Bhore committee reported (1946) health status of the country as indicated by various indicators was poor. One of the indicator is human resources which has a severe shortage in India. Bringing qualified health workers to rural area is a big challenge. Many people receive care from unqualified health providers.

After independence the Government has made substantial effort to develop public health sector facilities e.g., PHC, sub-center, community health centers, district hospitals and tertiary care hospitals at which at which low cost care can be provided. However to establish such network has failed. Though public sector is the main provider of preventive health but 60% admissions are in private sector. Therefore 70% expenditure is out of pocket.

In 1947 only 1.6 doctors per 10,000 population were available and 70% worked in private sector in urban areas. They are allopathic doctors of 5 years training, medical practitioner with 3-4 years training licentiates. Nursing profession was severely neglected. Only 0.23 nurse per 10,000 population was available. Hospitals were largely functioning without trained nurses. Bhore committee had recommended the pay scale, status, working conditions of nurses needed much improvement if women were to be attracted. Government spent very little for training and education of nurses.

In March 1995 the department of Indian system of medicine was established and in 2003 it was renamed as AYUSH and recognized Ayurveda, Yoga, Unani, Siddha, Homeopathy and in 2009 Tibetan system of medicine was also included. Now 3371 hospitals and 22014 dispensaries in public health system provided only AYUSH treatment.

Very little progress was made in improvement of public health system in spite of Bhore committee report and because subsequent report because Government did not allow licentiate practitioner to practice. Only allopathic doctors were permitted to take care of patients. Medical school curricula emphasized only clinical education and practice rather than public health education. Preventive and social medicine was the least popular specialization.

After independence government tried to improve the training of ANM, technicians and community health workers and still it is in the state of neglect. Reason for neglect is establishment of doctor–centric health system. The concept of bare foot doctor which started in 1970 in China does not exist in India.

**Health workforce size**

Based on 2001 census, India had 2.2 million health workers include about 677000 allopathic doctors, 2,00,000 practitioner of Ayurveda, Yoga, and Naturopathy, Unani, Sidha and Homeopaths. India has roughly 20 health workers per 10,000 population. The total health care workforce consists of 33% allopathic doctors, 31% nurses and midwives, 30% pharmacists, 11% practitioners of Ayurveda, unani, yoga and naturopathy doctors, 9% homeopaths and 9% others. National survey census estimates per 10,000 people 3-8 allopath doctors & 2-4
nurses and midwives present. Total number of allopathic doctors, nurses and midwives are 11.9 per 10,000 people, is about half of WHO benchmark of 25.4 worker/10,000. Nurse doctor ratio should be higher because nurse can deliver basic clinical care and public health services at a lower cost than doctors.

**Distribution**

Health workers are unevenly distributed. The number of health worker is about 23 in Chandigarh to 2.5 in Meghalaya. In Goa it is 41.6/10,000, in Kerala 38.4/10,000, Orissa 19.7/10,000 and in Bihar 0.26/10,000 population. The number of health worker in urban area is 42/10,000 and 11.8/10,000 population in rural area. Most health workers (70%) are working in private sectors. Most allopathic doctors (80%) and dentists (90%) are employed in private sector. Even half of nurses and midwives are employed in private sector.

**Medical Education**

India had 19 medical schools from which 1200 doctors graduating every year. Now India has 270 medical school and 28,158 doctors pass out every year. Private medical institution has helped such growth.

Despite the increase in number of graduates, none are attracted to go to rural areas. Students are more likely to seek job in private sector where they can earn more money.

**Nursing Education**

Nursing education has increased rapidly after 2006. There were 271 teaching institutions for auxiliary nurse midwives, 1312 schools offering G.N.M degree and colleges offering around 580 bachelors degree and 77 offering masters degree. Private nursing institutions are also increasing day by day. Corporate sector hospitals also started training nurses to fulfill their staff requirement; various agencies are training nurses and offering job in abroad.

**Recent Initiatives**

Indian government is aware of the additional requirements and shortages in availability of health workers for future. National Rural Health Mission (NRHM) recommended strengthened infrastructure with increase in personnel at every tier of public health system. As per NRHM a district of 1.8 million population should have 400 sub–centres, 50 PHC, 9 community health centres and a district hospital. They have to employ 1450 midwives, 370 medical officer. In a district there are roughly 500 nurses and 100 medical officers in public sector.

Indian Government has called for 41 additional medical colleges and 137 nursing colleges. Government has relaxed norms for private medical colleges to be set up in the district with Government hospital. They have appointed 25-45 years with 8th pass married or widow ladies (ASHA) from the community and appointed to provide care after a short training.

Chhattisgarh and Assam have created a new class of allopath with 3.5 years of medical training to work in rural community. AYUSH doctors work in PHC. Other initiatives are Public – Private partnership.

Realizing that not all doctors officially registered in India are actually practicing here, Union health ministry is set to prepare a comprehensive database of medical practitioners to balance the doctor-patient ratio in the country. According to the Medical Council of India (MCI) there are around 9.29 lakh doctors registered in the Indian Medical Register. The council assumes that around 80 per cent availability of doctors at one time, it is estimated that around 7.4 lakh doctors may be actually available for active service. It gives a doctor-patient ratio of 1:1674 against the WHO norm of 1:1000, when every year around 55,000 doctors and 25,000 PG doctors are graduating from various colleges.

In a meeting of WHO, while addressing the key issues of
migration of doctors from India, Mr Rajeev Sadanandan, Additional Chief Secretary, Department of Health and Family Welfare, Government of Kerala, pointed out that broadly there are two types of factors leading to migration: push and pull factors. He emphasized that apart from monetary benefits, better scope for skill development and improved work environment are amongst other key factors that drive people to seek opportunities outside India. It is, therefore, important that the health sector should work on addressing the range of concerns pertaining to the recruitment and retention policies and processes for health personnel in the state. According to findings of a WHO research study that estimated up to 40% of migration of doctors from the state of Kerala were presented at the meeting.

**Conclusion**

India needs to develop a national human resource policy to train medical and non-medical cadre. India has to move away from the idea that only allopathic doctors deliver primary health services. Also other medical practitioners with 3.5 years training, nurse practitioners, Ayush doctors can take this responsibilities. Appropriate package of monetary and non-monetary initiatives are crucial to encourage qualified health workers. Education and training along with relevant curriculum and teaching learning activities are very important factor to develop human resources in India.

**References**

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