Two Indias: The structure of primary health care markets in rural Indian villages with implications for policy

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This paper provides the first comprehensive look at healthcare in rural India in terms of availability (across public and private providers) and quality, as measured by their medical knowledge. The results are based on a large-scale data collection effort led by the authors in 2009 and 2010, when teams of enumerators visited 1519 villages across 19 Indian states. In every village, they counted and surveyed all healthcare providers and assessed the medical knowledge of a random representative sample of these providers.

Why is this important?

Policy discussions on healthcare in rural India largely focus on strengthening the public sector, in part because of the belief that the only option for healthcare in rural India is the public sector. This belief in turn reflects the lack of any systematic data on the prevalence and quality of private healthcare providers in rural India. The paper fills this gap, and shows that (a) There are many healthcare providers in the average village in rural India; (b) most are in the private sector and (c) most were informal providers, without (formal) medical qualifications.

The numbers:

- 3.3 primary care providers in the average village of which
  - 86% in the private sector and 14% in the public sector
  - 68% of all providers are informal private sector providers with no formal medical qualifications
  - 24% AYUSH providers
  - 8% with an MBBS degree

Looked at another way, 6.4% of villages have access to a public MBBS provider and 6% have access to a private MBBS provider in the village. Since some villages have access to both, 10.9% have access to any MBBS provider, whether public or private. Moreover, there is no correlation at the state level between the average local availability of healthcare providers and state health indicators, such as child mortality.

So, the average person in rural India can choose among multiple providers, but still does not have access to quality healthcare. Is this mostly because of informal providers, who are mainly in the poorer states?

No. There are two reasons why this statement is inconsistent with the data.

First, the fraction of providers who are informal remains high regardless of the state’s level of economic development. Moving from the lowest to highest value of average state socioeconomic status (SES) reduces the fraction of non-MBBS providers from 86% to 68%; excluding Kerala (which has the highest fraction of MBBS providers and among the highest SES) makes this association statistically insignificant. In every single Indian state, the dominant source of care is private sector providers without an MBBS degree. In fact, such providers form an outright majority in every state except Kerala and Assam.

Second, we often assume that all MBBS doctors must be higher quality than all non-MBBS providers, simply because they are formally qualified. But this assumption is not true in the data. Informal providers in high-performing states, like Tamil Nadu, Andhra Pradesh, and Karnataka, display greater medical knowledge than MBBS providers in low-performing states, like Bihar, Jharkhand, and Uttar Pradesh. The knowledge level of MBBS and non-MBBS providers is very closely linked at the state level, even though the medical knowledge of MBBS doctors is always higher than that of informal providers in the same state. Why? There are at least two reasons. First, informal providers often work closely with MBBS providers as compounders or assistants before setting up their own clinic. The better the person they worked with, the more they will know themselves. Second,
informal providers have to compete with the public sector (which provides free care) and so states with higher quality public providers also have higher quality informal providers. Thus, as state SES increases, informal providers do not disappear from the market—instead, their quality improves and they remain just as prevalent.

One way to interpret these data is that if states can improve the quality of MBBS doctors and the public sector, the quality of informal providers will also increase. We usually think that higher quality must necessarily come at higher cost, and that therefore this represents an impossible ask for poorer states. However, the authors found, one group of states has managed to achieve higher quality at lower per-visit costs—thus, the title “Two Indias”. They write:

"Indian states divide into two very distinct groups. The first group (Group 1) includes states like Uttar Pradesh and Bihar, but also Gujarat and Orissa, which are arguably on the same [cost] frontier where higher quality (as in Gujarat) comes at higher costs. The second group (Group 2) includes the four Southern states of Kerala, Karnataka, Tamil Nadu and Andhra Pradesh, but also Chhattisgarh and Uttarakhand, which have achieved higher levels of quality at lower per-patient costs than similar-performing states in Group 1. Group 2 states appear to be operating at a significant quality and budgetary advantage relative to Group 1 states."

The authors posit that the variation they find across states could reflect the uneven distribution of medical colleges in India. The states where quality is high and costs are low are precisely those that have a high number of medical colleges. When states are able to produce higher-quality MBBS doctors in sufficient numbers, they ‘lift the floor’ for all types of providers, improving the quality of healthcare as a whole. Further, higher quality in public clinics also translates into lower cost per patient because of higher utilization of public clinics. These ‘economies of scale’ can drive higher quality at a lower cost: At all performance levels, Group 2 states see significantly lower costs per unit of quality relative to Group 1 states.

Key Takeaways

1. There is increasing recognition that the debate on healthcare has to move from access to access plus quality. But that shift can happen only if we systematically measure quality and its determinants. This paper, the first to use an India-wide sample, shows that measuring quality and availability in a structured fashion can lead to a completely different picture of healthcare in rural India than what is usually imagined.

2. Healthcare in rural India is characterized by enormous variation in availability and quality—across states, within states, and even within villages. Most villages have multiple providers, some good, some not so good and some very low quality, who provide care at different price points to patients.

3. A deeper understanding of the fundamental forces that shape healthcare provision in India—such as the location of medical colleges or the quality of medical training—can inform a wider discussion of much needed policies in this sector.

4. Improving the quality of public systems will likely have three distinct benefits: First, it will improve quality of care for those seeking care in public clinics; Second, it may reduce cost per patient by increasing utilization; Third, it will also benefit the large numbers of citizens who use (and continue to use) private providers by also forcing the private sector to improve.

5. At the same time, policy needs to recognize the large role played by private, informal, and unqualified providers in the landscape of healthcare provision in India. The basic fact is that in most Indian villages, they remain the only source of healthcare and although some undoubtedly provide low quality care, others may be able to provide the primary care that is required at the village-level. This may explain their large market share in healthcare delivery in India.