



QUALITY OF LIFE

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Quality of Health Services : Developing Evidence-based Perceptions

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[1]

Increasing emphasis on privatisation, 'withdrawal' of the state from the social sector, and the need of an effective safety net for the non-rich, make efficiency crucial in public health delivery system in developing countries. On the other hand, policy planning in this sector in India, like in other social sectors, is often externally driven, rhetoric rich and ambitiously omnibus. Further, it does not make full use of available data. It is argued here that public health policy has a lot to gain by applying certain techniques of analysis to routinely collected data in a disegregated manner. Even a basic application of these techniques can generate useful insights for policy, research and field administration and improve efficiencies thereby.

These techniques are not new. What is new is the application of IT in making these techniques user-friendly. Even the choice of IT packages needs to be carefully done, for, it affects the user friendliness of the analysis.

Collection of data routinely and mechanically from the field, is not new in our system of governance, nor the distrust in these data. As such these are often not used for policy inputs and there is a tendency to depend on survey data, rather than improving quality of routine data collection through analysis and feedback. Use of the survey data too, gets limited by the extent the report writing agencies bother to analyse these. At times, subsequent analyses of these data also get into the discourse. But most of these analyses are not quite being driven by policy concerns and often, concerns at disaggregated levels get ignored even if addressing these is feasible.

It is not the idea here to list these deficiencies and leave the issue at that. Above observations are substantiated through specific elaboration followed by suggesting some of the techniques of analysis towards solutions. We draw upon the DHS 1998-99 data on immunisation at district level.

The discussion is organised as follows . Next section looks at the district level immunisation data presented in a 'business as usual' manner followed by a more 'intelligent' reorganisation of the same data. Different insights generated through it are discussed. Usefulness of mapping is described next, citing examples not only from immunisation, but other variables too, like under-5 mortality among girl children. The final section draws some tentative conclusions.

[2]

A good deal of public domain data is presented in traditional ways and without yielding much of insight. The formats for various reports and returns still carry the hangover of yesteryears where the convenience of the typist or the use of blank white sheets ruled the roost. Further, the information was mostly organised in alphabetical order of geographical areas to be reviewed. Presentation of the data on immunisation of children under-3 from the DHS 1998-99 (District Household Survey) bears this out (Table-1). One could keep looking at these data for as long as one may wish without getting much insight into the issues. Could these data be presented a bit differently ?

The same data can be presented by arranging different districts in descending order of the BCG immunisation coverage. Colour coding can also be used assigning, say, red, yellow and green background to categorise coverage under different antigens. This will change the picture dramatically and the new table will indeed speak 'more than a 1000 words'. More importantly, it will provide meaning to the *mantra* of decentralised planning.

Quite obviously, the planning and the implementation priorities in the better performing districts like Hooghly, Bankura and the North 24- Paraganas will be quite different from those in the two Dinajpurs, Purulia or Birbhum. Even among the former, Bankura may have to note the rather large percentage of children (9.5%) who miss out immunisation altogether and investigate if this represents a geographical cluster or a social cluster. Even in Calcutta, which will be a 'role model' for the other districts, the programme implementers may well wonder as to why coverage against measles can not be pushed to a level of 90% plus. Interestingly, presentation such as this may spur districts like Darjeeling and Jalpaiguri to aspire for reaching a higher slot.

Table-1
Immunisation Efficiency : District Level Comparison : West Bengal : RCH- 1998-99

District	BCG	3 DPTs	3 Polio	Measles	Full Immun.	None	One Vit-A
Bankura	86.8	72.2	75.7	72.5	67.3	9.5	64.6
Birbhum	61.9	59.2	62.3	42.0	34.9	17.2	26.6
Burdwan	77.5	69.0	71.0	69.0	51.8	12.8	47.4
Calcutta	95.0	92.3	92.3	85.1	82.9	1.6	53.3
Coochbehar	79.9	65.2	65.2	58.0	49.8	9.6	64.9
D. Dinajpur	71.6	55.9	56.3	48.4	40.5	16.9	44.5
Darjeeling	86.6	78.6	80.0	65.7	60.8	6.2	56.0
Hooghly	93.6	79.3	78.7	74.1	67.8	3.4	63.8
Howrah	78.7	68.8	72.1	63.2	56.1	11.7	49.1
Jalpaiguri	86.3	77.4	75.4	67.7	62.0	6.8	63.5
Malda	68.8	55.4	58.2	47.0	38.9	20.2	34.3
Midnapore	74.4	62.2	62.1	52.7	46.0	16.9	43.4
Murshidabad	67.6	51.2	54.4	51.2	39.4	21.1	46.2
N. 24 Parganas	93.6	78.9	79.4	74.0	64.6	3.4	59.8
Nadia	85.2	77.5	78.2	72.8	68.9	8.5	64.4
Purulia	67.9	62.2	64.0	45.2	38.0	16.3	33.9
S. 24 Parganas	85.2	69.2	75.0	69.2	59.4	6.1	57.8
U. Dinajpur	54.6	38.7	38.4	32.9	28.5	36.5	26.1
West Bengal	77.2	65.3	66.9	58.7	51.5	14.0	48.4

It can also be noticed that low BCG coverage is invariably associated with a tardy coverage under other antigens. One could notice strong association between BCG coverage and full immunisation (defined as coverage under primary vaccinations,

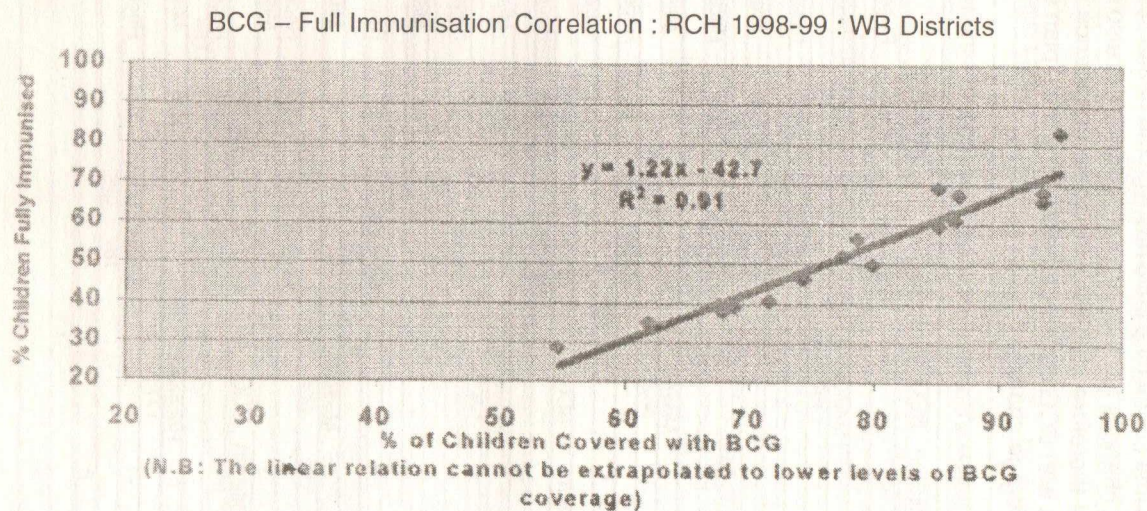


Figure - 1

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BCG, 3 doses of DPT, OPV and measles coverage). This can be checked with the help of simple regression. Figure-1 confirms this strong association. This is not surprising, since BCG represents the first contact the child has with the health system. If this goes right, chances are that the rest vaccines are also availed of. One could therefore suggest with some confidence that all the 10 districts with BCG coverage below 70% must plan step up their BCG coverage sharply.

Table 2 : GP wise number of children who received / missed BCG, DPT-III and Measles

GP-1	Total Children	BCG	DPT-III	Measles
			Received	1125
			1229	Received
		Received		104
		1362		Missed
			Missed	17
			133	Received
				116
	1724			Missed
			Received	11
			16	Received
		Missed		5
		362		Missed
			Missed	5
			346	Received
				341
				Missed
GP-2	Total Children	BCG	DPT-III	Measles
			Received	1204
			1257	Received
		Received		53
		1324		Missed
			Missed	7
			67	Received
				60
	1447			Missed
			Received	5
			10	Received
		Missed		5
		123		Missed
			Missed	1
			113	Received
				112
				Missed
GP-3	Total Children	BCG	DPT-III	Measles
			Received	1348
			1584	Received
		Received		236
		1771		Missed
			Missed	19
			187	Received

Table 2 (Cont).

			168	Missed
1970		Received	4	Received
	Missed	8	2	Missed
	199			
		Missed	2	Received
		183		
			181	Missed
GP-4 Total Children	BCG	DPT-III	Measles	
		Received	946	Received
		1087		
	Received		141	Missed
	1125			
		Missed	1	Received
		38	Missed	
			37	Missed
1198				
			8	Received
		13		
	Missed		5	Missed
	23	Missed	0	Received
		60	60	Missed
GP-5 Total Children	BCG	DPT-III	Measles	
		Received	412	Received
		423		
	Received		11	Missed
	453			
		Missed	3	Received
		30		
			27	Missed
478				
			0	Received
		0		
	Missed		0	Missed
	25			
		Missed	0	Received
		25		
			25	Missed
All GPs Total children	BCG	DPT-III	Measles	
		Received	5035	Received
	Received	5580	545	Missed
	6035			
		Missed	47	Received
		455		
			408	Missed
Total	6817			
		Received	28	Received
		45		
	Missed		17	Missed
	282			
		Missed	8	Received
		232		
			729	Missed

BCG - Complete Immunisation : India 1998-99 DHS

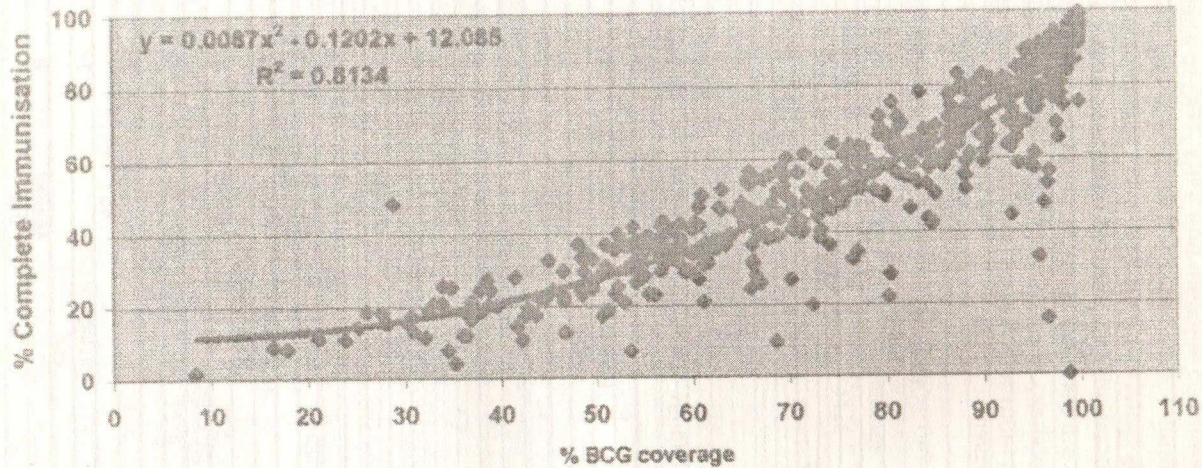


Figure-2

Such analysis makes immediate sense at policy level and my discussion with a couple of District Magistrates has shown this. But some searching question may still come from the skeptics. Does this pattern hold at all-India level ? It so happens, and Figure-2 shows that this indeed is the case.

The next question that may come up is if this is merely a statistical artifice or can be confirmed with the help of actual cohort data. Luckily, I could access four different sets of cohort data. Each of these confirm one pattern i.e. children who miss BCG coverage overwhelmingly miss other vaccines. Table 2 provides an illustration of this. But other three data sets including NFHS-II also confirm this. Two of these are survey data and one is from a full population record in six GPs of a district.

[3]

In a different twist to the tale, it may be instructive to know if there is any geographical pattern in terms of immunisation coverage. Spatial contexts of social reality have been a favourite topic of inquiry among geographers and regional planners. Of late however, it seems to have lost currency. Part of the reason may lie in the nature of technology itself. GIS (Geographical Information Systems) techniques continue to face a typical dichotomy. On one hand there are technical experts who have little patience with or insights into the users' concerns. On the other there are users who shun the GIS techniques that are not very user-friendly.

It is feasible today, to use rudimentary but user-friendly techniques of mapping. A simple power point map can suffice for this purpose. Figure-3, provides a map of the state with status of full immunisation among different districts. The low coverage cluster of Purulia, Birbhum, Murshidabad, Maldah and Uttar Dinajpur is clearly discernible. The districts of Howrah, Burdwan and Coochbehar have rather large percentage of children with no immunisation. These districts may need very little efforts to join the band of better performing districts. Midenapore needs special attention, for its low performance is not quite in keeping with its performance in the field of literacy and sanitation.

Mapping can sometimes provide even more dramatic insights. Figure-4 gives information related to under-5 mortality among girl

children in the urban areas of different districts. The contiguous belt of high female under-5 mortality from Maldah to South-24 Paraganas, and the high gender gap in mortality there, should certainly be a matter of concern for policy.

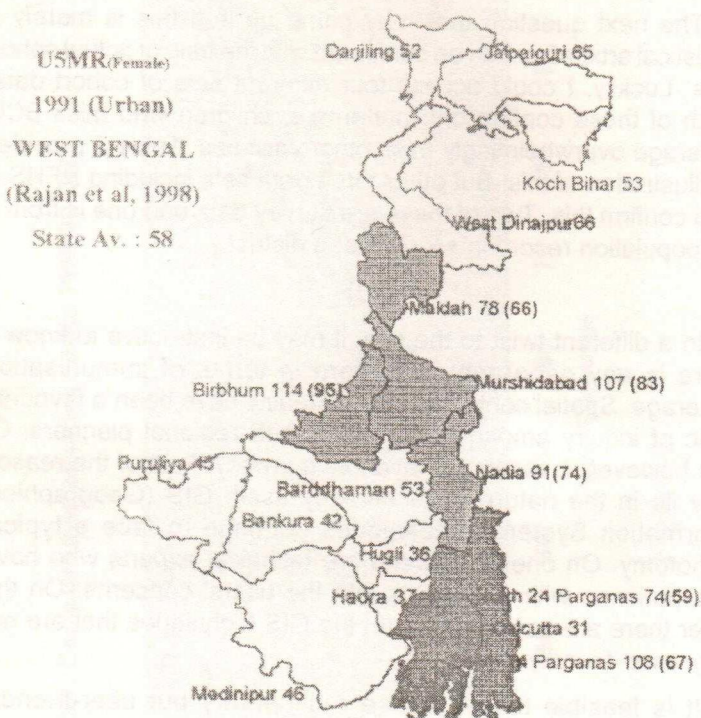


Figure-4

Given the availability of considerable amount of disaggregated data on health related indicators, it is imperative that more and more mapping techniques are used in inferring the quality of health care. The recently published RCH data and the DHS-1998-99 data must be analysed fully with the help of these techniques.

Power-point is useful when the number of units is small, e.g., districts, or blocks within a district. When this number becomes

large, use of GIS becomes necessary. There are two sites that are very user-friendly and offer considerable information in public domain along with maps. The first is the site from the Registrar General of India "censusindiamaps. net" and the second is based on a private initiative of an IT firm "trendswestbengal. org". The former provides district level data from census 2001 that has recently put lot more information in place including sub-district level data. The second site provides block level, and in some cases sub-block level information on various parameters. The mapping techniques in both the sites are same and can be learnt very quickly with the help of relevant icons. It is desirable to put as much of the health related data on these sites as possible, so that issues in quality of health can be discussed in public domain based on evidence.

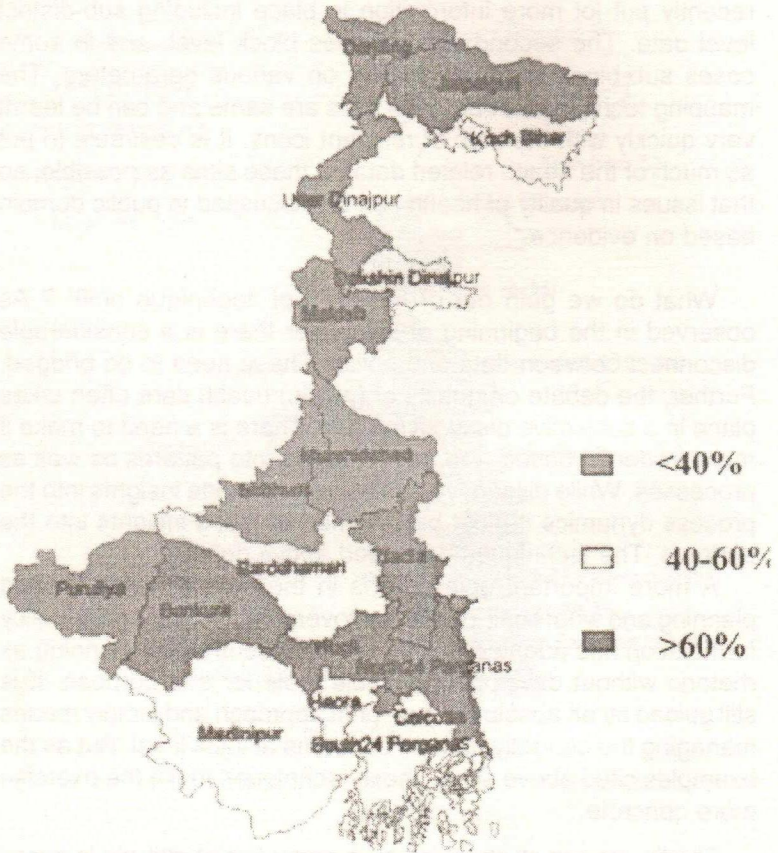
[4]

What do we gain out of this kind of 'technique shift' ? As observed in the beginning of the paper there is a considerable disconnect between data and policy. These need to be bridged. Further, the debate on quality of (public) health care often takes place in a subjective discursive mode. There is a need to make it more evidence based. We need insights into patterns as well as processes. While discursive analysis can provide insights into the process dynamics it must be informed by good insights into the patterns. The techniques described above do so.

A more important gain here is in the area of decentralised planning and what I call 'partial improvement'. Social sector policy formulation has adopted the *mantra* of decentralised planning as rhetoric without developing suitable tools for this purpose. It is still guided by an absolutist blue-print approach and simply means managing the centrally defined concerns at local level. But as the examples cited above show, these techniques make the exercise more concrete.

Finally, we are all shackled by a perfectionist attitude in social policy. It makes us reject the idea of stepwise or 'partial progress' as we chase some absolute goals or ideals. The use of colour coding for different range of performance for different parameters allows us to plan for more realistic steps of performance upgradation rather than unrealistic leaps. If quality of health care has to improve it would do so incrementally as revolutions do not happen any longer !

District-wise status of fully immunised children
West Bengal ; 1998-99



Source- RCH (DHS) 1998-99

Visva-Bharati and Indian Association for Productivity, Quality and Reliability jointly organised a 3-day National Seminar on Quality of Life at Visva-Bharati, Santiniketan, during 16-18 November 2002. The present compendium is a collection of some selected presentations by participants from various walks of life on such topics related to the seminar theme as Concepts, Precepts and Measurement of Quality of Life, Quality in Education, Quality in Health, Quality of Life of Under-privileged Sections, Role of Science & Technology in Quality of Life etc. Besides, some relevant articles of such masterminds as Rabindranath Tagore, P.C. Mahalanobis, L.K. Elmhirst etc. have also been included.

The volume is likely to be informative and useful to anyone who has a genuine concern and interest for Quality of Life.