0.039)
Observations	14,117	10,979	3,138

Table 2. Impact of remittances on access to private healthcare services (IV-Probit estimates)

Variables	Total	Rural	Urban
Remit_hhd	0.463*** (0.054)	0.397*** (0.062)	0.704*** (0.120)
Observations	11,179	8,799	2,380

Results by Income and Socio-religious group

Table 3 Impact of remittances on household per-capita health expenditure (IV estimates)

(A).Wealth quantiles	(Q1)	(Q2)	(Q3)	(Q4)	(Q5)
Remit_hhd	0.162** (0.063)	0.003 (0.048)	0.073* (0.038)	0.126*** (0.034)	0.136*** (0.035)
Obs.	2,959	2,809	2,864	2,715	2,770
(B). Social groups	General	SC/ST	Other-OBC	Muslims-OBC	
Remit_hhd	0.140*** (0.031)	0.182 (0.116)	0.070** (0.030)	0.059* (0.031)	
Obs.	4,867	1,753	3,537	3,044	

Table 4 Impact of remittances on access to private healthcare services (IV-Probit estimates)

(A).Wealth quantiles	(Q1)	(Q2)	(Q3)	(Q4)	(Q5)
Remit_hhd	0.821*** (0.218)	0.439*** (0.141)	0.329*** (0.117)	0.503*** (0.103)	0.377*** (0.115)
Observations	2,305	2,232	2,247	2,341	2,034
(B). Social groups	General	SC/ST	Other OBC	Muslim OBC	
Remit_hhd	0.431*** (0.096)	0.363 (0.465)	0.494*** (0.088)	0.510*** (0.091)	
Observations	3,564	1,237	3,181	2,834	

Note: Standard errors in parentheses, *** p<0.01, ** p<0.05, * p<0.1 Controls are used but not presented.

Conclusion

we found that the money sent from abroad has a positive impact on per-capita health expenditure. Three-fourth of recipient household's access private hospitals for healthcare services. Since private hospitals charges higher prices for healthcare services, remittances income reduces household's financial constraints and allowing them to access private healthcare services. This study also found that remittance income has a significantly greater influence on the healthcare expenditure of lower-income households relative to higher income households. The expenditure on healthcare services can push the lower-income households into poverty and remittances from abroad helps to release the budget constraint. However, its not true with Socially disadvantaged SC/ST communities. The impact of remittances is insignificant. International migration rate has been more or less stagnant at 3 percent over the last two decades for socially disadvantaged communities in Kerala and are left behind in reaping the benefits of international remittance led development trajectory.