# Public Health Facilities in North India

# **An Exploratory Study in Four States**

KRITIKA GOEL, REETIKA KHERA

Following the introduction of universal access to free medicines and diagnostics at public health facilities in Rajasthan during 2011–13, we revisited the facilities surveyed by Banerjee et al (2004), and present the changes over the last decade. We find substantial improvement in infrastructure and the patient utilisation rate, but abysmally low utilisation of facilities primarily due to high absenteeism. We also present findings from fieldwork in Himachal Pradesh, Bihar and Jharkhand to bring out striking contrasts among these four northern states.

We thank Jean Drèze, Nidhaanjit Jain, Sandesh Lokhande and Sonal Matharu for help in designing and implementing the study. We also thank Abhijit Banerjee for sharing data from the Udaipur health study. Several local organisations, especially Aastha (Udaipur) and Jan Jagran Shakti Sangathan (Araria), helped with logistics.

Kritika Goel (kritikagoel@gmail.com) is at the Delhi School of Economics and Reetika Khera (reetika.khera@gmail.com) is at the Indian Institute of Technology Delhi.

Tarious government policy documents, such as the Bhore Committee report, Health Policy of 1983, and the National Health Policy (NHP) 2002 have reiterated a commitment to the establishment of an extensive network of primary healthcare services. Some states have made substantial progress towards this end. For instance, the NHP 2002 states that "the functioning of public health service outlets in some states like the four Southern states-Kerala, Andhra Pradesh, Tamil Nadu and Karnataka—is relatively better;" in other states, the NHP 2002 describes them as "dysfunctional" (GoI 2002: 23-24). In spite of India's poor record on health outcomes and the importance accorded to public health facilities, health has failed to become a political issue. While the goal of increasing public health spending to 2% of the gross domestic product (GDP) in the NHP 2002 has not been achieved, the draft NHP 2015 has raised this to 2.5% of GDP.

## **Revisiting Facilities in Udaipur**

In 2002–03, a health study was conducted in the Udaipur District in south Rajasthan to study access to private and public health services and the status of these health facilities (Banerjee et al 2004). They found that public health facilities were lacking in almost all respects—health centres were poorly staffed and often closed, with low levels of attendance by both medical staff and patients. This drove poor patients into the hands of private health providers, resulting in high out-of-pocket expenses.

In 2011, the Government of Rajasthan introduced a scheme to distribute "free medicines" and in 2013, it launched "free diagnostics" for essential tests

(Hindu 2011; Economic Times 2013).¹ The Rajasthan Medical Services Corporation (RMSC) plays a crucial role in delivering these services. Rajasthan's efforts, especially the RMSC, are modelled after Tamil Nadu, a pioneering state in public health, and the Tamil Nadu Medical Services Corporation (TNMSC) (Cohen 2014; Desikachari et al 2010). Rajasthan is not the only state to attempt a replication of TNMSC's success in drug supplies. Other states such as Kerala and Odisha have also tried, but with varying success (Kalvakuntala et al 2012).

To understand the implementation of these two new initiatives, we revisited the public health facilities in the study by Banerjee et al (2004) in December 2013, using an updated version of the survey instrument used in the 2004 study. The survey findings, though not representative, are interesting to understand change over time in the case of Udaipur and in the light of recent health initiatives. We also present the results from a smaller sample in Bihar and Jharkhand ("undivided Bihar") and Himachal Pradesh.

All states have a three-tiered health system with sub-centres (sc) at the lowest level, primary health centres (PHC) at the intermediate level and community health centres (CHC) at the block level. The Indian Public Health Standards (IPHS) recommends that each sc serve 3,000-5,000 people; each PHC serve 20,000-30,000 people and CHCs serve 80,000-1,20,000 (GOI 2006; GOI 2013). The IPHS Guidelines, used as a benchmark throughout, spell out the staff requirements at each level, for instance, each sc should have at least one auxiliary nurse and midwife (ANM) or female health worker and one male health worker.

It is worth noting here that the functioning of SCS varies across sample states. In all states, the ANM has substantial field duties. In Himachal Pradesh, where the norm is to have two staff members at the SC, it functions like a dispensary. In Rajasthan, the ANM is more likely to use it as a base. In Bihar, when a SC building often does not exist, the ANM is like a mobile SC!

# 1 Sample, Methodology and Findings

Of the 143 public health facilities that were covered in the earlier Udaipur health study in 2002–03 (UHS 2002–03), we were able to identify 106, and the team visited 94. In addition to these, the team also covered six non-sample health facilities. Thus, the Health Facilities Survey 2013–14 (HFS 2013–14) sample included 100 health facilities—68 scs, 24 PHCs and eight CHCs. Unlike the UHS 2002–03, we only covered public health facilities. There was no household survey among those who were seeking medical services at these facilities.

# 1.1 What Has Changed in 10 Years?

Comparing change over time at the public health facilities in Udaipur, the news is mixed. In this section, we discuss the changes at sample PHCs in Udaipur on the following parameters: density of and access to health centres, physical infrastructure, availability of staff and availability of services (including free medicines and diagnostics).

**Improved Access to Health Centres**: In the UHS 2002-03, each sc served 3,600 individuals and each PHC served 48,000 people (Table 1). Thus, the PHCs were serving far more people than the prescribed norms. In 2013–14, the population served by scs increased to 4,836 individuals, and in the case of PHCs, there was a perceptible improvement, with each РНС now servings 31,315 people. The improved density of PHCs especially vis-à-vis SCs is good news on two counts. One, population served by PHCs is now within the prescribed population norm (20,000-30,000 people per PHC). Two, PHCs have recorded a marked improvement in physical infrastructure and services, while the same is not true for scs. Most centres were easily accessible. For example, 96% of the PHCs were served by some means of public transport such as buses or tempos.

Physical Infrastructure: The improvement is most visible in the availability of physical infrastructure (Table 1) including buildings, availability and functionality of equipment (ambulances, testing facilities, etc). In the UHS 2003–04, only

30% of PHCs had water supply, regular electricity and functional toilets; in HFS 2013-14, this rose to 71%. Further, investigators noted that PHC buildings were in good condition (for example, 75% of the centres had clean walls, 96% had windows with shutters), perhaps because they were newly built. In the case of scs, there is greater variability in physical infrastructure (for example, only about a 10th of the scs had water supply, regular electricity and functional toilets). Informal discussions with staff suggest that the improvement in physical infrastructure was due to the availability of more funds through the National Rural Health Mission (NRHM).

Table 1: Primary Health Centres in Udaipur: 2002–03 vs 2013

	2002-03	2013
Population served	48,000 <sup>1</sup>	31,315
Doors closed (%)	-(31) <sup>2</sup>	22 (20) <sup>2</sup>
No personnel found (%)	-(31) <sup>2</sup>	4 (3)2
Number of staff appointed	5.8 <sup>1</sup>	10.5 (13.5) <sup>2</sup>
Number of staff present	_	3.6
Doctors appointed	1.5 <sup>1</sup> (0.9) <sup>1</sup>	1.4 (1.8) <sup>2</sup>
Proportion (%) of		
doctors present	55 <sup>1</sup>	32 (38)
Number of patients in the past seven days	143	169
Patients utilisation rate (PUI	R),	
patients per thousand		
population served	3.0	5.4
Number of deliveries in the past 30 days	No data	23
Basic infrastructure	110 data	
Water, electricity and toile	ts	
(all three)	30	71
Ambulance	0	42
Stethoscope	100	100
Thermometer	96	96
Infant weighing scale	59	92
Diagnostics Haemoglobin	52	100
Blood group	30	88
Urine	52	92
Pregnancy	52	100
X-ray	0	4
Medicines		
Antibiotic	100	96
Analgesic	100	100
Anti-TB	96	100
Anti-asthma	59	88
Anti-depressant	41	46
Number of facilities in sam	ple 27	24
Number of visits	49 <sup>1</sup>	1–3
The 2002–03 figures, based on	49 visits, are i	

The 2002–03 figures, based on 49 visits, are not exactly comparable with the 2013 figures, based on 1–3 visits.

1. As reported in Banerjee et al (2004); in the 2002–03 column, other figures are calculated from raw data downloaded from http://thedata.harvard.edu/dvn/dv/mit/faces/study/Study/Page.xhtml?studyld=155&tab=files.

2. For PHCs and CHCs.

Availability of Services: This has been another area of substantial improvement. In the UHS 2002-03, about half of the centres could conduct tests for pregnancies or haemoglobin; now almost all offer these services. Similarly, the proportion of PHCs offering urine or blood group tests has increased from 30%-50% in 2002-03 to more than 80% in 2013-14. While basic medicines such as antibiotics and analgesics were already available at all PHCs in the UHS 2002-03, the range of medicines available has now improved (for asthma and diabetes, for example). There has been a "coming to life" at PHCs in terms of infrastructure, range of health services and medicines.

Patient Utilisation Rate: This is defined as the number of patients served per thousand population in the last seven days. The patient utilisation rate (PUR) has increased by 80% between the two survey periods (from 3 in 2002–03 to 5.4 in 2013–14). On average, PHCs served 169 outdoor patients in the week preceding the survey and delivered 23 babies in the month preceding the survey.

The increase in PUR can be attributed to two factors. One, improvement in infrastructure and staff (other than doctors) has facilitated provisions of better health services and imparted a semblance of functionality to the PHCs. Two, availability of medicines and diagnostic tests (for example, blood and urine tests, oral rehydration salts and so on) seem to have attracted patients to these centres. The introduction of free medicines and diagnostics (among other factors) has led to a visible change in health-seeking behaviour. Poor residents of Udaipur visit health centres (especially PHCs) even for minor ailments such as diarrhoea, cold, cough and fever.

Staff Appointment: There has been only a marginal improvement in the number of doctors appointed at the PHC level (from 1.5 to 1.8).<sup>2</sup> However, in the case of appointment of other health staff (lab technicians, pharmacists, nurses and so on) at the PHC, there has been a significant increase—from 5.8 to 10.5 per PHC. Interestingly, in terms of appointments, PHCs in Udaipur are now close to the norms prescribed by the IPHS (15 per PHC).

The jump in PHC staff appointments has been driven by a substantial expansion of health services at PHCs in Rajasthan. For example, lab technicians have been appointed since the introduction of x-ray and blood tests; drivers have been hired due to the introduction of ambulance services, and so on.

Staff Attendance: Attendance remains an area of serious concern. On average, out of 10.5 appointed health personnel, only 3.6 were present at the centre at the time of the surprise visit. There has been no improvement since 2002–03. Apart from resulting in underutilisation of the available physical infrastructure (we found patients at just half of the PHCs), the lack of accountability implies a serious wastage of public resources.

The underutilisation is reflected in a low daily patient load (number of outdoor patients per medical staff). With 169 patients in the past seven days and 3.6 staff present (on the day of the survey), translates into a patient load of 6.7 per day. If we look at the patient load per staff appointed, it comes down to 2.3 per day.

**Fees Charged**: About one-third of the centres do not charge any fees, and the remaining two-thirds charge nominal fees: Rs 2 for registration and up to Rs 10 for inpatients (mostly delivery cases), which go into the account of the "Rogi Kalyan Samiti" to pay for services which are essential, but not always provided for (for instance, employing guards and staff to clean the premises). One male nurse proudly told the team "Rajasthan mein, jab aap sarkari swasthya Kendra mein pravesh karte hain, to sab kuch free hai". (In Rajasthan, when you enter a public health centre, everything is free.) Among the few patients we spoke to, none complained of being charged for medicines or tests. Both are supposed to be provided free of cost.

## 1.2 Other Observations

Record-keeping seemed to be in good order: registers are maintained for outdoor patients, deliveries and medicine supplies. At times, complaints/symptoms are also noted in the registers (the most common were diarrhoea, vomiting, fever,

cold and cough). We were never denied access to the registers.

There seemed to be low awareness of ambulances services (104 for deliveries and 108 for other emergencies introduced under the NRHM). Among indoor female patients, few had used the ambulance. Complaints included refusal by ambulance services when requested ("not available") and some people said they were charged, even only for *chai-nashta*.

An alarming finding not captured by our questionnaire was the continued pressure on field staff for "population control." Among the population control measures, the emphasis was on female sterilisation, as opposed to reversible methods (such as use of contraceptives) or on male sterilisation.3 Field staff complained bitterly about the timeconsuming nature of this work, as well as the resistance (even abuse, at times) they faced from local residents. The ANMs were still being given targets to fulfil and scolded if they did not meet them. Sterilisations are incentivised for the patient as well as the staff who "motivate" them. For example, ANMs are provided a cash incentive of Rs 200 for each case. Another cash incentive scheme is the Janani Suraksha Yojana (JSY) which provides Rs 1,400 for institutional deliveries to pregnant women in rural areas.

# 2 Interstate Differences

Interstate variability in social policy (school meals, public transport, the public distribution system, and so on) have been noted earlier (Drèze and Sen 2013, for instance). In the case of public health services too, the NHP 2002 comments on the contrast between the southern states and others. We used the HFS 2013–14 survey instrument in Bihar, Jharkhand and Himachal Pradesh to study whether there are notable differences among the northern states.

In Bihar, we covered two blocks of Araria District (Araria and Raniganj). Our team visited 10 out of 11 PHCs, 31 out of 58 scs, though data could be gathered for only 18. The reasons for being unable to gather data were lack of a building for the health centre; the absence of the ANM, and in two cases the scs were considered

unsafe. In addition to this, the team visited an sc in Forbesganj block of Araria. Thus, the Bihar sample has 10 PHCs and 19 SCs. In Jharkhand, the sample covers four blocks of undivided Ranchi District (Angara, Namkum, Khunti and Murhu). It includes two CHCs, four PHCs and three SCs. Data for Bihar and Jharkhand ("undivided Bihar") have been pooled because of the small sample and given the similar condition of public health facilities in these two states.

In Himachal Pradesh, health centres from Jubbal block (Shimla) and Rajgarh block (Sirmaur) were surveyed. Our sample covered the two civil hospitals (sub-district hospitals). In these two blocks, five out of nine PHCs, and nine out of 29 sCs. The results provide some insights into interstate contrasts today between Bihar, Jharkhand, Himachal Pradesh and Rajasthan.

## 2.1 Bihar vs Himachal Pradesh

With respect to public health facilities, Bihar and Himachal Pradesh lie at two ends of the spectrum, with Rajasthan in the middle. These are almost non-existent in Bihar. Each РНС serves nearly one lakh people (far above the norm of 20,000-30,000) and each sc serves over 10,000 people (more than three times the prescribed norm).4 In Bihar, the most basic physical infrastructure is lacking. Though most PHCs had their own building, only four out of the 19 scs had a functional building. When buildings did not exist, ANMs worked from the nearest PHC or anganwadi centre or just sat outside any building with a desk and chair. Twelve out of 19 scs had no building at all.5 This implies that the summary figures for the physical infrastructure in Bihar (reported in Table 3, p 56) have an upward bias. The average number of staff members present at the time of the visit falls from 1.04 to 0.65 if we include the villages which were visited by the team but for which data could not be gathered (because no building existed or the ANM) could not be located). Similarly, the proportion of scs with patients at the time of the visit falls from 46% to less than 30%, after this adjustment. Centres with no facilities have been dropped from the data analysis, and hence the Bihar

sample should be seen as a sample of "functional" scs only.

At functional SCs, ANMs appeared to be quite active but their main activity

Table 2: Comparative Snapshot of Primary Health Centres, 2013–14

was immunisation. ANMs worked from the anganwadi centres and often in coordination with anganwadi workers. In the absence of a building or other facili-

ties, there was little else they could do. Less than one-fifth of the scs had regular electricity supply, a water connection and functional toilets. In this sense, the situation in Bihar today is worse than the situation in Rajasthan 10 years ago (in 2002–03, 30% of sample PHCs in Rajasthan had all three facilities).

Apart from non-availability of public health facilities, the most basic diagnostics (for example, blood group tests, pregnancy tests, haemoglobin) are rarely provided. Moreover, apart from basic medicines such as antibiotics, there is no guarantee of getting medicines at the PHCs (Table 2). Not surprisingly then, patients have little incentive to visit the PHCs in Bihar.

The absence of public health services is reflected in the low PUR: only one patient per thousand population was served in the last seven days, and only one delivery had taken place in the previous calendar month. Access was further restricted as less than 10% of the PHCs visited reported providing ambulance services.

The Himachal Pradesh sample shows how public health facilities should be. As with other interventions in the field of social policy, the state's public health facilities were impressive in terms of reach (the density of

health centres meets the population norms) and functionality from the lowest level of scs to the highest level of civil hospitals. Tables 2 and 3 clearly bring out the superiority of public health facilities in Himachal Pradesh.

Since people will not make the effort to go to a health centre if the probability of finding it open is very low, the PUR is a clear indicator of the success of the health system. The PUR was 11.7 compared to 5.4 in Rajasthan and one in Bihar (Table 2). This is not surprising given that despite their remote locations, none of the facilities were closed at the time of our visit and some staff was always present.

Another encouraging finding was the functionality at the scs. All had at least two appointed staff members. Investigators found patients at more than half of the sample scs at the time of their surprise visit.6 Since both health workers were properly trained, they could screen and refer serious cases to the PHC, where doctors and good diagnostic facilities are available. The PUR of 11 at sample SCS was comparable to the PUR at PHCS; the corresponding numbers were just four for Bihar and Rajasthan. In fact, scs in Himachal Pradesh were serving more patients than PHCs in the other two states (one and 5.4, respectively). We also found an active school health programme which included immunisation, monitoring of height and weight of students, and distribution of iron supplements. scs and PHCs both play a role in the school health programme.

# 2.2 Rajasthan in Comparison

With respect to some indicators, the situation in Rajasthan is comparable with that in Himachal Pradesh (physical infrastructure, availability of medicines and diagnostics), whereas for others, it is like Bihar (appointment and attendance of medical staff). This is clearly visible when one compares the range of diagnostics available at PHCs in Rajasthan and Himachal Pradesh. For instance, both states are comparable with respect to pregnancy and haemoglobin tests, whereas urine and blood group tests are now more widely available in Rajasthan than in Himachal Pradesh. Yet, Rajasthan has not been able to resolve the problem

Table 2: Comparative Snapshot of Primary	Health (	Centres, 201	3–14
	Bihar,	Rajasthan,	Himachal
D 1::		December 2013	
Population served	95,553	31,315	10,395
PHCs (%) where doors were closed on arrival	29	22	0
PHCs (%) where no personnel found	0	4	0
Number of staff appointed	8	10.5	4.7
Number of staff present	4	3.6	3
Doctors appointed	1.6	1.4	1
Proportion (%) of doctors present	40	32	20
Proportion (%) of centres where there were patients at the time of arrival	64	50	100
Number of patients in the past seven days	108	169	121
Patients utilisation rate (PUR).	100	102	121
(per thousand population served)	1.1	5.4	11.7
Number of deliveries in the past 30 days	1.3	23	0
Basic infrastructure Water, electricity, and toilets (all three)	14	71	80
Ambulance	7	42	40
Stethoscope	79	100	100
Thermometer	71	96	100
Infant weighing scale	64	92	80
Availability of diagnostics Haemoglobin	43	100	100
Blood group	7	88	20
Urine		92	20
Pregnancy	71	100	100
X-ray	/	4	20
Availability of medicines Antibiotic	93	96	100
Analgesic	86	100	100
Anti-TB	14	100	60
Anti-asthma	7	88	100
Anti-depressant	7	46	0
Number of facilities in sample	14	24	5
Bihar is for undivided Bihar and includes four PHCs in	n Jharkhan	d. For these tw	o states.

Bihar is for undivided Bihar and includes four PHCs in Jharkhand. For these two states, PHCs have been clubbed with "additional" PHCs (eight in Bihar).

## Table 3: Services at Sub-centres, 2013-14

	Bihar	Rajasthan	Himachal Pradesh
Population served (average)	10,816	4,836	2,183
Staff appointed (average)	1.4	1.3	2.1
Staff present at the time of arrival (average)	1.0 (0.7)	0.8	1.7
Number of patients in the past seven days	47	18	26
Patients utilisation rate (PUR) (patients per thousand population served)	4.4	3.8	8.6
Proportion (%) of centres where there were patients at the time of arrival	45 (33)	16	80
Proportion (%) of centres that have Water, electricity and toilets (all three)	0	9	67
Stethoscope, BP instrument and thermometer (all three)	59	67	89
Adult or infant weighing scale	77	78	89
Proportion (%) of centres that provide Pre- and post-natal care	95	85	89
Vaccination (BCG, DPT, Polio, Measles and TT)	100	96	100
Haemoglobin test	55	93	89
Pregnancy test	95	93	100
Number of facilities in sample	22	68	9

of poor attendance rates. On average, a doctor was present in only one out of four PHCs and the overall staff attendance rate was only about 40%.

An interesting contrast between Himachal Pradesh and Rajasthan was that the latter's efforts at reviving public health services were concentrated at the PHC and CHC level (initially focusing on cHcs, and subsequently PHCs since 2011). There is a perceptible difference in the functionality and services between SCs and PHCs in Rajasthan. In contrast, in Himachal Pradesh, there is a more gradual improvement in services rendered at the three levels: some PHCs in the sample resembled scs in terms of physical infrastructure and services, whereas others had facilities comparable to CHCs of Raiasthan. However. several PHCs were being upgraded using NRHM funds through addition of rooms, repairing existing rooms or adding a new building. Meanwhile, the state government was ensuring health services by running stronger scs and civil hospitals which may be physically distant, but were still accessible due to good public transport.

# 3 Reflection on Survey Findings

# 3.1 How Important Are Free Medicines and Diagnostics?

The role of free medicines and diagnostics is clearly recognised in the NHP 2002 also, in creating a demand for health services at public health facilities. According to the NHP 2002, better performance of the southern states is "because some quantum of drugs is distributed through the primary health system network, and the patients have a strong stake in approaching

Table 4: Investigator Observations and Complaints at PHCs and SCs

	Bihar	Rajasthan	Himachal
Proportion (%) of facilities that			
Were open on arrival	78	38	86
Had clean walls	44	59	100
Had rooms with windows	42	85	100
Proportion (%) of facilities			
where the following			
complaints were reported			
Patients had to pay	17	8	7
Lack of drugs or equipment	66	28	43
Irregular flow of funds	44	15	14
Lack of transport facilities	47	37	21
Total facilities covered	36	92	14

Public Health facilities" (p 24). It is believed that "in a situation in which the patient is not getting any therapeutic drugs, there is little incentive for the potential beneficiaries to seek the advice of the medical professionals in the public health system" (p 23). Thus, the NHP 2002 identified a vicious circle of low demand for public health services (less than one-fifth of outdoor patients seek medical advice at public health facilities), leading to poor rates of staff attendance at public health centres, which in turn leads to low demand. It was believed that the provision of essential drugs could play a role in "kickstarting the revival of Primary Health System" and "boost the general revival of activities in these service centres" (GoI 2002: 24). The increase in the PUR in Raiasthan suggests that the NHP 2002 recommendations were along the right lines.7

The Rajasthan state government seems to have done a commendable job of putting into place a new system, almost from scratch, and making it work. It is noteworthy also because in an otherwise functional public health system such as that in Himachal Pradesh, regular supply of medicines continues to be a problem. For instance, while only 18% of centres in Rajasthan reported lack of essential drugs as a problem, in Himachal Pradesh this was 36%.

Functional public health systems in Himachal Pradesh and Tamil Nadu suggests that introducing free medicines and diagnostics is an important step towards creating a decent work environment, which in turn contributes to functionality (Khera 2012). It is not reasonable to expect doctors to serve in remote areas without basic services such as electricity and medical supplies.

## 3.2 Absenteeism

Attendance rates of medical staff at PHCs, especially doctors, remain unacceptably low. In Rajasthan, the SCs were mostly closed (Table 3). Accountability of staff—doctors and ANMs alike—remains a serious issue in Rajasthan and Bihar. Absenteeism is a wider problem: in a study of public health facilities in 17 states, Chaudhury et al (2011) find an absenteeism rate of 40%–46%.

Could this be due to the nature of the contract (temporary vs permanent) for medical staff? The contract cannot be the only explanation because while it is true that staff attendance rates were higher among those with fixed term contracts in Rajasthan, in Himachal Pradesh even those with permanent contracts were present.

One could take a more sympathetic view of the situation. For instance, we found that there could be several possible reasons for closed scs (apart from the ANM shirking work). Most scs have just one appointed ANM, even though in some scs, two posts were sanctioned. Given that ANMs need to perform many field duties (related to maternal and child health and birth control) and liaise with the PHC, it would be difficult for them to be at the centre as well, that is, if only one staff is appointed at the sc, she cannot keep it open and perform field duties.

Providing decent work conditions in terms of equipment and infrastructure at PHCs may help improve attendance rates. Further, incentives appear to play a role in Himachal Pradesh and Tamil Nadu, where the state government supports higher studies for doctors who complete three years in government service to attract and retain doctors (see Desikachari et al 2010 for incentive structures in Tamil Nadu).

One useful lesson here seems to be that a "critical mass" is required to improve attendance rates.8 In Himachal Pradesh, scs are reasonably well-equipped, and have two trained "health workers" (male and female). The appointment of two health workers allows them to combine field duties with work at the centre. This is true for other staff as well: doctors, lab technicians, nurses are more likely to stay in remote areas if there are several of them at each centre. To some extent, this had begun to happen at PHCs in Rajasthan. At scs, one way to achieve critical mass could be to create greater synergy between the task of the accredited social health activist (ASHA), the anganwadi workers and helpers, and the ANM. This appears to be happening in Rajasthan only to a limited extent.9

Finally, ensuring greater accountability will require stricter monitoring. Chaudhury et al (2011), however, find that monitoring in the form of inspection does not have a significant effect on attendance. They suggest peer monitoring, such as would occur at facilities where there are many staff members, especially those with a hierarchical structure. Monitoring could thus take the form of "naming and shaming" (for example, publicising attendance records through local media) or by imposing penalties for absenteeism.

# **Concluding Remarks**

The recently released draft NHP 2015, reiterates universality as a principle of health policy, aims to increase public expenditure on health to 2.5% of the GDP and lists universal access to primary healthcare including the provision of free medicines and diagnostics as among its policy objectives. Rajasthan's positive experience with universal free medicines suggests that this emphasis in NHP 2002 and NHP 2015 is well-placed. Rajasthan's decision to dilute this policy is, therefore, unfortunate and ill-advised (Khera 2014). Higher spending through the NRHM has translated into a marked improvement in the availability of services and infrastructure at public health facilities in Rajasthan. However, the utilisation rate of public health facilities is abysmal (on average, two patients per appointed staff per day) largely due to high rates of absenteeism. According to the National Family Health Survey (NFHS) 2005-06, 70% of households generally use government health facilities (IIPS 2008). This provides further justification for seeking immediate solutions to the problem of absenteeism.

In Jharkhand and Bihar, the most basic infrastructure is missing and the utilisation rates are low (23% and 7%, respectively), lower than the corresponding all-India figure (33%). In many ways, the situation today in undivided Bihar is comparable (or worse) than the situation in Rajasthan a decade ago. The envisioned higher public spending is therefore sorely needed.

The silver lining are public health facilities in Himachal Pradesh, with a

well-equipped and well-utilised system, not crippled by poor staff attendance as in Rajasthan or by the lack of infrastructure as in Bihar. According to NFHS 2005–06, in Himachal Pradesh 83% of households generally use government health facilities, the highest in the country. Incentives and better work culture are part of the explanation. High rates of utilisation across all income groups may also have contributed to better quality, strengthening the case for free universal primary healthcare.

#### NOTES

- Since a change of government in December 2014, there has been a scaling down of these initiatives. See Dhar (2014).
- 2 As per the norms specified by the IPHS, each PHC should have one doctor although recommendations have been made to increase this to two, the second being an AYUSH doctor or a female doctor (Gol 2006: 20).
- 3 Operation Theatres (optional as per IPHS) were largely not functional. At CHCs where they were operational they were mainly used for periodic sterilisation camps.
- 4 According to GoI (2013), there is approximately a 50% shortfall in terms of number of SCs, a 40% shortfall in PHCs and a 90% shortfall in CHCs in Bihar (Table 11, p 49). In Jharkhand, the corresponding figures are 35%, 66% and 22%, respectively. In Rajasthan, they range between 24% and 34% and there are no shortfalls in HP.
- 5 According to GoI (2013), half of all SCs did not have a building. For PHCs no data is provided.
- 6 The corresponding number for Bihar looks similar, but note that ANMs in Bihar were mainly involved in immunisation activities, so it is quite likely that these "patients" were just there for immunisation. In Rajasthan, only about one-tenth of SCs had patients at the time of the visit.
- 7 Secondary data and other studies record a larger effect, particularly in number of female patients (Mathur and Vyas 2012). According to official data, the number of patients per day has increased from 1.5 lakh per day to 2.3 lakh per day since the introduction of the RMSC (see https://doitc.wordpress.com/tag/e-health/). Interestingly, according to NFHS 2005–06, more than 60% respondents in Rajasthan said that the main reason for not using government facilities was the poor quality of care (only 7% reported absenteeism as the main reason). If this is true, the improvement in utilisation rates can be attributed to the recent initiatives.
- 8 Chaudhury et al (2011) also allude to the possibility of critical mass helping improve attendance rates.
- 9 A recent survey of the Integrated Child Development Services (ICDS) scheme in Odisha shows that this can be made to work well.

#### REFERENCES

- Banerjee, Abhijit, Angus Deaton and Esther Duflo (2004): "Health Care Delivery in Rural Rajasthan," *Economic & Political Weekly*, Vol 39, No 9, 28 February.
- Cohen, Margot (2014): "Why Tamil Nadu's Drug Supply Is (and Should Be) the Envy of all Other States," 9 June, accessed online at https://in. news.yahoo.com/why-tamil-nadu-s-drug-supply-is--and-should-be--the-envy-of-all-the-other-states-052129429.html, 25 June 2014.

- Chaudhury, Nazmul, Jeffrey Hammer, Michael Kremer, Karthik Muralidharan and Rogers F Halsey (2011): "Is There a Doctor in the House? Medical Worker Absence in India," Working Paper, available online at http://scholar.harvard.edu/files/kremer/files/is\_there\_a\_doctor\_in\_the\_house\_\_12\_april\_2011.pdf. Last accessed on 14 January 2015.
- Desikachari, B R, K K Datta, Monica Das Gutpa, P Padmanabhan, Shukla Rajendra and T V Somanathan (2010): "How Might India's Public Health Systems Be Strengthened? Lessons from Tamil Nadu," *Economic & Political Weekly*, Vol 45, No 10, 6 March.
- Dhar, Aarti (2014): "Vasundhara Government Decides to Revisit Eligibility Criteria of Social Schemes, Social Activists up in Arms," *Hindu*, 25 July, accessed online on 13 January 2015, http://www.thehindu.com/news/national/other-states/vasundhara-govt-decides-to-revisit-eligibility-criteria-of-social-schemes/article6248516.ece
- Drèze, Jean and Amartya Sen (2013): An Uncertain Glory: India and Its Contradictions (New Delhi: Penguin).
- Economic Times (2013): "Free Diagnostics Test Scheme in Rajasthan from Tomorrow," 6 April, available online at http://articles.economictimes. indiatimes.com/2013-04-06/news/38327403\_ 1\_government-hospitals-district-hospitals-medical-college-hospitals. Last accessed on 13 January 2015.
- Government of India (2002): National Health Policy 2002 (New Delhi: Ministry of Health and Family Welfare), available online at http://mo-hfw.nic.in/WriteReadData/1892s/1804889291 2105179110National%20Health%20policy-2002. pdf, Last accessed on 20 September 2014.
- (2006): Indian Public Health Standards for Primary Health Centres Guidelines (New Delhi: Directorate General of Health Services, Ministry of Health and Family Welfare).
- (2013): Rural Health Statistics in India 2012 (New Delhi: Ministry of Health and Family Welfare, Statistics Division). Available online at http://mohfw.nic.in/WriteReadData/ l892s/492794502RHS%202012.pdf
- Hindu (2011): "Rajasthan Launches Free Medicine Scheme," 3 October. Available online at http:// www.thehindu.com/todays-paper/tp-national/rajasthan-launches-free-medicine-scheme/ article2507562.ece. Last accessed on 20 September 2014.
- International Institute for Population Sciences (2008): National Family Health Survey (NFHS-3), India, 2005–06 (Mumbai: International Institute for Population Studies). Available online at http://www.rchiips.org/NFHS/NFHS-3%20 Data/VOL-1/Chapter%2013%20-%20Morbidity%20and%20Health%20Care%20(475K).pdf\_Last accessed on 13 January 2015.
- Khera, Reetika (2012): "Tamil Nadu's Striking Progress in Welfare," *India Together*, 10 September, Last accessed on 20 September 2014 at http://indiatogether.org/tnwelfare-government
- (2014): "A Bitter Pill to Swallow," Indian Express, 2 September.
- Kalvakuntla, Rohini Rao, Prabal Vikram Singh, Maulik Chokshi and Anand Tatambhotla (2012): "Replicating Tamil Nadu's Drug Procurement Model," Economic & Political Weekly, Vol 47, No 39.
- Mathur, Alok Kumar and Divya Vyas (2012): "Chief Minister's Free Drug Distribution Scheme: A Case Study," Last accessed on 20 September, http://www.academia.edu/3705321/Chief\_ Ministers\_Free\_Drug\_Distribution\_Scheme\_A\_ Case Study
- Ministry of Health and Family Welfare (2002): "National Health Policy 2002," New Delhi.