WPS6953

Policy Research Working Paper 6953

Parallel Systems and Human Resource Management in India's Public Health Services

A View from the Front Lines

Gerard La Forgia
Shomikho Raha
Shabbeer Shaik
Sunil Kumar Maheshwari
Rabia Ali

The World Bank
South Asia Region
Health, Nutrition and Population Unit
June 2014

Policy Research Working Paper 6953

Abstract

There is building evidence in India that the delivery of health services suffers from an actual shortfall in trained health professionals, but also from unsatisfactory results of existing service providers working in the public and private sectors. This study focusses on the public sector and examines de facto institutional and governance arrangements that may give rise to well-documented provider behaviors such as absenteeism, which can adversely affect service delivery processes and outcomes. The paper considers four human resource management subsystems: postings, transfers, promotions, and disciplinary practices. The four subsystems are analyzed from the perspective of front line workers, that is, physicians working in rural health care facilities operated by two state governments. Physicians were sampled in one post-reform state that has instituted human resource management reforms and one pre-reform state that has not. The findings are based on quantitative and qualitative measurement. The results show that formal rules are undermined by a parallel modus operandi in which desirable posts are often determined by political connections and side payments. The evidence suggests an institutional environment in which formal rules of accountability are trumped by a parallel set of accountabilities. These systems appear so entrenched that reforms have borne no significant effect.

This paper is a product of the Health, Nutrition and Population Unit, South Asia Region. It is part of a larger effort by the World Bank to provide open access to its research and make a contribution to development policy discussions around the world. Policy Research Working Papers are also posted on the Web at http://econ.worldbank.org. The authors may be contacted at glaforgia@worldbank.org.

Parallel Systems and Human Resource Management in India's Public Health Services
A View from the Front Lines

By

Gerard La Forgia[a], Shomikho Raha[b], Shabbeer Shaik[c], Sunil Kumar Maheshwari[d] and Rabia Ali[e]

[a]Health, Nutrition & Population Unit, East Asia and Pacific Region, World Bank, Washington DC, USA
[b]Social Development Department, World Bank, Washington DC, USA
[c]Center for Good Governance, Hyderabad, India
[d]Indian Institute of Management, Gujarat, India
[e]Education Sector Unit, East Asia and Pacific Region, World Bank, Washington DC, USA

JEL Classification: I1, H7, H83
Key words: India, health systems, governance, human resource management, public management.

Acknowledgements:
The authors are grateful for comments on earlier versions received from Rajeev Ahuja, Sofi Bergkvist, Peter Berman, Jishnu Das, Ariel Fizbein, Nick Manning, Somil Nagpal and Vikram Rajan. This research was supported by a generous grant from DFID/India. The paper draws on field research, data, and transcripts prepared by the Center of Good Governance (CGG), Hyderabad, India and Wone Management Systems, Ltd. The CGG team consisted of Mr. Varada Raju, Radhakrishnam Raju, Manas Ranjan Kar, and Pavan Kumar B. The Wone team consisted of Vinita Satija and Puneet Gaur.

Parallel Systems and Human Resource Management in India's Public Health Services
A View from the Front Lines

1. INTRODUCTION

There is growing evidence from some states in India that the delivery of public and private health services suffers both from an actual shortfall in qualified human resources, especially physicians, but also from unsatisfactory performance of existing service providers. A number of studies using large-scale quantitative data show that there is widespread absenteeism among medical providers in the public sector (Chaudhury et al., 2005, Banerjee, Duflo and Glennerster, 2008, Banerjee, Deaton and Duflo, 2004) and that even though public sector providers are at least as knowledgeable as trained providers in the private sector, and certainly more knowledgeable than informal sector providers, the low effort that these providers exert in clinical interactions reduces their efficacy relative to other alternatives (Das and Hammer, 2007; Das et. al. 2012). Although improving health outcomes is linked to a number of factors, supply side delivery deficiencies evidenced by absenteeism, work shirking, and low productivity limit the ability of government to improve service delivery and, ultimately, contribute to lagging health outcomes (Chaudhury et al., 2005; Misra et al., 2003; Lewis and Pettersson, 2009a,b; MOHFW, 2005a; Das and Hammer, 2007; Banerjee, Duflo and Glennerster, 2008; Banerjee, Deaton and Duflo, 2004).

Analytical work on human resources in health in India tends to center on the shortfall in actual numbers of personnel that public delivery systems require in order to meet the needs of the growing population as specified in population-based norms and policies (IPHS, GOI. 2007; MOHFW, 2008, 2005b). In contrast, understanding the high incidence of absenteeism, low productivity and low quality of service delivered by providers *already in the system* draws less attention.[1] Moreover, there are relatively few studies that have examined the institutional workings of states and factors that may contribute to provider behaviors and performance.

This study focuses on understanding the institutional environment, in particular the policies, rules and processes that govern human resource management (HRM) in the public health system.[2] We analyze four HRM subsystems: postings, transfers, promotions and disciplinary practices from the perspective of front line workers – physicians working in primary care facilities and hospitals operated by state governments

in rural areas.[3] These functions are considered major determinants of human resource performance (Sims, 2002; Burke and Cooper, 2004; Meyers and Allen, 1991).[4] The ways in which these four HRM functions are conducted in practice provide evidence of underlying accountabilities and incentives that can affect service delivery performance. To our knowledge, this is the first study that systematically examines HRM in a developing country's health sector with a focus on the de facto practices as described by those whose livelihood and careers depend on them.

Conceptually, we work from the premise that HRM practices and performance are determined by the institutional environment in which they are embedded (Manning, Mukherjee and Gokcekus, 2000; Bana and McCourt, 2006). The framework is illustrated in the Annex. This environment, which is influenced by worker preferences and external pressures, contributes to organizational performance (e.g., accountability, results focus, organizational discipline and employee morale) which in turn impacts service delivery performance. Our approach emphasizes de facto institutional and governance arrangements that give rise to behaviors which can perversely affect service delivery processes and outcomes (Wild et al., 2012; Devarajan, 2008; Fukuyama, 2013; Burke and Cooper, 2004; Lewis and Pettersson, 2009, a,b). Although not directly measured in this study, service performance consists of HR behaviors (e.g., absenteeism and low effort) which mediate actual service provision. We hypothesize the effects of the institutional environment on provider behaviors, and ultimately, downstream service performance.

Four findings contribute to understanding the institutional environment in India and its potential impact on provider behaviors. First, HRM practices are undermined by a parallel modus operandi in which key functions are often determined by political connections and side payments. These systems appear to be controlled by senior administrators and politicians. Second, we confirm what is well-known anecdotally: these parallel systems are widespread and predictable. Third, the occurrence of parallel systems in a 'pre-reform' state that has yet to formalize many HRM processes are no different from a 'post-reform' state that instituted HRM reforms in the public health service. Parallel systems are so embedded in the institutional fabric that reforms appear to have had little impact on what happens on the ground. Finally, parallel systems are open to manipulation by all participants – administrators, politicians and physicians – for their benefit, whether monetary or non-monetary. Given this scenario one can question the organizational identity (e.g., shared vision, values, and goals) and commitment of physicians if they feel

victimized by parallel HRM practices or have the capacity to respond to the incentives and make the system work in their own interests.

Our findings suggest an institutional environment in which formal rules of accountability are trumped by informal systems that respond to a different set of accountabilities and incentives. Parallel systems break any link between better performance and rewards (whether through promotions, "better" postings or even higher salaries) and instead create alternate margins for doctors to focus their attention on. For example, if a better posting is tied to the ability to pay, doctors may realign their effort *away* from their public sector jobs, where pay-scales are fixed, towards private practice or other revenue generating activities where they can earn additional income to pay for a more desirable posting or transfer. How and in what manner the evidence on a parallel system that we document here *precisely* leads to a decline in performance is a key topic for further enquiry.

This study adds to existing evidence on parallel systems, a well-known attribute of HRM practices among public officials and politicians in South Asian countries, including Pakistan (Hasnain, 2006), Nepal (Harris, et. al., 2013) and India (MPPGP, 2010; Saxena; 2005; Davis, 2003; Wade, 1985; 1982). Political interventions and side payments for certain HRM functions such as postings and transfers appear to be commonplace in Indian state-level public agencies. In 2004, the Indian Prime Minister raised the issue of a "transfer and posting industry" that was "debilitating the performance and morale" of the government's administrative apparatus.

A few caveats are worth noting. The study measures the perceptions of physicians regarding HRM practices and parallel systems. Given the sensitivity of the topic and the need for a much larger sample than resources permitted, we did not directly measure respondents' participation in parallel system. We do not suggest that all administrators, politicians and physicians actively partake in parallel systems to pursue their own interests. Clearly there are many physicians dedicated to providing the best possible care under difficult conditions, and they receive considerable support from politicians and senior administrators. However, the evidence reported here appears overwhelming that parallel systems may explain how certain HR functions operate on the ground. The extent to which similar systems are active in other states is a subject for future research.

Section 2 presents the methodology and sample. Section 3 outlines the institutional context of the two study states henceforth referred to as States A and B in this paper. Section 4 describes the findings and section 5 discusses implications for the institutional environment and delivery system performance. Section 6 presents insights into why parallel systems exist and section 7 discusses addressing parallel systems. Section 8 recommends approaches to address the problem and a final section concludes.

2. METHODS AND SAMPLE

The study used qualitative and quantitative research methods and was conducted in two states, A and B.[5] Both methodologies adopted multiple data collection mechanisms to ensure reliability of the data and information collected. The qualitative findings were used to inform the design of the quantitative surveys and later validate or complement the quantitative findings. Field research was conducted in late 2011 and early 2012.

Multiple qualitative methods were applied to triangulate information from various sources. Focus group discussions were conducted with policy makers and administrators at the state and district levels, and facility physicians (Medical Officers - MOs) in three sampled districts in each state. In-depth interviews were conducted with 39 and 37 medical officers and health officials in States A and B respectively, including officials in the state secretariat. Secondary data and documents such as service records and government orders pertaining to the HR practices that are central to the study were collected from the study districts and respective State Department of Health (DH).

Quantitative methods consisted of a perception survey (PS) and Unmatched Count Technique survey (UCT). The findings from the focus groups and interviews were used to develop the questionnaires for the PS and UCT surveys. While we aimed to avoid ambiguous words and phrases; questions asking two or more opinions; or manipulative statements (Recantini, Wallsten, and Xu: 2000), based on information collected in the qualitative research, the PS and UCT surveys contained some sensitive questions used to gather and quantify respondents' *views* on the occurrence and workings of parallel systems.[6] While self-reporting perception surveys are commonly used for eliciting views of public servants on administrative processes and organizational performance, they have limitations for research on sensitive topics (Tourangeau, Roger, and Ting Yan. 2007; Barnett, 1998; Lee, 1993). The UCT methodology addresses

this limitation by mixing non-sensitive with sensitive statements, isolating the latter.[7] Unlike most UCT instruments, however, we did not ask respondents about *their* behaviors or participation in parallel systems. This would have required a much larger sample of respondents requiring considerably more funding than was available. Rather, we asked about their general agreement with statements on deviant behaviors in their institutional environment. Finally, given the differences in some HRM processes across the two states, the wording of some questions was dissimilar in the PS questionnaires applied in each state.[8]

The same groups of physicians in each state completed both the PS and UCT surveys. The surveys were applied to physicians working in Primary Health Centers (PHCs), Community Health Centers (CHCs), and to a lesser extent, block (subdistrict) medical officers in three districts in each state.[9] The surveys were field tested in one district in each state. 273 and 266 physicians responded in States A and B respectively, with a response rate of 65 percent.[10] All instruments were applied individually and confidentiality was ensured.[11]

The districts were selected as representative of the universe of districts in each state, and include areas which are considered desirable (e.g., near urban areas) and undesirable (distant rural and tribal areas) to physicians. Sampling remote rural and near-urban districts also allowed for a more representative sample of physicians in terms of years of tenure. Typical of most districts in each state, the sampled districts had a large number of PHCs without assigned physicians due to a generalized situation of physician shortages in India. However, these vacant PHCs tend to be located in rural areas lacking social infrastructure and distant from urban centers. State A performs better than State B in female literacy, is more urbanized, and has higher per capita income. State A also has significantly lower mortality rates, and unlike State B, has undergone rapid improvements in many health outcomes in the last couple of decades. Progress in state B has been muted in comparison.

3. INSTITUTIONAL SETTINGS

In order to interpret the perceptions of medical officers on de facto HRM practices, we briefly review the institutional context of each of these states as it relates to HRM. Although nomenclature varies somewhat, the Department of Health, Medical and Family Welfare (DH) is responsible for health services in both states. It is headed by a minister, an elected politician. Most high level administrative officials are career

civil servants and belong to the centrally managed Indian Administrative Service (IAS). The remainder belongs to state civil service cadres. Many procedures and rules are similar for both states for the HRM functions under study here in part because they follow civil service rules that vary little across states. This is especially the case for disciplinary and promotion practices, which follow Civil Service Conduct Rules (CSC).

Nevertheless, there are two notable differences between the HRM practices in the two states. State A put in place a reform that aimed to formalize and make the posting process more transparent, whether related to initial recruitment, transfers or post-promotion postings. Known as "counseling," the process involves the application of defined criteria for approving the postings and one-on-one interaction between the physician applicant and HR administrative personnel in which vacancies and physician preferences are discussed. In theory, posting decisions resulting from "counseling" are made based on some combination of physician preference (e.g., spouses' place of work), vacancies, and administrative requirements (e.g., years of service, tenure in a specific facility), with "seniority" defined by the years of service being the key consideration. Most criteria are usually subject to negotiation. State A also instituted a dedicated disciplinary cell to deal with punitive cases involving unauthorized absence and other major disciplinary breaches. In contrast, State B employs a "pre-reform" HR management system and does not undertake a formal counseling process or possess disciplinary committees. The implementation of posting processes and disciplinary actions is less institutionalized and more open to ad hoc arrangements.

Second, in State A, private practice by government doctors is illegal. In State B, government doctors are allowed to practice privately outside of their public work hours. In practice, however, a market of scarcity of physicians allows most government doctors to easily engage in private practice regardless of the rules. During recent field research on one Indian state, only 20 percent self-reported having a private practice while about 80 percent were actually found to be privately practicing medicine.[12]

4. RESULTS

(a) Descriptive statistics

Table 1 presents the descriptive statistics on the respondents. A few characteristics stand out. The distribution of positions of respondents is roughly similar for both state samples with over half assigned

to PHCs and about one-third to CHCs. The remainder is Block (subdistrict) MOs who occupy administrative positions. State B possesses a larger proportion than State A of recent recruits with less than two years of service. Also, compared to State A where over 40 percent of respondents have yet to be transferred, only 27 percent of State B respondents face a similar situation. Interestingly, in State B 39 percent of respondents report a minimum tenure of one year and over two-thirds have remained at post for less than two years. In contrast, less than 40 percent of State A respondents report minimal post tenure of two years. The majority in either state have yet to be promoted. About 30 percent of the respondents report having a private practice.

Table 1: Sample HR and Administrative Characteristics of Respondents State A (N=273) and State B (N=266) (in percent)

Position	**PHC MO**	**CHC MO**	**Block MO**	**--**	**--**
% State A	56.1	30.2	13.7	--	--
% State B	53.7	38.1	8.2	--	--
Total Service (yrs.)	**<2**	**2-6**	**6-12**	**12-18**	**>18**
% State A	15.6	36.4	20.8	14.5	12.6
% State B	26.7	35.8	17.2	12.5	7.8
No. of Transfers	**Not Yet**	**1-2**	**3-4**	**5-6**	**>7**
% State A	42.5	29.9	21.8	4.6	1.1
% State B	27.0	33.5	27.8	8.3	3.5
Maximum post tenure (yrs)	**<2**	**2 to 5**	**5 to 8**	**8 to 12**	**>12**
% State A	17.1	44.1	25.1	3.8	9.9
% State B	22.8	26.5	39.1	8.8	2.8
Minimum post tenure (yrs.)	**<1**	**1 to 2**	**2-3**	**3 to 5**	**>5**
% State A	15.0	22.7	19.4	23.9	19.0
% State B	41.2	36.1	13.9	5.1	3.7
No. of promotions	**Not Yet**	**Once**	**Twice**	**Three Times**	--
% State A	80.7	15.0	2.2	2.2	--
% State B	88.6	11.0	0.4	0.0	
Private practice	**Yes**	**No**	**Can't say**	--	--
% State A	27.9	66.0	6.0	--	--
% State B	28.4	69.8	1.7		

PHC: primary health center
CHC: community health center (small rural hospital)
block: smallest administration unit

(b) Postings and Physician Preferences

Table 2 presents the UCT survey results on the perceived the prevalence of parallel systems. A high percentage of respondents in both states agreed with statements about managing initial and post transfer postings through "unofficial financial dealings." In general, a higher percentage of (post- reform) State A respondents considered parallel systems to influence post-transfer than (pre-reform) State B respondents. However, a higher percentage of State B respondents considered these systems to affect initial postings than their State A counterparts.

Table 2. Postings in States A and B
Unmatched Count Technique (UCT) Survey Results, 2011

Summary Statement	UCT Score (%)[a]; (CI)[b] State A	State B
Desired place of initial postings can be obtained through unofficial financial dealings	65.3 (45.6-85.0)	81.4 (67.0-94.9)
Desired place of post-transfer postings can be obtained through unofficial financial dealings	89.1 (65.5-112.8)	67.8 (48.9-86.6)

[a]The UCT scores represent the proportion of respondents (medical officers) who agreed with the specific statements in comparison to a control group not provided the same statement. The statements did not ask whether the respondents participated in such behaviors.
[b]95% confidence interval.

Table 3 displays the results of the perception survey on posting preferences, processes and parallel systems. Using political connections appears to be the most effective route to secure a desired posting in both states (about 85 percent of respondents in both states) or avoid an undesirable one.

The counseling policy is welcomed by physicians in post-reform State A. Over 70 percent of respondents agree that it has increased the transparency of posting practices. However, results suggest systematic deviations from formal processes and the DH does not divulge full information during counseling. It is common knowledge among State A respondents that the DH suppresses highly desirable locations near urban areas during counseling (86 percent). DH officials maintain that desirable vacancies are not revealed in order to first fill less desirable rural and tribal ones. But only about half of respondents

consider this the reason. The findings suggest that the reform measures are not regularly applied, or can be readily bypassed through parallel systems. Most respondents (81 percent) consider that highly coveted postings are suppressed to enable an alternate posting process based on political influence and financial transactions. The percent of respondents perceiving this to be case vary little with their counterparts (84 percent) in State B which does not possess a counseling policy.

Parallel systems are driven in part by physician preferences for posts near urban areas (88 and 82 percent of respondents in States A and B respectively) and in locations with good potential for private practice (54 and 63 percent of respondents in States A and B respectively). Some locations are apparently so undesirable that the majority of respondents agreed that MOs prefer to secure medical leave to avoid such a posting (79 and 69 percent of State A and B respondents respectively).[13]

Table 3. Posting Preferences and Processes in States A and B Perception Survey Results, 2011 (in percentages)[a]

Summary Statement	% Agree[b] State A N=273	State B N=266
Preferences		
Many candidates opt for (initial) postings in rural / tribal PHCs to secure quicker eligibility for residency requirements	84.6	86.3
MOs generally choose locations which have good potential for private practice	59.9	59.1
MOs generally choose locations that are nearer to urban areas	87.8	82.4
Some MOs go on medical leave to avoid undesired postings	78.9	69.2
Processes		
The vacancies that are suppressed during counseling are generally in and around urban areas	85.8	N/A[c]
The reason for suppressing [desirable] vacancies is to fill the periphery first	53.6[d]	62.6
The counseling process has improved transparency of the posting process	70.8	N/A[c]
Parallel systems		
The reason for suppressing [desirable] vacancies is to facilitate some prefixed unofficial arrangements motivated by political influence and financial dealings	80.7[d]	82.8
Political connections are used to get desired places of posting.	86.3	84.1[e]

[a]Percentage based on valid responses (exclude missing data).
[b]Combines responses for "agree" and "completely agree."
[c]Counseling process not used in State B.
[d]State A statements refer to the counseling process.
[e]Survey statements for State B refer to approaching local politicians to secure a desired place of posting.

Interviews and focus groups confirmed that physicians prefer posts which are close to urban areas or located in semi-urban areas for both personal and economic reasons: urban areas offer better schools and basic services such as electricity and piped water while both urban and semi-urban areas offer better potential for lucrative private practices. According to one State B physician:

> "The incentive to continue to occupy [one's] current post is to not disturb family and sometimes to protect thriving private practice."

Interviewees also affirmed the need for political influence and side payments to obtain preferred postings. Political influence to bypass the counseling process was captured in the following statement from two physicians in State A:

> *"On confronting the counseling committee on not including a vacant PHC of his preference, the administrative staff supporting the committee snidely remarked it is reserved for a candidate with political connection…"*

> *"With right connections and some political (as well as local community) influence, it is possible to manipulate the system."*

(c) Transfers

Transfers[14] can be used by physicians to secure a desired posting (or avoiding an extended stay in an undesirable post) usually by making use of parallel systems. Transfers are also used by administrators to fill undesirable posts and "punish" staff for disciplinary breaches while politicians use transfers to secure postings for "preferred" candidates or remove the less preferred.

As in the case of postings, there is no structured transfer policy in state B, and there is no minimum or maximum tenure requirement (88 percent of State B PS respondents). Perception survey results suggest

that DH officials have little role in the process (77 percent agreement), transfers occur at the behest of politicians (94 percent agreement), and physicians must make use of political connections (90 percent agreement) and side payments (78 percent agreement) to secure or block a transfer. The perception of one state B interviewee, that side payments are apparently the norm to enable processing of transfers, is telling:

> *"When one wanted a transfer to be posted close to the place of spouses' work place . . . one had to go through the same institutionalized informal system. Using spouse criterion[15] was only a means to gain the attention of higher ups. Once the application is accepted by the department on 'spousal' grounds, doctors would still spend some money to get it approved."*

State A follows a formal transfer policy that defines the eligibility criteria, minimum and maximum tenure, and also involves "counseling" in assigning posts (after transfer approval). A minority of respondents (37 percent) considered the "transfer policy" clear-cut. Parallel systems appear to prevail as much as in state B where formal tenure rules are nearly absent According to the perception survey, two-thirds of State A respondents agree that financial arrangements can be used to secure a desired place of posting through temporary transfers known as deputations. Reflecting on application of transfer policies in state A, one physician opined:

> *"Lack of strict adherence to the policy has resulted in people finding loopholes in the policy and tweaking it to suit their convenience."*

If tenure rules and other criteria, where they exist, are not key criteria for determining one's duration in a specific post, what does? The qualitative research suggests three factors: political and community connections, willingness and ability to pay, and demand for specific posts.

Prolonged tenure facilitates the cultivation of deeper political and community relations. By virtue of a long stay and developing a support network among local leaders and politicians, MOs can enjoy long tenures in desirable posts. Local community leaders and politicians may try to retain doctors in their areas which they view as high performers. However, MOs may be transferred at any time if they fall out of favor with local politicians and administrators.

While not every doctor may need to cultivate political connections, interviews suggest it certainly helps. The current system benefits doctors who are able to foster and sustain ties with politicians. In the words of a state B interviewee without access to these privileges:

> *"MOs with political and administrative connections are the winners in this system. Lack of formal transfer policy allows them to pick and choose the place of work. The option to get a transfer from a better place to a best place for these doctors is easy."*

Willingness and ability to pay is another factor determining the likelihood of securing a transfer. According to two State B physicians who have had differing success in obtaining transfers:

> *"In my long 14 years of stay in one PHC, I tried to get transferred to other places closer to urban areas. Every attempt yielded no result since I was unwilling to pay for the transfers. The only method that will yield a transfer request is by payment. The local [politician] is the conduit and he quotes the amount as a "fee" to get the transfer or to endorse the transfer application…"*

> *"This may not be the ideal system, but I at least have the guarantee that if I approach right persons and with appropriate price, I can get a transfer to a place of my liking."*

Protection of private practice can also be a motivating factor. In the words of one state A physician:

> *"It is not uncommon to get protection from being transferred out for the sake of building up private practice, even if it means bending the rules of the department and/or buying the protection."*

Demand for a specific post also contributes to length of tenure. A desirable post may be coveted by an MO with sufficient political connections and ability to pay, resulting in the issuing of transfer orders to the incumbent. But the latter can respond by garnering political support (e.g., reaching out to higher level politicians and administrators) or making payments to fend off the transfer. Conversely, if the post is not

wanted by others due to its undesirability or if the incumbent physician refuses to pay for a transfer, she may remain there for many years.

(d) Promotions

The research found only indirect evidence of parallel systems in promotion processes. However, the findings show promotion processes are irregular and that performance, however defined, is not a criterion for promotions. Promotion processes follow broader Civil Service Conduct Rules in both states. Eligibility for promotion in both states requires at least 12 years of service, completed annual confidential reports (ACRs) and absence of disciplinary actions. As is the case across the Indian public service, seniority is the principal if not only factor determining promotion to a higher cadre.[16]

Table 4 displays the findings of the perception surveys for promotions in each state. The main difference relates to the seniority criterion. Physicians in State A consider that promotions are based on seniority (63 percent) while only a minority of their State B counterparts (29 percent) shares this perception. Only 17 percent of State B respondents consider that promotion criteria are followed.

Table 4: Promotion in States A and B
Perception Survey Results 2011, (in percentages)[a]

Summary Statements	% Agree[b] State A N=273	State B N=266
The Departmental Promotion Committee (DPC) is constituted regularly	26.7	6.4
Time-bound promotions are being given	23.4	N/A[c]
Promotions are done based on the departmental seniority lists	62.7	29.1
The promotion process follows the promotion criteria of the department.	N/A[d]	17.2
The Confidential Reports (CRs) are being filled in annually	32.3	57.7
Ultimately, it is the MOs, who have to ensure that their updated CRs are sent to the DH, at the time of promotions	68.4	57.5
MOs have to oblige in unofficial payment to department staff to get their personal files processed faster.	N/A[d]	77.2

[a]Percentage based on valid responses (exclude missing data)
[b]Combines responses for "agree" and "completely agree"
[c]Time bound promotions not specified in State B rules
[d]Statement not included in State A survey.

In both states, the promotion process suffers several shortcomings. Securing documents for promotions is challenging. Only 32 percent of respondents in State A, and 58 percent in B, agreed that ACRs are completed regularly, and the majority agree that physicians themselves must ensure completion and submission of the reports. Further, only 27 and 6 percent of State A and B physicians respectively agreed that the Department Promotion Committee (DPC) is constituted regularly.

However, parallel systems are used to facilitate paperwork. DHs are notorious for sluggishness in maintaining up-to-date personnel files. Since files such as ACRs must be in order to administer promotions respondents report that they often must pay to expedite the process (77 percent in State B).

Even if ACRs were completed in a timely fashion and DPCs met regularly, several other factors contribute to the reported scarcity of promotions (see Table 2) and suggest that career advancement is not a major motivation for physicians. First, differences in salaries among grades are marginal and offer little incentive for physicians to seek promotions.[17] Second, the mandatory transfer (upon promotion) may not be desirable. For example, 64 percent of respondents considered that the primary reason that many MOs do not seek a transfer or forego promotion is to protect their private practice. Further, except for rural facilities, posts don't become vacant for long periods, and as seen earlier, rural posts are generally undesirable. Thus promotions may be undesirable unless they lead to a leadership position such as district medical officers or departmental health within DH (both of which would usually require significant political support). Third, interviews suggest a widespread acknowledgement that promotions are unrelated to performance. As mentioned, seniority considerations dominate promotion decisions. ACRs are only a qualifying requirement and not used to decide priority for promotion. As a performance evaluation mechanism, they are often considered subjective and discretionary; ACRs need only be completed and on file.

(e) Disciplinary Practices

Disciplinary actions were lax in both states and certain aspects were found malleable to parallel systems. Similar to promotions, both states follow Civil Service Conduct Rules for disciplinary actions against medical officers, applying more or less similar processes. However, one key difference is that State A has created a disciplinary cell which is headed by a DH Deputy Director. Consonant with more informal

management of HR processes, State B does not possess such an organizational structure, allowing for greater subjectivity in disciplinary practices.

Table 5 presents the PS findings. The results are generally similar in both states. Over 60 percent of respondents agree that disciplinary actions are not implemented effectively. Grievance mechanisms appear more dysfunctional in State B (81 percent of respondents) than State A (64 percent respondents). In both states, however, the majority of respondents agree that upon facing a disciplinary action, physicians seek informal resolution by approaching their immediate superiors for minor infractions or higher level officials for major infractions. Contrarily, it is also in the interest of health officials to informally resolve such matters to avoid litigation, unwanted press inquiries and perhaps more importantly, interference from physicians' political allies.

Table 5: Disciplinary Processes and in States A and B Perception Survey Results 2011, (in percentages)[a]

Summary Statements	% Agree[b] State A N=273	State B N=266
Disciplinary actions are not implemented effectively in the department	63.6	63.4
There is no proper grievance redress mechanism in the department	63.5	80.8
In case of small issues, MOs approach their immediate superiors	82.8	92.7
In case of grave issues, MOs approach higher level authorities	93.3	95.3
Some MOs who had committed "grave deviations" and face disciplinary action had 'managed' to come out of them without a punishment	61.2	58.6

[a]Percentage based on valid responses (exclude missing data)
[b]Combines responses for "agree" and "completely agree"

About 60 percent of PS respondents in both states perceive that MOs are able to avoid sanctions when facing charges resulting from "grave deviations". The UCT survey results (not displayed in Table 5) confirm that MOs can circumvent disciplinary actions through unofficial dealings and side payments. A much higher proportion of State A respondents (91 percent) considered this to be the case than their State B counterparts (58 percent agreement). These findings suggest that the formal processes established in State A are readily bypassed by physicians facing disciplinary actions. For example, during in-depth discussions physicians confirmed that political connections are used in overcoming charges. One MO in State A commented:

"In one instance, the District Health Officer had to accommodate the request by a Minister's representative in not initiating disciplinary action. The MO had been found not attending PHC work for more than 4 months without formally applying for leave."

Another example of parallel systems involves avoiding undesired "repostings" following disciplinary actions. PS respondents consider "managing" reentry after unauthorized leaves (e.g., absenteeism) prevalent in both states (76 and 62 percent of States A and B respondents respectively). Despite the existence of formal rules and the special disciplinary cell to handle such cases, the findings suggest that this practice is more common in State A. To facilitate reentry and secure a preferred location in a subsequent reposting, physicians can make financial payments or use political connections, as confirmed by over 75 percent of State A PS respondents and nearly 70 percent of State B respondents in the PS. This is also reflected in the following statement by an MO in state A:

"MOs . . . that are absconding from services spend money to get the reposting. There have been instances of serving MOs absconding from service and working overseas. When they return, by spending money, they get their reposting…"

(f) The Market and Its Movers

The findings from interviews and focus groups suggest the existence of a market for physician postings and transfers.[18] For example, several interviewees in both states voluntarily stated the price for various posts, claiming that the price is well-known and "post specific." The value depends on several criteria, including proximity to urban centers and the existence and location of a physician's private practice. Payments are allegedly channeled to politicians, senior administrators, or both; but many physicians claim that the largesse is shared with administrative staff (see below).

Paying for a posting or transfer is not a one off transaction. For example, to be successful in private practice, prolonged tenure is paramount. To avoid getting 'bumped out' by another MO, it is not uncommon to "buy protection" by making regular "installment payments" to retain a favored post (e.g., one which allows or maintains easy access to private practice). According to a State B physician:

"[for] MOs with a thriving private practice, the desirability is to continue to remain undisturbed. Local politicians keep tab on the MOs with private practices and a price has to be paid in regular intervals. Failing to keep the local politician in good humor usually results in figuring the MOs in the transfer list, and price of getting it reversed or stopped costs higher than the regular 'fee' to be paid in intervals."

Most transactions are arranged through known intermediaries. A theme that dominated the research is the role of 'political agents' - usually relatives or personal secretaries of the elected representatives and departmental administrative staff, referred to more widely as clerks. These agents facilitate access to political leaders and higher level officials for favorable treatment in the four HR functions under study here. For example, these intermediaries contact MOs regarding undisclosed post vacancies in desirable locations or are contacted by physicians regarding the same. They also serve as conduits for channeling payments received by MOs. In the words of respondents from State A and B respectively:

"*To expedite the transfer request, one is expected to give money to the clerks at various levels."*

"The agents approach the MOs or even other government officials offering service to get transfers done. It is also not uncommon in some cases where the MO is desperate to get the transfers, usually know whom to contact and how to approach the local public representative holding [a key] position."

A high percentage of perception survey respondents (74 and 75 percent in States A and B respectively) consider that these agents "play the role of conduits for MOs to get a desired place of postings." Similar results emerged from the UCT survey where, for example, 89 percent of State A respondents considered that "department staff exercise undue authority over MOs and indulge in unofficial financial dealings." Physicians seeking a transfer usually have to pay on both ends of the transaction: the intermediaries as well as the final designator or decision maker who arranges the requested action (e.g., posting, transfers, etc.).

(g) Perceptions by Physician Characteristic

To check whether perceptions reported in the survey varied by specific traits of the respondents, we regressed probability of agreement with statements related to the four human resource functions on certain physician characteristics.[19] Annex Table 1 presents selected results by one characteristic: years of tenure.

Agreement on posting preferences was found to be fairly stable, and preference for facilities close to native place of residence, urban areas, and areas promising adequate educational opportunities for children do not vary systematically with physician characteristics in either state. Longer-serving physicians were significantly likelier to agree with a general preference for facilities near urban areas, as well as those with better opportunities for private practice, than were less experienced ones.

Perceptions that processes for postings, transfers, and promotions are generally open to manipulation through political and financial means was widespread and probability of the agreement did not vary systematically with physician characteristics. The only exception was in the case of agreement on use of unofficial payments to modify posting orders in state B: the more experienced were between 20-40 percentage points more likely to agree than those with less than two years of experience. In State A, however, physician tenure was negatively associated with perceptions of parallel systems, though the association was not significant. In general, the longer a physician is in the system, the more familiar he is with the shortcomings of the de jure processes that ought to be followed, and the more keenly he observes de facto deviations from them.

5. PARALLEL SYSTEMS, THE INSTITUTIONAL CONTEXT AND ORGANIZATIONAL PERFORMANCE

Using diverse methods, this study measured the perceived incidence of deviations from formal rule sets and parallel systems in HRM practices in the health sector in two Indian states. In this section, we synthesize the findings of parallel systems related to institutional environment, organizational performance, and potential impacts on service delivery.

(a) The Institutional Environment and Organizational Performance

What do our findings suggests about the functioning of the institutional environment and organizational behaviors governing Indian state health authorities in rural areas? We offer several propositions.

Parallel systems governing HRM practices are widespread in both states and engender an environment of low rule and policy credibility and lax organizational discipline. HRM rules, where they exist, are applied in an ad hoc way. Senior physicians in rural facilities have come to expect that such can be easily bypassed. The incidence of de facto parallel HRM practices in a post-reform institutional environment (state A) where there is more specification of rules and processes (e.g., counseling) and special units to enforce disciplinary practices (e.g. disciplinary cell) displays only marginal differences from a pre-reform context (state B) in which informality is essentially institutionalized.

Parallel systems are predictable, and similar to the findings of Wade (1985) and Davis (2003) on the irrigation and water-sanitation sectors, probably operate like markets in which desirable positions are for sale. However, the findings also suggest that physicians with well cultivated political connections can secure and retain desirable posts without payment. Certain HR procedures (such as processing of ACRs) can be facilitated through side payments. Some administrative practices, such as withholding information on the availability of desirable posts, may be both a cause and effect of a parallel system determining the assignment of posts.

Physicians act rationally in their response to the incentives of parallel systems. Their behaviors are motivated by preferences - which depend on their career status, desire for PG (specialist) studies, family residence or whether they practice privately - with the system responding to such rational choices. However, not all physicians are able to take advantage of the system. In general, it favors those who have developed strong political ties, are willing to pay and able to pay.

HR policies apparently do not have political backing and there is no clear or effective delegation of authority to administrative officials regarding important HRM functions. Politicians appear engaged in well-organized parallel systems involving the micromanagement of HR decision making, at least in the case of physicians. Lower level political handlers and DH administrative staff serve as conduits for arranging financial and non-financial deals, particularly in the case of transfers and postings.

Finally, the morale and organizational commitment of physicians appear to be low. For example, in State B, over three-fourths of respondents stated that they would leave public service if the state lifted its moratorium on voluntary retirement – even if opting out of government services would result in the loss of all accrued retirement benefits.[20] Opportunities for career advancement appear limited. Parallel systems can result in anomalies such as those found in both states where physicians abscond from their posts (e.g. unauthorized leave) or use authorized medical leave to avoid undesirable postings.

(b) Impacts on Service Delivery

Although the study did not directly examine the link between parallel systems and health system performance, the findings suggest several hypotheses. The lack of organizational commitment may contribute to the low levels of effort observed in public sector physicians (Das and Hammer, 2007), contributing to inferior quality of care. Further, physicians absconding from their posts (whether as authorized leave or not) usually are in remote areas and of greatest need to patients there. Such practices may contribute to the high rate of physician absenteeism observed in rural PHCs in India (Chaudhury et al, 2005; Banerjee, Duflo and Glannerster, 2008; Cheriyan, Arya and Singh, 2010).

The study also finds that the most undesirable posts are allocated to new recruits (e.g., recent medical school) with limited experience and usually deficient training and supervision to provide good quality care. However, the new recruits seek these positions to facilitate admission to PG (specialist training) programs. This may contribute to the phenomenon observed by Das et al., 2012 in which higher quality doctors are generally located in well-off areas in and around urban areas while the lowest quality physicians are generally found in remote tribal areas.[21]

The institutional environment and corresponding organizational behaviors appear only marginally related to results. Promotions are unrelated to performance (which is rarely assessed) and even severe disciplinary breaches such as unauthorized and long-term absenteeism are not sanctioned; instead absconders can make use of parallel systems to be reinstated with back pay and benefits. Under such a system oversight to enforce attendance and work rules would be daunting tasks.

6. EXPLAINING PARALLEL SYSTEMS

We review four possible interpretations explaining the endurance of parallel systems in India's public health systems: political economy, divisions among physicians, citizen demand for private care and physician shortages.

One explanation is the dynamic between patronage politics, bureaucratic politicization and lack of citizen voice (Mehta, 2003; Saxena, 2005). Although in principle administrative structures in India are separate from politics, in practice, these dimensions are closely tied. It is the nature of the bureaucratic – political bonds in India that drive the emergence and continuity of parallel systems.[22] Students of Indian public administration suggest that because local politicians in India must draw on their own financial resources to fund political activities they face strong incentives to raise financing through managing and intervening in HRM functions.[23]

There remains much less public outrage than may have been expected given the low performance of the public health care system observed in public health service delivery. While it may be debated whether patients in poor areas have 'exited' from using the public system to private providers (Hirschman, 1970), the current reality remains that a large section of the poor – the intended beneficiaries of public services - seek health care from private providers, some of which are less than fully qualified. Household surveys show that over 80 percent of outpatient care is provided by private providers (MSPI 2004). This may partly explain why local politicians, with very few exceptions across Indian states, do not make health into an electoral issue or held accountable for the low system performance.

Given that some physicians perceive themselves as victims of parallel systems, it would be logical to assume that there could be instances of collective action to bring about HRM reforms. With the exception of one state (described below), this has not been the case. Part of the reason may stem from the fact that the physicians are themselves divided as a group, with many invested in maintaining the status quo (whether the older generation in senior administrative positions or those who are able to make the system work in their favor).

Another reason may relate to instances of positive deviations in which parallel systems are used to post qualified and motivated physicians where need is greatest. A small subset of interviewees corroborated

such arguments and would signal more positive conclusions from the workings of the current system. For example, those in favor of the continuation of the current parallel practice argue that it allows physicians to rally community support behind ostensibly 'good service' to pressure a local political leader to use his influence on the health department to block transfers. Good doctors, or those perceived to be good doctors, laboring in PHCs enjoy immense popularity among the community and getting or retaining highly performing doctor posted in their constituency can contribute to the popularity of local politicians.

The inability of state governments to fill sanctioned positions due to a broader physician shortage in India is also argued to facilitate parallel systems and weaken implementation of existing rules. Given high vacancy rates, doctors posted to less favorable or remote postings can bargain through informal means to secure preferable postings where vacancies remain. In a context of significant doctor vacancies in PHCs, the bargaining position of serving doctors is strengthened and they can therefore overturn a posting or transfer order by relocating to vacant posts of their choosing by making use of parallel systems, and thereby undermining rules and formal processes.[24]

7. ADDRESSING PARALLEL SYSTEMS

Changing the institutional arrangements to address the shortcomings highlighted in this study will be a formidable challenge in light of the fact that parallel systems are an embedded institutional modus operandi for HRM in Indian public administration. Most observers of the Indian administrative apparatus suggest that addressing parallel systems would require broad civil service and political reform.[25] Civil service reform would be required even for specific policies such as linking promotions to performance. The Administrative Reform Commission in India is among a handful of agencies in India that have championed large-scale government reform measures, with only partial success. While such reforms are possible in principle, they may take at least a generation to accomplish. Barring large scale civil service and political reform, there are some *within system* approaches that, while not a panacea, can contribute to addressing the institutional problems detailed in this study.

First, bottom-up arrangements and structures for social accountability can be developed in which beneficiaries secure a greater voice in holding public officials accountable through civic engagement.[26] This approach draws on the mandate of the National Rural Health Mission (NRHM) to make health

services more accountable to the people and aims to involve communities and local government institutions (Panchayati Raj - PRIs) in the monitoring of health services in part through supporting village health committees and facility-based health societies. For example, PRIs are expected to "own, control and manage" public health services; and the Village Health Committees of *Gram* (village) *Panchayats* (GP) are expected to develop Village Health Plans which would eventually be aggregated into District health Plans. PRIs also have to assume responsibility for monitoring health staff, for example, the attendance of community nurses at Sub-Health Centers (SHC) and their visits to their assigned villages. At the block and district levels PRIs have been inducted into the *RogiKalyanSamitis* (RKS), health societies or committees that oversee and upgrade Block Primary Health Centers, Community Health Centers, District or other hospitals. RKSs receive lump sum "flexi funds" from NHRM to make facility improvements.

Second, accountability mechanisms – such as improving information availability and transparency on HRM practices (as is already underway in some states such as Tamil Nadu, Karnataka, Bihar, Odisha) – may be considered to build a more conducive environment to ensure accountability of HRM. Other additional measures would include, for instance, more systematized data collected on rule application regarding postings, transfers, grievances, etc. can generate more detailed audits of HRM practices by government auditors such as the Comptroller Auditor General (CAG). A proportion of central funding for NRHM can be made conditional on civil society reviews of HRM practices or state health departments can be incentivized to provide some tangible 'achievables' (e.g., publicizing all vacancies, approved transfers, initial postings etc.) that would raise rule enforcement and credibility.

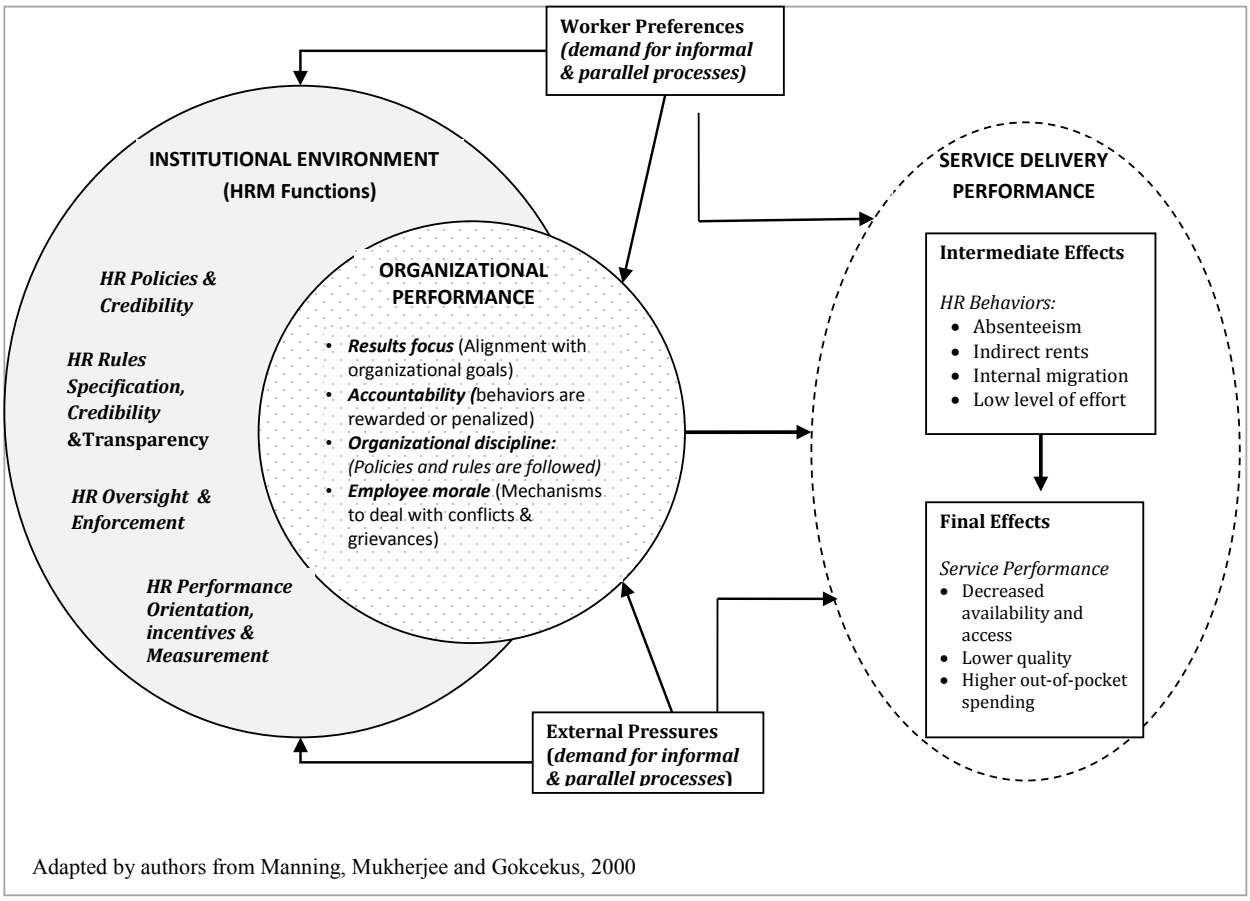
Third, state authorities can enact new and more precise rules of the game governing HR functions. For instance, in 2005 the State of Tamil Nadu reformed rules and processes governing postings, transfers and promotions the purpose of which was to address parallel systems such as those analyzed in this report. Driven by a strong health department leadership and a powerful physician association, Tamil Nadu authorized career advancement schemes, defined a hierarchy of promotion and designation tracks, and set specific eligibility criteria, timelines and processes for postings and transfers. All vacancies are posted on the website of the state's health department, suggesting greater transparency. The state's physician association keeps a watchful eye on all processes and is quick to denounce any discrepancies.[27] Assessing the impact of these measures would be an important subject of further inquiry.

A fourth approach is empowering patients by providing them with choices in the health delivery system while forcing providers to be more responsive to demand, and therefore performance, since their financial well-being depends on it.[28] This is being achieved through a handful of central and state government sponsored health insurance schemes (GSHIS) launched recently by central and state governments. This approach is complementary to the aforementioned social accountability approach since it gives people additional freedom to select where they seek care and providers have an incentive to be responsive to them. While GSPISs are not a magic bullet,[29] they may provide a much-needed challenge to the current subordination of the delivery system to top-down bureaucratic and political control, and the concomitant distortions analyzed in this report.

8. CONCLUSION

Based on the views of front line workers, our findings on HRM provide insight into reasons why public service delivery in India's health sector demonstrates low performance while providing a deeper understanding of how the institutional environment really works. As India moves forward to achieve its laudable goal to significantly increase public spending for health and extend coverage to all its citizens, we recommend it support initiatives that challenge the institutional status quo. Creating more doctors will not address the root causes of current institutional arrangements that contribute to low worker commitment and effort. While large scale civil service reform will take many years and may not be politically feasible, there are alternative solutions already under implementation in India that need greater consideration today. The government can strengthen its investment in empowering social accountability mechanisms and incentivize HRM administrative reforms that nearly all states should adopt as a priority. Further, the government can empower the poor in enforcing choice in the health care they seek through a focus on increasing subscription to government-sponsored health insurance schemes. Scaling-up these approaches will require strong leadership, a combination of top-down and bottom-up engagement, and a willingness to experiment, promote on-the-ground solutions and apply learning-by-doing approaches (Andrews, Pritchett and Woolcock, 2012).

Annex Figure 1: Analytical Framework



Adapted by authors from Manning, Mukherjee and Gokcekus, 2000

Annex Table 1: Probability of Agreement on Selected Aspects of Physician Preferences, Application of Formal Rules and Use of Parallel Systems by Physician Tenure in States A and B: Differences between Novice and Experienced Physicians (in percentages)

Physician Characteristics[a]	Preferences on posting locations						Deficient application of formal rules						Dominance of use of parallel systems in modifying posting orders			
Difference between novice (<2 yrs.) and experienced physicians by state	Potential for private practice[b]		Postings near urban areas[c]		Avoidance of undesired postings: Long leave[d]		Disciplinary actions implemented ineffectively[e]		Grave deviations unsanctioned[f]		Promotions: Filing of CRs[g]		Political influence[h]		Unofficial payments[i]	
	A	B	A	B	A	B	A	B	A	B	A	B	A	B	A	B
6-12 years	27%**	32%**	10%	23%**	18%*	20%	4%	20%	17%	47%***	7%	19%	12%	8%	-16%	24%**
12-18 years	30%*	17%	9%	10%	23%*	10%	16%	17%	20%	40%***	4%	25%	-2%	13%	-13%	41%***
Observations	264	221	246	222	246	217	265	221	237	221	235	214	247	222	246	222
R-squared	0.11	0.21	0.05	0.16	0.06	0.14	0.09	0.12	0.17	0.27	0.10	0.09	0.09	0.07	0.09	0.07

Standard errors *** p<0.01, ** p<0.05, * p<0.1

[a]The full set of controls included present role in health facility, years of experience, number of transfers experienced during career, as well as number of promotions, and average outpatient cases per day handled by the physician. For the sake of brevity, only coefficients on years of experience are shown here.
[b]The statement for state A was "The MOs generally choose those places, which have a good potential for private practice", and for state B "A primary reason that many MOs do not seek a transfer or at times forego promotion is to protect his/her private practice."
[c]The statement for both states was: "The MOs generally choose those PHCs and CHCs that are nearer to urban areas."
[d]The question for state A asked for level of agreement with the statement "Some MOs go on medical leave to avoid undesired postings and subsequently manage to get reposted to desired places", and for state B "MOs who proceed on 'long medical leave' do so to avoid joining in the undesired place of posting".
[e]The statement for both states was "Disciplinary actions are not implemented effectively in the department".
[f]The statement for both states was "Some doctors, who had committed grave deviations, did not attract any charges".
[g]The statement for both states was: "Ultimately, it is the MOs, who have to ensure that their updated CRs for the last 5 years are sent to the DH, at the time of promotions".
[h]The statement for state A was "Modification of posting orders requires use of political influence" and for state B "MOs commonly use political connections to get the transfers stopped or cancelled."
[i]The statement for state A was "Some MOs get desired postings, by making unofficial financial payments to the concerned" and for state B "There are MOs who use unofficial payments to get the transfers stopped or cancelled".

Endnotes

[1] See Das and Hammer, 2007 and Das et al. , 2012 for exceptions to this statement. In order to address the poor performance of health service delivery, other than shortfall in HR, reports have additionally focused on the organization structure of ministries of health (see MOHFW, 1989; MOHFW, 1990; CPR, 1999; DFID. 2003), but with no special attention to the HRM practices that are an important determinant of service delivery performance.
[2] We do not disregard that other factors more often addressed as a cause of weak health service delivery system such as poor health infrastructure.
[3] In the Indian administration context, postings refer to the process of assigning a health worker to a specific facility. Postings can occur post-recruitment, as a transfer or as a promotion. A transfer consists of an administrative process in which personnel are removed from one location and assigned to another. A transfer can be ordered by the Department of Health, Medical and Family Welfare, or requested by staff themselves. Transfers can be mandated after a certain number of years of tenure in a post, follow a promotion or result from disciplinary action. Transfer and posting processes are closely related, but usually a transfer is approved before the posting process commences.
[4]For example, the nature of postings and transfers practices can lead to low worker morale, geographical imbalances in the distribution of health workers and job migration (see Lehmann, Dieleman, and Martineau, 2008; Dehn, Reinikka and Svensson, 2003). The ability of managers to effectively discipline staff or reward good performance contributes to health worker performance (see Pritchett and Murgai, 2006; La Forgia and Couttolenc, 2008). More broadly, human resource management is a key driver of service delivery, particularly in human resource intensive public services such as health and education. Managing, tracking, rewarding, and sanctioning human resources are important elements of service delivery performance in such systems (see Vujicic, Ohirii, and Sparkes, 2009).
[5] We do not use the state names to protect states' anonymity which was a condition for respective Health Departments to permit the research.
[6] PS respondents recorded their agreement or disagreement with a statement based on Likert scale of 1 to 5.1 indicating 'completely disagree'; 2 'disagree'; 3 'neither agree/nor disagree', 4 indicating 'agree' and 5 indicating 'complete agreement' with the statement.
[7]UCT is an indirect questioning technique that seeks to measure the incidence of illegal, socially undesirable or stigmatized behaviors. Respondents can be reluctant to answer questions relating to deviant behavior or desire to present themselves favorably in perception surveys, interviews and focus groups (Gonzales-Ocantos, et al., 2012; Coutts and Jann, 2008; Tsuchiya, Hira and Ono, 2007; Winbash and Daily, 1997; Dalton, Winbash and Daily, 1994) making underreporting common. UCT is considered more anonymous and less threatening than other quantitative methodologies as well as more effective at countering the "social desirability bias" of respondents. The approach used in our research followed the basic protocol specified in the literature. It consisted of randomly assigning respondents into control and treatment groups. For example, in State A the former were given a list of 5 insensitive questions about HRM practices (in their states) and asked to indicate *how many* were true. The respondent was *not* asked to indicate whether any particular statement was true. Meanwhile, respondents in the treatment group were given the 5 innocuous statements of the control group, plus an additional *sensitive* statement. (In State B, the control group was given 4 innocuous statements while the case group was given an additional sensitive statement). Respondents were asked to indicate *how many* of the (6) statements were true. Given randomization, which should reduce other unobservable differences between the groups of respondents, the difference in means must respond to the number (count) of respondents in the treatment group agreeing with the sensitive statement. Unlike most UCT instruments, however, we did not ask respondents about *their* deviant behaviors. This would have required a much larger sample of respondents requiring considerably more funding than was available. Rather, we asked about their general agreement with statements on deviant behaviors in their institutional environment.
[8] Dissimilar questions are noted in table footnotes.
[9] PHCs are the cornerstone of rural health services and provide a range of preventive and public health services to patients who demand care, are referred from sub-centers for curative, or participate in preventive and promotion programs. In theory, they serve a population between 20,000 and 30,000 people. PHCs are referral units for an average of 6 sub-centers and refer cases to Community Health Centers (CHCs-30 bed hospitals) and upper level public hospitals at sub-district and district hospitals. CHCs should provide specialty services in pediatrics, surgery and GYOB, but often one or more of these positions are vacant.

[10] Due to authorized leaves, deputations, outreach responsibilities and other reasons, we could not survey the entire universe of physicians assigned to sampled districts' facilities.
[11] Names of respondents, district or facility were not collected.
[12]Communication, Jishnu Das, World Bank, Feb. 25, 2013.
[13]Government orders and rules are quite lenient for medical leave. For example, in State A there is no limit on the length of leave on medical grounds. Moreover, employees can proceed to take medical leave prior to approval. Medical leave is a legal way of absenteeism and can continue for long periods (G.O.Ms, 286, Finance and Planning, Dept., 6-9-1976).
[14] A transfer consists of an administrative process in which personnel are removed from one location and assigned to another. Transfer and posting processes are closely related, but usually a transfer is approved before the posting processes commences.
[15] Spousal criterion refers to formal policy to assign spouses with public positions in or near the same location.
[16] The rules framed and orders issued by the Government provide for promotion by merit or on the basis of seniority, but seniority is often the most important factor. The Department Promotion Committee (DPCs) are convened only once a seniority list of potential candidates is compiled. The DPCs evaluate potential candidates for promotion based on the record of at least the past five years of annual confidential reports (ACRs), but these can be potentially more numbers of years based on the requisite qualification needs for the higher grade post. Since in practice ACRs have been poorly maintained for doctors in most states (even though there are now more recent drives to file computerized electronic ACRs), the role of the seniority list can become still more significant in determining promotions (Government of India, Indian Audits & Accounts Department,2012).
[17]For example, in State A the difference in pay between an MO and a Senior MO with the same number of years of service is Rs 1,200 (US$23) per month.
[18]This is similar to the markets examined by Wade (1985) and Davis (2003) for irrigation and water sectors decades earlier. In these studies, the prices for posts were set through a "sophisticated calculus" (Davis, 2003: 60) which considered both worker preferences (e.g., proximity to residence) and the magnitude of interactions with suppliers, contractors and clients from whom they could extract kickbacks. Rents were usually channeled to politicians who were able to exert pressure on higher level administrators to facilitate the functioning of the market.
[19]The full set of controls included: present role in health facility, years of experience, number of transfers experienced during career, as well as number of promotions, and average OP per day handled by the physician. An ideal set of controls would include additional variables on socioeconomic background of the physician, such as place of origin, marital status, etc., but these were not collected in the survey.
[20] Most MOs remain in government service for 20 years to gain eligibility for full retirement benefits.
[21]Anecdotal evidence suggests that new recruits seeking PG admissions shirk their service duties to maximize their time preparing for entrance examinations.
[22]While the Indian administrative system contains the *de jure* or on paper components of a modern administration in terms of rules and processes related to meritocracy, internal and external controls, promotions, recruitment, placement, rewards, sanctions, etc., most observers agree that the patrimonial nature of Indian politics combined with distorted political-administrative linkages result in *de facto* practices that deviate considerably from formal procedures. In other words, public administration does not work as intended; function does not follow form (see Pritchett: 2009; Das, 2001; Saxena, 2005). According to Das (2001) these practices plus erosion in compensation challenge the *esprit de corps* of government employees that binds acceptable forms of behavior to organizational goals and policies. Given the large scale flouting of rules and predominance of parallel systems, organization identity and commitment have suffered; private interests trump the public good.
[23] For example, see Wade, 1985, 1982 who developed his model based on his study of the irrigation sector in a South Indian state. In her research on transfers and posting in the water and sanitation sector in other states, see Davis, 2003, p.60 who confirms such a model, referring to it as a "favor bartering" system between staff, senior officials and politicians. Others describes the "transfer industry" in several government agencies as resulting from an interlocking between civil servant and politicians, and a lucrative business for the latter (see Das, 2001). Drawing on his work in Gujarat state, see De Zwart, 2000, p. 62 for a portrayal of the "political transfer trade" which serves "an important political resource for state parliamentarians." See Banik, 2001, for a review of the transfer markets involved in public agencies dealing with pollution control in Tamil Nadu and drought relief in Orissa.

[24] Recruitment mechanisms for doctors are often severely delayed given the constraints of public services commissions resulting in a backlog of recruitments to government services (Raha, Berman and Bhatnegar, 2009); this is however a larger problem cited in Administrative Reform Commission Reports of GOI. (Second Administrative Reform Commission, Xth Report, 2008).

[25] On the difficulties of civil service reform in a developing country context, see Schalkwyk and Widner, 2012. Others maintain that the system creates little space to *maintain* reforms generated by civil servants within the administrative structure due to lack of popular support or political buy in. Such reforms usually last only as long as the civil servant championing the reform remains at her post (see Pritchett, 2009). Referring to post purchasing, Pritchett asserts that correcting such practices will garner considerable resistance because both officials and politicians view positions as "assets" that have been bartered and purchased. Few would support a reform effort in which they would have to surrender these assets.

[26] It is key to note, however, that although citizen participation has shown promising results elsewhere (see Tendler, 1997; Bjorkman and Svensson, 2009). Available evidence of recent experience in India's health sector is mixed. Community scorecards to assess and monitor service delivery at the village level in rural Maharashtra contributed to a decline of child malnutrition, increased immunization rates and a reduction in the incidence waterborne diseases (see Patel, Shah and Islam, 2009). However, others found that community monitoring to reduce nurse absenteeism in rural sub-centers in Rajasthan was foiled by collusion between nurses and local health administrators (see Banerjee, Duflo and Glennerster, 2008).

[27] However, whether these measures have reduced the application of parallel systems remains an open question. Informants suggest that cases of bypassing the new rules still occur in practice, albeit the incidence may have diminished significantly.

[28] This would entail the expansion of a nascent set of government-sponsored health insurance schemes (GSHIS) in India. In 2010, about 185 million Indians were covered by one national and a handful of state schemes that focus on providing inpatient care to below-poverty line (BPL) beneficiaries, and have garnered considerable political support, especially at the state level. For an in depth review of these schemes see Palacios, Das and Sun, 2011 and La Forgia and Nagpal, 2012). Taken together, this new crop of GSHISs is putting in place a set of institutional arrangements consisting of the separation of financing from provision, demand-side subsidies (for the poor), output-based payments to providers (e.g., case rates paid against service provision), patient choice of public and private providers (e.g., money follows the patient), monitoring systems that focus on outputs (rather than inputs), governance by autonomous trusts, and promotion of a new management culture based on purchasing and contract management. The schemes are also contributing to greater managerial autonomy of public hospitals under contract with the schemes. In some cases, such as in Kerala state, GSHPISs have directed a significant share for additional resources to public providers.

[29]A number of operational challenges have been identified that require strengthening, including governance arrangements, management systems, monitoring and purchasing mechanisms, cost-containment tools, and quality-improvement instruments. Currently, most, but not all, GSHISs are also poorly linked to the public providers (see La Forgia and Nagpal, 2012).

REFERENCES

Andrews, M., Pritchett, L., and Woolcook, M. (2012). "Escaping Capability Traps through Problem-Driven Iterative Adaptation (PDIA). " Harvard Kennedy School. Faculty Research Working Paper Series, RWP12-036, August

Bana, B. and McCourt, W. (2006) 'Institutions and governance: Public staff management in Tanzania', *Public Administration and Development*, 26, 395-407.

Banerjee, A., Deaton, A., and Duflo, E. (2004). "Wealth, Health, and Health Services in Rural Rajasthan." *American Economic Review* 94(2), 326-330.

Banerjee, A., Duflo, E., and R. Glannerster. (2008). "Putting a Band-Aid on a Corpse: Incentives for Nurses in the Indian Public Health Care System." *Journal of the European Economics Association* 6 (2-3), 487-500.

Banik, D. (2001). "The Transfer Raj: Indian Civil servants on the Move." *The European Journal of Development research* 13 (1), 106-134.

Bardhan, P. (1997). "Corruption and Development: a review of issues." *Journal of Economic Literature* 35 (3), 1320-1346.

Barnett, Julie. 1998. "Sensitive questions and response effects: An evaluation." *Journal of Managerial Psychology* 13:63-76.

Belli, P. (2009). "Health Care Utilization and Expenditure in Karnataka: A Tale of Two Surveys." India Health Beat, Public Health Foundation of India and World Bank, Vol 1.No.2. New Delhi, India.

Berman, P., Ahuja, R., Tandon, A., Sparkes, S., and Gottret , P. (2009). The Changing Government Health Financing Landscape in India. World Bank mimeo, New Delhi, India.

Bjorkman, M., and Svensson , J. (2009). "Power to the People: Evidence from a Randomized Field Experiment on Community-Based Monitoring in Uganda." *The Quarterly Journal of Economics* 124 (2), 735-769.

Burke R., and Cooper , C. (2004). *Reinventing Human Resources Management: Challenges and New Directions.*

Chaudhury, N., Hammer , J., Kremer, M., Muralidharan , K., and Rogers, F. H. (2005). "Missing in Action: Teacher and Health Worker Absence in Developing Countries."*Journal of Economic Perspectives* 20 (1), 91-116.

Cheriyan, G., Arya. O., and Singh, A. (2010). Final Analytical Report of Improving Service Delivery through Measuring Rate of Absenteeism in 30 Health Centres in Tonk District of Rajasthan. CUTS Centre for Consumer Action, Research and Training (CUTS CART), Jaipur, India.

Coutts, E., and Jann , B. (2008). "Sensitive Questions in Online Surveys: Experimental Results for the Randomized Response Technique (RRT) and the Unmatched Count Technique (UCT)." ETH Zurich Sociology Working Paper no. 3, ETH Zurich, Zurich Switzerland.

CPR. (1999). *Report on the Restructuring the Ministry of Health & Family Welfare*. New Delhi, India: Centre for Policy Research.

Dalton, D., Wimbush, J., and Daily, C. (1994). "Using the Unmatched Count Technique (UCT) to Estimate Base Rates for Sensitive Behavior." *Personnel Psychology* 47 (4), 817-828.

Das, J., Holla, A., Das, V., Mohanan, M., Tabak, D., and Chan , B. (2012). "In Urban and Rural India, A Standardized Patient Study Showed Low Level of Provider Training and Huge Quality Gaps." *Health Affairs* 31 (12), 2774-2784.

Das, J., and Hammer , J. (2007). "Money for Nothing: The Dire Straits of Medical Practice in Delhi, India." *Journal of Development Economics*, 83 (1), 1-36.

Das, S. K. (2001). *Public Office, Private Interests: Bureaucracy and Corruption in India*. New Delhi: Oxford University Press.

Davis, J. (2003). "Corruption in Public Service Delivery: Experience from South Asia's Water and Sanitation sector." *World Development* 32 (1), 53-71.

Dehn, J., Reinikka, R., and Svensson, J. (2003). "Survey Tools for Assessing Performance in Service Delivery." In *The Impact of Economic Policies on Poverty and Income Distribution: Evaluation Techniques and Tools*, ed. Francois Bourguinon, and Luiz A. Pereira da Silva, 191-212. New York: Oxford.

Devarajan, S. (2008). "Two Comments on 'Governance Indicators: Where are We, Where Should We be Going?' by Daniel Kaufmann and AartKraay." World Bank Research Observer. 23, 1 (Spring).31-36.

De Zwart, F. 2000. "Personnel transfer in Indian state bureaucracy: Corruption and Anti-Corruption." In *Corruption*

& Legitimacy, ed. H.E. Bakker, and N.G.S. Nordholt. SISWO, Amsterdam, the Netherland.
DFID. (2003). *Promoting Institutional &Organisational Development*. Department for International Development, London, UK.
Fukuyama, F. (2013). "What is Governance?" *Governance: An International Joural of Policy, Administration and Institutions.* 26, 3 (July)
Gonzalez-Ocantos, E., De Jonge, C., Melendez, C., Osorio, J., and Nickerson, D. (2012). "Vote Buying and Social Desirability Bias: Experimental Evidence from Nicaragua." *American Journal of Political Science* 56 (1), 202-217.
Government of India, Indian Audits & Accounts Department. (2012). Courseware on Common Administrative Issues, Reservation Rosters, Vigilance and Disciplinary Proceedings: Session 2.1 & 2.2 on Promotions – DPC, General Instructions and Related Matters. (available at rtishillong.cag.gov.in/stm/CAI/Promotions.doc)
Grindle, M., eds. (1997).*Getting Good Government: Capacity Building in the Public Sectors of Developing Countries*.Harvard Studies in International Development, Harvard Institute for International Development, Boston, MA.
Hasnain, Z. (2005). The Politics of Service Delivery in Pakistan: Political Parties and the Incentives for Patronage, 1988-1999. South Asia Region PREM Working Paper Series, Report no, SASPR-6. World Bank
Harris, Dm J. Whales, Jones, H., Rana,T. and LalChitrakar , R. (2013). *Human Resources for Health in Nepal: The Politics of Access in Remote Areas.* London: Overseas Development Institute
Hirschman, A. (1970). *Exit, Voice and Loyalty*. Cambridge, Massachusetts: Harvard University Press.
IPHS, GOI. (2007). Indian Public Health Standards (IPHS). MOHFW, New Delhi, India.
Ivkovic, S. A. (2003). "To Serve and Collect: Measuring Policy Corruption." *Journal of Criminal Law and Criminology* 93 (2-3), 593-650.
Iyer, L., and Mani, A. (2007). "*Travelling Agents: Political Change and Bureaucratic Turnover in India*." Work in Progress, University of Warwick, Coventry, UK.
Kenny, P. D. (2013). "The Origins of Patronage Politics: State Building, Centrilfugalism and Decolonization." British Journal of Political Science.Published on line. June 18. 1-31 http://journals.cambridge.org/action/displayAbstract?fromPage=online&aid=8939691
La ForgiaG., and Couttolenc, B. (2008). *Hospital Performance in Brazil: The Search for Excellence*. Washington, DC: World Bank.
La Forgia, G. (2008). "Field Visits in Assam State, Nov. 26 – Dec. 3, 2008" Field report submitted to MOHFW, New Delhi, 2008, 4th Common Review Mission, NRHM
La Forgia, G., and Nagpal, S. (2012). *Government-Sponsored Health Insurance in India: Are You Covered?*. Washington, DC: World Bank.
Lee, Raymond M. 1993. Doing Research on Sensitive Issues. London: Sage.
Lehmann, U., Dieleman, M., and Martineau, T. (2008). "Staffing Remote Rural Areas in Middle-and Low-Income Countries: A Literature Review of Attraction and Retention." *BMC Health Services Research 8 (19).*http://www.biomedcentral.com/472-6963/8/19.
Lewis, M., and Pettersson, G. (2009a). "Governance in Health Care Delivery: Raising Performance." Mimeo.World Bank, Wahington, DC.
Lewis, M., and Pettersson, G. (2009b). "Governance in Education: Raising Performance in the Sector: Overview of Issues and Evidence." Mimeo.World Bank, Washington, DC.
Maheshwari, S., Bhat, R., and Saha, S. (2006). "Commitment of State Health Officials: Identifying Factors and Scope for Improvement." Working Paper 1/2006, Indian Institute of Management, Ahmedabad, India.
Manning, N., R. Mukherjee, and Gokcekus, O. (2000). "Public Officials and their Institutional Environment: An Analytical Model for Assessing the Impact of Institutional Change on Public Sector Performance." World Bank Policy Research Working Paper No. 2427, Washington, DC.
Mehta, P. B. (2003). *The Burden of Democracy*. New Delhi: Penguin.
Meyers, J.P., and Allen, N.J. (1991). "A Three-Component Conceptualization of Organizational Commitment." *Human Resource Management Review 1 (1), 61-89.*
Misra, R., R. Chatterjee, and Sujatha Rao, K. (2003). *India Health Report*. New Delhi, India: Oxford University

Press.
MOHFW (Ministry of Health and Family Welfare, India). (1989b). Report of the High Power Committee on Nursing and Nursing Profession.MOHFW, New Delhi, India.
MOHFW (Ministry of Health and Family Welfare, India). (1990). Report of the High Power Committee on Career Improvement and Cadre Restructure of Central Health Service. MOHFW, New Delhi, India.
MOHFW (Ministry of Health and Family Welfare, India). (2005a). Report of the National Commission on Macroeconomics and Health. National Commission on Macroeconomics and Health, MOHFW, New Delhi, India.
MOHFW (Ministry of Health and Family Welfare, India). (2005b). Background Papers: Financing and Delivery of Health Care Services in India. National Commission on Macroeconomics and Health, MOHFW, New Delhi, India.
MOHFW (Ministry of Health and Family Welfare, India). (2008). Draft Taskforce Report on Human Resource Management. Report shared at Workshop on Human Resources for Health, Pondicherry, India. MOHFW, New Delhi, India.
MPPGP (Ministry of Personnel Public Grievance and Pensions). (2010). Civil Services Survey – A Report. Department of Administrative Reforms & Public Grievances, MPPGP, New Delhi, India.
MSPI (Ministry of Statistics and Program Implementation, India) (2004). National Sample Survey 60th Round Report on Morbidity, Health Care and the Condition of the Aged – 2004. National Sample Survey Organization, MSPI, New Delhi, India.
Palacios, R., Das, J., and Sun, C., eds. (2011). *India's Health Insurance Scheme for the Poor*. New Delhi: Center for Policy Research.
Patel, D., Shah, P., and Islam, M. (2009). "Impact of social Accountability mechanisms on achieving service delivery and health development outcomes in Satara District, Maharashtra, India." Social Accountability Series, Note. No. 6, November. Delhi, World Bank.
Planning Commission of India. (2005). *Mid-term Appraisal of Tenth Five Year Plan (2002-2007)*. New Delhi, India: Government of India.
Potter, D. C. (1987). "IAS Mobility Patterns."*Indian Journal of Public Administration* 33 (3), 845-856.
Potter, D. C. (1988). "Mobility Patterns in State Government in Inida."*Indian Journal of Public Administration* 34 (3), 907-932.
Pritchett, L. (2009). *Is India a Flailing State? Detours on the Four Lane Highway to Modernization*.Unpublished mimeo.Harvard Kennedy School, Cambridge, MA.
Pritchett, L., and Murgai, R. (2006). "Teacher Compensation: Whether Decentralization to Local Bodies Can Take India from the Perfect Storm Through Troubled Waters to Clear Sailing." In *India Policy Forum 2006/07, ed.* S. Bery, B. Bosworth, and A. Panagariya. Los Angeles, CA: Sage.
Raha, S., Berman, P., and Saran, I. (2009a). A Political Economy and Institutional Analysis of the Indian Context. *Public Health*.http://www.hrhindia.org/assets/images/Paper-II.pdf.
Raha, S., Berman, P., and Bhatnagar, A. (2009b). "Career Preferences of Medical and Nursing Students in Uttar Pradesh." *India Health Beat*.Public Health Foundation of India and World Bank, vol. 1, No. 6. Delhi
Recantini, Francesca, Scott Wallsten and Lixin Xu. 2000. "Surveying Surveys and Questioning questions: Learning from the World Bank Experience". *World Bank*
Policy Research Working Paper No. 2307, Washington D.C.: The World Bank.
Sachan, D. (2013). "Tackling Corruption in Indian Medicine."Lancet. 382. Nov. 16. e23-24. Published on line).
Saxena, N.C. (2005). *Improving Delivery of Programmes through Administrative Reforms in India*. Paper prepared for the National Advisory Council.
Schalkwyk, A., and Widner, J. (1995-1998). "Creating an Affordable Services: Tanzania, " Innovations for Successful Societies, Princeton University. https://www.princeton.edu/successfulsocieties.
Sheikh, K. et al., (2010_. "Why some doctors serve in rural areas: A qualitative assessment from Chhattisgarh state". Public Health Foundation of India & National Health Systems Resource Centre: New Delhi, http://health.cg.gov.in/ehealth/studyreports/Why%20Some%20Doctors%20Serve%20in%20Rural%20Areas.pdf
Sims, R. (2002). *Organizational Success through Effective Human Resources Management.*Westport, CT: Quorum

Books.
Tendler, J. (1997). *Good Government in the Tropics*. Baltimore, MD: Johns Hopkins University Press.
Tourangeau, Roger, and Ting Yan. 2007. "Sensitive questions in surveys." *Psychological Bulletin* 133:859-883.
Tsuchiya, T., Hirai. Y., and Ono, S. (2007). "A Study of the Properties of the Item Count Technique." *Public Opinion Quartely* 71 (2), 253-272.
Vujicic,M., Ohiri, K., and Sparkes, S. (2009). Working in Health: Finance and Management of Public Health Workers. Washington, DC: World Bank.
Wade, R. (1982). "The System of Administrative and Political Corruption: Canal Irrigation in South India." *Journal of Development Studies* 18 (3), 287-328.
Wade, R. (1985). "The Market for Public Office: Why the Indian State is Not Better at Development." *World Development* 13 (4), 467-497.
Wild, L., Chambers, V., King, M., and Harris, D. (2012). "Common Constraints and Incentive Problems in Service Delivery." Working Paper 351. Overseas Development Institute, London, August.
Wimbush, J., and Dalton, D. (1997). "Base Rate for Employee Theft: Convergence of Multiple Methods." *Journal of Applied Psychology* 82 (5), 756-763.
World Bank. (2000). *From Patronage to a Professional State: Bolivia Institutional and Governance Review*. 2 vols. Washington, DC: World Bank.