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Caesarean Section Provision and Capacity in Health Facilities in Tanzania

Key Findings

Caesarean Provision

- The national caesarean rate in Tanzania increased from 2% in 1996 to 6% in 2015-16 (3x increase). Over the same period, the absolute number of caesareans performed increased from 26,000/year to 118,000/year (5x increase).
- The majority of caesareans in Tanzania in 2014-15 were performed in public hospitals (65%) and faith-based organisation (FBO) hospitals (26%). Private facilities and health centres of all sectors together perform fewer than 10% of caesareans (Figure 1).
- The caesarean increase was primarily due to a doubling of the caesarean volume in public hospitals, from an average of 17 caesareans per month in 2006 to 35 in 2014-15. The estimated number of health facilities performing caesareans in Tanzania increased only slightly, from 278 in 2006 to 318 in 2014-15.

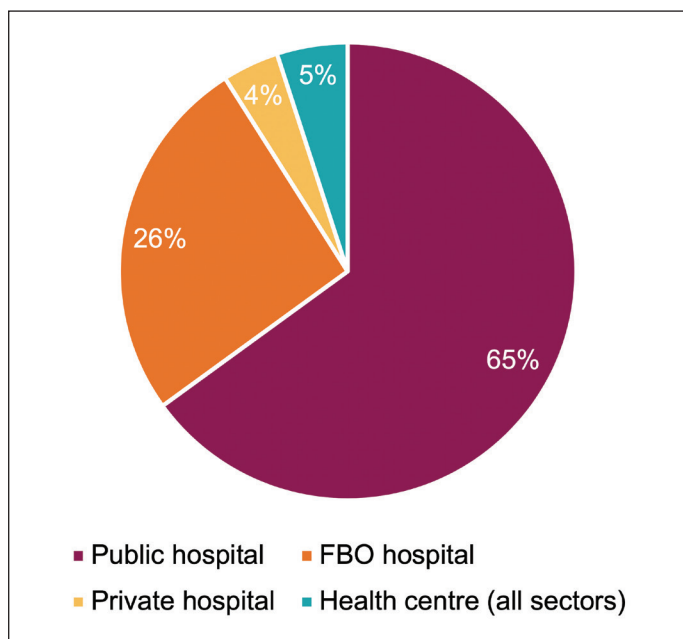


Figure 1: Where are caesareans performed in Tanzania? (Service Provision Assessment [SPA] 2014-15)

Capacity of Health Facilities to Provide Safe Caesarean Care

- Consistent electricity is widely available in facilities performing caesareans (98%). However, 24-hour caesarean

and anaesthesia providers are less often available (74%), especially in the Northern Zone and Zanzibar. **Only 44% of facilities performing caesareans had all of the required equipment for general anaesthesia** (Figure 2).

	Health facilities	Caesareans performed in facilities meeting indicator
Consistent electricity available	98%	99%
Caesarean and anaesthesia providers available 24 hours	74%	91%
All general anaesthesia equipment available	44%	46%
All three indicators available	34%	43%

Figure 2: Three readiness indicators in facilities performing caesareans in Tanzania (SPA 2014-15)

- Overall, **only one-third of facilities performing caesareans met all three readiness indicators** (consistent electricity, 24-hour providers, and all general anaesthesia equipment). These facilities account for less than half (43%) of all caesareans performed in Tanzania.
- The **Southern and Western Zones had the lowest availability** of the three readiness indicators (Figure 3).

Recommendations

1. Improve availability of anaesthesia equipment and providers.

There is an urgent need to improve the availability of general anaesthesia equipment and trained anaesthesia providers to guarantee safe anaesthesia procedures. Equipment improvements are especially critical in public hospitals, where availability is particularly low (34%) and where two-thirds of all caesareans in Tanzania are performed. Even hospitals performing caesareans under spinal anaesthesia should have general anaesthesia capabilities available in case of complications. Additional anaesthesia providers should be trained and deployed to all facilities performing surgery nationwide (they were particularly lacking in the Northern Zone and Zanzibar), and existing staff should receive refresher trainings to improve their skills.

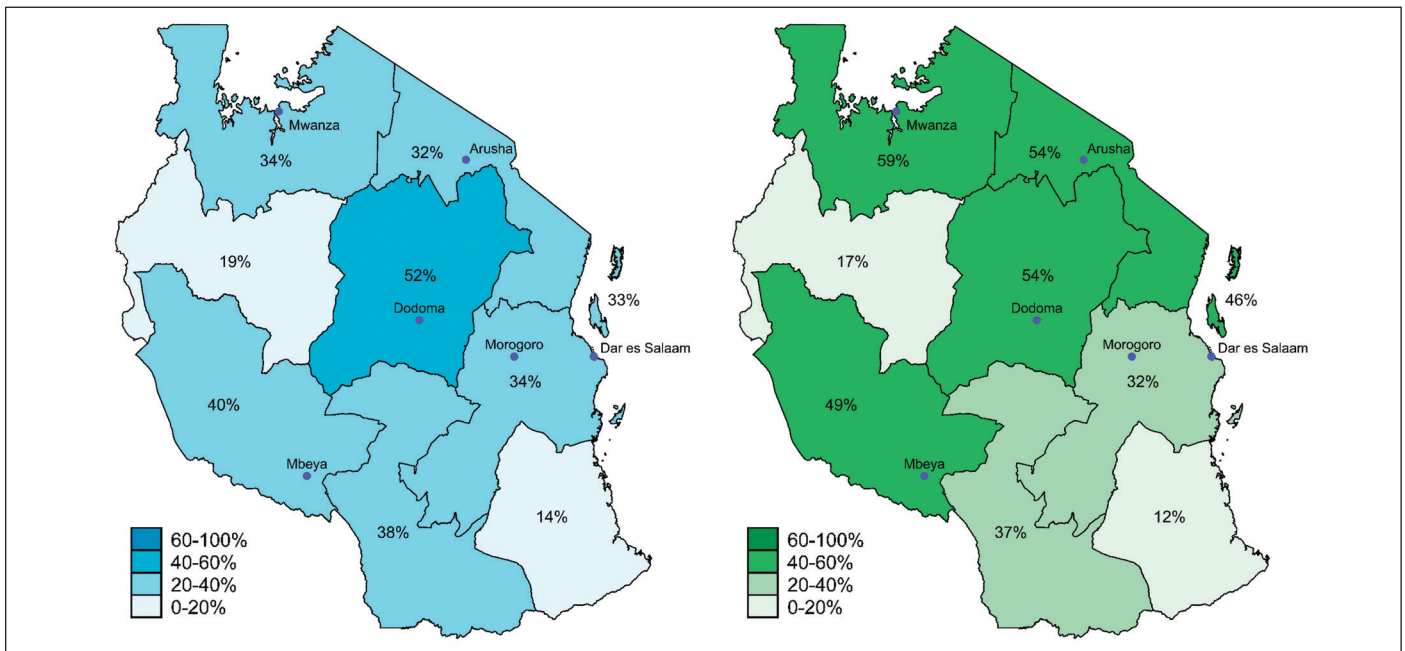


Figure 3: Percentage of facilities meeting the three readiness indicators (left) and percentage of caesareans in these facilities (right)

2. Improve the environment for quality surgical services.

Draw on recommendations from the [Lancet Commission on Global Surgery roadmaps](#) regarding healthcare delivery, workforce development and training, financing, and data management to develop resilient surgical systems. [Caesarean-specific action agendas](#) include recommendations to establish minimum criteria that all facilities performing caesareans must meet (for example, continuing education and supervision of surgical and anaesthesia providers, 24-hour presence of trained anaesthesia personnel, availability of blood transfusion services, systematic use of the World Health Organization's Safe Surgery Checklist, and tracking of surgical outcomes).

3. Focus improvement efforts on public and FBO hospitals first.

Over 90% of caesareans in Tanzania are in public and FBO hospitals: efforts to improve safety and quality of caesarean care should target these facilities first. Later efforts should target health centres and private facilities, where readiness indicators are poorer and which will require more substantial improvements, but which provide a much smaller proportion of surgical obstetric care.

4. Support caesarean providers in low-volume facilities.

Supervision, mentorship, and regular refresher trainings should be offered to Assistant Medical Officers performing caesareans in facilities with low caesarean volumes or which

lack in-house medical doctors with obstetric training, to ensure skill retention.

5. Review target on surgical provision in health centres.

Considering staffing and resource limitations, as well as safety concerns for caesareans in low-volume facilities, the target for ensuring 50% of health centres provide comprehensive emergency obstetric care should be reviewed, and implemented with caution. A better strategy may be strengthening the referral system from health centres to hospitals and upgrading select health centres located far from the nearest hospital with necessary staffing, training, and equipment investments.

6. Investigate adherence to infection prevention and control measures.

Additional studies are needed to examine adherence to infection prevention and control measures during caesarean sections and post-operative care. Standardised guidelines for prophylactic antibiotics, operating theatre sterility, and wound care should be followed for all caesareans, in all facilities. Appropriate post-partum care provision is essential for infection prevention, prior to and after discharge.

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