View Point

Why India urgently and dearly needs population norm for establishing medical college; - A case study of Madhya Pradesh

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Background:

A good medical college transforms quotidian 12th pass students into an outstanding surgeon, paediatricians, or physicians who collectively lay the foundation of an effective health system. It is an open secret that the Medical Council of India (MCI) is solely responsible for the broken medical education system of India. On multiple occasions, MCI has been criticized for its corrupt practices and several newspapers have even called MCI by a variety of names.[1-4] The deteriorating quality of medical education in India is secondary to the establishment of substandard medical colleges due to the nexus between various stakeholders. The indifferent attitude of the medical fraternity has led to this situation. However, only a few people know about the other felonies that the MCI is silently committing. The MCI has catalysed the deterioration of the medical education system by formulating flawed policies, which are not evidence-based. One such policy-related misdemeanour is discussed in this article.

The three-tier Indian health system:

The Indian health system is organized into a three-tier system, and there is a population norm for all types of health institutions, with the exception of medical colleges. For example, there must be 1 health subcentre (HSC) for every 5000 people and one primary health centre (PHC) for every 30,000 people.[5,6] Collectively, the HSC and PHC constitute the primary level of healthcare providing basic health services to the citizens living at the periphery or in rural areas. One community health centre (CHC) is required for every 80,000–1,20,000 people and one district hospital (DH) is necessary in every district. [7, 8] The CHC and DH collectively constitute the secondary level of healthcare providing specialist care to citizens. Medical colleges providing 'subspecialty' care (more commonly called 'super speciality' in India) such as cardiology, neurology, and complicated surgeries constitute the tertiary level of healthcare, and act as a hub for providing medical education to the future generations.

What MCI did and did not do:

Even after 70 years of India's independence, the MCI has failed to establish population- or administrative unit-based norms for opening medical colleges in India, whereas the population-based norms for the PHC and CHC were finalized in the pre-independence period.[9] The MCI's rules do not mention the minimum population norm for establishing a new medical college. The only requirement of the MCI is a minimum set of personnel and infrastructure. [10] The infrastructure includes the minimum land area; building for the hospital, college, and hostel; instruments and logistics; and a number of beds. [10] While granting permission to a new medical college, the MCI inquires only about the catchment area of the college, the population of the catchment area, and connectivity and accessibility to the institute. However, the MCI does not define the minimum population required for establishing a medical college.[10] Thus, does this imply that two medical colleges can be opened on the same road alongside each other, only a few kilometres apart, or in the same locality of a district? By failing to establish a minimum population norm, the MCI has indirectly aided the private sector in establishing medical colleges in only the prominent

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cities of the country, which already have state-of-the-art health infrastructure, pre-existing medical colleges, or both.

In its guidelines for DHs, Indian Public Health Standards (IPHS) mentions the following criteria for the number of beds: A DH should have and I quote. [8] "Based on the assumptions of the annual rate of admission as 1 per 50 population and the average length of stay in a hospital as 5 days, the number of beds required for a district having a population of 10 lakhs can be calculated as:

Total number of admissions per year;

10,00,000 × 1/50 = 20,000

Bed days per year = 20,000 × 5 = 100,000

Total number of beds required when occupancy is 100%

= 100000/365 = 275 beds

A total number of beds required when occupancy is 80%

= 100000/365 × 80/100 = 220 beds."

In conclusion, a city having a population of 1 million requires a DH with a maximum of 275 beds. [8]

Bhopal the jungle of Medical Colleges:

Bhopal, the capital district (area, 2,772 km^2) of the state of Madhya Pradesh, India, had a population of 2.4 million, as per the 2011 census. Therefore, according to the IPHS, its DH should have approximately 700 beds. [8, 11] In 2003, only 1 medical college (government-owned) existed in Bhopal. In less than 15 years, 7 more medical colleges were established in Bhopal; 6 of which were private. [12] Table 1 provides the list of medical colleges in Bhopal along with their bed strength, year of establishment, and a number of undergraduates (MBBS) seats permitted per batch.[12] The combined bed strength of all these medical colleges is 4,952 (Table 1). In addition to hospitals attached to these medical colleges, Bhopal has more than 100 nursing homes. The DH and Bhopal Memorial Hospital (both owned by the government) have 210 beds and 350 beds, respectively. [13,14]

Bhopal, with a current population of more than 2.5 million, has 8 medical colleges. This implies the presence of 1 medical college for every 3.6 lakh people, which is only thrice the population norm for CHCs. As discussed in the aforementioned text, Bhopal has 1 medical college for every 3 CHCs. Therefore, it is reasonable to question whether the catchment area of these medical colleges has a sufficient variety and number of patients. The high availability of hospital beds makes one question the actual bed occupancy rates in these medical colleges, particularly in private colleges. Because the bed occupancy rate is one of the criteria for granting recognition to medical colleges for enrolling students, the big question is how the MCI plans to verify the actual bed occupancy rates in all the medical colleges of India.

To comprehend how overpopulated the healthcare facilities (particularly the tertiary level) in Bhopal are, we only require looking at the healthcare facilities available in the districts surrounding Bhopal. Sehore district (area, 6,578 km^2), with a population of approximately 1.3 million, has no medical college, but only 1 DH, 1 sub district hospital, and 8 CHCs. [11, 15] The neighbouring district of Raisen (area, 8,466 km^2) has no medical college, but only 1 DH and 8 CHCs even though its population is half that of Bhopal. [11, 16] One can genuinely question the special treatment given to Bhopal, which has 8 medical colleges. Such a level of inequality in the distribution of tertiary healthcare facilities has been created by the faulty policies of the MCI. Patients residing in these neighbouring districts, who require tertiary healthcare, have to travel to Bhopal, thus wasting crucial time (particularly in case of medical emergencies) as well as increasing the expenditure on the treatment. The tertiary healthcare facilities would have proved to be more useful if they were equally distributed across Madhya Pradesh rather than being concentrated in a single district.

Now let us consider a scenario where a population-based (1 medical college per million population) or administrative unit-based norm (maximum 2 per district) exists for the establishment of a new medical college in India. In this situation, at least 4 or 5 of these 6 private medical colleges would have been set up in the neighbouring district of Bhopal, which currently does not have any tertiary level facility. It is reasonable to question what prevented the MCI in the past and what is preventing it today from developing a strategy to promote the establishment of new (both government and private) medical colleges in areas that currently do not have a tertiary healthcare facility.

Seventeen revolutionary years of Madhya Pradesh:

In 2000, only 5 medical colleges were present in Madhya Pradesh. All of them were government-owned and were located in different districts. In a span of only one and a half decade, 12 private colleges have emerged in Madhya Pradesh and a few more are awaiting approval.[12] The 12 colleges were established in only 6 districts, namely Bhopal, Ujjain, Jabalpur, Indore, Dewas, and Guna, of which Bhopal, Jabalpur, and Indore already had a government-owned medical college. Even among these 6 districts, a majority of the private medical colleges were established only in Bhopal (6) and Indore (3) (Table 2). Currently, Madhya Pradesh has 19 functioning medical colleges. These colleges are concentrated in 9 districts, leaving 42 districts of Madhya Pradesh without a tertiary healthcare facility.[17] Even among these 9 districts, most medical colleges are situated in Bhopal (8) and Indore (4)

(Table 2). In Madhya Pradesh, 17 high-focus districts have high maternal, infant, and child mortality rates and an overall poor state of health infrastructure. [18] If the tertiary care facilities were distributed evenly across these high priority districts, the medical colleges would have enabled improvement in the health of the citizens of these districts.

MCI's three-in-one misdemeanour:

In conclusion, by failing to institute a minimum population norm for establishing a new medical college, the MCI is committing not one but three different notorious and serious felonies against Indian citizens. First, to become a competent surgeon, paediatrician, or physician, a medical student requires adequate clinical exposure (both in terms of numbers and variety of patients). Different diseases have different clinical presentations as well as different prevalence rates. Therefore, if too many medical colleges are established in a small area, not every medical student will get the required clinical exposure necessary to become a competent doctor. Thus, medical students (both undergraduate and postgraduate) studying in these medical colleges will get insufficient clinical exposure, leading to the graduation of incompetent doctors, which is terrible, both for the health sector as well as for patients.

Second, in India, most of the high-quality healthcare facilities are located in a few prominent cities. Due to the absence of population norms, most new medical colleges are being established in prominent cities such as Bhopal and Indore, which already enjoy state-of-the-art healthcare infrastructure. Therefore, by failing to establish either a population- or administrative unit-based norm, the MCI is depriving citizens of living in second- and third-tier cities, and depriving backward, tribal, and rural areas an opportunity to receive better healthcare. Bhopal is only one such example. Across India, more than a dozen cities (e.g., Lucknow, Jaipur, Bengaluru, and Chennai) are facing the same situation. Indore district located only 200 km away from Bhopal, has 4 medical colleges, and of these, 3 are private and were established in the previous decade. [12]

Lastly, establishing a medical college requires considerable workforce, with regard to the number and variety of medical and paramedical personnel. Specialist doctors such as paediatricians, ophthalmologists, psychiatrists, cardiologists, and gynaecologists are crucially required in smaller cities and backward areas. Thus, by concentrating medical colleges in prominent cities, the MCI is indirectly hindering the movement of specialist doctors towards smaller towns and rural areas.

I would like to culminate this article by reiterating that a crystal clear policy to limit the number of medical colleges in a single city/district should be established.

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