


Unnecessary Cesarean Section Delivery Causes Risk to Both Mother and Baby: A Commentary on Pregnancy Complications and Women's Health

INQUIRY: The Journal of Health Care Organization, Provision, and Financing
Volume 59: 1–4
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DOI: 10.1177/00469580221116004
journals.sagepub.com/home/inq


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Abstract

In Bangladesh, 3.6 million babies are born each year. But the country is now facing a quickly rising rate of cesarean section (C-section) utilization. Here about 50% of total deliveries are institutional. Among them, two-thirds are in private care facilities, where the rate of C-sections is very high (83%). The present C-section rate is 2.5 times higher than in the previous decades. In Bangladesh, many physicians from private facilities are recommending C-section regardless of the mother's physical condition and the position of the fetus. Therefore, mothers are more likely to choose C-section delivery who receive antenatal care from a private facility. Moreover, several socio-economic and demographic factors might be responsible for these increased C-section deliveries. Also, many private hospitals prefer C-section delivery due to their profit-making tendency. The unnecessary C-section delivery causes risk to both mother and baby. Also, the high prevalence of C-section in Bangladesh is putting women's health at risk. Therefore, the government healthcare authorities should ensure proper utilization of C-section facilities and encourage people for normal births at any health facility. Also, they can develop a national guideline for the use of C-sections and normal delivery depending on the physical condition of the mother and fetus.

Keywords

cesarean section, women's health, women's health services, pregnancy, pregnancy complications

What do we already know about this topic?

Cesarean deliveries have several health complications for mothers and babies. The utilization of C-sections is very high among the institutional deliveries in Bangladesh, and the present C-section rate is 2.5 times higher than in the previous decades. Several socio-economic and demographic factors are responsible for these increased C-section deliveries in Bangladesh.

How does your research contribute to the field?

Here we reported the present high rate of C-sections with associated factors so that the healthcare authorities can ensure the proper utilization.

What are your research's implications toward theory, practice, or policy?

The present study findings suggest the proper utilization of C-section facilities and encourage people for normal births. Also, the healthcare authorities can develop a national guideline for the use of C-sections based on our findings.

Prevalence and Associated Factors for C-Sections in Bangladesh

In Bangladesh, more than 3.6 million children are born every year. The possibility of delivering in a health facility has increased over the past decades. The proportion of institutional deliveries has increased from 4% to 49% between 1993-94 and 2017-18 (Figure 1).¹ Still, approximately 50%

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Received 18 February 2022; revised 14 June 2022; revised manuscript accepted 7 July 2022

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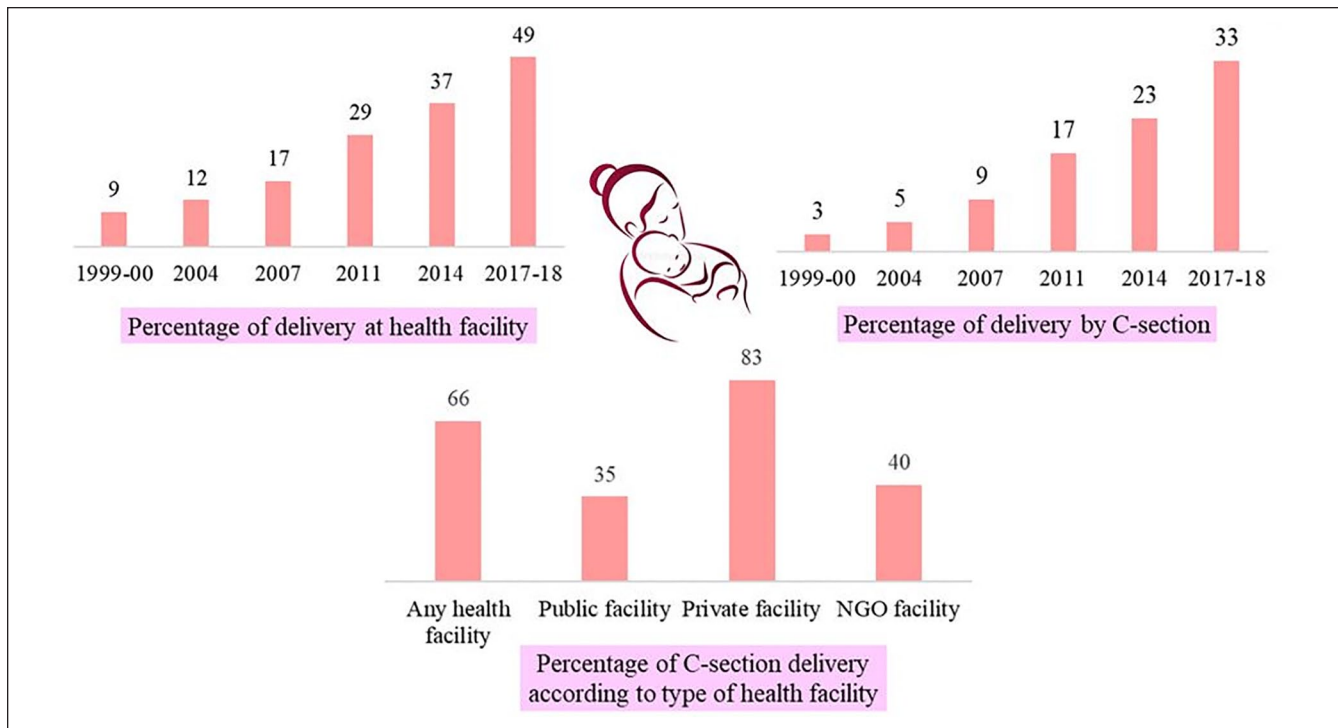


Figure 1. Trends of institutional and C-section deliveries in Bangladesh. We collected data from National Institute of Population Research and Training (NIPORT), and ICF. 2020. Bangladesh Demographic and Health Survey 2017-18. Dhaka, Bangladesh, and Rockville, Maryland, USA: NIPORT and ICF.1.

of all deliveries are happening at home in Bangladesh. The rate of deliveries at health facilities is 63% in urban areas and 45% in rural areas.¹ However, two-thirds of all institutional deliveries are in private care facilities where the rate of cesarean section (C-section) is very high (83%). The rate of C-sections is comparatively low at government facilities (35%), although the number of government facilities is much less than required.¹ The World Health Organization (WHO) reported that Bangladesh had a density of health workforce (doctors, nurses and midwives) of 5.8 per 10000 population in 2006.² The WHO global strategy is to achieve a density of health workforce of 44.5 to achieve sustainable development goals by 2030.³ According to the latest WHO report, Bangladesh has reached a density of health workforce of 9.9.⁴ Therefore, the country is suffering from a chronic shortage of health workforce and infrastructure against the actual requirement. The C-section is a mode of delivery with significant surgical procedures for lowering the risks accompanying childbirth. However, this rising trend of C-section delivery has gained global concern as unnecessary C-section delivery may put the mother and the child in danger.⁵ Recently, the number of cesarean deliveries has increased in Bangladesh despite the absence of prior complications.⁶ The prevalence of C-section deliveries has grown over the past decade. The prevalence of C-section deliveries was 17% in 2011, 23% in 2014, and 33% in 2017-18 (Figure 1).¹ At the same time, the proportion of mothers delivering in a private

healthcare facility has increased 4.5 times from 2007 to 2017-18.¹ Several socio-demographic factors might be associated with the increased C-section delivery in Bangladesh. Female education, residence area, nuclear family (family of father, mother, and children), financial development, mothers' age, comorbid diseases, birth order, delivery in the private sector, religious views, etc., are mentionable.^{7,8} Also, the high rate of C-sections depends on the frequency of antenatal check-ups, the mother's body mass index (BMI), the weight and size of the child at birth, and the healthcare facilities at the delivery place.⁹ Along with socio-economic, demographic, institutional, and health-related factors, avoiding labor pain and convenient delivery might be other reasons behind the increasing rate of C-sections in Bangladesh.¹⁰ According to a government survey in Bangladesh from 2017 to 2018, the urban C-section rate is higher (44%) than the rural rate (29%); higher education rate among mothers and the availability of private health care service in urban areas could be the significant factor in this case. The main reason behind this extremely high rate of C-section delivery in private facilities might be the profit-generating tendency of privately owned facilities. Also, private hospitals sometimes convince some physicians to recommend C-section delivery for mothers. Other factors include the perception of having better care, the availability of up-to-date technologies, and the availability of specialist physicians in private care hospitals might prove more mothers to choose C-section delivery.

On the other side, lower trust in public hospital facilities, scarcity of specialist doctors and nurses, and inadequate healthcare services might be reasons for the higher rate of C-section delivery in private facilities.^{6,11,12} In a nutshell, the socio-economic status of the general population in Bangladesh has significantly increased over the last decade. Mothers are getting more antenatal care from private facilities in Bangladesh than ever.¹³ Therefore, the business-oriented approaches of some private hospitals/clinics and physicians are indirectly provoking to increase C-section deliveries in Bangladesh.^{14,15}

International Guidelines for the Use of C-Sections

World health organization (WHO) recommends C-section delivery when medically necessary based on the mother's physical condition and position of the fetus. According to WHO data, the population-level rate of C-section utilization varies between 10% and 15%. Studies proved that the above 10% C-section rate is not associated with lower maternal and newborn mortality in any nation at the population level.¹⁶ Before the COVID-19 pandemic, on an average 50% of the pregnant women preferred to give birth at hospitals, however, the rate of institutional deliveries has reduced by 23% during the ongoing pandemic.¹⁷ Also, it was challenging to ensure safe pregnancies at hospitals during the Covid-19 pandemic. The pandemic has tremendously impacted the lives of many people in Bangladesh.¹⁸⁻²⁵ The WHO suggests that at least 85% of total births in a country should take place under institutional supervision.²⁵ According to the international federation of gynecologists and obstetricians (FIGO), physicians should perform C-sections to improve the health and well-being of mothers and babies.^{26,27} But, to avoid labor pain, 6.4% of mothers on their own have decided to undergo C-sections; among them, most women have higher wealth quantile, providing a solid point on unnecessary C-section delivery in Bangladesh.¹ Bangladesh has achieved success in the child mortality rate (371.3 deaths in 1971 vs 29.1 deaths in 2020 per 1000 live births) and maternal mortality rate (434 deaths in 2000 vs 173 deaths in 1017 per 100 000 live births). Therefore, we need to reduce the unnecessary C-section deliveries to reduce health-related risks for mothers and babies in Bangladesh.^{28,29}

Recommendations to Reduce High C-Sections in Bangladesh

According to our observation, the prevalence of C-section delivery is significantly higher in Bangladesh. However, high C-section delivery rates do not always imply high-quality care or services for mothers and their babies. The healthcare authorities need to ensure the proper utilization of C-section delivery for those who genuinely require this

intervention as part of emergency obstetric care. So, they can control the rising trend of C-section delivery in Bangladesh to ensure better health and well-being of mothers and babies. The government and non-government organizations, healthcare providers, and mothers can create awareness about the negative consequences of unnecessary C-sections in society to prevent this growing trend of C-section delivery in Bangladesh. Also, the healthcare providers can counsel and motivate mothers about the normal delivery when they come for antenatal care at the health facility. Therefore, intense government action is required to ensure the proper application of this life-saving procedure in Bangladesh. The authority can increase institutional delivery by offering 24-hour service 7 days a week at the rural level. The government authority can offer incentives to encourage natural birth for poor people in Bangladesh to avoid unnecessary C-section deliveries. The regulatory authority should monitor private hospitals to reduce unnecessary C-section delivery. They can design campaigns to motivate pregnant women and their relatives for normal birth at an institution based on the physical condition of the mother and fetus.

Acknowledgments

None.

Declaration of Conflicting Interests


The author(s) declared no potential conflicts of interest with respect to the research, authorship, and/or publication of this article.

Funding

The author(s) received no financial support for the research, authorship, and/or publication of this article.

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