Publicly-Financed Health Insurance Schemes
Ignorance Is Not Bliss

SAKTHIVEL SELVARAJ

A reply to T R Dilip's assertion (EPW, 5 May 2012) that Sakthivel Selvaraj and Anup K Karan (EPW, 17 March 2012) arrived at unacceptable conclusions due to methodological flaws with regard to assessing the effectiveness of publicly-financed health insurance schemes.

Sakthivel Selvaraj (*shakti@phfi.org*) is with the Public Health Foundation of India, New Delhi.

India's five-year journey on the road to health insurance (the generic version of social health insurance) has gone without a rigorous evaluation. While sporadic attempts have been made in the past, a methodologically meticulous impact assessment has been missing. In one of the first such attempt, we (the author and Anup K Karan) examined the impact of the publicly-funded health insurance schemes in this journal ("Why Publicly-Financed Health Insurance Schemes Are Ineffective in Providing Financial Risk Protection", EPW, 17 March 2012). To recapitulate, our findings using the robust sample of over 1,00,000-1,20,000 households drawn from two quinquennial Consumer Expenditure Surveys (CES) provide the first glimpse of the fallout of such insurance schemes. Our study firmly concludes that the publicly-funded health insurance schemes beginning from 2007 (including the Rashtriya Swasthya Bima Yojana (RSBY) and the state-based health insurance schemes) appear to have failed to provide financial risk protection to the poor households in the country. Our paper conclusively demonstrated that the economically weaker segments of households in intervention districts of insurance schemes experienced a rise in real per capita expenditure on healthcare, especially on hospitalisation and a rise in catastrophic headcounts during the post-insurance years.

T R Dilip, in response to our paper ("On Publicly-Financed Health Insurance Schemes", EPW, 5 May 2012), disagrees with our findings and attributes it to methodological problems. According to him our paper is "replete with methodological flaws", pointing to the "sample size" examined. While we utilised a "generic" model of Difference-in-Difference (DID) approach to tease out the difference that could be attributed across time and space, Dilip appears to miss this methodology, and rather erroneously attributes the lack of sample and rise in hospitalisation rates to methodological incorrectness. He essentially raises two points: (i) the sample size of the treated (beneficiaries of the scheme) is too small to carry out an analysis such as DID, and (ii) hospitalisation rates have increased in India particularly among the poor, so our estimates on increased financial burden on them does not hold true and the same cannot be attributed to the failure of the publicly-financed health schemes.

First, as far as sample size is concerned, since the scheme covers only below the poverty line (BPL) households, the enrolment of 22 million households in the scheme by the end of December 2010 implies more than 40% coverage of such households.[1] Since our analysis considers January 2010 as the middle point of the National Sample Survey Office (NSSO) year 2009-10, the enrolment of even 18 to 20 million households by the time implies that at least 30% of the BPL households had already enrolled in the scheme. Further, if we consider the enrolment in the intervention districts, the proportion of enrolled population to the BPL population in these districts will be much higher. In fact, Dilip's argument is misleading because he considers the percentage of enrolled households/population to the total number of households/population in the country. Similarly, while quoting the hospitalisation rates as 25 per 1,000 in India, Dilip again commits an error by comparing our estimates drawn from the CES data of NSSO as analysed in our paper with the 2004 health survey data of the NSSO. This survey reports the hospitalisation rate to be 25 per 1,000. On the other hand, the share of households reporting any inpatient (hospitalisation) expenses in the CES is reported to be more than 9% and 13% households in 2004-05 and 2009-10 respectively. This is evident by the figures reflected in the table given by Dilip. If 9-13% of households are an

inadequate sample, what is the correct sample size? Perhaps he may have to use his sample size estimation software to decide this?

We conducted the analysis, on the impact of health insurance schemes on financial risk protection, at two levels. First, in the intervention districts as a whole and second for the poor in these districts. In our paper, we did not compare the 9% enrolled population with the remaining 91% non-enrolled population as reported by Dilip. Population groups in our paper are compared based on the segregation by intervention of health insurance (HI) schemes and poverty and intervention combined. The control group in the paper has been meticulously designed on the basis of time and space of intervention.

On the issue of increasing hospitalisation rates, Dilip's arguments are much more flimsy. The CES does not report the hospitalisation rate but only the households incurring any expenditure on inpatient care. Households utilising inpatient care but not spending, because of cashless scheme (such as the publicly-financed health insurance schemes), do not get reflected in the CES data. Hence, the numbers presented in Dilip's table basically stand for the proportion of households reporting any spending on inpatient care, which shows an increase in 2009-10 as compared with 2004-05. The estimates presented in the table, hence, only go to corroborate our arguments on the increasing financial burden on households, more specifically on poor households despite the intervention of the publicly-financed health insurance schemes.

There could be health insurance-led significant supply-induced utilisation of inpatient care even beyond the approved limits under different schemes. Here, the scheme with smaller packages such as the RSBY will have higher incidence of such cases. Palacios (2011) notes that "utilisation by relatives, friends, or other members in the village can increase individuals' understanding and confidence about the programme" and hence may lead to higher utilisation. Further, there is switching/substituting of outpatients to inpatient care because of the coverage of only inpatient care in the HI schemes. Informal payments at the hospitals which might be covered better in the household level data such as in the CES is also one of the reasons for increase in reporting of any inpatient expenses during the intervening periods. Das and Leino (2011) note that "There is also evidence of hospitals not complying fully with the terms of the RSBY empanelment by forcing patients to incur out-of-pocket spending, especially in the case of medicines. In Delhi, Kerala and Gujarat, small-scale patient surveys showed that between one-fifth and one-third of RSBY patients incurred such costs, mostly for medicines" (p 85).

Dilip's table demonstrates that there has been an all round increase in the proportion of households reporting inpatient expenses, and the increase has been rather slower in the intervention districts. However, the key point here is that the poorest group of the population suffered the sharpest increase in the intervention districts, while the same declined marginally in the non-intervention districts. In fact, the "double-difference" estimate is positive only in the case of the

poorest quintile and marginally negative in the case of the second poorest quintile (Table 1).

Table 1: Proportion of Households Reporting Inpatient Expenditure in Intervention and Non-Intervention Districts for Different Quintile Groups of Population during Pre- and Post-Insurance Periods

Quintile Groups	Non-Intervention Districts (NID)*	Intervention Districts (ID)*	Difference between ID and Non-ID
Pre-intervention period (2004-05)			
Poorest	4.9	4.1	-0.8
2nd poorest	6.1	6.9	0.7
Middle	7.5	8.4	0.9
2nd richest	9.3	11.0	1.6
Richest	13.2	17.4	4.2
All	8.0	9.7	1.6
Post-intervention period (2009-10)			
Poorest	8.2	9.4	1.2
2nd poorest	10.6	10.0	-0.6
Middle	13.5	12.1	-1.4
2nd richest	15.7	15.6	-0.1
Richest	18.1	18.7	0.5
All	12.9	13.3	0.4
Difference between pre- and post-insurance years			
Poorest	3.2	5.2	2.0
2nd poorest	4.4	3.1	-1.3
Middle	6.0	3.8	-2.3
2nd richest	6.4	4.7	-1.7
Richest	4.9	1.3	-3.6
All	4.9	3.6	-1.2

* Intervention and non-intervention districts have been defined as the districts of health insurance intervention and non-intervention.
Source: Authors' estimates based on unit level record of CES, NSSO, 2004-05 and 2009-10.

Therefore, the question before us is why the poorest have suffered the sharpest increase in the proportion of households reporting inpatient expenses. Is this because of poor targeting of the scheme, limited benefit package, induced hospitalisation beyond the approved limit, or many forms of informal payments? Dilip attributes improvement in infrastructural facilities and a rise in health-seeking behaviour of the poorest as reasons for enhanced access to healthcare. While this may partly be true (though it seems quite unlikely within a period of five years), the health insurance schemes are supposed to contain the financial burden despite the increase in utilisation by the poor. If this is not occurring, the conclusion reaffirms our evidence that publicly-financed health insurance schemes are ineffective.

Dilip cautions us against jumping the gun in criticising RSBY as it could "send wrong signals" to the health planners who are still grappling with their ideas and strategies for the Twelfth Plan to achieve universal access to healthcare and medicines. Dilip's silence on other publicly-financed health insurance schemes and singling RSBY as a role model smacks of one-sidedness. Relatively speaking, the impact of state government-based publicly-funded health insurance schemes is reportedly much more significant in terms of coverage (85% in AP) and benefits (Rs 2 lakh as against RSBY's Rs 30,000). Then why choose the RSBY?

Perhaps Dilip is unaware of the global literature on this subject, some of which utilises consumer expenditure data for analysing the impact of health insurance schemes on financial risk protection. A recent publication (edited by Escobar, Griffin and Shaw 2011) examines the experiences of seven countries on the global scale. The evidence from that publication does not clearly demonstrate the success of health insurance schemes in improving financial risk protection of households. Interestingly, as far as the steering committee report of the Twelfth Plan document is concerned, it is apparent that the report did not recommend expansion of health insurance schemes. The 40-member steering committee had apparently rejected these kinds of standalone health insurance models.

The steering committee essentially calls for strengthening public health system rather than utilising the financial intermediary for purchasing care from the private sector. The High Level Expert Group (HLEG), while calling for strengthening the government health system delivery, recommends utilising the private sector as a gap-filling approach rather than a competitor. In order for competition to exist, a level-playing field is critical and unfortunately our public health system is not in a position to compete with the private sector due to long and sustained neglect. Therefore, while a strong methodology is a key to robust estimates, we urge Dilip not to get swayed by technocracies. There is a need to understand and emphasise the political economy in policy-making. Countries such as Brazil and Thailand, have invested heavily in strengthening the public health system rather than going in the direction of health insurance, which typically promotes delivery of services by the private sector. In order to stem the tide of over-utilisation, cost escalation, misplaced priorities and induced demand due to health insurance, there is an urgent need to move away from this piecemeal approach to one that is universal-based. That will not only achieve good health outcomes but also provide the much-needed financial risk protection.

NOTE

1 Total number of BPL households in India was approximately 55 million in 2002-03 which could be estimated to be around 45 million in 2010.

REFERENCES

Das, Jishnu and Jessica Leino (2011): "Evaluating the RSBY: Lessons from an Experimental Information Campaign", *Economic & Political Weekly*, 6 August, Vol XLVI, No 32, pp 85-93.

Escobar Maria-Luisa, Griffin Charles C and Shaw R Paul, ed. (2011): *The Impact of Health Insurance in Low- and Middle-Income Countries* (Washington DC: Brookings Institution Press), p 221.

Palacios, R (2010): "Working a New Approach to Providing Health Insurance to the Poor in India: The Early Experience of Rashtriya Swasthya Bima Yojana", RSBY Working Paper No 1, Ministry of Labour and Employment, Government of India, New Delhi.