11 HEALTH INFRASTRUCTURE IN RURAL INDIA

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Introduction

The healthcare services are divided under State list and Concurrent list in India. While some items such as public health and hospitals fall in the State list, others such as population control and family welfare, medical education, and quality control of drugs are included in the Concurrent list. The Union Ministry of Health and Family Welfare (UMHFW) is the central authority responsible for implementation of various programmes and schemes in areas of family welfare, prevention, and control of major diseases. In the case of health the term infrastructure takes on a wider role than mere physical infrastructure. Healthcare centres, dispensaries, or hospitals need to be manned by well trained staff with a service perspective. In this chapter we include medical staff in our ambit of discussion on rural health infrastructure.

The current conditions of physical infrastructure, staff, access, and usage are laid out here before identifying critical gaps and requirements in infrastructure and services. Issues related to institutions, financing, and policy are discussed in the context of these critical need gaps and the potential role of the private sector in healthcare provisioning in villages is explored.

Public Infrastructure

Physical Infrastructure

The healthcare in rural areas has been developed as a three-tier structure based on predetermined population norms (Table A11.1). The sub-centre is the most peripheral institution and the first contact point between the primary healthcare system and the community. Each sub-centre is manned by one Auxiliary Nurse Midwife (ANM) and one male Multi-purpose Worker [MPW(M)]. A Lady Health Worker (LHV) is in charge of six sub-centres each of which are provided with basic drugs for minor ailments and are expected to provide services in relation to maternal and child health, family welfare, nutrition, immunization, diarrhoea control, and control of communicable diseases. Sub-centres are also expected to use various mediums of interpersonal communication in order to bring about behavioural change in reproductive and hygiene practices. The sub-centres are needed for taking care of basic health, needs of men, women and children. As per the figures provided by the UMHFW there were 146,026 sub centres functioning in September 2005[1]—about 12 per cent lower than the prescribed number as per government norms.

Primary Health Centres (PHCs) comprise the second tier in rural healthcare structure envisaged to provide integrated curative and preventive healthcare to the rural population with emphasis on preventive and promotive aspects. (Promotive activities include promotion of better health and hygiene practices, tetanus inoculation of pregnant women, intake of IFA tablets and institutional deliveries.) PHCs are established and maintained by State Governments under the Minimum Needs Programme (MNP)/Basic Minimum Services Programme (BMS). A medical officer is in charge of the PHC supported by fourteen paramedical and other staff. It acts as a referral unit for six sub-centres. It has four to six beds for in-patients. The activities of PHC involve curative, preventive, and Family Welfare Services. There were 23,236 PHCs functioning in September 2005 compared to 23,109 a year earlier, according to the Ministry of Health. Though the numbers appear to be increasing there is still a shortfall of about 16 per cent when compared to the required norms for PHCs.

Community Health Centres (CHC) forming the uppermost tier are established and maintained by the State Government under the MNP/BMS programme. Four medical specialists

[1]All figures are as of September 2005 unless stated otherwise.

including Surgeon, Physician, Gynaecologist, and Paediatrician supported by twenty-one paramedical and other staff are supposed to staff each CHC. Norms require a typical CHC to have thirty in-door beds with OT, X-ray, Labour Room, and Laboratory facilities. A CHC is a referral centre for four PHCs within its jurisdiction, providing facilities for obstetric care and specialist expertise. There were 3346 CHCs in the country, almost a 50 per cent shortfall.

About 49.7 per cent of the sub-centres, 78.0 per cent of the PHCs and 91.5 per cent of CHCs are located in the government buildings. The rest are located either in rented buildings or rent free Panchayat/Voluntary Society buildings. As on September 2005, overall 60,762 buildings are required to be constructed to house sub-centres. Similarly, for PHCs 2948 and for CHCs 205 additional buildings are still required.

Data on facilities within these centres are not available. Most reports and evaluation studies point to the lack of equipment, poor or absence of repairs, improper functioning, or lack of complementary facilities such as 24-hour running water, electricity back-ups, and so on. But conditions being what they are, unreliable electricity and water supplies also take their toll on the performance of these centres.

Human Resource

Manpower Shortfall

Generally rural public health facilities across the country are having a difficult time attracting, retaining, and ensuring regular presence of highly trained medical professionals. The higher the level of training required for the position, the greater is this need gap. This is a result of many factors that we will visit later in this chapter. For the time being it would suffice to make the point that as in the case of physical health infrastructure, there is also a shortfall (and perhaps a more serious one) in service providers (see Annexe Figures A11.1 to A11.5).

There exists shortfall across all cadres in the posts of MPW(F)/ANM, MPW(M), Health Assistant (Female)/LHV, and that of Health Assistant (Male). The large shortfall in Male Health Workers, has resulted in poor male participation in Family Welfare and other health programmes and overburdening of the ANMs. This shortage is despite government efforts to train health workers through various training programmes throughout the country for more effective and systematic service delivery (Annexe Figures A11.1 to A11.3; Annexe Box A11.1).

PHC is the first contact point between the village community and the Medical Officer. The dearth of trained doctors, lab technicians and pharmacists is acutely felt (Annexe Figure A11.4). What these data do not reveal is that even if the personnel are present, their level of participation in providing health services is lower than desired due to lack of supplies, inadequately functioning equipment, poor monitoring of the staff, and so on.

Overall about 49.9 per cent of the sanctioned posts of specialists at CHCs were vacant in September 2005 (Annexe Figure A11.5) which translates to a shortfall of 6110 specialists at the CHCs as compared to the requirement for existing infrastructure on the basis of existing norms. Even though the government prescribes norms for health care infrastructure, it clearly lacks the capacity to implement them on the ground.

The paucity of skilled health workers is corroborated by results of a household survey based data. The round two of Reproductive Child Health Survey (RCHS), conducted by IIPS for Ministry of Health and Family Welfare sampled 15,794 villages from all states of the country in the period 2002–4. The results are quite revealing and in fact reinforce the administrative data available. Around 95 per cent of the villages have a health provider of some type. However, the majority are Anganwadi workers and can be categorized as health workers only under a very liberal definition of health care. The break-up by the type of health care provider is presented in Table 11.1. The percentage of villages with trained birth attendants is alarmingly low (37 per cent) and almost 64 per cent of the villages do not have any doctor.

Table 11.1
Status of Health Infrastructure in Villages

Infrastructure/Services	% Villages
Connected with Roads	73.9
Having any Health Provider	95.3
Having Trained Birth Attendant	37.5
Having Anganwadi Worker	74.2
Having a Doctor (Private & Visiting)	43.5
Having a Private Doctor	30.5
Having a Visiting Doctor	25.0

Note: Any Health Provider includes: Private doctor, Visiting doctor, Unani doctor, Ayurvedic doctor, Homeopathic doctor, Sidha doctor, Traditional healer, Village Health Guard (VHG), Trained Birth Attendants, Dai, ICDS/Anganwadi worker and others.
Source: RCHS Round II, 2002–4.

Absenteeism

In addition to the shortage of service providers, the system is plagued by poor involvement and participation of those who are employed. There is a great degree of absenteeism among education and health providers that has been the focus of research in recent times (Choudhury et al. 2006).

Choudhury et al. measured teacher and health workers' absence in nearly nationally representative samples in several countries using a common methodology based on direct observations during unannounced visits. The survey data reveals that absenteeism among the primary health providers, in India, is the highest (40 per cent) among the surveyed countries (Table 11.2). Their survey findings reveal that absence is fairly widespread, rather than being concentrated

Table 11.2
Provider Absence Rates by Country and Sector

Country	Absence rates (%) in	
	Primary Schools	Primary Health Centre
India	25	40
Bangladesh	16	35
Ecuador	14	–
Indonesia	19	40
Peru	11	25
Uganda	27	37
Unweighted Average	19	35

Source: Choudhury et al. 2006.

in some areas. High ranked and more powerful providers, such as doctors are absent more often than lower-ranking ones as are men more than women. The primary reason for absenteeism appears to be the quality of infrastructure at the facility. The findings did not unambiguously support the notion that 'government service providers' choose to absent themselves because they are unlikely to be fired for this but the clear conclusion was that their decision to go to work was strongly influenced by the working conditions they faced. It was also found that health workers (mostly the doctors) who were found to be absent from the public clinics during the survey were mostly engaged in private medical practice. The World Bank Development Policy Review also paints the same scenario (World Bank, 2006).

A study on health care delivery in rural Rajasthan by Banerjee et al. (2004) carried out a continuous facility survey in which each of 143 public facilities were visited weekly during regular hours for an entire year. Around 45 per cent of the doctors were found absent from primary health centres. It was also found that at sub centre and aid posts the doors were closed 56 per cent of the time. Moreover, the patterns of absence from duty as well as closure of facility were found to be unpredictable, so people could not even count on facilities being open on certain days or certain times.

This rate of absenteeism can be attributed to the fact that there is certainly a serious lack of zealous administrative action towards effective service provisioning. The government has failed to provide the basic infrastructure and incentive structure (not necessarily monetary but in terms of job environment and recognition) for doctors and other health workers to be motivated enough to do their job.

Access to Infrastructure

Even if a healthcare provider is not present in a village, he/she can be reached easily, some basic access issues would be taken care of. However, we find many limitations especially in the context of road connectivity and adequate transport services. Many of the healthcare facilities, public or private, are not accessible throughout the year to about a third of the villages. Private and government hospitals are relatively more accessible as they are typically located in areas well connected by metalled roads (Table 11.3).

Table 11.3
Percentage Villages with Access to various Health Care Facilities round the Year (access by type of facility)

Infrastructure/Services	% Villages
PHC	68.3
Sub-centre	43.2
Govt. Dispensary	67.9
Govt. Hospital	79.0
Private Clinic	62.7
Private Hospital	76.7

Source: RCHS Round II, 2004.

Administrative data above showed that (1) a well defined system of public healthcare provision exists, (2) there is some shortfall in infrastructure, (3) there is a significant problem with the adequacy of working facilities (supplies and equipment) within these centres, (4) there is a significant lack of adequately trained staff, and (5) there continues to be a lack of adequate access to the facilities that exist.[2] This, of course, affects usage of the healthcare infrastructure and therefore access to adequate healthcare, a concern we address in the detailed section on issues related to access, where we also introduce the important role being played by the private sector.

IT for Accessible Healthcare Provisioning

It is well known that many doctors are not willing to serve in the rural areas due to lack of facilities even if they are paid high salaries. However, as telecom network is spreading swiftly and the government is keen to provide broadband connectivity to all parts of the country, information technology can be effectively harnessed to improve the delivery of health services (Box 11.1).

The Expanding Role of Private Healthcare Services: Issues of Access to Quality Care

Access to Medical Facilities as a Determinant of Treatment Seeking Decision

Rural populations have been observed to typically report *fewer* ailments than those in urban areas. This could be due to

[2]Even after these conditions are fulfilled there would be another problem—lack of customer orientation of the public healthcare regime, administration and, as a result service providers. Healthcare is not about mere provision, but the servicing of consumers' desires and requirements. At some point in the near future, this aspect will have to be made an integral component of public healthcare system, but we will not delve into this issue any further in the interest of keeping our focus intact.

Box 11. 1

Using IT to Improve Delivery of Health Services

Elizabeth Alexander and Pradeep Varma

In a situation where there is a paucity of qualified healthcare personnel, the most optimal solution is distance healthcare (also including telemedicine, tele-consulting, tele-counselling,) where expert advice can be made available at some central point and accessed as and when required by telephone or internet.

Primary Healthcare

The objective would be to equip PHCs with basic diagnostic equipment that can be operated by paramedics or ANMs, with doctors providing expert interventions from a distance. Remote diagnostic devices like ReMeDi™, made by Neurosynaptic (www.neurosynaptic.com) allow even novices to measure and record basic parameters like blood pressure, temperature, and chest sounds. The device has a stethoscope, sphygmomanometer, and thermometer, along with a simple video-conferencing application that can connect over even a basic dial-up line. The patient's medical history and a record of every consultation is stored, thus building up a patient database for future reference.

A simple computer-based symptom-based diagnostic application can guide the paramedic/nurse in handling common ailments directly by administering simple remedies, and only refer to secondary care for the more complex problems. The system, SYMPED-II, developed by Dr Antia of the Foundation for Research in Community Health provides just such an application (*http://www.frch.org/projects.php#11*).

The patient can get a printed registration card as well as a record of his consultation and the test results. But a particularly useful mechanism would be a smart card with all data written onto it. This can then be used directly at a secondary care hospital.

This activity can be outsourced to independent village entrepreneurs running village internet centres (like the ones being set up by n-Logue (*www.n-Logue.com*) and Drishtee (*www.drishtee.com*). There are also a number of other rural internet initiatives being rolled out like the Citizen Service Centres of the Department of IT, the e-Panchayat of Ministry of Panchayati Raj, and the Common Service Centres of Mission 2007, and some connectivity initiatives by the Universal Services Obligation Fund (USOF).

All of these will eventually create a dispersed network of computerized, internet-enabled centres in rural areas, all managed by technically competent, functionally English-literate young men and women, who will form a resource pool through which such health services will flow.

While villagers may initially be reluctant to visit such a centre for medical purposes, the stationing of the ANM or paramedic inside the centre will lend it credibility. The government thus needs to pay only for use of the kiosk infrastructure.

Secondary Care

OPDs of all government hospitals, whether at the block or district level, are overcrowded. There are queues for registration, consultation with the doctor, undergoing diagnostic tests, meeting the doctor with test results and buying medicines. As is often the case, these take more than one visit and each visit is a loss of a workday for the patient and/or the attendant. Online connectivity of the hospitals to the PHC can reduce these queues, as primary diagnosis is completed at the village itself. Only patients referred to a doctor by the nurse/paramedic will need to visit the hospital. Registration can be completed at the village and the patient given an ID, in the form of a printed card or (preferably) a smart card, and thus the queues at the hospitals can be reduced. The patient directly visits a doctor with whom an appointment has already been fixed. If the preliminary examination by the nurse/paramedic has already established the need for additional tests, these can be booked online and the patient told how much money he needs to carry with him while visiting the hospital. In fact, the Neurosynaptic kit also has a 12 channel ECG.

The Aravind Eye Hospitals are attempting a similar exercise in eye care, through their Vision Centres (*http://www.aravind.org/hospitals/visioncentres.asp*). These centres, which are run by trained ophthalmic assistants, are equipped with basic ophthalmic equipment and internet connectivity. All patients examined at the vision centre also consult with the ophthalmologist at the main hospital, when required. Only those patients who require procedural intervention are asked to come to the main hospital. Spectacles for refractive errors are provided at the Vision Centres themselves. Thus the hospital can utilize its resources in the treatment of more serious ailments and patients are saved the trouble of travelling to the hospital for small problems.

Mobile Healthcare

Getting a blood test, an ultrasound or an X-ray done invariably requires a visit to the nearest large town. Philips India has started an innovative project called DISHA (*http://www.wbcsd.org/web/publications/case/philips_disha.pdf*) to provide high quality consultation and diagnostic services in rural India. They utilize a mobile diagnostic Clinic equipped with X-Ray, ultrasound, pathology lab (for blood and urine tests) and echo cardiogram. The Mobile Clinic also has the facility to dispense medicines. Electronic patient records are stored in a database and every patient gets a photo-ID card. A doctor travels along with the Mobile Clinic providing up to secondary level consultation. Only those patients who require specialist consultation are referred to a tertiary care hospital.

The advantage of such a mobile clinic is that doctors are not required to live in the villages in order to practice there (the clinic travels from the district headquarters where it is stationed to the villages) and the doctor has the equipment he/she requires to provide an informed diagnosis. Thus the two most common frustrations expressed by doctors required to work in villages are eliminated.

Today, mobile pharmacies are not licensed in India. A policy change making this possible will allow for life-saving drugs to be dispensed through these or similar clinics. On the same lines, the Christian Medical College, Vellore, has developed a mobile blood donation unit that can travel in the villages and accept voluntary donations at the doorstep of the donors themselves. Such methods to increase voluntary blood donations will find favour among hospitals if a simple policy decision is made to shift the onus of providing blood for patients from patient (as is currently the case in India) to hospital (as is the case in developed countries).

Tele-preventive Medicine

The term 'tele-preventive medicine' (*http://www.pitt.edu/~super2/GRANT/sig.htm*) is defined as the use of the internet to collect information from large number of people (both healthy and sick) to prevent outbreak of disease. Though health concerns are increasingly crossing geographical boundaries (bird flu, HIV, and so on), training of students in epidemiology/prevention, is still a very local phenomenon.

The internet can help change this. With simple online databases on the one hand and sophisticated GIS databases on the other that map the relationship of disease to the landscape, the pattern, incidence and spread of disease can be recorded, monitored and hopefully, arrested. A UNICEF sponsored study in West Africa used GIS to map villages with high rates of Guinea-worm disease and evaluate the effectiveness of policies designed to combat its spread (*http://home.myuw.net/bjtemp/afr.html*). The National Institute of Epidemiology in India has done similar work in using GIS to map the effect of leprosy vaccine trials.

Most of the technologies indicated are accessible, inexpensive, and easy to use. Many of them have demonstrated success in pilot projects. The administrative machinery has to be motivated to implement these and provide finances for equipment and trained manpower and so on.

Note: Views expressed are the authors' personal views.

many reasons including those related to perception, age, lack of appreciation of health care requirements and so on. It is important to note however, that the awareness level about ailments or health problems has increased both in rural and urban areas between 1995–6 and 2004 as revealed by the NSS 60th round 2004. While 52 per cent of rural untreated patients in 1995–6 did not consider their ailments as serious, this figure stood at only 32 per cent in 2004.

On the average, almost 9 per cent of the rural populations in 2004 report some ailment within the past fifteen days from the day of survey during NSS 60th Round. This figure was much lower in 1995–6 (only about 5.5 per cent). It is not clear why this may have increased so dramatically, especially since NSS survey methodologies have not changed significantly between the two surveys. The incidence of treatment, however, does not appear to have changed significantly over the years and hovers around 82 per cent for rural areas and 90 per cent for urban in both 2004 and 1995–6 (NSSO 2004).

Clearly an ailment reported may or may not be treated. We find that about 18 per cent of those with an ailment did not receive any treatment at all in rural areas (NSSO 2004). Within this 18 per cent there are subtler nuances hidden. For the poorest rural segments this ratio stands at 24 per cent as opposed to about 10 per cent for the topmost rural economic groups. The reasons ascribed range from lack of access (12 out of every 100 untreated in rural areas), to lack of finance (28 out of every 100 untreated). Incidence of untreated ailment considered serious enough by the patient to merit medical attention shows a distinct increase in 2004 at 68 per cent over 48 per cent in 1995–6. This should be viewed in the context of increased awareness among rural and urban populations about the seriousness of their health problems. When compared with urban areas, we find that clearly the accessibility issue is a serious one (Table A11.3 and A11.4).

Expanding Presence of Private Players in Healthcare Landscape

If an ailment is treated it could be institutional (hospitalization) or non-institutional (out-patient). These services could be availed of in public or private facilities. We find that the private sector has become the dominant source of health care services, both institutional or non-institutional for patients in rural and urban areas. Of those seeking treatment, 78 per cent rural and 81 per cent urban patients are availing private non-institutional facilities and 58 per cent rural and 62 per cent urban patients are going to private hospitals (NSSO 2004). We also find that the dependence on the private sector is significant across all income ranges from the poorest to the richest, and utilization for public facilities is only very marginally higher among the poorest segments (Figure 11.1).

The role of the government health services has diminished despite higher costs of private sector services. Why is this so?

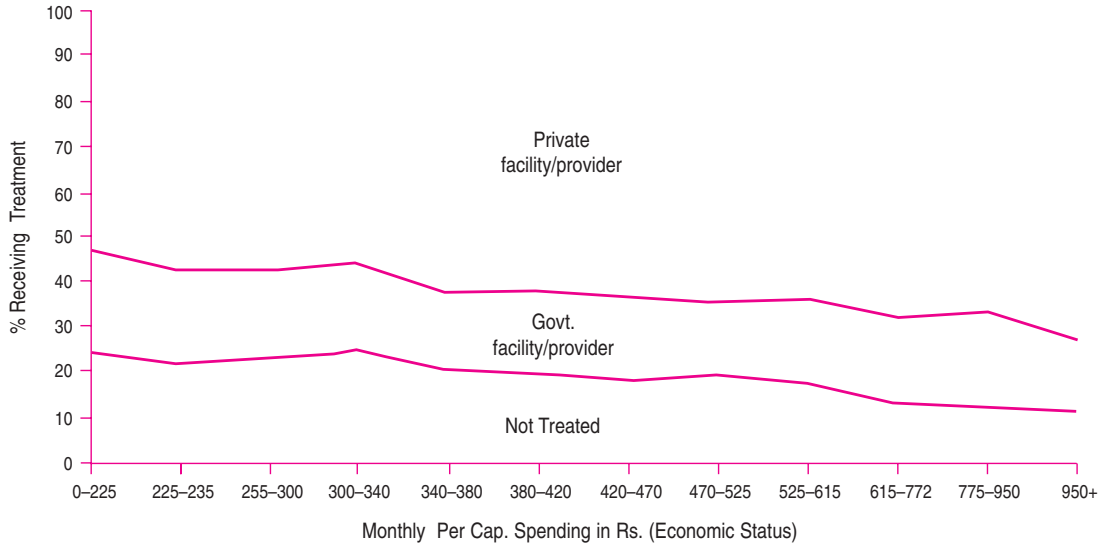

Figure 11.1 Sources of Treatment

Source: NSSO 60th Round (2004).

One reason is lack of adequate infrastructure and personnel at public health care facilities. The second has to do with an orientation towards delivery of quality services—this is integral to health care provision. The third has to do with accessibility, timing, and availability of services at the place and time required. There is another issue related to quality. It is not clear whether private sector providers necessarily provide better quality health care or is this merely the perception of the user group. This issue is discussed in a later section on regulation. Another key aspect is the focus of public facilities towards reproductive and child health. This includes but is of course not limited to, ante-natal care, delivery, and immunization. One argument could be that the excessive focus of public health sector on reproductive and child health has yielded ground in curative care to the private sector. The rise of the private sector in curative health care, the argument goes, is therefore natural.

However, it cannot be denied that even within the reproductive health segment, the private sector has become significantly larger than the public sector in both urban and rural areas over the period 1986 to 2004 (Tables 11.4 and 11.5).

In other words, whichever way we see it, the private sector has become a dominant force in all segments of the health care services. What was only true of a few urban areas is now true also of the rural hinterland. It is servicing the poorest segments in both rural and urban areas despite charging significantly higher prices for its services. Finally, the private sector is also becoming the dominant force in the preventive care segment.

Depending upon our own inclinations we can draw different types of conclusions from these data. Those who are in favour of greater private sector engagement in health care, may use the above figures to draw the conclusion that private health care provision is better attuned to consumer requirements in rural areas and therefore the rural consumer is willing to pay higher amounts for better quality and more appropriate services. Those who believe that the public sector

Table 11.4
Place of Delivery

Place of delivery	Rural 2004	Rural 1995–6	Rural 1986–7	Urban 2004	Urban 1995–6	Urban 1986–7
Govt. Hospital	18.3	–	9.5	31.0		30.5
Private Hospital	16.6	–	4.9	42.9		20.2
Home and others	65.1	78.7	85.6	26.1	38.4	49.3
All	100	100	100	100	100	100

Source: Computed from data provided in NSSO (2004).

Table 11.5
Antenatal Care (ANC) and Postnatal Care (PNC)

	Rural ANC	Rural PNC	Urban ANC	Urban PNC
Percentage of pregnant women who availed of care	69.8	62.6	83.6	72.9
Of which Govt.	42.5	28.1	38.6	30.8
Of which Private	27.3	34.5	45.0	42.1

Source: Computed from data provided in NSSO (2004).

is the best mode of health care delivery may argue for adequate resource allocation to the sector.

One safe conclusion is that there are elements of truth in both arguments. But in the view of the authors the reality is more complex. Yes, the private sector is, almost by definition, more responsive to consumer requirements. But its services come at a higher cost. A potential consumer of health services looks for the best price–quality point given his/her own economic abilities and information availability. Given that most chose the private sector itself, gives us enough indication that the current bouquet of services by the private sector are more in line with the requirements of the masses. Despite this however, the fact remains that about 28 per cent could not access health care due to lack of funds. It is here that the government can play a role—if it cannot ensure accessible delivery by the health department, it should figure out better ways of either subsidizing private health care provision, or providing transfers to poorest households directly so that they can take their own decisions.

The National Rural Health Mission (NRHM) launched by the GOI in March 2005 is an important step taken in the right direction to provide effective healthcare in rural areas (Box 11.2).

Do Private Practitioners Necessarily Provide Better Quality of Medical Service for the Prices They Charge?

Unlike other markets for goods and services, the health care provider is also the main supplier of information on treatment requirements to the user. Since a large section of the rural user group is illiterate and unaware, the motivation to over-treat is but natural in the private sector. Hence even in villages where geographical accessibility is not a constraint, villagers tend to fall victims of this phenomenon in case they choose to seek the services of private practitioners. That, unfortunately, is not all. A very large proportion of the rural health care providers in the private sector are not qualified. They are often illegal medical practitioners or under-qualified for the task at hand. The quality of treatment is, therefore, suspect.[3] In other services such a situation may not have allowed a market to develop at all. However, the necessity of availing some relief from the ailment forces many to go to providers despite knowing that the quality of advice/care is suspect.[4]

[3]Typically, in such markets reputations develop which enable better providers to differentiate themselves from those not so good. Note that a remote village inhabitant may not have a plethora of options to choose from.

[4]One World Bank evaluation (World Bank 2006) on the quality of medical care providers in Delhi reveals some interesting facts through direct observation of practitioner's clinical practices. The study revealed that for public doctors in Primary Health Centres in the poorer neighbourhoods, both their competence as well as sincerity of effort were observed to be below that of both MBBS and non-MBBS private medical practitioners in poorer neighbourhoods. In general, the performance of healthcare providers both private and public was much worse in poorer clusters than in rich neighbourhoods. Since the private sector doctors are directly accountable to the patient, they were found to be making greater effort, although they did tend to over-prescribe medicines that were ineffective simply to please the client.

Finding Quality Healthcare Solutions: Public, Private or Partnerships

Ideally the presence of public health care should take care of both the ability to pay and ability to process information on the quality of health care. But it so happens that especially for those residing in the smaller and far off villages, many public services are out of reach geographically and often such consumers are left with their needs unmet. The private sector cannot emerge in such areas because of lack of adequate scales. In other words, more important than the price is the issue of geographical accessibility for many rural residents. Lack of physical infrastructure and staff both contribute to this problem of access.

While economic history is full of examples of how in such situations some market solutions emerge that are in the interests of both providers as well as consumers, we do not have to wait for such solutions to emerge by themselves, where there are broadly three areas where proactive policy-making can make a difference.

The first is to expand the public provision and find ways around the staff and infrastructure constraints. Issues of regulation and pricing then are subsumed within the system. The problem at the policy level would be to find a way to finance it. At the administrative level, however, we have another serious problem, as it is difficult to imagine the government maintaining and sustaining quality health care service provision for all.

An important policy innovation could be to enable greater private sector involvement in the sector, while directly subsidizing the poor through health care stamps etc to transfer resources to the poorest segments. Since the private sector is already the dominant force, the critical issue here would be to find a viable and sustainable system of monetary transfers to the identified poorest target group.

The call for public-private partnerships in the infrastructure sector is an urgent one and the health care sector has not been left out. A public-private partnership of sorts has been prevalent in the health care sector from the pre-independence period where land is allocated and credit provided at sub-market rates to private players to build healthcare facilities in return for making a few services available to the poor free or at nominal prices. Other types of public-private partnerships such as government financing and private provision are still largely absent in India.

Any institutionalized expansion of the role of the private sector will entail some form of least intrusive regulation, along

Box 11.2

National Rural Health Mission

Rural India is suffering from a long-standing healthcare problem. Studies have shown that only one trained healthcare provider including a doctor with any degree is available per sixteen villages. Although more than 70 per cent of its population lives in the village, only 20 per cent of India's hospital beds are located in rural areas. Most of the health problems that people suffer from in the rural community and in urban slums are preventable and easily treatable. In view of the above issues, the National Rural Health Mission (NRHM) was launched by the Government of India (GOI) in April 2005. It seeks to provide effective healthcare to the rural population throughout the country with special focus on eighteen states, which have weak public health indicators and/or weak infrastructure. These states are Arunachal Pradesh, Assam, Bihar, Chhattisgarh, Himachal Pradesh, Jharkhand, Jammu and Kashmir, Manipur, Mizoram, Meghalaya, Madhya Pradesh, Nagaland, Orissa, Rajasthan, Sikkim, Tripura, Uttaranchal, and Uttar Pradesh. The GOI will provide funding for key components in these eighteen high focus states.

The NRHM will cover all the villages in these eighteen states through approximately 2.5 lakh village-based 'Accredited Social Health Activists' (ASHA) who will act as a link between the health centres and the villagers. One ASHA will be raised from every village, or cluster of villages, across these eighteen states. The ASHA will be trained to advise village populations about sanitation, hygiene, contraception, and immunization to provide primary medical care for diarrhoea, minor injuries, and fevers; and to escort patients to medical centers. They would also be expected to deliver direct observed short course therapy for tuberculosis and oral rehydration, to give folic acid tablets and chloroquine to patients, and to alert authorities of unusual outbreaks of disease. ASHA will receive performance-based compensation for promoting universal immunization, referral and escort services for RCH, construction of house hold toilets, and other health care delivery programmes.

The goals of the NRHM include:

1. Reduction in Infant Mortality Rate (IMR) and Maternal Mortality Ratio (MMR);
2. Universal access to integrated comprehensive public health services;
3. Child health, Water, Sanitation and Hygiene;
4. Prevention and control of communicable and non-communicable diseases, including locally endemic diseases;
5. Population stabilization, gender, and demographic balance;
6. Revitalization of local health traditions and main-stream Ayurvedic, Yoga, Unani, Siddha, and Homeopathy Systems of Health (AYUSH);
7. Promotion of healthy lifestyles.

The strategies to achieve the goals include:

1. Train and enhance capacity of Panchayati Raj Institutions (PRIs) to own, control and manage public health services;
2. Health plan for each village through Village Health Committee of the Panchayat;
3. Strengthening sub-centre through an untied fund to enable local planning and action (each sub-centre will have an Untied Fund for local action at Rs 10,000 per annum). This Fund will be deposited in a joint Bank Account of the ANM and Sarpanch and operated by the ANM, in consultation with the Village Health Committee, and more Multi Purpose Workers (MPWs);
4. Provision of 24 hour service in 50 per cent PHCs by addressing shortage of doctors, especially in high focus states, through mainstreaming AYUSH manpower;
5. Preparation and implementation of an intersectoral District Health Plan prepared by the District Health Mission, including drinking water, sanitation, and hygiene and nutrition;
6. Integrating vertical Health and Family Welfare programs at National, State, Block, & District levels.

The duration of NHRM will be from 2005 to 2012. The total allocation for the Departments of Health and Family Welfare has been hiked from Rs 8420 crore to Rs 10,820 crore in the budget proposals for the year 2005–6.

Limitations of NRHM

1. There is no data from pilot studies on the technical, operational and administrative feasibility of NRHM implementation in any state of the country. There is no corrective action plan in case of failures.
2. The new mission is being launched without taking stock of failures with previous programmes such as Voluntary Health Guide (VHG) scheme launched in 1977.
3. Currently, regular village level health functionary at a salary of Rs 8000–10,000 per month is not easily available. It is envisaged that this lacuna will be bridged by ASHA, who being a local resident, would be available in the village and act as a link in the provision of primary health care services to the community. In fact, the introduction of ASHA, rather than enhancing the ANMs performance, may actually increase the existing indiscipline amongst the regular village level health functionaries. There appears to be some ambivalence in the role and location of ASHA. She is to act as a bridge between the ANM and the village and, at the same time, she is to be accountable to the panchayat. When the ANM (who is a functionary of the Health Department) herself is not accountable to the panchayat, how is the ASHA supposed to do the balancing act between the ANM and the panchayat?
4. A greater part of the mission's tenure will be spent on training with little or no time to assess the impact.

Source: Ministry of Health and Family Welfare (2005) and *http://www.corecentre.org/nrhm*

with a strong consumer redressal mechanism. While it is difficult enough to foresee large-scale competent governmental administration of an expanded healthcare mechanism, it is even more difficult to foresee effective regulation of private sector activities. We draw a strong conclusion, that others may disagree with and that is, there is little the state can do to *effectively* regulate the practices of private practitioners, whether legal and illegal, in rural areas. Regulation costs money and manpower resources which are already in short supply where availability of quality care for the poor is concerned. In other words, mechanisms that involve a greater role of the private sector typically do not guarantee either (i) assured geographical access in the hinterlands, or (ii) effective regulation to ensure quality health care provision.

In the view of the authors, the answer to both the problems lies in technology. First consider geographical access. Technologies exist today which make it possible to fit in a wide range of testing and basic operating equipment into medical vans the size of a bus. The spread of the rural road network will also now make almost all villages accessible by road (the PMGSY proposes to connect 160,000 habitations by 2007). Private or the public players can operate these services for those locations that are most remote. Such venture have met with some success and these are showcased in Box 11.1.

Instead of focusing on regulation of the private sector players, policy should focus on consumer information and consumer redressal mechanisms. This would require a well spread IT network, backed by (i) a system of providing free basic information on health and health care, and (ii) a mechanism whereby, consumer complaints are investigated and followed up at the block level. As long as consumers do not have significant complaints against a practitioner (whether legal or illegal, qualified or untrained) there is no need to prevent him from providing his services. But if significant and repeated complaints are received then the practitioner should be investigated upon and punished or prevented from practicing further. Of course, many checks and balances would be required in this system as well. Moreover, it is possible to have a public-private partnership in the monitoring and regulatory mechanism as well, but it is beyond the scope of this paper to venture into all the possibilities (Box 11.2).

Financing Health Care: The Individual and the State

When we look at the profile of diseases we can see that rural–urban differential in the proportion of hospitalization within each ailment is negligible, except for the heart diseases, where the proportion of hospitalization cases in the urban areas was almost double that in the rural areas (Table A11.7).

The average medical expenditure on health for both hospitalization and non-hospitalization cases in rural areas is lower than in urban areas. However, household income lost per treated person is much higher in the rural areas (Rs 135) than urban (Rs 96) for non-hospitalization cases. In either scenario, private players play a dominant role (Tables A11.8 and A11.9).

There are demonstrated differences between the payment patterns of the rich and the poor in both inpatient and outpatient care. Those from poorer sections depend more on income and less on savings (as they are likely to have minimal savings). Similarly, in the event of a negative health occurrence, the poorest sections are most propendent to sell their assets. It is also not surprising that friends and relatives are significant contributors to health care costs (Tables A11.10 and A11.11).

What is however surprising is that although clearly identifiable differences exist between the financing sources of the poorest and richest segments, the differences are not dramatic. What is also interesting is that the differences in hospitalization cost between public and private facilities have a magnitude of 2. In other words, the private sector does not appear to be charging much more than public facilities.

While significant user charges are being paid by all economic segments for availing of health care services, the question remains as to who will pay for the expansion and rationalization of health care facilities to augment physical, technical as well as human resource infrastructure to cater better to the needs of the economically challenged sections of the society. Clearly it is not the user but the state or the central government budget that must bear the load of this expense.

While dearth of financial resources at the state-level cannot be denied, studies can prove that states that spend the least on health care on per capita basis also tend to be the ones that are the least distressed financially—as in states with low per capita state budget deficit are surprisingly spending less per capita on healthcare than states with higher per capita budget deficits.

Consider Figure 11.2. States such as Bihar and UP have among the lowest budgetary deficit on a per capita basis. These states also tend to have poor health indicators. And they also spend among the lowest in health care on a per capita basis. For these states, spending more on health care is possible. Though it would, in all likelihood, worsen their budgetary deficit, it would be no worse than many of the better performing states such as Himachal, Delhi or Kerala (see Figure 11.2).

This provides us some hope. Those states that currently spend the least on health care, can at some cost to their deficit, increase health care expenditures. Thus Bihar, Uttar Pradesh, Chhattisgarh, Madhya Pradesh, Jharkhand, Orissa, and Assam, that spend the least on health care on a per capita basis are also among the states that have the lowest per capita budgetary deficit. Whether states can or should do so, is of course a political-economic question. One potential source of funds could be the private sector backed by rural health insurance (Box 11.3).

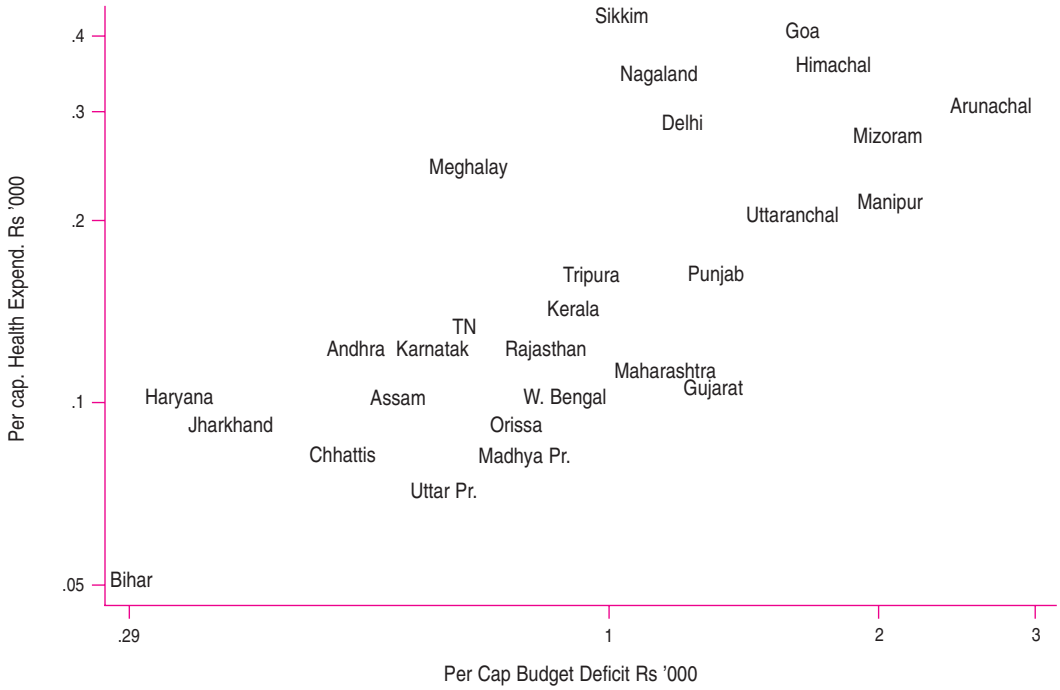

Fig. 11.2 Low Spend States can Spend More

Source: State Finances—Study of Budgets, Reserve Bank of India, 2004.

Box 11.3

Rural Health Insurance

Around 70 per cent of India's population lives in villages. Of this, less than 2 per cent is insured. Though the rural health insurance market is huge, it has so far remained untapped. The private sector is likely to be a significant investor in health care infrastructure in rural areas, as rural incomes increase, and the spread of the road network improves accessibility. Recently, IRDA constituted a committee to chalk out a plan for spreading health insurance in rural areas. Various micro-health insurance schemes are to be studied under the proposed plan. Around 25 such schemes currently run in rural India, most of which are attached to micro-finance institutions.

Karuna Trust, Karnataka

Karuna Trust is an NGO that has been working successfully on health and development issues for nearly two decades. In 2002, Karuna Trust, in partnership with the United Nations Development Programme (UNDP), decided to implement a pilot health insurance scheme for its target population. The NGO collaborated with the state-owned National Insurance Company (NIC) in designing a health insurance product that complements the public healthcare infrastructure and compensates for some of its weaknesses. Karuna Trust acts as an agent for NIC. The insurance product compensates the insured for the loss of income in case of hospitalization at a public health facility. Furthermore, a drug fund has been set up to supply medicines that are unavailable in public facilities. People with incomes around the poverty line receive treatment in public health facilities free-of-charge. A tight network between the insurance scheme and the public infrastructure has evolved.

Yeshasvini Trust, Karnataka

The Yeshasvini Cooperative Farmers Health Scheme is a young but incredibly successful micro insurance scheme in Karnataka. Having started in 2003 with 1.6 million insured right away, it covered 2.2 million lives in its second year of operation, but in the third year it dropped to 1.45 million members after the premium was doubled. This amazing success was made possible by a tight partnership with the cooperative sector enabled through the Karnataka Department of Cooperation. The department used its influence to encourage cooperative societies to market the product actively. The marketing strategy applied by the societies' secretaries varied: while most convinced their members to join, a few simply enrolled their members unilaterally.

Healing Fields Health Insurance

Healing Fields Health Insurance Scheme is run by Healing Fields Foundation, an NGO along with grassroot Micro-Finance Institutions (MFIs) and HDFC General Insurance Chubb, covering 25,000 lives in seven districts of Andhra Pradesh since one year. It is run with eighteen network hospitals and several self-help groups managed by fifteen NGO partners.

Bottlenecks

Lack of awareness about various schemes has been one of the hindrances in spreading rural health insurance. If the government wishes to cover the population for lessening debt burden and promote the cause of poverty reduction, then insurance policy should cover common illnesses for which people take loans. Each of these schemes has its own strengths and shortcomings. For instance, Yeshaswini Insurance Scheme which had 16 lakh farmers enrolled in the first year faced a large dropout in the second year as the scheme covered only surgeries and not routine medical problems. Also the risk is not covered by an insurance company and is subsidized by the government. Experts feel that there should be an insurance company or a separate mechanism to fund the scheme. Others like Healing Fields, though successful, cover only a small section of the population.

Source: 'Health care Management' Issue—January 2006.
http://www.expresshealthcaremgmt.com/200601/focus01.shtml
http://www.microhealthinsurance-india.org/content/index_eng.html

Way Forward

Rural Health care services suffer from a shortage in public sector infrastructure. The failure of the public delivery system today is an outcome of systemic breakdown of accountability relationships within the institutional framework. There is a shortfall not only in terms of physical infrastructure but also human resource, measured even against the minimal norms prescribed by the government. Even though the posts of health workers at various levels are sanctioned, many of them are lying vacant. The existing facilities are underutilized. Most health workers especially the 'doctors' do not want to serve in the rural areas due to overall infrastructural inadequacy and lack of incentives. This leads to widespread absenteeism from service and closure of facility. Moreover, there is no accountability in the public sector service. The public doctors quite often provide private services instead of going to their designated centres.

Even though a well-structured public health care system exists, the infrastructure as well as the staff that are required to provide the health care services is inadequate from many different perspectives. Many rural residents are not able to obtain treatment for basic ailments either due to the non-presence of health care services in the vicinity, or due to lack of funds to access the same. Even for basic health care services such as reproductive and child health, we find that significant proportions continue to remain untreated. Immunization, ante-natal care, deliveries in the presence of professionally trained personnel, and so on all show large unmet needs figures.

The private sector is filling in the unmet need to an extent and this role is rapidly expanding. Today private sector health care provision in rural areas is *greater* than that by the public sector. But despite the presence of a large, dynamic, and what appears to be a well spread out private health care provision network, access issues remain important because in remote and far flung habitations, the private sector does not have the incentive to set up shop and in the absence of adequate penetration by public sector health centres, these areas remain unserved. But, there is little consensus on the possible answer. Under the new scenario, regulatory mechanisms and the role of new information technologies have come under the scanner as possible solution baskets in providing accessible and effective quality healthcare to the vast Indian rural populations.

A question which is begging an answer is what should be the role of the current public health care system. Though public–private partnerships are growing, there are still financial as well as logistical constraints to starting large scale ventures under such arrangements.

Thus, ineffective and inadequate public service has paved way for the growth of the private sector health care in the country. The private sector is not only filling up the gaps left by the public sector but is also emerging as the key player in terms of service provision. But in terms of quality of service both the public and the private sector have failed. The two most important issues which emerge with regard to rural health infrastructure in the country are *lack of access* for many and *poor quality* of service.

Any systemic problem requires a phase-wise systematic solution. Nothing can be changed at once but a systematic approach guided by pilot studies should be a part of larger vision reforms and strategies for systemic reform. Introducing mobile medical vans in the rural areas can solve the problem of accessibility. Mobile vans equipped with basic medical facilities could supplement a primary health centre and travel to those areas where the primary health centers do not exist

or have failed to meet the requirements of the people. These vans could have a schedule of visits in particular areas and could also be called in times of emergency. The introduction of adequate mobile vans could solve the problem of accessibility to a great extent and more efficient and quality services could reach at the grassroot level.

The quality of service can be improved by increasing the awareness level of the users. Though the government runs many Information, Education, and Communication activities, it has failed to raise the awareness levels. Government along with private providers should try to establish the consumer information and redressal cells more effectively. Dissemination of information should be computerized and there should be an online grievance redressal forum. The users should have access to any information on health and other issues and similarly be empowered to post their grievances online to the designated authority. This will not only improve the quality of service but also increase the accountability of the service provider. It is expected that if the Common Service Centre programme (rural computerization) of the government is functional within the stipulated time period then many of these problems could be minimized if not solved completely.

Regulations will require an overseeing mechanism that is not feasible or practical in the current scenario. Over all, the private sector is here and will be the dominant force in all sectors including rural health care. This should not be ignored, rather it should be considered as a starting point for all future thoughts on health care policy formulation. The best way to control poor practices is through greater consumer awareness, consumer redressal mechanisms, and through community action. These are now increasingly possible due to changes in information and medical technologies.

ANNEXE TABLES

Table A11.1
Health Centre Norms

	Population Norms	
Centre	Plain Area	Hilly/Tribal/Difficult Area
Subcentre	5000	3000
Primary Health Centre	30,000	20,000
Community Health Centre	1,20,000	80,000

Source: MHFW (2005), Population Norms (Census 2001), *http://www.mohfw.nic.in*

Table A11.2
Percentage of Hospitalised Treatment by type of Hospital during 2004, 1995–6 and 1986–7

	Rural			Urban		
Type of hospital	2004 (60th)	1995–6 (52nd)	1986–7 (42nd)	2004 (60th)	1995–6 (52nd)	1986–7 (42nd)
Government	41.7	43.8	59.7	38.2	43.1	60.3
Non-government (Private)	58.3	56.2	40.3	61.8	56.9	39.7

Source: NSSO (2004).

Table A11.3
Percentage Distribution of Untreated Spells of Ailments 2004

Reasons	2004 Rural	1995–6 Rural	2004 Urban	1995–6 Urban
Lack of Access (No medical facility available in the neighbourhood)	12	9	1	1
Lack of Faith	3	4	2	5
Long Waiting	1	1	2	1
Financial Problems	28	24	20	21
Ailment not considered serious	32	52	50	60
Others	24	10	25	12
Total	100	100	100	100

Source: NSSO (2004).

Table A11.4
Percentage Spells of ailment not given Treatment by Reason for not taking treatment across MPCE class in the last 15 days

	Spells of Ailment Not Given Medical Treatment							
MPCE (Rs)	Lack of Access (No medical Facility Available in the neighbourhood)	Lack of Faith	Long Waiting	Financial Reason	Ailment not considered serious	Others	Not Reported	Total
0–225	18.8	4.3	0.0	42.0	12.0	13.8	9.1	100
225–255	7.4	5.4	0.0	34.4	29.4	11.1	12.4	100
255–300	7.2	3.6	0.7	37.8	28.2	10.7	11.9	100
300–340	9.6	1.9	0.0	34.1	28.1	17.7	8.5	100
340–380	11.9	2.1	0.0	39.3	26.0	12.5	8.1	100
380–420	15.8	1.9	1.3	29.8	30.8	11.2	9.3	100
420–470	12.1	3.7	1.1	20.2	39.5	16.7	6.6	100
470–525	14.4	3.8	2.4	25.0	30.1	15.9	8.4	100
525–615	11.5	3.1	0.3	22.3	38.4	16.7	7.8	100
615–775	7.2	1.6	1.3	24.1	36.5	19.4	9.8	100
775–950	15.0	4.7	2.1	17.7	34.9	15.6	10.0	100
950 +	4.7	2.3	0.2	9.5	48.8	13.7	20.8	100
All India	11.5	3.0	0.9	28.1	32.1	14.8	9.6	100

Note: MPCE in Monthly Per Capita Expenditure.
Source: NSSO (2004).

Table A11.5
Percentage Spells of ailment by Status of Treatment across MPCE class in the last 15 days (includes hospitalization)

	Not Treated	Treated Spells of Ailment			
MPCE (Rs)	Spells of Ailment	Treated at Govt facility/provider	Treated at Pvt. facility/provider	All	Total
0–225	24.1	22.5	53.4	75.9	100
225–255	22.1	20.4	57.5	77.9	100
255–300	22.3	20.0	57.7	77.7	100
300–340	24.3	19.8	55.8	75.7	100
340–380	20.4	17.0	62.6	79.6	100
380–420	19.5	17.7	62.9	80.5	100
420–470	18.0	18.2	63.8	82.0	100
470–525	18.6	16.5	65.0	81.4	100
525–615	17.1	18.8	64.1	82.9	100
615–775	13.1	18.6	68.3	86.9	100
775–950	12.3	20.2	67.6	87.7	100
950 +	10.7	16.0	73.4	89.3	100
All	17.7	18.4	63.9	82.3	100

Source: NSSO (2004).

Table A11.6
ANM & LHV Training School

State/UT	ANM/HW[F] Schools Funded by GoI	LHV/HA[F] Promotional Schools Established by GoI
Andhra Pradesh	17	3
Arunachal Pradesh	1	0
Assam	22	1
Bihar1	22	2
Chhattisgarh	6	
Goa	1	0
Gujarat	13	2
Haryana	8	1
Himachal Pradesh	8	1
Jammu & Kashmir	8	0
Jharkhand	9	
Karnataka	19	4
Kerala	13	0
Madhya Pradesh1	30	2
Maharashtra	27	5
Manipur	1	1
Meghalaya	2	0
Mizoram	1	0
Nagaland	2	0
Orissa	16	1
Punjab	6	0
Rajasthan	27	3
Sikkim	1	1
Tamil Nadu	12	3
Tripura	3	1
Uttaranchal	6	
Uttar Pradesh1	41	4
West Bengal	11	6
A& N Islands	1	0
Chandigarh	0	0
D & N Haveli	0	0
Daman & Diu	0	0
Delhi	2	1
Lakshadweep	0	0
Pondicherry	0	0
All India	336	42

Notes: The figures of LHV schools for the states of Bihar, Madhya Pradesh, and Uttar Pradesh include the figures of the newly constituted States of Jharkhand, Chhattisgarh, and Uttaranchal, respectively.
Source: Training Division of Ministry of Health & Family Welfare, Government of India.

Table A11.7
Percentage distribution of persons hospitalised by type of ailment in India (2004)

Type of Ailment*	Rural	Urban
Diarrhoea/dysentery	7.6	6.2
Gastritis/gastric or peptic ulcer	4.8	3.9
Hepatitis/Jaundice	1.5	2.2
Heart disease	4.3	8
Hypertension	1.8	3.2
Respiratory incl. ear/nose/throat	3.5	3
Tuberculosis	3	1.7
Bronchial asthma	3.4	3
Disorders of joints and bones	2.5	2.6
Diseases of kidney/urinary system	3.7	4.9
Gynaecological disorders	5.2	5
Neurological disorders	3.2	3.2
Psychiatric disorders	1	0.6
Cataract	2.9	2.4
Diabetes mellitus	1.8	2.4
Malaria	3.2	3.6
Fever of unknown origin	7.9	6.7
Locomotor disability	1.3	0.9
Accidents/injuries/Burns/etc.	10.1	8.8
Cancer and other tumors	2.8	3.2
Other diagnosed ailments	16.4	16.6
Other undiagnosed ailments	1.9	1.5
Any ailment	100	100

Note: *ailments with at least 1 per cent share are only listed separately.
Source: NSSO (2004).

Table A11.8
Average Medical and other related Non-medical Expenditure per Treated Person during 15 days by source of treatment (2004)

	Rural	Urban
Source of Treatment	Average medical and other related nonmedical expenditure per treated person during last 15 days by source of treatment in Rs	
Govt.	11	7
Pvt.	26	299
All	257	306
Other expenditure	27	20
Total expenditure	285	326
Loss of Household Income per treated person	135	96

Source: NSSO (2004).

Table A11.9
Average Medical and Total Expenditure per Hospitalisation case
by type of hospital and loss of household income due to hospitalisation

Source of Treatment	Average medical and total expenditure per hospitalisation case by type of hospital and loss of household income due to hospitalization	
	Rural	Urban
Govt.	3,238	3,877
Pvt.	7,408	11,553
All	5,695	8,851
Other expenditure	530	516
Total expenditure	6,225	9,367
Loss of Household Income	636	745

Source: NSSO (2004).

Table A11.10
Percentage Distribution of Source of Finance (hospitalized treatment)

Across MPCE Class (Rs)	Household Income/ Saving	Borrowings	Contributions from friends and relatives	Other sources incl. sale of ornaments and other physical assets, drought animals, etc.)	Total Expenses	Average Exp-enditure per treated person (hospitalized) in last 365 days-Govt. (Rs)	Average Exp-enditure per treated person (hospitalized) in last 365 days—Private (Rs)
0–225	33.2	43.5	15.2	8.1	100	2530	5431
225–255	26.5	55.6	10.9	6.9	100	3173	4886
255–300	31.4	48.8	13.1	6.7	100	2087	5543
300–340	34.9	46.2	14.2	4.7	100	2950	5777
340–380	37.9	46.1	12.1	4.0	100	2586	5245
380–420	34.7	40.2	15.4	9.7	100	2094	6895
420–470	39.1	45.1	10.4	5.4	100	2884	6028
470–525	39.9	43.5	10.2	6.4	100	3017	6781
525–615	42.0	41.1	11.9	5.0	100	3509	6811
615–775	41.8	40.6	13.2	4.4	100	4049	7327
775–950	42.2	40.8	10.5	6.5	100	4192	9843
950 +	48.3	33.3	14.3	4.1	100	6374	10749
Total	40.9	41.1	12.6	5.5	100	3238	7408

Source: NSSO (2004).

Table A11.11
Percentage Distribution of Source of Finance (non-hospitalized treatment)

Across MPCE Class (Rs)	Household Income/Savings	Borrowings	Contribution from friends and relatives	Other sources (incl.sale of ornaments and other physical assets, drought animals, etc.)	Total Expenses	Average Expenditure per treated person (non-hospitalized) in last 15 days (Rs)
0–225	78.5	13.4	4.8	3.3	100	191
225–255	68.8	21.4	8.0	1.8	100	238
255–300	78.5	17.6	2.3	1.6	100	210
300–340	68.9	26.2	2.8	2.2	100	237
340–380	72.2	16.4	9.1	2.3	100	229
380–420	72.5	19.6	4.5	3.5	100	250
420–470	74.0	17.7	5.3	3.0	100	243
470–525	68.4	27.9	2.8	1.0	100	358
525–615	80.6	14.7	4.0	0.7	100	276
615–775	86.5	10.6	2.5	0.5	100	297
775–950	86.9	11.6	1.4	0.1	100	323
950 +	79.4	13.6	6.2	0.8	100	426
Total	77.2	17.2	4.2	1.4	100	285

Source: NSSO (2004).

Table A11.12
State wise Per capita Expenditure on Health and fiscal deficit FY 2004

State	Expenditure (Rs in lakh)	Expenditure (Rs thousand per person)	Fiscal deficit (Rs lakh)	Deficit (Rs thousand per person)
Bihar	72,997	0.05	41,0730	0.29
Uttar Pradesh	219,827	0.07	204,1390	0.65
Chhattisgarh	33,116	0.08	193,290	0.50
Madhya Pradesh	85,104	0.08	848,870	0.79
Jharkhand	39,559	0.09	165,810	0.37
Orissa	60,440	0.09	549,500	0.78
Assam	50,778	0.10	308,390	0.58
Haryana	40,948	0.10	13,4790	0.33
West Bengal	149,044	0.10	133,2460	0.89
Gujarat	90,608	0.11	98,9750	1.16
Maharashtra	200,755	0.11	194,7670	1.11
Andhra Pradesh	165,929	0.12	742,590	0.52
Karnataka	109,443	0.12	556,410	0.62
Rajasthan	112,796	0.12	792,960	0.83
Tamil Nadu	147,967	0.13	769,640	0.68
Kerala	86,560	0.14	565,380	0.91
Punjab	72,814	0.16	577,820	1.31
Tripura	10,654	0.16	62,960	0.95
Uttaranchal	30,918	0.20	250,180	1.59
Manipur	8645	0.21	82,270	2.04
Jammu & Kashmir	49,914	0.24	-1660	-0.01
Meghalaya	10,324	0.24	28,930	0.69
Mizoram	5756	0.27	42,760	2.02
Delhi	76,752	0.28	325,010	1.20
Arunachal Pradesh	6427	0.30	56,380	2.64
Nagaland	13,055	0.34	42,920	1.13
Himachal Pradesh	44,934	0.35	227,270	1.78
Goa	11,113	0.40	45,410	1.64
Sikkim	4505	0.42	11,090	1.03
All India	684,600	0.04	1,410,0960	0.74

Source: Author's calculation using data from RBI (2004).

ANNEXE FIGURES

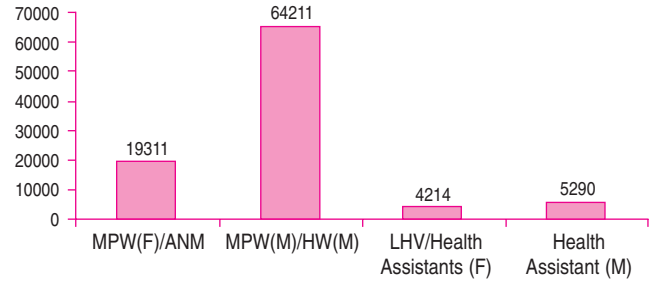

Fig. A11.1 Shortfall in Manpower

Source: Ministry of Health and Family Welfare (2005).

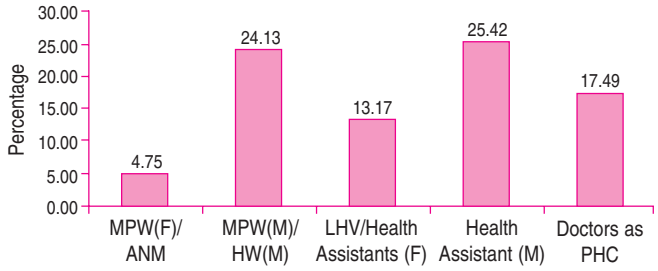

Fig. A11.2 Vacancy Position—Percentage of Sanctioned Post Vacant

Source: Ministry of Health and Family Welfare (2005).

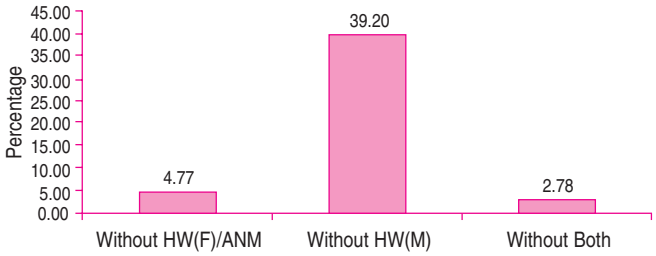

Fig. A11.3 Percentage of Sub-centres functioning without ANMs or/and HW(m)

Source: Ministry of Health and Family Welfare (2005).

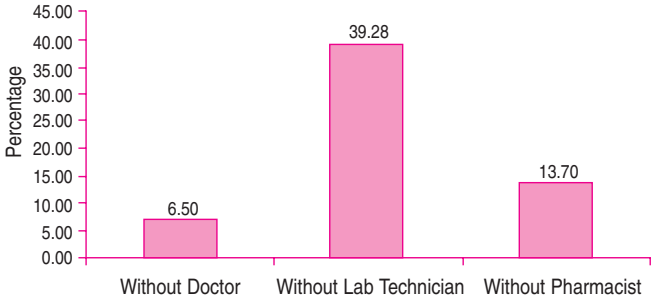

Fig. A11.4 Percentage Shortfall of Manpower in the PHCs

Source: Ministry of Health and Family Welfare (2005).

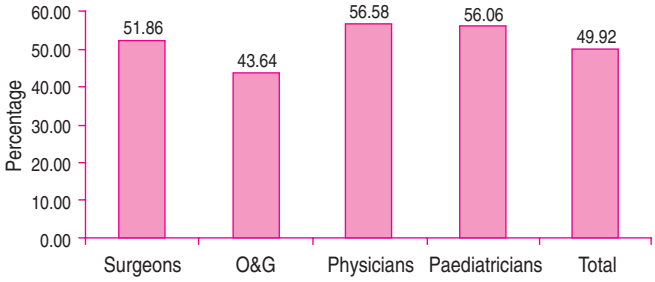

Fig. A11.5 Percentage of Sanctioned Posts of Specialists Vacant

Source: Ministry of Health and Family Welfare (2005).

Box A11.1

Training and Development Programmes Conducted by the Ministry of Health and Family Welfare

Basic Training of Auxiliary Nurse Midwife (ANM)/Lady Health Visitor (LHV)

ANM/Multipurpose Health Worker (Female) and LHV/Health Assistant (Female) play a vital role in Maternal & Child Health as well as in Family Welfare Service in the rural areas. It is therefore, essential that proper training be given to them. For this purpose there are 336 ANM/Multipurpose Health Worker (Female) schools with an admission capacity of approximately 13,000 & 42 promotional training schools for LHV/Health Assistant (Female) with an admission capacity of 2600 established by the Department of Family Welfare, Government of India. These training institutions impart training to required number of ANMs and LHVs to take charge of the Subcentres, Primary Health Centres, Rural Family Welfare Centres and other Health centres in the country. The duration of training programme of ANM is one and a half years and minimum qualification for admission to this course is 10th class. Senior ANM with five years of experience is given six months of promotional training to become LHV/Health Assistant (Female). Health Assistant (Female)/LHV provides supportive supervision and technical guidance to the ANMs in sub-centres.

During the 10th Plan period, a new scheme was launched which envisaged strengthening basic training schools of ANM/LHV. The main objective of the scheme was to improve the physical infrastructure of the training schools which were dilapidated and unusable.

Basic Training of Multipurpose Health Worker (Male)

The Basic Training of Multi Purpose Health Worker (Male) scheme was approved during the Sixth Five-Year Plan and taken up since 1984, as a 100 per cent Centrally Sponsored Scheme. This training is provided through fifty-six training centres—through Health & Family Welfare Training Centres and through basic training schools of Multipurpose Health Workers (Male). The training lasts for a year and upon successful completion, the Male Health Worker is posted at the sub-centre along with an ANM/Health Worker (Female). The main functions of Male Multi Purpose Health Worker are in the areas of National Health Programmes like Malaria, Leprosy, T.B. and limited involvement in U.I.P, Diarrhoea Control Program, and in family welfare services.

Maintenance and Strengthening of Health and Family Welfare Training Centres (HFWTC)

The HFWTCs are the training centres of DoFW, GOI which provide primarily short-term in-service training programmes to the doctors, nurses, and para-medical personnel in the rural areas in a defined region. At present these training centres are imparting various in-service training modules for RCH programme. Apart from in-service education, nineteen centres are also responsible for conducting the basic training of the Male Health Worker's year long course.The training centres have multi-disciplinary staff from biomedicine, social services, health education, public health, and nursing and statistics.

Reproductive and Child Health Training Programme

National Institute of Health and Family Welfare (NIHFW), designated by the Government of India, 1997 as the National Nodal Agency for training under the RCH Programme, has shouldered responsibilities of organizing and monitoring the RCH training activities with the help of eighteen Collaborating Training Institutions (CTIs) in various parts of the country. The major activities of NIHFW are:

1. Development of training material and guidelines.
2. Training of Trainers.
3. Coordination of training activities.
4. Monitoring of training activities—physical and financial, and disbursement of funds.

There are different types of training activities being conducted under the RCH Programme which include Integrated Skill Development Training (IST), Specialized Clinical Skill Training (SST), Specialized Management Training, Specialized Communication Training, and training for Immunization Strengthening Project.

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