

Updates on Evidence Based Practices



An update on the human resources of Ministry of Health, Nutrition & Indigenous Medicine, Sri Lanka

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The health workforce can be defined as “all people engaged in actions whose primary intent is to enhance health”. Within many health care systems worldwide, increased attention is being focused on human resource management (HRM). Over the years, human resource has been recognized as the key health system input, perhaps more important than the other two major inputs, namely physical capital and consumables.

In 2016, the 69th World Health Assembly formally adopted the *Global Strategy on Human Resources for Health: Workforce 2030*, which envisaged accelerated progress towards Universal Health Coverage (UHC) and the UN Sustainable Development Goals (SDGs) by ensuring equitable access to health workers within strengthened health systems (1). Human resource in health care deals with different kinds of clinical and non-clinical staff responsible for public and individual health interventions. Undoubtedly, the most important of the health system inputs, the performance and benefits the system can deliver, depend largely upon the knowledge, competencies, attitudes and motivation of those individuals responsible for delivering health services. Human factor in healthcare is a key variable that can be managed for significant improvements in healthcare delivery effectiveness. However, the absence of a clear organizational provision for the management of human resource in the Ministry of Health, Nutrition & Indigenous Medicine, Sri Lanka (MoH Sri Lanka) is indicative of the gaps that needed early attention.

At present, key management functions of these human resources (HR), namely HR planning, recruitment services, training and development, service

administration such as administration of salary structures, service minutes, transfers, discipline, performance appraisals etc., are performed by a divergent group of divisions coming under six different deputy director generals of health services (DDGHS) within the Department of Health in the MoH Sri Lanka.

Growth of health workforce in the MoH Sri Lanka

In terms of size, given by budget and employment, the MoH Sri Lanka as an organization in the public sector tops the list in 2017, with a budget over Rs. 170 billion and a cadre of nearly 128,000 (both in line ministry and in provincial health ministries) belonging to 327 different categories. It ranks second to the Ministry of Defence in terms of budget and employment, and to the Ministry of Education in terms of employment. Over the past years, what had been spent on compensation (wages and personal emoluments) of employees accounted for nearly 50% of the recurrent budget (2). The current situation with regard to human resource management is such that systems are not in place to measure expenditure on employee categories and ascertain their contributions or productivity of employees, which is a fundamental requirement of sound management.

Public employment in healthcare has recorded very significant improvements over the decades. A comparison of 1990 and 2014 (according to the data available) is shown in Table 1. Principal professional

Table: 1 Composition of healthcare service personnel 1900-2014

Job category	1990 (Rate) ¹	2014 (Rate) ¹	Change as %
Medical officers	2,440 (15.5)	17,615 (84.8)	722%
Dental surgeons	317 (2.0)	1,360 (6.5)	429%
Registered medical officers	1,074 (6.8)	999 (4.8)	7%
Nursing officers	3,957 (57.1)	38,451 (185.1)	972%
Public health nursing sisters	140 (0.9)	277 (1.3)	1.98%
Public health inspectors	886 (5.6)	1,526 (7.3)	72%
Public health midwives	3,321 (21.2)	5,854 (28.7)	76%
Hospital midwives	1,638 (10.4)	2,888 (13.9)	76%
Total	13,773 (76.5)	68,970 (345)	500%

¹Rate given within brackets (number per 100,000 population)

Source: Ministry of Health, Nutrition & Indigenous Medicine (2016). *National Health Bulletin 2014*

categories such as medical officers (over seven-fold increase), dental surgeons (over four-fold increase) and nurses (nearly ten-fold increase) have increased dramatically with an overall change of five-fold growth over the 15 years, suggesting the urgent need for establishment of new mechanisms to manage human resources.

Health workforce dynamics

According to the MoH Sri Lanka published data (2016), Sri Lanka had 18,893 doctors, 1433 dental surgeons, 883 assistant medical officers, 42,556 nurses (including trainees), 277 public health nursing sisters and 8,612 public health midwives (3), leading to a total of 72,654. This gives a ratio of 3.56 physicians, nurses and midwives for 1000 population in the MoH Sri Lanka. As reported by De Silva (4), there are around 3000 full-time doctors in the private sector, defence and the university system, further improving the above ratio to 3.7 for 1000. Also, it is worth to note that there are very few midwives and qualified nurses in the private sector. However, as per World Health Organization (WHO), there should be 4.45 physicians, nurses and midwives per 1000 population for 25% achievement of a composite SDG index consisting of 12 tracer indicators for UHC (1). This WHO threshold suggests that Sri Lanka requires a total of at least 91,000 physicians, nurses and midwives. Therefore, currently there is a shortage of these three categories amounting to around 18,000 for Sri Lanka.

It is estimated that each year on average, the MoH Sri Lanka recruits about 1300 medical officers and dental surgeons, 275 medical specialists, 2500-3000 nurses and around 900 paramedical staff into the system (4). This adds up to about 4900 more physicians, nurses and midwives a year. Accounting for the retirement and attrition, it would be stated that the above short fall would be filled within 5-6 years, achieving the WHO recommended ratio.

Scientific cadre projections for health workforce

Until 2016, there was no published scientific mechanism or a tool available to the Ministry of Health to ascertain the number of doctors and medical specialists the country needed. The author developed system dynamic models to analyse the country requirement of doctors and medical specialists and were published as research articles in 2017 (4-5). As a result, a report titled 'Cadre Projections of Medical Specialists 2016-2025' was forwarded to the Postgraduate Institute of Medicine (PGIM) for its perusal and implementation. PGIM after a thorough study has decided to accept the report findings in principle and already some of the suggestions are implemented.

In the Sri Lankan context, workforce dynamics becomes more complicated as the state sector employed doctors are allowed to be engaged in private

practice after hospital working hours. This includes MoH Sri Lanka employed doctors and those in the academia and in the Ministry of Defence. Sample studies indicated that around 60% of the state sector employed medical officers and 90% consultants availed this privilege (4).

Further confounding the workforce dynamics is the attrition from service and retirement. A majority of those who left or retired from the state employment joined the private sector either as part time or full time medical practitioners or consultants as the case may be, and worked until they reach around 70 years.

The output of medical graduates from state medical faculties under the University Grants Commission has been rather stagnated over the last few years. All eight state faculties together have produced around 1100-1200 during the years of 2015 and 2016 (6).

There is a substantial increase in the number of Sri Lankan students studying medicine abroad. The foreign medical graduates are required to pass a licensing examination (Examination for Registration to Practice Medicine-ERPM) conducted by the Sri Lanka Medical Council before they are granted full registration to practise medicine in Sri Lanka. As for the recent analysis carried out by the author, it was evident that the number of candidates completing the ERPM has doubled, from just over 100 in 2010 and 2011 to an average of more than 200 per year during 2014-2017. Therefore, foreign medical graduates now comprise about 15% of new entrants to the medical workforce. Furthermore, the model analysis shows that based on estimates of students currently studying medicine overseas, the number of foreign graduates will rise to approximately 500 by 2023 (4).

The domestic production of medical graduates is also set to rise substantially by about 150-175 graduates a year from the now-defunct South Asian Institute of Technology and Medicine (SAITM) and General Sir John Kotelawala Defence University. The currently abolished SAITM had about 900 registered students (4). Further, the Government has already established two new medical faculties at Kuliypitiya (Wayamba University of Sri Lanka) and at Ratnapura (Sabaragamuwa University of Sri Lanka). Another medical faculty is planned for University of Moratuwa from 2019. Therefore, it is estimated that another 150-200

from these three new state medical faculties will enter the health workforce, 6-7 years hence. Therefore, there is a possibility that there will be an over-supply of medical graduates in Sri Lanka by 2027 (4).

The training of nurses for employment in the MoH Sri Lanka, including post-basic training is conducted in 18 Nurse Training Schools (NTS) run by the same ministry. Basic programme is of three years duration.

Training for the five professions supplementary to medicine (PSM) categories: radiographers, medical laboratory technologists (MLTs), physiotherapists, occupational therapists and pharmacists consists of a basic course of two years in the relevant training schools administered by the MoH Sri Lanka. During the training period, all trainees are paid a monthly allowance of around Rs. 23,000. Therefore, per capita cost of training is relative high. For an example, per capita annual cost of a nursing student is higher than that of a medical student in a state faculty (7). Recruitment for training for the five categories is based on currently vacant cadres at national and provincial levels and not on projected future requirements. It has contributed to the shortage of these categories in the entire system. The MoH Sri Lanka is in the process of changing the scheme of recruitment in consultation with the Public Service Commission, enabling the Ministry to do the recruitment according to the country needs subject to training capacity limitations.

The MoH Sri Lanka is working towards having a stock of health workforce in the entire country; both in state and private sectors by adopting National Health Workforce Accounts (NHWA). These accounts is an approach developed by the WHO to support member states in their effort to implement the recommendations made in the global Strategy, particularly those regarding the strengthening of country-level HRH data systems (8).

Birth of an HR Coordinating Division in the Ministry of Health

The Cabinet of Ministers in 2016 appointed an Expert Committee assigned with the task of studying and recommending ways of improving human resource management in the healthcare system; including the establishment of an HR Coordination Division at the MoH Sri Lanka.

The Expert Committee after a thorough analysis of the existing system, having recognized the importance and relevance of HR strategy objectives and basic principles of HR policy, planning and development, recommended the establishment of HR Coordinating Division, headed by a person qualified and competent in healthcare and human resource functions, and supported by five consulting units within the Division. Location of the HR Coordinating Division as a “staff function” in the organizational context of Secretary of Health and Directorate General of Health Services (DGHS) interface, where the Head of the Division reports to the Secretary while consulting the DGHS on relevant issues (9). This Committee Report was accepted by the Cabinet of Ministers, thus giving birth to an HR Coordinating Unit in the MoH Sri Lanka in 2017, fulfilling a long-felt need.

References

1. WHO. *Global Strategy on Human Resources for Health: Workforce 2030*. Geneva: World Health Organization, 2016.
2. Health Economics Cell. *Sri Lanka National Health Account 2013*. Colombo: Ministry of Health, Nutrition & Indigenous Medicine, 2016.
3. Medical Statistics Unit. *Annual Health Statistics 2016*. Colombo: MSU, 2018.
4. De Silva D. How many doctors should we train for Sri Lanka? System dynamics modelling of training needs. *Ceylon Medical Journal* 2017; 62(4): 233-237. Available from: <http://doi.org/10.4038/cmj.v62i4.8573>
5. MDK De Silva. How many medical specialists do Ministry of Health - Sri Lanka need by 2025: use of system dynamics modelling for policy decisions? *Ceylon Medical Journal* 2017; 62: 141-148.
6. UGC. *Sri Lanka University Statistics 2016*. Colombo: University Grants Commission, 2018.
7. GSP Ranasinghe (unpublished). *Report on Case Study on Cost Incurred per Nursing Student for Training in Nursing Training School Colombo*. Medical Administration, Post Graduate Institute of Medicine, 2017.
8. WHO. *National Health Workforce Accounts: a Handbook*. Geneva: World Health Organization, 2017.
9. Ministry of Health. *Expert Committee Report on Establishing a HR Coordinating Division in the Ministry of Health, Nutrition & Indigenous Medicine 2016*.