

## Factors Affecting Cesarean Section among Women in Qatar Using Multiple Indicator Cluster Survey Database

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**Abstract :** Background: Cesarean section (CS) delivery is one of the major concerns both in developing and developed countries. The rate of CS deliveries are on the rise globally, and especially in Qatar. Many socio-economic, demographic, clinical and institutional factors play an important role for cesarean sections. This study aims to investigate factors affecting the prevalence of CS among women in Qatar using the UNICEF's Multiple Indicator Cluster Survey (MICS) 2012 database. Methods: The study has focused on the women's questionnaire of the MICS, which was successfully distributed to 5699 participants. Following study inclusion and exclusion criteria, a final sample of 761 women aged 19- 49 years who had at least one delivery of giving birth in their lifetime before the survey were included. A number of socio-economic, demographic, clinical and institutional factors, identified through literature review and available in the data, were considered for the analyses. Bivariate and multivariate logistic regression models, along with a multi-level modeling to investigate clustering effect, were undertaken to identify the factors that affect CS prevalence in Qatar. Results: From the bivariate analyses the study has shown that, a number of categorical factors are statistically significantly associated with the dependent variable (CS). When identifying the factors from a multivariate logistic regression, the study found that only three categorical factors - 'age of women', 'place at delivery' and 'baby weight' appeared to be significantly affecting the CS among women in Qatar. Although the MICS dataset is based on a cluster survey, an exploratory multi-level analysis did not show any clustering effect, i.e. no significant variation in results at higher level (households), suggesting that all analyses at lower level (individual respondent) are valid without any significant bias in results. Conclusion: The study found a statistically significant association between the dependent variable (CS delivery) and age of women, frequency of TV watching, assistance at birth and place of birth. These results need to be interpreted cautiously; however, it can be used as evidence-base for further research on cesarean section delivery in Qatar.

**Keywords :** cesarean section, factors, multiple indicator cluster survey, MICS database, Qatar

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