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Reducing maternal deaths in Sri Lanka: radical changes are needed

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Improving Sri Lanka's Maternal Mortality Rate: radical changes are needed

Maternal death is the ultimate tragedy in healthcare. Those who die are otherwise healthy young women in the prime of their lives and most of these deaths can be prevented with simple interventions [1]. It is said that a maternal death affects three generations, but the effects go beyond these, affecting nations [2] However, the main reason to prevent a maternal death is its moral imperative [3]. A country's maternal mortality rate is considered a reflection of the quality of its healthcare system and socioeconomic determinants such as poverty, illiteracy and the status of women [4].

Sri Lanka has been held out as a model for maternal healthcare delivery in developing countries, being described as a paradox [5]. The maternal mortality rate (MMR) in Sri Lanka fell from 62 to 33.4 per 100000 live births between the years 1997 and 2008. However, from then on, the rate has hovered around 32 per 100000 live births for a decade. In 2019 and 2020, the rate was 29.2 and 29.5 respectively. A significant decline in the rate has not been shown since 2008.

A closer perusal of the data shows that direct causes have consistently accounted for nearly half of the deaths. More importantly, obstetric haemorrhage, which is considered an eminently preventable cause of death was the leading cause in 2016, 2018 and 2020. In Sri Lanka, 99.5% of deliveries will have skilled attendance [6] and the vast majority will deliver in a hospital that has the services of a specialist obstetrician. In 2021, nearly 91% did so. It could be argued that the predominance of obstetric haemorrhage as a cause of maternal death is unacceptable in a country with such a high institutional delivery rate. It is a reason for alarm and raises questions about the quality of maternal care in Sri Lanka.

Maternal healthcare in Sri Lanka is delivered via two arms, the Field Service and the Institutional arm. The Field Service reports to the Family Health Bureau (FHB) while the hospitals report to their respective Regional Directors of Health Services.

Judging by statistics, the Field Service appears to produce outstanding results. In 2021, 93.6% of mothers were booked with the system before they had completed the 12th week of pregnancy. The average for home visits by a Family Health Officer (FHO) during the first 10 postnatal days of birth was 1.8, with at least one such visit being received by 84.6% of mothers [6].

A salient feature of the Field Service is that it has key performance indicators (KPIs) that are monitored by the FHB, which ensures that the service is kept under surveillance and corrective actions are taken where needed.

In the Institutional System, care is delivered via consultant-led units. Sri Lankan consultants undergo a five-year supervised training period including a mandatory year in a foreign country, usually in the UK or Australia. A hospital may have one to five consultant units. Those with one consultant unit are currently being phased out. Management policies followed in a unit are decided by the consultant in charge and even within a hospital, policies may differ between units. For example, in a hospital that has five consultant units, management policies for common conditions may be unique to each of them. Many of the units will have their labour ward, rather than one that is common to all units in the facility. Common labour wards will offer the advantage of optimal utilisation of resources and therefore, better focused care.

Statistics from the Institutional Sector show reasons for great concern. The latest cesarean section (CS) rate for Sri Lanka (2021) at the population level is 43.1%, with seven Health Service Regions having rates above 48%, (Health Statistics Unit, Family Health Bureau, unpublished data). This means that in these regions, almost every other baby will be born by CS. Sri Lanka has also been shown to have a high rate of induction of labour (IOL) as well. Contrary to data from developed countries, Sri Lankan data shows that IOL increases the odds of cesarean birth [7, 8]. High CS rates will self-propagate a further increase of the rate in the medium and long term. Further, the contribution of CS to maternal mortality is well recognised. Regional variations of CS rates in Sri Lanka further indicate inconsistencies in the quality of care. High CS and IOL rates will also result in higher healthcare costs, an aspect that is not taken into consideration in Sri Lanka.

Unlike in the Field Service, the Institutional arm does not have any KPIs. The absence of performance indicators may be a major weakness of the Institutional Service, and may well account for some of the above-mentioned quality indicators. There are examples of tools for monitoring the quality of maternal care delivery from other countries, including dashboards [9].

Access to care has been considered one of the strengths of the Sri Lankan healthcare system. However, there are indicators of inequality and inequity in access to care. The estate sector consistently contributes disproportionately to maternal deaths due to cardiac disease. Women who become pregnant out of wedlock and carry 'socially stigmatised' pregnancies also contribute disproportionately due to the consequences of concealed pregnancies and unsafe abortion. This indicates poor access to contraception by such women. Family planning advice must be provided to all women beyond a chosen cut-off (e.g. all school leavers and above) irrespective of their civil status. A more tolerant, non-judgemental service in contraception and pregnancy care is needed for this group of women.

Other aspects of care delivery also show reasons for great concern. Respectful maternity care is a byword in modern obstetrics. It refers to care delivered to all women in a manner that maintains their dignity, privacy and confidentiality, ensures their freedom from harm and mistreatment and enables informed choice and continuous support during labour and childbirth [10]. The presence of a birth companion for continuous support is one of the pillars of this concept. The benefits of having a labour companion go far beyond psychological comforts. Global and local data show that it reduces the length of labour, the need for analgesics and the need for an operative delivery including cesarean section [11, 12].

In the context of Sri Lanka, the mere presence of a labour companion will go a long way towards protecting the dignity of a labouring mother and result in more sensitive and respectful care. Further, the tendency of this intervention to reduce the need for cesarean section will be very relevant. Unfortunately, the attitudes of care providers are the main obstacle to its greater utilisation, which has been referred to as one of the most cost-effective interventions [13, 14]. In 2017, the Ministry of Health issued a circular (General Circular 2017/03) encouraging the utilisation of a labour companion. In a country where in the private sector, allowing a companion during labour and the presence of the husband at cesarean section is the norm, the paucity of government hospitals that allow a labour companion represents a huge gulf in equity in care provision. It is a reflection of where the Sri Lankan service stands compared to modern standards of obstetric care. Studies demonstrate mistreatment during childbirth in Sri Lanka [15, 16].

Could the virtually static maternal mortality rate of Sri Lanka mean that the potential of the current system of care delivery has reached its potential and that new strategies will need to be explored if we are to improve? The core structure of healthcare delivery in Sri Lanka has not seen a fundamental change since the 1950s. For example, consultants in the state sector are contracted to be present on-site only for six hours on weekdays (8 am-12 noon and 2-4 pm and for four hours on Saturdays (8 am-12 noon). This means that even in a hospital with five consultants, the benefit of direct involvement of a consultant in care will not be available to labouring mothers for eighteen hours of the day unless one is summoned to attend to an emergency. During weekends and holidays, exposure to a consultant will be even lesser.

Increasing exposure of labouring mothers to a consultant would be essential if we are to improve the institutional service. A safer, more efficient service could be provided by having common labour suites with consultants rostered to provide more direct contact and supervision. These changes will represent a major shift in

the paradigm of care provision in Sri Lanka. It is pertinent to remember that the World Health Organisation has recognised that improving the quality of care around the time of birth is the most impactful strategy for reducing stillbirth, and maternal and newborn deaths [10]. Increasing direct contact with a consultant will have resource requirements that can be achieved by amalgamating or expanding facilities. The previous policy of establishing facilities focusing on geographic spread alone could be sacrificed safely in the present context, due to the availability of an efficient countrywide ambulance service.

At the central level, there seems to be weak leadership, resulting in a lack of accountability, which seems to be a major deficiency in the way maternal healthcare is being delivered currently. Instances of neglect and failure to follow guidelines leading to maternal deaths are hardly ever acted upon. No attempt is being made to address the obvious indicators of poor quality of care and to enforce accountability, which is a vital part of good governance not only in healthcare but in any field. The centre must play a lead role to enforce minimum standards and be responsive. For example, the centre has a responsibility to investigate and apply remedial measures in facilities that have a high CS rate. Sri Lanka has a robust health information system that can be used to monitor quality.

Sri Lanka has a maternal death review system that has received international recognition [17]. Recently this too has faced setbacks. The maternal mortality rate for 2021 is still not available. It is noteworthy that the Sri Lankan maternal death review process continued unabated even during the North-East conflict.

A new modality of review called "Immediate Response to Maternal Deaths" was initiated in 2018. The obstetric team and senior officials of the Ministry of Health discussed selected deaths at face-to-face meetings. This has been abandoned now.

Most Sri Lankan healthcare workers have hardly any opportunities for in-service training in any form. A recent review of maternal deaths showed a multitude of shortcomings in the management of obstetric emergencies, including failure to recognise the severity of blood loss and volume deficit, and potentially lethal mistakes in the administration of antihypertensives (Senanayake H, Unpublished data). There is evidence that training in EmOC will make a difference in the practices of care providers (18). In 2016, the Ministry of Health procured a program for training in emergency obstetric care (EmOC) at a great cost. This was used in regular trainings, but since the beginning of the pandemic, none have been held. Establishing regional centres for EmOC will be the way forward.

In conclusion, it is time to question if Sri Lanka's static maternal mortality rate is an indication that the current system of care delivery has reached its potential. Will new paradigms need to be explored? Investment in the management of labour has been shown to bring the best rewards. Mechanisms to ensure the best possible care for labouring mothers including increasing direct contact with consultants must be explored. While the Field Service is performing exceptionally well, the lack of KPIs and accountability in the Institutional Sector may be responsible for a host of suboptimal quality indicators. The lack of training in EmOC is a major weakness in the system.

The Ministry of Health is responsible for ensuring that Sri Lankan mothers will receive evidence-based, equitable and respectful care. It needs to be more responsive when a facility is producing suboptimal statistics.

Unless radical changes are instituted, it is likely that the MMR of Sri Lanka will remain static, as it has done for the past decade. The country is uniquely positioned to produce far better maternal mortality rates, considering the terrain, well-established health and non-health infrastructure, and literate population among a host of other advantages. Despite these, the once exalted position Sri Lanka enjoyed regarding maternal care is eroding, with other Asian countries in less advantageous positions making vast strides with focused interventions and passionate commitment.

If we are to improve, stakeholders must first decide whether they want to keep harping on past achievements or if the time has come to take the issue of reducing maternal mortality seriously.

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