

# INDIA HEALTH BEAT

*Supporting Evidence-based Policies and Implementation*

## CAREER PREFERENCES OF MEDICAL AND NURSING STUDENTS IN UTTAR PRADESH\*

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*This note describes the career preferences of graduating medical and nursing students in Uttar Pradesh, with special reference to incentives offered for and work attributes of employment opportunities in rural areas. Results indicate that medical students prefer to concentrate on their post-graduate education and are not inclined to work in rural areas while nursing students have a greater predilection to work in public rural settings. The note draws attention to the fact that it is a tougher challenge to increase the supply of physicians in rural areas as compared to nurses and incentives offered to prospective health workers would be more effective in the form of incentive packages.*

India, more specifically the state of Uttar Pradesh (UP), currently faces a serious geographic mal-distribution of human resources for health. Though the majority of the population lives in rural areas, doctors in both the public and private sectors are concentrated in urban areas. Doctor and nurse densities in cities are 3-4 times higher than rural areas.<sup>1</sup>

Government is trying to remedy these imbalances by recruiting and placing doctors and other health workers in rural areas. Vacancies in the government health sector in the country are large: 40% of the medical officer posts in Primary Health Centres (PHCs) and 50% of the specialist posts in Community Health Centres (CHCs) are vacant. One result of the geographic imbalance in the health workforce is that rural populations lack access to quality health services. Additional problems such as absenteeism reduce access further.

The Union Government recently proposed one approach to tackle this shortage of rural health workers by making the license to practice medicine or pursue further education contingent on completion of one year rural service after the undergraduate course (Times of India, 2006). But compulsory rural service is difficult to enforce<sup>2</sup> and not very popular among medical students. GoI is also providing significant new funding for recruitment of health personnel on contract through the National Rural Health Mission. But can the government attract health workers to voluntarily opt for rural service? A first step in formulating an employment

package which could succeed is to understand how health workers perceive various job, remuneration, and location options. Planners designing new programs to increase recruitment and retention for rural areas need to understand the reasoning behind prospective health workers' preferences for working in urban areas to determine which incentives and other work attributes would attract health personnel to rural service. This note reports on a study to understand perceptions of factors affecting employment choice among graduating medical and nursing students in UP.

### HOW THE STUDY WAS CONDUCTED

Medical and nursing schools in Lucknow, Allahabad and Gorakhpur were purposively chosen to represent a diversity of both academic reputation and geographic locations. Except for one private institution located in Lucknow, all the medical colleges were public institutions. Within each medical school, final year undergraduates and post-graduates<sup>3</sup> were purposively selected to capture a range of geographic locations of their hometown. Focus group discussions (FGDs) and interviews were held with these medical students as well as with first-year students at public nursing schools and final-year students at private institutions.<sup>4</sup> FGDs enabled a range of opinions and also allowed for cross-checking views students professed individually and in group settings. A semi-structured questionnaire was used for in-depth interviews and a similar set of discussion topics was used for the FGDs. Students

\* Health workers in sufficient numbers, in the right places, and adequately trained, motivated and supported are the backbone of an effective, equitable, and efficient health care system. Success in creating and sustaining an effective health workforce in India to achieve national health goals will require sound policy and creative and committed implementation. More and better information on human resources for health in India is one element needed to achieve this. This note summarizes recent and ongoing work in support of India's health work force goals. For the full report, see Raha, S. et al "Career Preferences of Medical and Nursing students in Uttar Pradesh: A Qualitative Analysis" HRH Technical Report #3 at [www.hrhindia.org](http://www.hrhindia.org)

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were asked about their plans upon graduation and their perspectives on working in the public and private sector and in urban and rural areas. Both English and Hindi were used to communicate during the FGDs and in-depth interviews.

## KEY FINDINGS

### **The Importance of Specialization and Timing Labor**

**Market Entrance:** On graduation with their MBBS degree (Bachelors of Medicine),<sup>5</sup> 90 percent of the undergraduate respondents intended to pursue a post-graduate course of study. Post-graduate students are much keener to get a job once they obtain their degree, although there are also a few who would like to pursue super-specialty courses. All medical students who participated in this study placed great emphasis on specialization despite the fact that the number of post-graduate (PG) seats available in a given year is a third of the number of graduating MBBS students (annual reports of National Health Information, Government of India). Better career opportunities, the perception that MBBS doctors have less status in society and the belief that an MBBS degree does not sufficiently qualify them to practice medicine drive them to pursue a PG degree. Through several attempts at the PG-entrance examination, they also expressed a high level of confidence that they will undertake post-graduate studies despite the limited number of seats available. Finally, all students expressed a very low preference for Community Medicine. Training in public health holds little attraction for the current batch of medical students in UP today even though government policy statements continue to prioritize its importance.

Similar to undergraduate medical students, the majority of nursing students would like to pursue further education in terms of a B.Sc. in nursing. About 65 percent of the nursing students expressed an inclination towards a postgraduate course. However, since they felt that the chance of getting a seat in a BSc course was extremely low, nursing students were much more amenable to entering the job market on completion of the General Nurse Midwife (GNM) diploma than were medical students graduating with an MBBS. Moreover, unlike medical students, seeking a job abroad was much more popular among nurses as they believed that there were good opportunities for them in countries such as America, Australia and Canada.

**Ideal Job Attributes Cited by Students:** Even though many medical students, especially the undergraduates, did not intend to enter the job market in the near future, they had a clear sense of the job attributes important to them. For most students, a respectable salary, the opportunity to utilize skills, good living conditions and a safe working environment figured prominently as essential criteria for a first job. Nurses also placed great emphasis on job security. Factors such as workload and further training opportunities were least important when considering a job upon graduation.

**Preferences for Urban or Rural Locations and Public or Private Sector:** For undergraduate medical students, mixed

views were expressed about the choice between the public and private sector - students seemed more attracted to the private sector but they also acknowledged that the public sector offered several advantages. Post-graduate students, however, were much more inclined towards the private sector. When directly asked to choose between a government job in an urban area and a private job in an urban area, students preferred the former. This result was somewhat surprising given that the private sector clearly seemed the preferred choice during discussions and interviews. Some explanations for this result include: (i) while the private sector is more attractive in the long-term, a government job may be preferable as a first job to gain experience and as a stepping stone to private practice; and (ii) upon comparing the public and private sector generically, students assumed that the public sector job would be located in a rural area (and where students were likely to have received their first posting) while the private sector was assumed to be in an urban area since there are fewer rural private practices). A private practice in a rural area was the least appealing option, most likely because it was not expected to be very lucrative.

Though there was not a clear-cut preference between the public and private sectors, the medical students always preferred an urban job to one in a rural area. For medical students location was the dominant factor in an ideal first job. In contrast, for nurses the public sector was always the preferred option. As in the case of medical students, nurses also preferred an urban public job to an urban private job, though by a much larger margin than did medical students. Similarly in rural areas, a government job is again the preferred choice. For nurses, rural private is also the least preferred option. However, there was an important difference. Nursing students actually preferred a rural public job to an urban private job, whereas for medical students it was the reverse. Therefore, for nursing students, the determining factor was not the location but the type of enterprise: the public sector being the most appealing choice.

**Views on Incentives for Rural Service:** Both medical and nursing students were presented with choices of different non-pecuniary incentives, for doing temporary service in the public sector in rural areas. They included a 50% reservation in post-graduate courses upon completion of rural practice, legalized private practice, increased training opportunities, good housing, faster promotions, a guaranteed urban transfer, and a rural posting near the student's hometown. Each of these incentives was presented by itself, in the absence of any other inducement.

The most appealing non-financial incentive for both undergraduate and post-graduate medical students was a 50% reservation in PG courses for students who had completed a stint in a rural area following their MBBS degree. For example, over 80 percent of undergraduates interviewed were very attracted to rural service for 2-3 years with 50 percent PG reservation. This is not surprising given

the extreme competitiveness of admissions to post-graduate programs of study.

Both undergraduate and post-graduate medical students considered that good housing, on its own, and in the absence of any other facilities, was not of great significance in attracting students to public sector jobs in rural areas. Students also felt that government acceleration of promotions for doctors serving in rural areas would not be particularly effective in recruiting students to public service there. Medical students were much more inclined to favor government policy that attempted to post students near their hometown. They were, in general, willing to tolerate only a certain distance from their hometown even if posted in the same district.

Nursing students' responses were similar to those of medical students. Reservation in BSc courses for nurses who work in rural areas was considered an appealing prospect. However, for nurses, the most attractive option was in fact a posting in a rural area near their hometown or village. Once again the least appealing incentive was the promise of solely good housing in rural areas.

## CONCLUSIONS AND POLICY IMPLICATIONS

This was a small and largely qualitative study, so one should be cautious about generalizations from the results. Nonetheless, the findings raise some difficult issues for current government efforts through the National Rural Health Mission (NRHM) to provide marginal fiscal incentives to recruit and retain doctors in rural areas.

First, undergraduate medical students are most concerned about future postgraduate study. There is little likelihood in UP of increasing the supply of MBBS doctors for government jobs in the existing conditions at rural facilities. In contrast, even in the existing environment, increasing the number of nurses in the public sector is very feasible, given their preference for government jobs. Medical students in UP are largely not interested in rural public service and many cited familial opposition to such career choices. This is not just a personal preference, but also related to the contrasting social and economic background of the students and their families when compared to most rural communities. In contrast, nursing students find public service attractive and may be more receptive to rural service, especially, if nearer their family homes. These findings suggest that a human resources in health (HRH) strategy, which focuses too much on increasing the supply of physicians in rural areas, faces tougher challenges than one which emphasizes increasing the numbers and roles of nurses.

Second, to attract medical students to take a job in the public sector health system, a *package* approach that has a bundle of strategic incentives such as innovative linkages tuned to the career-related preferences of students is probably more effective than an exclusive focus on a single incentive or bettering any particular job attribute to satisfactory levels. While we didn't yet test this hypothesis quantitatively,

recent studies in other countries such as Ethiopia<sup>6</sup> support this view. The results suggest cumulative effects from combining improved incentives, both pecuniary and non-pecuniary, rather than improving just one job attribute.

The importance of addressing multiple job attributes makes the task of government planners to increase recruitment and retention more difficult. They may need to address a mix of attributes, some of which are within their control (e.g. access to trainings, preferences for location of postings) and some of which are not (post-graduate admissions, better salaries).

Third and most important, our findings suggest that staffing rural health services won't be merely a "numbers game" that can be addressed by financing medical colleges to produce many more doctors. Planners need to understand and address the preferences of the staff they want to recruit and retain. There already exists an active job market for doctors and nurses and young people entering that market have choices.

## NEXT STEPS

1. Consider implementing 50% preferential treatment in entrance to post-graduate studies for doctors who serve a fixed period (3 years) in a rural posting of the public sector health care services. The preferential treatment may either be given as points added to the overall marks of the applicant or through the allocation of seats reserved for such applicants. Each state will need to work out the specific formula most likely to be successful in the specific state context.
2. The use of compulsory rural service has internationally shown very mixed results and its effectiveness in providing rural health service in some states in India still unknown. The extent of success such compulsory service has had in bringing rural health care in other countries<sup>7</sup> and the measures needed for its successful application and enforcement in the Indian context warrant careful examination.
3. Examine alternatives to posting MBBS doctors as heads of primary level facilities such as more empowered and skilled nurses and the creation of a managerial cadre of nurse or AYUSH practitioners.
4. A successful package of incentives in drawing health workers, like doctors and nurses, requires better understanding of their preferences. More thorough studies in different states analyzing such preferences should be initiated and such packages may also be quantified using Discrete Choice Experiments, as has been done to estimate costs of incentive packages for doctors and nurses in other country contexts.<sup>8</sup>

- <sup>1</sup> See Note No.3 in this volume for details on numbers and geographical distribution.
- <sup>2</sup> Examples of the difficulties in ensuring compliance from doctors and in implementation of compulsory rural practice when a vibrant private sector and opportunities of migration exist have been noted from the experiences in Thailand, South Africa. See WHO (2009) for citations to more detailed relevant studies. Anecdotal evidence from north-eastern states suggests similar experience in India.
- <sup>3</sup> Post-graduate medical students refer to residents seeking a specialty degree.
- <sup>4</sup> In public nursing schools in Uttar Pradesh there were only first-year nursing students due to recruitment of batches in 3 years cycles
- <sup>5</sup> The undergraduate bachelors degree (MBBS) for medical students, including an internship year, is 5½ years. Specialist post-graduate (PG) courses can take a further 2-3 years. For nursing students, the ‘diploma’ course of General Nursing and Midwifery (GNM) is a 3-year course. Nursing students can further enroll for a ‘degree’ course of Bachelors of Science in nursing or B.Sc (N).
- <sup>6</sup> Lindelow, M. and P. Serneels (2006). “The performance of health workers in Ethiopia: results from qualitative research.” *Soc Sci Med* 62(9): 2225-2235.
- <sup>7</sup> In Thailand, for instance, while compulsory rural service proved some success in the late 1970s and early 1980s, the changing labor market for doctors to one resembling that of India today has led to doctors breaking their contracts, paying their fines for doing so, and then choosing to work in the private sector (mainly urban practices). Internal brain drain also resulted with a peak of 22% of new medical graduates resigning from government service in 1997 according to recent studies. See WHO 2009 for details of studies.
- <sup>8</sup> A discrete choice experiment (DCE) is a quantitative technique for eliciting individual preferences. It allows policy makers to uncover how individuals value selected attributes of a program, product or job by asking them to state their choice over hypothetical alternatives. DCEs have been applied to a range of health policy, planning and resource allocation decisions in high-income settings. Comparatively few examples of DCEs have been used in developing countries, with recent examples of such work done in Ghana, Malawi, Ethiopia and Thailand. See Lemiere (2009).

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