**Type of research:** Letter to Editor

**Title of the letter**: Understaffed Public Health Systems in India: Current Scenario and Future Challenges.

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**Understaffed Public Health Systems in India: Current Scenario and Future Challenges.**

Dear Sir,

India has a mixed health care system, inclusive of public and private health care providers. Most of the private health care providers are concentrated in urban India, providing secondary and tertiary health care services for upper and growing middle class. However, the poor and marginalized sections still cannot afford private healthcare and relies on overstretched, under staffed and over burdened public health system. The public health system in rural areas is composed of three tiers: Subcentres, primary health centres and community health centres. Subcentres are manned by trained health workers and auxiliary nurse midwives, with each centre covering up to 5000 people. Primary health centres which form the backbone of public health system are supposed to have a medical officer supported by 14 paramedics and other staff. Community health centres are meant to have four medical specialists (a surgeon, physician, gynecologist, and pediatricians) supported by 21 paramedics and other staff. Referral care is provided by area hospitals, district hospitals, teaching and specialty hospitals in urban areas under government sector.1

Despite an increase in the number of health facilities during the past decade, India continues to battle workforce shortage which is the big ailment afflicting public health system. As of March 31st 2017, total population was estimated to be of around 1.33 billion with a total of 10, 22,859 registered allopathic doctors accounting for a doctor population ratio of 7 per 10,000. Of these, only 10% work in the public health sector. However, this ratio is derived based on number of doctors registered (stock) which has not been adjusted to attrition due to retirement, discontinuation of practice, emigration and death of doctors etc. Assuming 80% availability of doctors, it is estimated that around 8, 18,287 doctors may actually be available for active service. It gives a doctor-population ratio of 6.2 per 10,000. Taking into consideration the past decennial growth rates, India will have 11, 95,775 stock of registered doctors in 2020 and 1,733,873 in 2030. By then, the available doctor population ratio will improve to only 6.41 and 8.54 per 10,000 population respectively by 2020 and 2030 which is also below the WHO prescribed doctor population ratio of 1:1000.2

As per recent estimates, more than 8% of 25,300 primary health centres in the country were without a doctor, 38% were without a laboratory technician, and 22% had no pharmacist. The largest numbers of vacancies are in states of Uttar Pradesh, Madhya Pradesh followed by Jammu Kashmir. The short fall has increased 200% over the last decade. However, in a case of a double whammy, there is an acute shortage of nurses too in public sector.1 India is short of 2.4 million nurses; according to data from the Indian Nursing Council (INC) and the WHO.3 Nearly 50% of posts for female health assistants and 61% for male health assistants remain vacant. In community health centres, the shortfall of specialist doctors is huge- surgeons (83%), obstetricians and gynecologists (76%), physicians (83%), and pediatricians (82%). As per the norms, India still needs more than 10,000 gynecologists in its public hospital system. Up to 48% posts of radiographers are vacant. About 30% of sub centres and 80% of all public health systems serve double the patients that government standards specify.1 The shortage will accentuate as we try to meet the Indian Public Health Standards which require three doctors for each PHC. The shortage of health workers is not only limited to rural areas but also exists in urban areas. There is a shortage of more than a quarter of CGHS posts of general duty medical officers and hundreds of specialty posts in urban health settings said health minister JP Nadda during parliament sessions.

Interestingly, these shortages exist in India despite generating largest number of medical graduates in the world, with more than 491 government and private medical colleges with annual intake of 67,218 students for MBBS courses.1 Upon consideration, reasons for the shortage of doctors in public health system are as follows:

* Lack of adequate infrastructure, technology and facilities in rural areas, is often a demoralizing experience for doctors
* Lack of professional development opportunities and accountability as a result a hierarchical dominance in public health system
* Greater demand for doctors in affluent private sector
* Medical education system is geared to train doctors to provide specialized care neglecting primary health care
* Deficiencies in regulatory and monitoring mechanisms in rural health care system
* Too many administrative responsibilities in public health systems

To overcome, various strategies have been attempted to attract doctors in rural areas by ministry of health and state governments such as

* Compulsory rural postings after MBBS graduation, linking rural postings to admission into postgraduate courses, and offering monetary incentives.1
* As a long-term measure, the health ministry in 2010 proposed a four year course in community health called “Bachelor of rural health care” against the current MBBS course.**4** Opinion is sharply divided on this issue. “Permitting the practice of modern medicine directly and indirectly to persons not qualified under the standards of the Medical Council of India (MCI) will result in a heavy miscarriage of public health, causing dangers to the lives of people in rural areas” said Dr. Marthanda Pillai, President of Indian medical association (IMA).
* More recently, Dental Council of India (DCI) in association with MCI has proposed a three year bridge course for dental graduates to get an MBBS degree after which they can practice as first-contact physicians.

The deficit of health workers in the current public health system is clear. There is no getting away from the fact that we do need more workforces in public health system. India needs to raise its public health expenditure to 2.5% of GDP from the current 1.4% to provide better working and living conditions for doctors in public health system. Most states don’t have a workforce policy to ensure that doctors are rotated between rural and non-rural postings. It is strongly recommended to have such rotation for doctors between rural and urban settings. Indian medical education training model and selection process needs to be revised that instill social accountability as health practitioners to serve public health settings. For instance, Cuba’s reputation for producing dedicated health workers who are prepared to work in difficult or remote health contexts at very low pay scales is well known. The selection process for entry to Cuban medical education focuses on social skills and competencies as much as academic ability which has resulted in more equitable distribution of doctors. The trained graduates thereafter posted to an area to which he/she belongs.**5**

We can learn many lessons from the strike by resident doctors in the Canadian province of Quebec who have signed a letter protesting against plans to raise their pay, stating that the funds would be better spent on other areas of healthcare system. Hence, there is a need to evolve with innovative strategies to deal with acute shortages of doctors especially for rural health services to meet the growing health needs of gigantic Indian population.

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