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While one would expect the percentage of vacancies to increase when new posts are created, surprisingly, in Tamil Nadu, the number of vacancies has decreased dramatically over the past decade and more and more young graduates are joining service. This unexpected trend could be attributed to the opportunity provided to medical officers to choose a job site near home and the creation of more medical colleges in the state.

CONCLUSION

In isolation, the factors mentioned above seem insignificant and trivial, but they have led to a substantial improvement in the health sector in Tamil Nadu. The problem of lack of availability of doctors for primary care in the government sector has been a perennial one for many health administrators. Other health administrators can study the government orders and rules mentioned above, most of which are available online, to modify them to suit the local needs and implement them to provide better care to patients through rural health set-ups.

India's health workforce: Current status and the way forward

S. GARG, R. SINGH, M. GROVER

INTRODUCTION

Manpower for health services has been described as 'the heart of the health system in any country'.¹ It is one of the most important aspects of healthcare systems and a critical component of health policies. In India, there is no reliable source giving the number of the members of the health workforce as more than half the healthcare professionals work in the unorganized private sector. It is uncertain how many specialist doctors are available in the country, which suffers from a shortage of such doctors. There is an imbalance in the urban-rural distribution of specialists, with more specialists being available in the urban areas. We have tried to compile the information available on the health workforce of India from different sources and suggest a plan to address the shortages in different cadres.

HEALTHCARE INFRASTRUCTURE IN RURAL AREAS

The healthcare infrastructure in the rural areas consists of a three-tier system based on population norms (Table I). A brief description of the health posts at different levels follows.

Subcentre

The subcentre is the most peripheral and first contact point between the public healthcare system and the community. Each subcentre is manned by at least one auxiliary nurse midwife (ANM)/female health worker and one male health worker. One health assistant (female) is entrusted with the task of supervising 6 subcentres. Subcentres are assigned tasks related to maternal and child health, family welfare, nutrition, immunization, diarrhoea and the control of communicable diseases. Subcentres are provided with basic drugs for minor ailments to meet the essential health needs of men, women and children. There were 148 124 subcentres functioning in the country in March 2011.²

Primary health centres (PHCs)

The PHC is the first contact point between the village community and the medical officer. PHCs provide integrated curative and preventive healthcare to the rural population, with an emphasis on the preventive and promotive aspects. A PHC is manned by a medical officer, supported by 14 paramedical and other staff. It acts as a referral unit for 6 subcentres. It has 4-6 beds for inpatient care. There were 23 887 PHCs functioning in March 2011. Of these, 8326 were providing 24-hour medical services.³

Community health centres (CHCs)

A CHC is supposed to be manned by 4 medical specialists (surgeon, physician, gynaecologist and paediatrician), supported by 21 paramedical and other staff. It has 30 inpatient beds. Minor and major surgical procedures can be performed in a CHC, which has provision for X-rays, a labour room and laboratory facilities. It serves as a referral centre for 4 PHCs, and provides facilities for obstetric care and specialist consultations. In March 2011, there were 4809 CHCs functioning. Of these, 906 were equipped with modern medical facilities.⁴

HEALTHCARE INFRASTRUCTURE IN URBAN AREAS

According to the 2011 Census, about 37.7 crore (377 million) people live in urban areas⁵ and this population will increase to an estimated 43.2 crore (432 million) by 2021.⁶ The spurt in urban growth has led to an increase in the number of the urban poor, especially those living in slums. Despite the proximity of the urban poor to urban health facilities, their access to these facilities is restricted. They are 'crowded out' because of an inadequate urban public health delivery system. About two-

TABLE I. Population norms for different health centres

Centre	Population norms	
	Plain area	Hilly/tribal/difficult area
Subcentre	5 000	3 000
Primary health centre	30 000	20 000
Community health centre	120 000	80 000

Faculty of Medical Sciences, Delhi University, New Delhi
S.GARG Department of Community Medicine

Maulana Azad Medical College, Bahadurshah Zafar Marg, New Delhi
R. SINGH, M. GROVER Department of Community Medicine

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thirds of the patients in urban hospitals come from rural areas because health facilities and doctors are not available in those areas. Ineffective outreach and a weak referral system also limit the access of the urban poor to healthcare services. Further, the lack of standards and norms for the urban health delivery system makes the urban poor more vulnerable and in many cases, worse off than their rural counterparts.

Unlike in the case of the rural health services, there have been no efforts to provide well-planned and organized primary, secondary and tertiary healthcare services in urban areas. As a result, primary healthcare facilities are not available in many areas; some of the existing institutions are underutilized; and there is overcrowding in most of the secondary and tertiary centres.⁷

Under the First Five-Year Plan (1951–56), the Government of India established 126 urban clinics of four types to strengthen the delivery of family welfare services in urban areas. In 1976, these were reorganized into three types on the basis of the population covered (Table II). At present, there are 1083 centres functioning in various states and union territories. Most urban family welfare centres (UFWCs) provide only contraceptives.

On the recommendations of the Krishnan Committee, the government introduced a revamping scheme in 1983, and, on the basis of population coverage (Table III), it established four types of urban health posts (UHP) in ten states and two union territories, under the precondition that these would be located in slums or in the vicinity of slums. The main functions of the UHPs are to provide outreach, primary healthcare, and family welfare and maternal and child health services. At present, there are 871 UHPs, but they are not functioning satisfactorily.

According to an evaluation by the Indian Institute of Population Studies (IIPS), the important drawbacks of UHPs and UFWCs are a weak referral mechanism, inadequate training of staff, 30% of the posts of medical officer being vacant, lack

TABLE II. Types of urban family welfare centres

Type	Number	Population covered (in thousands)	Staffing pattern
I	326	10–25	1 auxiliary nurse midwife/1 family planning field worker (male)
II	125	25–50	Family planning extension educator/lady health visitor (1) in addition to the above
III	632	>50	1 medical officer (preferably female), 1 auxiliary nurse midwife and 1 storekeeper-cum-clerk

TABLE III. Types of urban health posts (UHPs)

Type	Number	Population covered (in thousands)	Staffing pattern
A	65	<5	1 auxiliary nurse midwife
B	76	5–10	1 auxiliary nurse midwife, 1 multiple worker (male)
C	165	10–25	2 auxiliary nurse midwives, 2 multiple workers (male)
D	565	25–50	1 lady medical officer, 1 public health nurse, 3–4 auxiliary nurse midwives, 3–4 multiple workers (male), 1 class IV woman

of equipment, medicines and other related supplies, and unequal distribution of facilities in different states.⁸

THE PRESENT SITUATION

Shortfall of doctors

India produces about 40 000 allopathic doctors in a year from 335 medical colleges recognized by the Medical Council of India (MCI).⁹ More than 70% of them prefer to join a private healthcare set-up. Only one-fifth get a chance to do postgraduation. Most specialists avoid practising in rural areas or urban government health facilities. This has resulted in a shortage of specialists at CHCs.

There is a deficit of about 2866 (12%) MBBS doctors in the PHCs, the requirement being 23 887 (Fig. 1). With the latest guidelines which lay down that two doctors should be posted at each PHC, this shortfall is bound to increase considerably. That two medical officers should be posted at a PHC was suggested by Sir Joseph Bhore way back in 1946. The situation is even more serious with respect to specialists at the CHCs. The shortfall of surgeons, physicians, obstetricians and paediatricians at the CHCs is 12 301 (64%).²

We tried to ascertain the number of specialists working in the country at present in different fields of medicine and surgery, but were unable to get accurate data. Some rough estimates suggest that there are about 10 000 ophthalmologists, 5500 ENT surgeons, 3000 psychiatrists and 2000 dermatologists.

Shortfall of nurses and other health workers

At the PHC/CHC level, there is a 23% shortfall of nurse midwives or staff nurses. The corresponding figures for pharmacists are 22.5%, laboratory technicians 47.4% and radiographers 53.9% (Fig. 1). There is a 37.8% shortfall in the number of health assistants (female) at PHCs, while the number of health assistants (male) is less by 41.6%. There is a 1.9% deficit in the number of health workers (female) at the subcentre and PHC. The number of health workers (male) is short by 64.6% at the subcentre level. There is a deficit of 42.3% in the number of block extension educators.²

HEALTH WORKFORCE: MEETING THE DEMAND

Specialists

To meet the increased demand for specialist allopathic doctors, the MCI has recently modified the norms for inducting medical graduates in various specialties. This will result in an annual

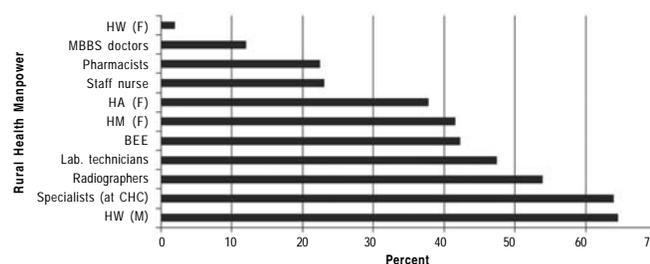


FIG 1. Percentage shortfall in rural health manpower (data extracted from *Rural Health Bulletin*, Ministry of Health and Family Welfare, Government of India, 2011).

HW (F) health worker (female) HA(F) health assistant (female) HA (M) health assistant (male) BEE block extension educator CHC community health centre HW (M) health worker (male)

increase in the number of postgraduate degree seats from 3500 to 5500. In addition, 5000 postgraduate seats were added in February 2010. Hence, nearly 11 000 specialists will be produced every year from 2013. Another option of increasing the number of specialist doctors would be to start an integrated 8-year MD/MS course.

Nursing staff

There is a huge shortage of nursing personnel. Many qualified nurses prefer to work abroad due to the wide disparities in salaries between western countries and India. The government has recently relaxed the norms of admission to nursing schools, allowing even married women to enrol in various nursing courses. However, more nursing schools need to be established and nurses encouraged to take up public health nursing and work in the rural areas.

Filling up vacant specialist posts at CHCs

To meet the requirement of specialists in the rural areas, it should be compulsory for those doing their postgraduation to serve at a CHC for 2 years. Incentives should be introduced for specialist doctors who propose to join the rural healthcare set-up. These incentives could be financial, housing-related, including interest-free loans for housing, admission of children to schools and even to professional schools, out-of-turn promotions, subsidized rations, etc.

Filling up vacant posts of medical officers at PHCs

There should be no compulsory rural posting at the end of MBBS. Candidates should be encouraged to practise at PHCs by being awarded 10% extra marks in the postgraduate entrance examination for every year of rural posting up to 3 years. Every medical college should have one or more PHCs attached with its department of community medicine and under its direct control, with the doctors in the department taking care of the PHCs. As medical education is subsidized in India, graduates who wish to settle or study abroad should provide a bond undertaking to work in rural areas for 2 years before leaving the country.

Filling up vacant posts of paramedical workers at different centres

The government should fill up the vacant posts and also increase the retirement age of workers employed at present to

62 years. There should be inbuilt avenues for career progression of all health cadres to prevent a high turnover. Also, frequent refresher training may help maintain the interest and motivation of these cadres.

CONCLUSION

There is an urgent need to develop the healthcare infrastructure and health workforce. Various measures are required to address the shortage of skilled health manpower in rural areas. These include compulsory rural postings and incentives to work in rural, difficult and remote areas.

REFERENCES

- 1 Joint Learning Initiative. *Human resources for health and development: A joint learning initiative*. Washington DC, Harvard University:Global Equity Initiative; 2004. Available at http://www.who.int/hrh/documents/JLi_hrh_report.pdf (accessed on 30 Apr 2012).
- 2 Bulletin on Rural health Statistics in India 2011 (updated up to March 2011). Ministry of Health and Family Welfare (Statistics Division), National Rural Health Mission (NRHM) Management Information System (HMIS) Portal, Government of India. Available at <http://nrhm-mis.nic.in/Publications.aspx> or <http://nrhm-mis.nic.in/UI/RHS/RHS%202011/RHS%202011%20Webpage.htm> (accessed on 3 May 2012).
- 3 National Rural Health Mission. Executive Summary. Status as on 31 January 2010. Ministry of Health and Family Welfare. Government of India. Available at http://www.mohfw.nic.in/NRHM/Documents/Executive_summery_January10.pdf (accessed on 3 May 2012).
- 4 Census of India 2011. *Rural urban distribution of population* (Provisional population totals. New Delhi:Registrar General and Census Commissioner, India, Ministry of Home Affairs, Government of India, 15 Jul 2011. Available at http://censusindia.gov.in/2011-prov-results/paper2/data_files/india/Rural_Urban_2011.pdf (accessed on 3 May 2012).
- 5 Census of India 2001. *Population projections for India and States 2001–2026. (Revised Dec 2006). Report of the technical group on population projections constituted by the national commission on population, May 2006*. New Delhi:Office of the Registrar General and Census Commissioner, India. Available at http://www.jsk.gov.in/projection_report_december2006.pdf (accessed on 3 May 2012).
- 6 Planning Commission, Government of India. *Tenth Five-Year Plan (2002–2007), Vol. II*. New Delhi:Planning Commission, Government of India. Available at http://planningcommission.nic.in/plans/planrel/fiveyr/10th/volume2/10th_vol2.pdf (accessed on 3 May 2012).
- 7 Draft for Circulation. National Urban Health Mission (2008–2012). *Meeting the health challenges of urban population especially the urban poor (with special focus on urban slum)*. New Delhi:Urban Health Division, Ministry of Health and Family Welfare, Government of India. Available at <http://www.uhrc.in/downloads/Reports/NUHM-Draft.pdf> (accessed on 3 May 2012).
- 8 Indian Institute of Population Studies. National Report on Evaluation of functioning of UHPs/UFWCs in India. Indian Institute of Population Studies. Analysis and Findings: A: Location, population coverage and years of functioning of urban health posts and urban family welfare centres, Section-III. 2005. Available at http://www.iipsindia.org/pdf/05_b_13csec3.pdf (accessed on 3 May 2012).
- 9 Medical Council of India (available at http://mciindia.org/apps/search/show_colleges.asp (accessed on 23 Apr 2012).