Why do people in India avoid government doctors?

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Background:

Indian health care system is a study in contrasts. On the one hand, Government of India has put in place an extensive network of clinics to meet patient needs for treatment of both major and minor illnesses, on the other hand, patients seem to aschew use of these clinics to rely on poorly trained private health care providers. Can a massive effort to augment health infrastructure and to provide services of community health workers to help patients negotiate the health system improve use of public facilities? This is the primary question this paper seeks to answer by using data from a household survey conducted before and after the initiation of the National Rural Health Mission (NRHM).

In the early years following Independence, discourse on health policy was dominated by three major themes: providing curative and preventive services delivered by highly trained doctors; integrating Indian systems of medicine (e.g., ayurvedic, homeopathic, unani) with allopathic medicine; and serving hard-to-reach populations through grass-roots organisation and use of community health workers. This discourse implicitly and often explicitly envisioned a health care system dominated by the public sector. Public policies have tried to live up to these expectations. A vast network of Primary Health Centres (PHCs) and sub-centres as well as larger government hospitals has been put in place, along with medical colleges to train providers. Programs for malaria, tuberculosis control, and immunisation are but a few of the vertically integrated programs initiated by the government. A substantial investment has been made in developing community-based programs, such as Integrated Child Development Services, and networks of village-level health workers. In spite of these efforts, growth in government services has failed to keep pace with the private sector, particularly in the past three decades (Desai, Dubey et al. 2010).

In the existing three tier health care system in India, Sub-centres (SCs) work as a bridge between community and the first referral units Primary Health Centres. As per the Indian public Health Standard (IPHS), a sub-centre is supposed to serve a population of 3000 in the hilly/tribal/difficult area and 5000 in plain area. Each Sub-Centre is required to be manned by at least one Auxiliary Nurse Midwife (ANM) / Female Health Worker and one Male Health Worker. They are usually assigned tasks relating to interpersonal communication in order to bring about behavioural change and provide services in relation to maternal and child health, family welfare, nutrition, immunization, diarrhoea control and control of

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communicable diseases programmes. Primary Health Centre (PHC) is the first contact point between village community and the Medical Officer. The PHCs were envisaged to provide an integrated curative and preventive health care to the rural population with emphasis on preventive and promotive aspects of health care and each PHC is to cover a population of 20000 in Hilly/ Tribal / Difficult areas and 30000 in Plain areas. A PHC is to be manned by at least a Medical Officer supported by 14 paramedical and other staff. Community Health Centres (CHCs) are required to be manned by four Medical Specialists i.e. Surgeon, Physician, Gynaecologist and Paediatrician supported by paramedical and other staff. One CHC is to cover a population of 80000 in Hilly/ Tribal / Difficult areas and 120000 in Plain areas.

The health care system in India is dominated by the private sector. As much as 78.05 percent of the total health care expenditure is contributed by private sector, whereas public sector contributes only 19.67 percent of it (National Health Accounts, 2004). Almost all the private expenditure in India is constituted by out-of-pocket expenses. Per visit out-of-pocket cost of treatment in India is similar to the total cost of treatment. This out-of-pocket health spending is the key source of health care financing in India and this leads to catastrophic level of spending for health care to many households and throw them inside poverty threshold (Ghosh S., 2011; Pal R., 2010; Berman et. al., 2010). Barman et. al. (2010) pointed out that outpatient care is more impoverishing than inpatient care in urban and rural areas alike.

In a situation, when the private sector has overpowered the public sector, the central government launched the National Rural Health Mission (NRHM) in 2005 with a goal to improve the availability and access to quality health care by people, especially for those residing in rural areas, the poor, women and children. The mission is an articulation of the commitment of the government to raise public spending on health from 0.93 percent of GDP to 2-3 percent of GDP. It aimed to undertake architectural correction of the health system to enable in effectively handling increased allocation and promote policies to strengthen public health management and service delivery in the country.

In the first phase of the programme (2005-12), 18 underperforming states received special focus. These states receive about 60 percent of the total funds allocated for NRHM. Government of India's allocations for NRHM has more than doubled since its launch. Though negligible compared to the developed nations, public expenditure on health has increased to 1.3 percent of GDP in financial year 2011-12 from 0.93 percent in 2004-05 (Accountability Initiative, 2013). There is a 1.6 percent increase in sub-centres, 3.5 percent increase in Primary Health Centres (PHCs) and 44.4 percent increase in Community Health Centres (CHCs) since the initiation of the NRHM. Financial allocations to increase human resources in public health facilities have increased nearly threefold from INR 769 crores in FY 2010-11 to INR 2179 crores in FY 2011-12. In a nutshell, Government of India (GOI) has put enormous financial resources as

well as effort to increase the affordability and accessibility of public health services to the vulnerable section of the rural population.

There is a huge volume of literature, focusing on the maternal and child health care utilization in Indian context. But, there is scantiness of the study, exploring the determinants of utilization of health care services during general illness including short and long term chronic morbidities. The present paper aims to fill this gap.

Has the implementation of NRHM made a difference resulting in higher utilization of public sector services? This is the primary question this paper seeks to answer. Prima facie evidence suggests that NRHM has done little to stem the tide and preference for private sector continues unabated. However, deeper analysis is needed to examine these changes only for areas where NRHM has been successful in changing the nature of public services and to control for counterveiling influence of rising incomes. This paper will address the following questions:

1) Has NRHM been successful in increasing the availability of government health services between 2004-5 and 2011-12? In addressing this question we will focus on both proximity to various types of government clinics as well as facility level surveys of availability of equipment and medicines.
2) Has utilization of public facilities increased in areas which have seen improvement in public facilities?
3) How is this relationship modified by rising incomes that make it possible for households to seek private health care?
4) How is this relationship modified by increased supply of private health care providers?

Data and Methods:

The study uses the data from two rounds (2004-05 and 2011-12) of India Human Development Survey (IHDS), carried out by National Council of Applied Economic Research, India and University of Maryland. IHDS is a multi topic panel survey, collects extensive data on education, health, livelihoods, family processes and the way households are embedded in a broader social structure. The survey collects information on a wide range of health indicators including maternal and child health, short and long term morbidities, health beliefs, health infrastructures and resources available in the health facilities.

IHDS – I (2004-05) was based on 41554 urban and rural households with 215754 individuals, covering all states and union territories of India, except Andaman/Nicobar and Lakshadweep Island. The survey was spread over 384 Indian districts, 1503 villages and 971 urban blocks. IHDS – II (2011-12) re-interviewed 83 percent of the original as well as split households of IHDS – I survey. With a few

replacements in case of missing households/split households, the IHDS – II survey covers 41972 households with 203127 individuals. The advantage of the two rounds of IHDS survey lies in the fact that, they provides unique opportunity to measure the impact of NRHM programme on health care utilization. The first round of the survey was conducted immediately before the project was launched, where the second round follow up was done at the end point of the first phase of the NRHM programme.

Both IHDS-I and II contain a village module that documents distance to various types of health facilities such as Sub-Centre, PHC, CHC, and district hospital. Both rounds also contain a facility survey for one commonly used government and one commonly used private medical facility for each village. This facility survey contains information about equipment, ability to undertake laboratory tests and medicine stock. It also collects data for staff and their training. Thus, we are able to examine the changes in health facilities in the context of the implementation of NRHM. It is important to have data on both private and government facilities because while government facilities may have improved during the seven years between the two surveys, private facilities could also have improved.

Both IHDS surveys also collected data on income and employment status of the household as well as prevalence of minor and major illnesses, their treatment and tratment expenditure. Thus, we expect to undertake a multi-level analysis in which we can examine the impact of changes in village level health facilities while controlling for changes in household economic status.

Health care utilization in the present study are associated with short term morbidities only, where the short term morbidity consists of fever, cough and diarrhoea. The reference period of these diseases was 30 days prior to the date of survey. Bi-variate and multi variate analysis have been carried out to fulfill the objectives. The second objective will be tested using a two level hierarchical model, where the two levels are – individual, and community. The model can be defined as,

$$\begin{aligned} y_{ij} &\sim N(\alpha_j + \beta x_{ij}, \sigma_y^2), && \text{for } i = 1, \ldots\ldots, nj,\ j = 1, \ldots.., J, \\ \alpha_j &\sim N(\gamma_0 + \gamma_1 u_j, \sigma_\alpha^2) && \text{for } j = 1, \ldots\ldots.., J \end{aligned} \qquad (1)$$

Where, y_{ij} is the choice of provider (public/private) by individual i within community j, x_{ij} is a set of individual level predictors of individual i in community j, and u_j is the community level predictors in community j. The errors with variance σ^2_y in the first line of (1) represent "within-community variation," which in this case includes measurement error, natural variation in individual level behaviour between the two surveys, and variation between communities. The errors with variance σ^2_α in the second line represent variation between communities beyond what is explained by the community-level predictors. The hierarchical model allows us to fit a regression model to the individual measurements while accounting for systematic unexplained variation among the communities.

Descriptive findings:

Changes in health care utilization pattern in India

Instead of an increase public sector utilization, the recent evidence from IHDS – II (2011-12) survey reveals a slight decline in the utilization of public health services in India for both short term as well as long term morbidities, compared to its previous round (2004-05). While use of public services is somewhat higher for diseases like tuberculosis for which major campaigns have been undertaken, overall private services continue to dominate. *There is a relatively higher treatment rate in public facilities for long term illnesses compared to short term illnesses.* However, even after the seven years of NRHM programme, treatment seeking in private is more than four times higher than public for short morbidities and for long term morbidities, it is more than three times higher than public facilities.

Is the availability of services is hindrance to utilization of public facilities?

Figure 1 shows the changes in utilization of public facilities, when there are various treatment options available in the locality in 2004-5. Less than one-third of the patients, suffering from any short term diseases visit public facilities, when there is a PHC/CHC in the locality. Visit to public facilities drops to one-fourth in case of availability of only sub-centre in the locality. But, only 13 percent of the patients visit to a public facility, when there is private clinics along with sub-centre. The usage of public facilities increases to 25 percent when PHC/CHC exists along with the private facilities. *This indicates a higher use of public facilities in the presence of PHCs/CHCs only. Sub-centre has a very less impact on the utilization of public health facilities.* However, irrespective of the availability of facilities in the locality, the use of public health facilities has decline over time. The use of private facilities has increased slightly over time. A marginal reduction in private health care use has been observed in the presence of PHCs//CHCs in the locality.

Data from service availability for the IHDS-II are still being cleaned but we expect to analyze changes in availability of facilities and quality of public and private facilities to see if these changes may be linked to changes in preference for the private sector.

NRHM and its impact on utilization of public health facilities

As mentioned earlier, public expenditure on health has increased from 0.93 percent of GDP in 2004-05 to 1.3 percent of GDP. NRHM has put special focus on 18 states with poor health indicators. It put emphasis on improvement of rural health infrastructure and delivery of efficient public health facility. Here we have tried to find out, if the use of public health facilities has increased in the rural areas of the states, received special focus on NRHM. Figure 2 explores the changes in utilization pattern of public health services in

the villages of NRHM focused states. This reveals a highly disappointing picture. Ironically, in spite of the high expenditure and significant government efforts, *the use of public health facilities has declined in the NRHM focused states during 2004-12. At the same time, the use of private facilities has increased in these villages over the same period of time.*

On the other hand, the use of public health facilities has increased slightly when the public facilities are accompanied by the private facilities in the states which do not receive special attention on NRHM (Figure 3).

These counterintuitive findings may be due to differential growth in income across the focus states, an issue we plan to explore in this paper.

Discussions:

The preliminary results suggest that, despite a great effort put on the NRHM programme, the primary aim of increasing public health care utilization has not been achieved. The results of the multilevel analysis will examine whether this is due to poor implementation on NRHM on the ground, increased availability of private services or rising income which makes private health care more affordable.

References:

Desai, S., A. Dubey, B. L. Joshi, M. Sen, A. Shariff and R. Vanneman (2010). Human Development in India: Challenges for a Society in Transition. New Delhi, Oxford University Press.

Table 1: Changes in utilization rate of health care service by source of treatment of various short and long term morbidities in India, 2004-12

	Treated in government clinic (%)		Treated in private clinic (%)		Treated outside local area (%)	
	2005	2012	2005	2012	2005	2012
Any Short Term Illness	**17.4**	**16.5**	**69.4**	**73.1**	**42.3**	**35.5**
Fever	17.8	16.5	71.5	74.6	43.7	35.9
Cough	16.8	17.0	71.6	72.8	43.2	35.8
Diarrhoea	13.4	16.5	72.4	75.4	46.3	40.6
Any Long Term Illness	**23.2**	**22.9**	**68.6**	**70.9**	**62.3**	**66.0**
Cataract	28.9	27.2	50.7	57.0	61.3	62.5
Tuberculosis	26.3	35.3	65.2	57.6	69.1	70.5
High BP	24.2	24.1	72.0	72.6	50.8	59.2
Heart Diseases	24.4	23.6	68.2	76.3	65.1	72.7
Diabetes	27.1	23.5	70.4	75.8	54.3	64.4
Leprosy	19.6	36.9	68.3	52.9	72.8	69.1
Cancer	26.7	36.3	71.0	64.6	79.0	77.9
Asthama	25.8	22.8	75.4	76.9	64.7	73.8
Polio	13.0	16.8	43.7	34.7	43.5	36.9
Paralysis	20.3	28.2	59.4	69.0	61.4	66.7
Epilepsy	17.3	20.8	64.8	64.6	70.9	63.3
Mental Illness	19.5	24.9	52.7	55.6	61.8	65.8
STD/AIDS	28.3	46.8	69.1	54.3	66.0	75.7
Other	20.4	20.8	74.2	75.8	69.2	71.2

Figure 1: Changes in use of public facilities by availability of facilities in the villages, 2004-12

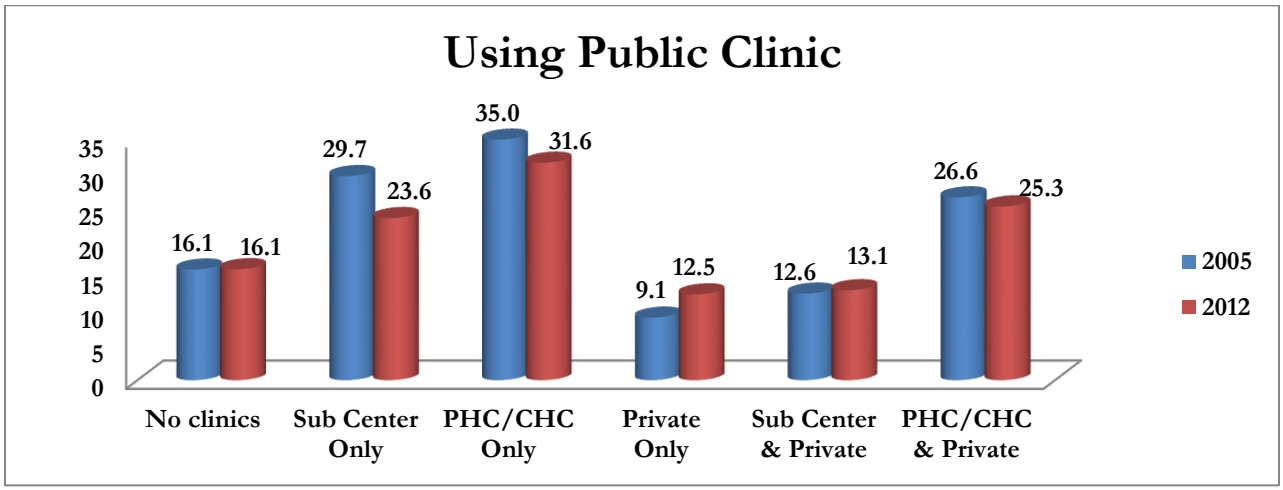


Figure 2: Changes in use of public facilities by availability of facilities in the villages of states, received special focus in the NRHM, 2004-12

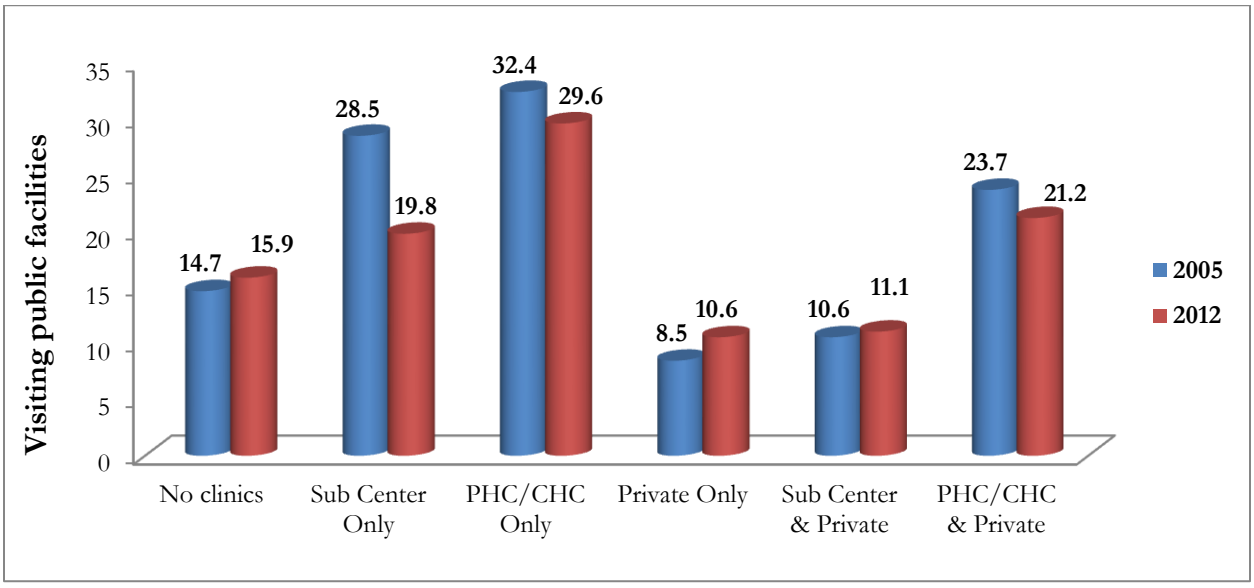
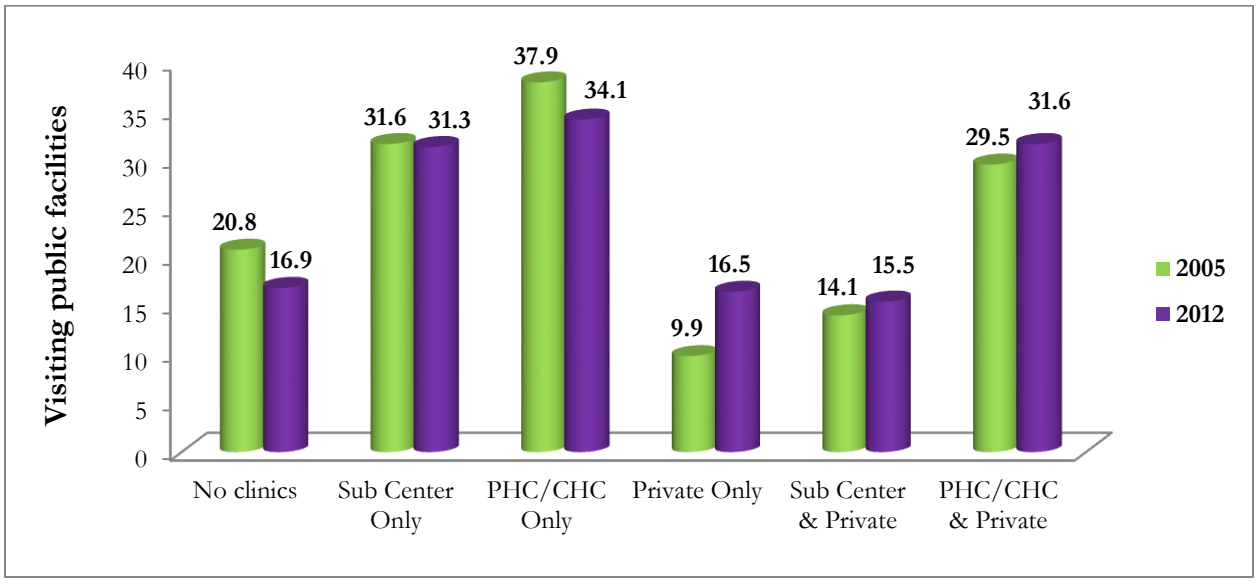


Figure 3: Changes in use of public facilities by availability of facilities in the villages of states, received less focus in the NRHM, 2004-12



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