Editorial

Health Workforce in Bangladesh

Muhammod Abdus Sabur

Bangladesh has an extensive network of health facilities from the government covering different tiers, particularly in rural areas – community clinics, union sub-center/union health and family welfare center, upazila health complex, district/general hospital, medical college hospital, and specialized institute hospital. However, people, in general, are not happy with the existing health system. Nice building with equipments, medicines, and other supplies, but with limited service providers (both in number and qualification), fail to gain confidence of the people. Money, drugs, and infrastructures are needed but they demand a motivated, skilled, and supported workforce. Health care is a labor-intensive service sector. Health service providers are the personification of a system's core values – they heal and care for people, ease pain and suffering, prevent disease, and mitigate risk – the human link that connects knowledge to health action. In health systems, workers function as gatekeepers and navigators for the effective, or wasteful, application of all other resources such as drugs, vaccines, and supplies[1]. Health workers spearhead and glue together the health system[2].

World Health Organization (WHO) defines health workers to be all people engaged in actions whose primary intent is to enhance Health[1]. Bangladesh is known for its pluralistic health system[3]. Thus Bangladesh has many categories of health workers – super specialist physician, specialist physician, graduate physician, diploma physician, alternative medical care (homeopathy, ayurvedic, unani) physician (graduate and diploma), nurse (diploma, graduate, masters), midwife (diploma, graduate), medical technologist (laboratory, dental, pharmacy, physiotherapy, radiology, radio-therapy, etc.), paramedics (medical assistant, community paramedic, mid-level ophthalmic paramedic), community-based skilled birth attendants, community health care provider, etc.

The Joint Learning Initiative (JLI), a network of global health leaders identified (1) shortage, (2) maldistribution, (3) skill-mix imbalance, (4) negative work environment, and (5) weak knowledge base as challenges with health workforce[4]. Bangladesh is not an exception to the challenges mentioned.

1. Shortage

WHO has identified the index of 4.45 physicians, nurses, midwives, and other categories per 1,000 population to estimate the health human resources (HRH) need and need-based shortage by 2030[5]. WHO has also recommended a ratio of physicians: nurses and midwives: others cadres as 1:3:5[6]. These mean 0.5 physicians; 1.5 nurses and midwives and 2.45 other HRH are required for every 1,000 population. Bangladesh has a 165,158,616 population[7]. So the country needs 82,579 physicians. The estimated number of MBBS doctors available in the country is 101,559. In 116 medical colleges (39 government and 77 non-government), 11,328 seats (4,500 government and 6,828) are available for yearly admission in MBBS courses. Similarly, Bangladesh needs 247,737 nurses and midwives and has 93,147 nurses and midwives. A total of 35,765 seats are available in government and non-government institutions for the yearly admission of nurses and midwives. Against the requirement of 412,895 other categories of HRH, Bangladesh has 305,828 (medical assistants, pharmacists, technologists, family welfare visitors, community paramedics, and community skilled birth attendants)[8]. So, Bangladesh doesn't have any shortage of physicians and will continue to be in such a situation in the coming years, given the seats available

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for annual intake. However, the country clearly suffers from a shortage of nurses and midwives. Given the capacity of annual intake, it may overcome the shortage in the next five years. Bangladesh also has a shortage of other allied professionals.

2. Maldistribution

Globally health workers are distributed unevenly. Countries with the lowest relative need have the highest numbers of health workers, while those with the greatest burden of diseases must make do with a much smaller health workforce. The Region of the Americas, which includes Canada and the United States, contains only 10% of the global burden of disease, yet almost 37% of the world's health workers live in this region. In contrast, the African Region suffers more than 24% of the global burden of disease but has access to only 3% of health workers[1]. Vietnam reported on average just over one health service provider per 1,000 people, but this figure hides considerable variation. In fact, 37 of Viet Nam's 61 provinces fall below this national average, while at the other extreme one province counts almost four health service providers per 1,000[9]. While globally under 55% of all people live in urban areas, more than 75% of doctors, over 60% of nurses, and 58% of other health workers also live in urban areas[1].

Table 1: Division-wise HRH under the Directorate General of Health Services and Directorate General of Family Planning as of 2021[10]

Division	Total sanctioned posts	Total filled-in posts	Vacancy in %	Medical Doctors, including Dentists and Traditional and Complimentary Medicine Professionals Vacancy in %	Nursing and Midwifery Professionals Vacancy in %
Barishal	16,942	11,336	33	59	19
Chattogram	39,202	25,517	32	33	42
Dhaka	81,196	55,226	35	34	22
Khulna	24,672	16,576	33	52	18
Mymensingh	15,976	11,749	26	41	18
Rajshahi	28,897	21,238	27	42	12
Rangpur	23,291	16,483	29	50	19
Sylhet	14,536	8,709	40	46	53

Table 2: Division-wise Density of the Health Workforce per 10,000 population in 2019[11]

Division	Qualified and Recognized	Non-qualified/Unrecognized	Total
Barishal	18.85	16.92	35.77
Chattogram	36.72	9.94	46.65
Dhaka	90.01	38.42	128.42
Khulna	31.56	19.28	50.85
Mymensingh	15.56	23.17	38.73
Rajshahi	8	7.34	15.34
Rangpur	28.07	9.62	37.69
Sylhet	11.29	5.35	16.64
Grand Total	33.17	15.83	49.01

3. Skill-mix imbalance

WHO has recommended a ratio of physicians: nurses and midwives: others cadres as 1:3:5[6]. WHO has also identified the index of 4.45 physicians, nurses, midwives, and other categories per 1,000 population[5]. These mean 0.5 physicians, 1.5 nurses and midwives, and 2.45 other HRH are required for every 1,000 population. Bangladesh has 0.61 physicians, 0.56 nurses and midwives, and 1.85 other categories of HRH per 1,000 population[8]. Therefore serious skill-mix imbalance exists in HRH in Bangladesh. One-third of nurses/midwives and three-fourths of other HRH exist than required.

4. Negative work environment

Both shortage and skill-mix imbalance contribute to the negative work environment. Shortage puts an extra workload on those are present, which may continue for a long time. Skill-mix imbalance results in a lack of the right kind of supportive staff. Other factors contributing to the negative work environment include limited supplies of medicines and limited /non-functioning equipment resulting in confrontation with the service seekers. Most of the health workers have limited career progression opportunities. Some also experience complete blocks in career progression. Pressure from the powerful corners (including political, bureaucratic, and others) for providing undue favor - asking to visit their home for service, issuance of false/ grievous injury certificate, breaking the queue of the service, etc. Concerns about security, particularly of female workers also fuel the negative work environment.

5. Weak knowledge base

Table 3: Total number of HRH education institutions over the years in Bangladesh[12]

Education Institutions	2010	2016	2020
Medical Colleges	62	105	113
Dental Colleges	17	35	35
Nursing Colleges	30	64	174
Nursing Institutions (Nursing and Midwifery)	57	157	223
Medical Assistant Training School (MATS)	47	208	209
Institute of Health Technology (IHT)	61	105	110

The very rapid growth of medical, dental, nursing, midwifery, paramedic and medical technologist institutions in both the public and private sectors within a short span of time resulted in a serious shortage of teachers and compromised faculty quality. The scarcity of physical spaces, laboratory facilities, exposure to the patients, and hands-on training are well-documented [13,14,15]. Outdated course curricula with limited duration also contribute to the weak knowledge base. With almost nil provision of any systematic in-service training, the weak knowledge base continues and further deteriorates due to the very aggressive marketing promotion of pharmaceutical companies.

Since the health workforce is the key component of the health system, without mitigating its challenges health system will not be functioning effectively and thus will not achieve universal health coverage. Since Bangladesh has a huge shortage of nurses, midwives, and medical technologists, para-medics attention on an urgent basis needs to produce more with quality. As the country achieved the minimum threshold for physicians, efforts should be targeted to ensure quality of education. For equity and universal health coverage, the mal-distribution issue needs to be tackled by completely reviewing the need for workers with appropriate numbers and clear roles to perform and develop those capacities adequately. Facilities at each level like community clinics, unions, upazila, district, national, and urban areas need thorough reviewing to clearly delineate roles to play with proper staffing to ensure skill mix. A proper working environment needs to be ensured for the HRH at all levels by resolving issues of recruitment, deployment, and promotion. Finally teaching institutes need to overcome their limitations to impart quality education, as only competent HRH will be the vehicle to achieve the desired universal health coverage.

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