SRI LANKA
Community-based workforce development for maternal and child health
Acknowledgements

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Background

Sri Lanka, an island in the Indian Ocean with a population of 21.2 million in 2016, gained independence in 1948, which catalysed a period of development that was complicated by a 30-year civil war that ended in 2009 (3). Sri Lanka emerged as a lower-middle-income country in 2014 and, for several years, it has outperformed many other countries in the World Health Organization (WHO) South-East Asian Region in health outcomes, including life expectancy, and under-5 and maternal mortality (2–4).

More than 50 years before the 1978 Declaration of Alma-Ata (1), Sri Lanka made a commitment to provide primary health care (PHC) to its citizens. The country did this by creating a system that aims to provide integrated, affordable and person-centred health care (2,3). Having recognized the need for comprehensive care as well as expanded financial and geographical access, Sri Lanka prioritized community health through improved infrastructure and innovations in care delivery.
Early commitment to person-centred PHC

In response to high rates of maternal and child mortality, and inequitable access to services in rural and semirural areas at the beginning of the 20th century, Sri Lankan public health experts and the Rockefeller Foundation initiated the Health Unit Program in 1926. This programme was designed to expand PHC and address key population needs throughout Sri Lanka (3). It specifically addressed the most significant health problems at the time, was adaptable to local conditions, and encouraged citizens to be active stakeholders in their health care (3, 5).

An integral component of Sri Lanka’s early PHC successes was the development of cadres of community-based providers. From 1926 to 1985, the two community-based nursing cadres were public health nurses (PHNs) and public health midwives (PHMs). PHNs underwent 3 years of schooling and training followed by 1 year of PHC-specific work in maternal and child welfare, diagnosis and management of common conditions (6). PHNs’ responsibilities included providing antenatal care in the field and school-based health, and supervising PHMs (7). PHMs underwent an 18-month midwifery-focused training curriculum that included the completion of at least 20 deliveries (8). They worked in the community and provided health education to mothers and their families, prepared women for delivery, assisted with home deliveries (including referrals for complications when needed) and provided early postnatal care. Positions were salaried and initially included additional incentives, such as one for the uptake of family planning in communities, although these incentives were later dropped (7). Overall, PHMs were and continue to be an accepted and trusted source of care to the communities they serve (9).

Although health units have existed since the 1920s, more recently, they have been made more robust, with each one covering a geographical catchment of 60,000 individuals. The health units are staffed by a multidisciplinary team including PHMs, PHNs – now called public health nursing sisters (PHNS) – and public health inspectors, led by a medical officer of health. Together, the teams provide a range of preventive and promotive services, supported financially by Sri Lanka’s commitment to free antenatal care (3).
Programme expansion and continued commitment to improve population health through PHC

Motivated by an evaluation during the malaria epidemic of the 1930s, which showed better outcomes in areas with health units, the Health Unit Program expanded its coverage in 1948 to span the entire island (3,5). The Health Unit Program also made changes to service delivery and monitoring. For example, in 1978, Sri Lanka strengthened the health unit monitoring and evaluation system by shifting from a basic supervisory system to one that included enhanced tracking and reviews of PHMs by PHNs. In this new supervisory system, reviews focused specifically on service delivery and field plans (9). In 1985, the PHN cadre evolved to become PHNSs. This transition included expansion of their catchment to 60,000 individuals; it also added the responsibilities of assisting the medical officer of health in antenatal care and family planning clinics. To ease this transition of responsibilities, PHMs took over some of the responsibilities previously held by PHNs, including registering pregnant women and administering vaccinations. Both cadres continue to provide care in 2018. Over time, the Health Unit Program has expanded across the island, from 63 units in the 1920s to 341 in recent years. However, recruiting sufficient community-based personnel remains an obstacle, with just 1.3 PHNSs and 29.5 PHMs per 100,000 population in 2016 (2,3,11).

At the same time as undertaking these multifaceted efforts to strengthen health service delivery (particularly for maternal and child health), Sri Lanka has addressed key social determinants of health – specifically, access to free education, empowerment of women, and improved food and living conditions. The government introduced interventions to improve water and sanitation in 1926, free education in the late 1940s and targeted food subsidies in 1948 (3,5). Direct health-related improvements over this time included increased health literacy, uptake of healthy behaviours such as vaccinations and hospital deliveries, and better control of epidemics (3). Many of these policies focused on expanding and developing female empowerment and autonomy to make health care decisions.
Impact

Sri Lanka’s early and sustained commitment to providing PHC for all, coupled with a strong focus on community-based engagement and care, has resulted in impressive outcomes even in the face of conflict. The work of the PHMs, PHNs and PHNSs means that most deliveries (99.5%) occur with a skilled birth attendant at a facility, and almost all children (99.1%) receive their childhood vaccinations (3,11). Maternal mortality decreased from 75 deaths per 100 000 live births in 1990 to 30/100 000 in 2015 (12,19). During the same period, infant mortality declined from 22 deaths per 1000 live births to 8.4/1000 in 2014 (11). Accompanying these declines in mortality, increased attention to public health has resulted in Sri Lanka being certified as free from a number of communicable diseases including malaria, polio, neonatal tetanus and measles.
Recent challenges

Similar to many other lower-middle-income countries, Sri Lanka is undergoing an epidemiological transition, experiencing a rise in noncommunicable diseases (NCDs), a rapidly ageing population, changing societal expectations of health care and urbanization (3, 13). As of 2012, 65% of deaths were attributable to NCDs – in particular, cardiovascular disease, cancer, diabetes and respiratory conditions (14). In addition, following the significant gains made in maternal and child health, there has been a plateau in the rates of decline over the past 10 years.

Despite a growing number of providers, it is still a challenge to ensure adequate and equitable human resources for health across the country. A decline in the number of PHNSs and difficulties in ensuring adequate staffing in rural areas has resulted in gaps in service capacity. In turn, this has led to challenges in providing consistent quality of care, resulting in disparate health outcomes (3). Additionally, only 11% of people employed in the health sector work in preventive services, while the remaining 89% are employed in the curative care sector, exacerbating the human resources need in PHC (15). Sri Lanka also lacks a gatekeeping system for curative care, which has led to people bypassing PHC services and lower level hospitals, and thus has caused overcrowding at secondary and tertiary facilities, and increased costs (3, 13, 15). This increased burden on more expensive facilities, combined with geographical inequity and the rising demands due to NCDs, has challenged the national goals of maintaining an equitable and free health care system. Finally, although preventive primary care is funded by the state, regional and local governments, in 2013, 23% of spending went towards preventive primary care while 38% and 26% was spent on secondary and tertiary care, respectively (16).
The way forward

Sri Lanka remains committed to PHC, but there is a need to restructure services to be able to meet the growing and changing demands of the population. For example, there is an acute need to integrate NCD, geriatric, palliative, rehabilitative and mental health care into existing PHC services while maintaining or improving gains made in maternal and child health. PHNs and PHMs have already started taking on additional NCD-related tasks, and this strategy could be expanded so they can provide more comprehensive NCD treatment and prevention. In 2011, Sri Lanka created Healthy Lifestyle Centers, which provide screening services for NCDs, education on healthy lifestyle changes, and expanded staff training in mental health (13,14). Additionally, there are plans to establish a PHC “shared cluster system” (2,3,19,20), which would reorganize the PHC system into geographical catchments or panels. Each catchment would have a specialist institution that helps to support a comprehensive care package to address NCD management, geriatric care and palliative care, as well as curative, preventive and promotive care, with a strong patient-centred focus. Throughout Sri Lanka’s history, the government has demonstrated a commitment to PHC, and sustaining this vision will be crucial as the country continues to reach its goals of providing health care for all.
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