NSSO 71st Round
Same Data, Multiple Interpretations

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A comment on the article "Falling Sick, Paying the Price: NSS 71st Round on Morbidity and Costs of Healthcare" (EPW, 15 August 2015) which suggests that the National Sample Survey Office's 71st round on social consumption of health can be read differently.

The National Sample Survey Office (NSSO) recently published the key findings of the 71st round of household survey entitled "Key Indicators of Social Consumption in India: Health." An analysis of the preliminary results of the survey has recently been presented by T Sundararaman and V R Muraleedharan (S&M) in "Falling Sick, Paying the Price: NSS 71st Round on Morbidity and Costs of Healthcare" (EPW, 15 August 2015). We wholeheartedly agree with the authors on the need to factor in the evidence from such large-scale household surveys into our policy-making process. However, we are in disagreement with some of their interpretations of the data and even more so with the policy conclusions they draw from the evidence presented. In this comment, we propose to show that a differing but equally plausible interpretation is possible on the basis of the same data set and this differing interpretation leads to an altogether different policy perspective than the one suggested in their article.

Methodological Changes

Before we proceed with our analysis, a word of caution on the methodological changes and survey tools employed by the NSSO that have a bearing not only for this analysis, but also for the comparability with data from earlier rounds. There are eight changes in definitions; however, two have major implications.

First is the change in the definition of "medical treatment." In the earlier health surveys (52nd and 60th rounds of NSSO surveys), only treatment of ailments administered on medical advice was considered as medical treatment. In the 71st round, self-medication, use of medicines taken on the advice of persons in chemists' shops, etc, have also been considered as medical treatment. Due to a broadening of the definition and given the widespread prevalence of self-medication in India, the estimates in the earlier surveys are likely to be lower vis-à-vis the 71st round.

The second crucial change is in the definition of "expenditure incurred" as expenditure incurred on treatment was collected with a "paid" instead of "payable" approach. This can completely change the measurement of effectiveness of cashless health insurance as no money is paid by the household out of their pockets in these cases.

Choice of Providers

In the 71st round data, it is seen that private doctors were the single-most significant source of treatment in both the rural and urban sectors. In fact, more than 70% (72% in the rural and 79% in the urban areas) spells of ailment were treated in the private sector. Survey results show that there is an increased overall share of the public sector in outpatient care provision between the 60th and the 71st rounds from 22% to 28.3% in rural areas and from 19% to 21.2% in urban areas. Based on this, S&M conclude: "This clearly matches what we know of the development of the health systems. The last decade has seen some strengthening of care in rural areas, but almost none in urban areas." Prima facie the conclusion appears unexceptionable; except if we look at the state-wise disaggregated data, which suggests otherwise (Table 1, p 85).

As we can see in the table, in nine out of the 21 states, the share of public sector facilities in outpatient care has decreased; in six states it has improved marginally while there have been impressive gains in six states. Even in the Empowered Action Group (EAG) states—which have been the focus of the National Health Mission (NHM)—the outcome has not been uniform. The best results are from Assam, Uttarakhand, Odisha, Chhattisgarh and Jharkhand which suggest that investments in public healthcare facilities are likely to yield far better results in those areas where there is a dearth of

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private healthcare facilities due to paying capacities, terrain or other factors; whereas in areas where such inhibiting factors are absent, such investments are only marginally successful or have no impact at all. Hence a one-size-fits-all approach is uncalled for; rather this suggests the need for a far more nuanced approach factoring in interstate (and also intra-state) differences.[1]

Table 1: Outpatient Care: Share of Public Healthcare Provider (in %)

Sl No	State/UT	R+U* 71st	Rural 60th	Diff
1	Himachal Pradesh	48.30	68	-19.70
2	Karnataka	21.35	34	-12.65
3	Andhra Pradesh	14.15	21	-6.85
4	Rajasthan	37.95	44	-6.05
5	Jammu and Kashmir	47.50	52	-4.50
6	Kerala	33.65	37	-3.35
7	Delhi	20.85	23	-2.15
8	Haryana	9.85	12	-2.15
9	Gujarat	19.50	21	-1.50
10	West Bengal	19.65	19	0.65
11	Maharashtra	17.75	16	1.75
12	Punjab	19.30	16	3.30
13	Madhya Pradesh	27.60	23	4.60
14	Uttar Pradesh	14.90	10	4.90
15	Tamil Nadu	34.45	29	5.45
16	Bihar	13.90	5	8.90
17	Jharkhand	25.10	13	12.10
18	Chhattisgarh	30.75	15	15.75
19	Odisha	72.25	51	21.25
20	Uttarakhand	46.70	18	28.70
21	Assam	78.00	27	51.00

* Rural + Urban: In the absence of disaggregated unit level data, it is not possible to separate the rural effect separately, but the wider point being made still holds.
Source: NSS 60th round (January–June 2004) and 71st round (January–June 2014), New Delhi; NSSO, Ministry of Statistics and Programme Implementation.

The picture is even more dismal for inpatient care, with 12 out of 20 states in rural areas and 17 out of 21 states in urban areas registering a decline in the share of the services provided by government-owned facilities (Table 2).

One way to interpret these results—as S&M suggest—could be that in view of greater investments on public health facilities in rural areas, the declining trend of people availing public healthcare facilities could be arrested, but this was not so in urban areas due to limited investments in government facilities.

But another equally compelling argument could be that there is a general preference among people for private providers; financial resources permitting and adequate choice of providers being available. The plausibility of the latter argument is buttressed by data showing a steady decline in the reliance upon public providers with a rise in urban monthly per capita expenditure (UMPCE). This correlation suggests that as the financial constraint becomes less and less binding for households, there is an increase in utilisation of private providers. In the absence of data on availability and quality of services in the public and private sectors respectively, the reason for increasing utilisation of private healthcare services by higher income groups cannot be conclusively attributed to financial capacity. However, the clear correlation cannot be merely coincidental.

Table 2: Hospitalised Care: Share of Public Healthcare Providers (in %)

Sl No	State/UT	Rural 71st	Rural 60th	Rural Diff	Urban 71st	Urban 60th	Urban Diff
	(1)	(2)	(3)	(4)	(5)	(6)	(7)
1	Karnataka	26.8	40.0	-13.2	18.3	28.9	-10.6
2	Maharashtra	19.2	28.7	-9.5	20	28.0	-8.0
3	Gujarat	23.4	31.3	-7.9	23.3	26.1	-2.8
4	Jharkhand	39.6	46.6	-7.0	26.4	31.2	-4.8
5	Madhya Pradesh	53.5	58.5	-5.0	41.7	48.5	-6.8
6	Andhra Pradesh	22.5	27.2	-4.7	21.8	35.8	-14.0
7	Chhattisgarh	49.4	53.5	-4.1	29.4	49.3	-19.9
8	Himachal Pradesh	75.8	78.1	-2.3	71.8	89.5	-17.7
9	West Bengal	77.2	78.6	-1.4	52.6	65.4	-12.8
10	Kerala	34.7	35.6	-0.9	33.3	34.6	-1.3
11	Tamil Nadu	40.4	40.8	-0.4	29.3	37.2	-7.9
12	Punjab	29.3	29.4	-0.1	30.2	26.4	3.8
13	Rajasthan	54.2	52.1	2.1	54.4	63.7	-9.3
14	Odisha	81.3	79.1	2.2	58	73.1	-15.1
15	Jammu and Kashmir	93.9	91.3	2.6	85.4	86.5	-1.1
16	Uttar Pradesh	30.2	26.9	3.3	28.3	31.4	-3.1
17	Uttarakhand	50.8	43.1	7.7	39.7	34.2	5.5
18	Haryana	33.3	20.6	12.7	18.3	29.0	-10.7
19	Assam	89.2	74.2	15.0	51.5	55.4	-3.9
20	Bihar	42.6	14.4	28.2	38.8	21.5	17.3
21	Delhi	-	-	-	45	37.3	7.7
	All India	41.9	41.7	0.2	32	38.2	-6.2

Source: Same as Table 1.

So, if the former argument holds, with greater dependence of poorer households on public hospitals for hospitalised treatment than those relatively better-off, a case can be made for an enhanced investment in the public healthcare system on equity grounds. However, if reliance on public providers is not by choice but only because they are constrained by a lack of financial resources, then offering financial protection through some kind of universal health coverage mechanism with purchasing of services from public and private providers could be a better approach.

Is Public Sector Cheaper?

It is true that from a patient's out-of-pocket expenditure perspective, the net outflow is much lower in the public hospital than private ones. However, from the perspective of the health system, it needs to be noted that this does not automatically translate into lower cost of service delivery in the public sector, compared to the private sector. While the cost to a household in a public hospital does not represent the full cost of service, the outgo at the private hospital represents the true opportunity cost of availing the medical service. This is so because of the subsidy element built into the public healthcare delivery—such as salaries of doctors and paramedical staff, cost of land, building and equipment, etc.

It is quite inexplicable as to why households—across income groups—choose to go to private hospitals despite the fact that average medical expenditure per hospitalisation in a private facility (Rs 25,850) is over four times that in a public hospital (Rs 6,120). Unfortunately, this question cannot be answered—at least on the basis of this survey. The schedule used for this survey elicits from the households the reasons for not availing government sources for spells of ailment in the last 15 days (majorly outpatient care), but does not seek the same information in case of inpatient care. We suggest that this lacunae needs to be addressed in future rounds.

As would be seen from Table 3 (p 86), the expenditure on healthcare by governments (union and states) has increased by more than four times in nominal terms, but the share of patient load for hospitalised care in government facilities has remained practically static

in rural areas (41.7% to 41.9%) and steadily declining in the urban areas (38.2% to 32%) between the 60th and the 71st round surveys.

Table 3: Government Expenditure on Healthcare

(in Rs crore)

Year	Total Expenditure	Central Expenditure	State Expenditure
2005–06	34,769	11,640	23,129
2006–07	40,071	13,342	26,729
2007–08	47,788	17,252	30,536
2008–09	57,718	21,372	36,346
2009–10	71,895	27,147	44,748
2010–11	81,953	30,041	51,913
2011–12	92,711	33,307	59,404
2012–13	1,12,582	35,331	77,251
2013–14	1,23,908	36,656	87,252
2014–15	1,49,538	44,238	1,05,300

Source: Union budget data (for central expenditure) and RBI annual publications (for state expenditure).

This suggests that first we need to be little bit more sceptical about the efficiency of our spending and seek greater accountability of our public health system in terms of translating outlays into outcomes and, second, that the private sector is rapidly expanding its footprint. The rising non-communicable disease burden, cost structure of availing healthcare services from private providers and preponderance of out-of-pocket payment mechanism imply that an ever greater section of our population is being rendered vulnerable to financial shocks arising out of bouts of ill health. It is imperative that an institutional framework to address this issue is put in place at the earliest.

Health Insurance

In their article, S&M draw a distinction between notional and effective insurance cover and conclude that "despite considerable effort in pushing for increasing insurance coverage, the benefits have not reached the poorest nor is it efficient in financial protection." The basis of this assertion is the fact that despite an insurance coverage rate of 14.1% and 18% of rural and urban populations, respectively, only 1.2% and 6.2% of the hospitalisation cases in rural and urban areas, respectively, received part reimbursement of incurred healthcare costs from insurance agencies.

A close scrutiny of the NSSO household survey schedule would reveal that the question that was asked of the households was "total amount *reimbursed* (emphasis added) by insurance company or employer." Hence, the numbers thrown up by the survey are confined to reimbursement schemes only, that is, those insurance schemes where the household initially incurs the expenditure and then seeks reimbursement, whereas the coverage figures refer to all kinds of insurance coverage including cashless ones like the Rashtriya Swasthya Bima Yojana where the occasion for reimbursement does not arise. We would therefore like to posit that S&M's interpretation of the available data is conceptually flawed and by extension, the observation questioning the coverage and efficacy of health insurance is erroneous. To capture the effect of cashless health insurance schemes, future survey instruments need to be appropriately modified.

It would also be pertinent to note that the amount of money spent by the government on health insurance schemes (RSBY) is several orders of magnitude lower than its spending on other health programmes (Table 4).

This needs to be kept in mind when we compare the effect of health insurance schemes with respect to others. Of course, Table 4 does not include the insurance spending of the state governments on state-specific schemes, such as Andhra Pradesh's Rajiv Arogyasri, Tamil Nadu Chief Minister's Health Insurance Scheme, etc. But the broader observation still holds that insurance spending comprises a very small fraction of our overall health spending.

It is heartening to note that the proportion of population receiving hospitalised treatment has grown significantly and has gone up from 2.3% in the 60th round to 3.5% in the 71st round in rural areas, and from 3.1% to 4.4% in urban areas over the same period. This implies an improved access to healthcare and thereby a reduction in cases of treatment foregone. However, the jury is still out on separation of the effects on account of reduced financial barriers to access and that on account of higher income (a good proxy for awareness) levels.

Table 4: Government Expenditure on RSBY

(in Rs crore)

Year	Total Expenditure	Central Expenditure	State Expenditure
2008–09	133.3	99.9	33.3
2009–10	350.0	262.5	87.5
2010–11	678.9	509.2	169.7
2011–12	1,230.6	923.0	307.7
2012–13	1,409.1	1,056.8	352.3
2013–14	1,181.2	885.9	295.3
2014–15	725.9	544.4	181.5

State shares have been estimated on the basis of 75:25 union and state contributions. Though for North-Eastern States and J&K, the sharing pattern is 90:10, since total numbers enrolled in these states are low, the overall estimate is not very wide off the mark.
Source: Ministry of Labour and Employment reports.

Institutional Childbirth

One very significant change in healthcare behaviour of the households observed in the 71st round is the substantial increase in the proportion of institutional deliveries. One cannot ignore the remarkable success of National Rural Health Mission in ensuring that 80% of all deliveries in the rural areas are now happening in a hospital or a health centre compared to 36% a decade ago. This is all the more creditable since government hospitals account for about 70% of the overall institutional deliveries in the rural areas. In urban areas, the public facilities account for only 46.7% of the overall institutional deliveries, while 89.2% of all deliveries take place in hospitals.

While we celebrate this remarkable turnaround story, one sobering thought is that incentive-based change in health-seeking behaviour of households will have limited replicability. The maternity incentive programmes like Janani Suraksha Yojana (JSY) and Janani Shishu Suraksha Karyakram (JSSK)—offering cash incentives to women and ASHA workers for incentivising institutional deliveries in government hospitals may not apply and might not even be fiscally prudent or sustainable for a wide range of healthcare services.

The second tempering consideration is to pose the counterfactual: Would we have been able to attract these pregnant women to our public facilities without such incentives? The Government of Gujarat is running a maternity voucher scheme called "Chiranjeevi" which permits private facilities to provide maternity services. The 71st round data for Gujarat affirms that 64% of institutional

deliveries in rural areas are happening in private clinics and hospitals as compared to only 30% at the national level. One is by no means suggesting that a voucher-based scheme is free from defects; it has its own set of problems. But it does suggest the major role of a monetary incentive in the sudden spurt in institutional delivery. Moreover, it also raises a concern: can our public system not generate enough trust and confidence in our people on the strength of their reliability and performance alone that it requires incentives to attract the patients? While demand-side financial incentives have been shown to improve healthy behaviour and certain health outcomes, they also lead to creation of perverse incentives. The sustainability and cost-effectiveness of such measures needs careful examination and is reiterated here (Amudhan et al 2013; Randive et al 2013).

In view of the above, we may not be able to bring ourselves in complete agreement with S&M that "the poor seem to turn to subsidised care in public facilities as the only form of financial protection that is available—provided like in the case of child birth that these services are available." It appears to us that households increasingly prefer institutional to home based delivery and are accessing it at both public and private facilities contingent upon their ability to finance it.

Conclusions

Even as we await publication of unit level data by the NSSO, the 71st round data released so far provides a good reference point for stocktaking by health policymakers, implementers and other relevant stakeholders. It is extremely useful to examine this data that it helps us in analysing the performance of our healthcare system and to internalise this feedback into further refining our policies and programmes. However, it is critical that the data must be interpreted carefully, lest it leads to conclusions and policy prescriptions that are not adequately supported by evidence.

Second, we feel that there is a need to have much more frequent and far richer data sets than the one provided by the 71st round—if they are to constitute reliable evidence to inform policy-making and institute mid-course corrections. As pointed, there are several lacunae and limitations in the survey instrument used in the survey. We therefore need to invest in creating capacities for building up credible healthcare related data.

Third, despite a fourfold increase in investment in the government expenditure on health, funded through the traditional supply-side system public healthcare, the outcome has been a mixed bag. With an expanded and energised public healthcare network, we have evidence of improving access to institutional delivery. However, when looked at from a health system perspective, it is important to recognise the differences in performance of different states and the need, therefore, for a differentiated healthcare strategy for different states.

Fourth, since a greater share of poorer households tends to seek care from the government facility on account of financial constraints or access barriers, we need to pay much greater attention to enforcing accountability, improving their quality of service and seeking better value for the tax money spent on it.

Lastly, the burgeoning healthcare costs make it imperative that we put our heads together and put in place an institutional architecture that reduces the vulnerability of our population to financially debilitating health shocks.

NOTE

1 It may be possible that these results may not be as robust for smaller states with smaller sample sizes; but they are definitely robust for the major states that have been presented in this analysis.

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