



Contents lists available at ScienceDirect

# Current Medicine Research and Practice

journal homepage: [www.elsevier.com/locate/cmrp](http://www.elsevier.com/locate/cmrp)

## Editorial

### Nursing human resource in India: a concern for decelerating growth



“A universal truth: No health without a workforce.”<sup>1</sup> One of the indicators that determine the health-care delivery depends on the availability of health workforce per thousand of population popularly known as density. A recent study on “global health workforce labor market projections for 2030” predicted that “by 2030, global demand for health workers will rise to 80 million workers, while the supply is expected to reach 65 million over the same period, resulting in a worldwide net shortage of 15 million health workers.”<sup>2</sup> The study remarked that the demand for the health workers will be the highest in upper-middle-income countries. Among the middle-income countries, their demand will exceed the supply. However, contrary to this, low-income countries will face low growth in demand and in supply. In a latest report on “World Health Statistics: 2018: Monitoring health for the SDGs, sustainable development goals” for the period 2007–2016, 76 countries reported having fewer than one physician per thousand population and 87 countries reported having fewer than three nursing and midwifery personnel per thousand population.<sup>3</sup>

The World Health Organization (WHO) has been suggesting thresholds of minimum requirements for health workforce availability in the past.<sup>4</sup> In 2016, the WHO developed “Global strategy on human resources for health: Workforce 2030” for achieving sustainable development goals (SDGs) and suggested a revised threshold of an aggregate density of 4.45 physicians, nurses, and midwives per thousand population based on the SDG index. According to the “National Health Profile 2018” report, in 2017, India had 1.04 million allopathic doctors, 0.25 million dental surgeons; 0.77 million AYUSH doctors (mainly ayurvedic and homeopathy), and 1.98 million registered nurses & midwives, aggregating to more than 4 million, resulting in a density of 3.02 per thousand population with a net shortage of some 1.9 million health workers to meet the SDG requirement. This shortage is likely to further increase in future if an adequate growth rate is not maintained in view of the country's rising population.

India is a developing nation which has to cater to the health requirements of a very large population of more than 1.3 billion people with an expected addition of another 0.2 billion by 2030. Assessing India's health workforce requirements based on the latest WHO guidelines for achieving sustainable development goals (SDGs), India currently requires a minimum of 5.9 million health professionals (physicians/nurses/midwives) and by 2030 will need a minimum of 6.7 million to achieve the threshold density to take care of its projected population of around 1.5 billion people. Based on the projected population, our calculations suggest that a minimum compound annual growth rate (CAGR) of 3.02% will be required to chase the said threshold by 2030. This demands meticulous planning for developing the requisite human resources and

educational infrastructure facilities as well. The country has to critically assess the actual vis-a-vis projected demand and supply of health professionals.

India currently has a physician–qualified nurse ratio of almost 1:1. This ratio is very low than the international level of 1:3. To some extent, India manages this shortage in the nursing force with an additional 0.92 million of semiskilled nurses (auxiliary nurse midwives [ANMs] and lady health visitors [LHVs]). Although ANMs play a crucial role in providing services pertaining to maternal and child health in India, they cannot replace registered nurses who are technically more qualified and can perform diverse and specialized tasks required for modern nursing. The role of LHVs is limited and is different from a qualified nurse. Technically speaking, registered nurses (RNs) & registered midwives (RMs) are the qualified and trained nursing force and counted globally for assessing the required nursing workforce in the health sector. As far as the growth in the total nursing force (skilled/semiskilled) is concerned, during the last 18 years (2000–2017), the said health force increased almost two and a half times from 1.22 million to 2.96 million. However, the availability of this nursing workforce increased from 1.16 to 2.21 per thousand population. In other words, India could add almost one nurse (skilled/semiskilled) per thousand population over a period of two decades. The growth in the number of qualified nurses (RNs & RMs) has been disappointing as India has been able to add less than one nurse (0.79) per thousand population. Furthermore, the growth in India's nursing human resource has already begun experiencing a decline as evidenced by the decelerating growth in recent years (Figure-1 & 2). This decelerating growth raises several questions regarding how India will be able to sustain in providing quality nursing care to its rising population if this trend is not checked.

Several reasons have been attributed to the shortage in the nursing workforce such as the large-scale migration to developed countries or the Middle East countries for better opportunities, a low recruitment, lack of career progression, poor wages and working conditions in the unregulated private sector, low professional and socioeconomic status, lack of recognition and autonomy, and low keenness among the youth to opt for this profession. Some concrete action has been taken in the past by the central and various state governments to improve their salary structure and working conditions, but such improvement remains absent, especially in the unorganized private sector.

There are a number of different reports that have highlighted the shortage of nurses in India. IndiaSpend,<sup>5</sup> based on data from the Indian Nursing Council (INC) and the WHO, reported a shortage of 1.94 million nurses in 2017. The findings of the study were that the acute shortage was primarily due to low recruitment, migration,

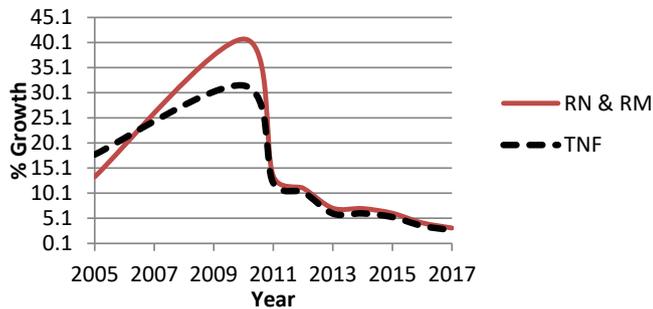


Fig. 1. Year-wise percent growth in the nursing force. RN & RM: registered nurses and registered midwives; TNF: total nursing force.

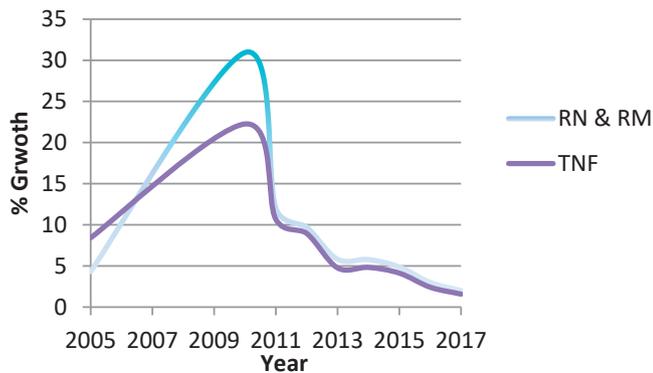


Fig. 2. Year-wise percent growth in the availability of nursing force per 1000 population (density). RN & RM: registered nurses and registered midwives; TNF: total nursing force. Data source: Snapshots, Indian Nursing Council, October 2018.

attrition, and dropouts due to poor working conditions. The Federation of Indian Chambers of Commerce and Industry (FICCI) report published in the year 2016 emphasized the need for 2.4 million nurses to meet the growing demand. A news article published in March 2018 in “The Hindu Business Line” reported a shortage of 4 million of nurses.<sup>6</sup> The article further writes that nursing is a dying profession in India, and this is because of the lack of career progression. The “Indian Express” newspaper while discussing the poor conditions for nurses who are “Angels on Earth” says that “nurses share several stories of their saving the patients’ lives. However, they feel that their contributions in patient care were not valued. It is true that the name of doctors who participated in important events, for example, the first heart surgery or such historical occasion, are known to everyone, but the nurse who was part of that event is never mentioned even in the records.”<sup>7</sup>

It is not India alone which is compromising with the health delivery system on account of this undesirable shortage. Many countries around the world also face an acute scarcity of this vital component of health force. Chile in South America has perhaps the lowest ratio of 1.4 nurses per 10,000 population, whereas Mozambique has 2 per 10,000. Some of the developed countries also have similar problems because of financial constraints.<sup>8</sup> Shortage in nursing staff generally leads to heavy workloads, a deterioration in quality, and ultimately job dissatisfaction. A recent study has shown that hospitals with a higher ratio of nurses to patients have lower mortality rates,<sup>9</sup> and a report published by the Joint Commission on Accreditation of Healthcare Organizations indicated that even in the USA, inadequate nurse staffing led to the occurrence of 24% of the cases involving patient death, injury, or permanent loss of function.

India has made a remarkable growth in the development of educational nursing institutions since 2000 when it had only 623, and by 2018, this number grew 14 times to 8770 with a total admission capacity of more than 0.32 million students.<sup>10</sup> It has the potential to check the falling growth by generating the requisite human resource in partnership with the private sector which has a major share compared with the public sector. India is emerging as a hub for medical tourism from neighboring countries and consequently will require additional nurses to take care of the expected load. To stay globally competitive and to harness this potential requires bringing a quantitative and qualitative change in the nursing sector. The INC’s recent policy decision to wind up the General Nursing and Midwifery (GNM) program and its upgradation to the BSc level is a welcome step in this endeavor.

The way forward to deliver qualitative health care delivery will not be a stress-free journey for India. The decelerating growth of the number of nurses is a concern and needs a thorough system analysis to identify the factors leading to this slow down and to assess the future demand vis-a-vis the WHO’s suggested minimum requirements to meet the SDGs. The issues related to the nursing human resource – if not addressed now – will, in the future, have serious implications for the health of millions of people across the country.

#### Conflict of interest

None.

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17 June 2019

Available online 5 July 2019