Socio-demographic predictors and average annual rates of caesarean section in Bangladesh between 2004 and 2014

Md. Nuruzzaman Khan¹, M. Monirul Islam², Asma Ahmad Shariff³, Md. Mahmulud Alam⁴, Md. Mostafizur Rahman⁵


* mos.phsh@yahoo.com

Abstract

Background
Globally the rates of caesarean section (CS) have steadily increased in recent decades. This rise is not fully accounted for by increases in clinical factors which indicate the need for CS. We investigated the socio-demographic predictors of CS and the average annual rates of CS in Bangladesh between 2004 and 2014.

Methods
Data were derived from four waves of nationally representative Bangladesh Demographic and Health Survey (BDHS) conducted between 2004 and 2014. Rate of change analysis was used to calculate the average annual rate of increase in CS from 2004 to 2014, by socio-demographic categories. Multi-level logistic regression was used to identify the socio-demographic predictors of CS in a cross-sectional analysis of the 2014 BDHS data.

Result
CS rates increased from 3.5% in 2004 to 23% in 2014. The average annual rate of increase in CS was higher among women of advanced maternal age (≥35 years), urban areas, and relatively high socio-economic status; with higher education, and who regularly accessed antenatal services. The multi-level logistic regression model indicated that lower (≤19) and advanced maternal age (≥35), urban location, relatively high socio-economic status, higher education, birth of few children (≤2), antenatal healthcare visits, overweight or obese were the key factors associated with increased utilization of CS. Underweight was a protective factor for CS.

Conclusion
The use of CS has increased considerably in Bangladesh over the survey years. This rising trend and the risk of having CS vary significantly across regions and socio-economic status.