

Sociocultural Risk Factors of Birth Size of Child in Ethnically Homogenous Tribal Population in India

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ABSTRACT

Given the limited evidence on the effect of socio-cultural practices on a child's birth size, the study aims to identify the sociocultural risk factors of smaller than average birth size in an ethnically homogenous tribal population in India. We used the data from the National Family Health Survey (NFHS)-4 conducted in India in 2015-16. We used Fearon's (2003) index of Ethno-linguistic fractionalization (ELF) for dividing tribal populations into homogeneous and heterogeneous groups. We applied a multivariable binary logistic regression model to identify the sociocultural risk factors. The prevalence of smaller than average birth size was 17% in an ethnically homogenous tribal population in India. The women being polygynous union were 1.60 (95% CI: 1.31-1.95), those having blood-related consanguineous marriage were 1.26 (95% CI: 1.07-1.48), and women using alcohol were 1.24 times (95% CI: 1.10-1.40) as likely to deliver smaller than average size births compared to their counterparts. The study identifies polygynous union, consanguineous marriage, and maternal use of alcohol are significant sociocultural risk factors of smaller than average birth size in India. The significant reduction in the prevalence of smaller than average birth size can be achieved through the activities addressing the sociocultural practices in tribal populations

INTRODUCTION

- Next to Africa, India has the second-largest tribal population in the world, and as per the Census of India 2011, its share is 8.6% to the total population according to the Census of India 2011
- About 80% of the tribal population lives in remote forest areas and hilly regions for ages
- As a result, the maternal and child health status in tribal populations is relatively lower than average Indian women and children
- The estimates suggest that the neonatal mortality rate was 31 deaths per 1000 live birth in the tribal population compared to 23 deaths per 1000 live birth in the non-tribal population in 2015-16
- Low birth weight (LBW) is an important cause of neonatal and post-neonatal infections and mortality
- Strikingly, the prevalence of LBW consistently remained to be higher in tribal populations and it has a significant share with overall LBW prevalence in India
- On another hand, most of the tribal communities are characterized by higher illiteracy, economic backwardness and social deprivation
- Child marriages, consanguineous marriage, and polygamy are common cultural practices in the tribal
- However, there is complete dearth of studies to the best knowledge examining cultural risk factors of LBW in particular, in tribal population

OBJECTIVE

- The study aims to identify the sociocultural risk factors of smaller than average birth size in an ethnically homogenous tribal population in India

DATA SOURCE AND METHODOLOGY

- The study is cross-sectional and based on the most recent data from the fourth round of a nationally-representative population-based cross-sectional National Family Health Survey (NFHS) conducted in 2015-16 in India
- The analysis in the study includes only the youngest singleton under-five children among ethnically homogenous ST population born in the reference time of the survey
- We divided tribal population into 'homogeneous' and 'heterogeneous' using Fearon's (2003) index of Ethno-linguistic fractionalization (ELF)
- We applied a binary logistic regression model to identify sociocultural risk factors of smaller than average birth size
- The outcome variable is 'birth size of child' categorized as 'average and larger' and 'smaller than average'
- We included polygynous union, type of marriage, maternal dietary diversity, use of tobacco and use of alcohol as socioeconomic variables
- The analysis also includes several household-level environmental, ANC related, reproductive and socioeconomic and demographic variables as control variables

RESULTS

Figure 1: Prevalence of smaller than average birth size by different social groups, India, 1992-2016

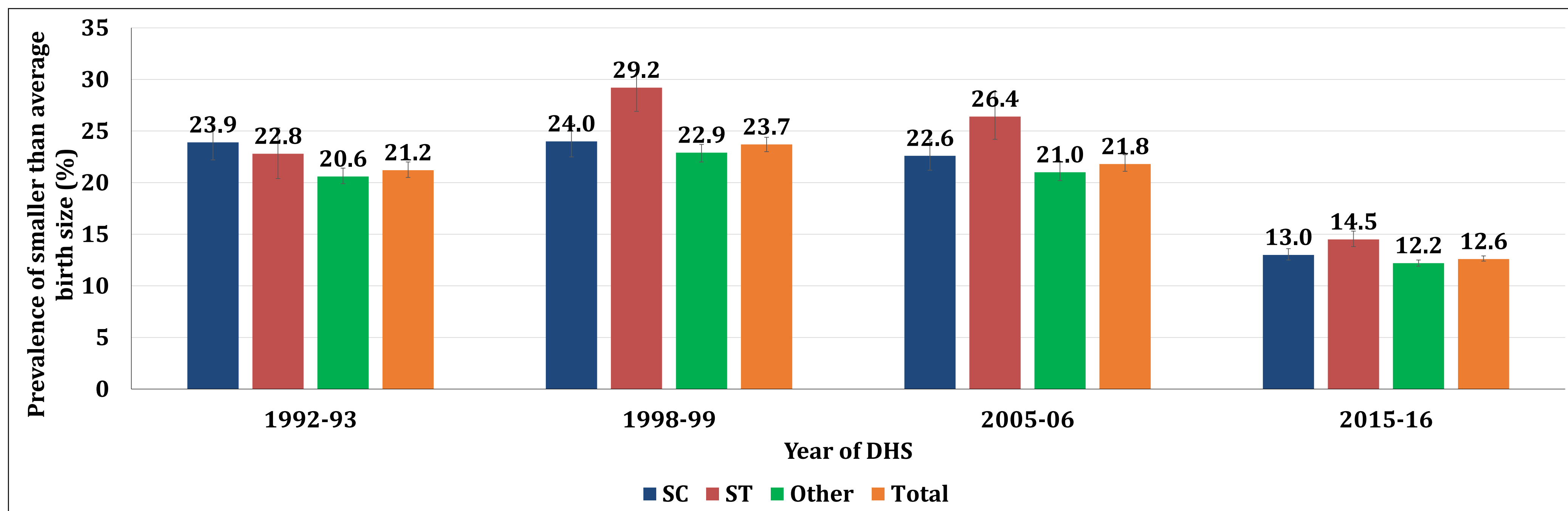


Figure 2: Prevalence of smaller than average birth size by ethnic fractionalization index in tribal population, India, 1992-2016

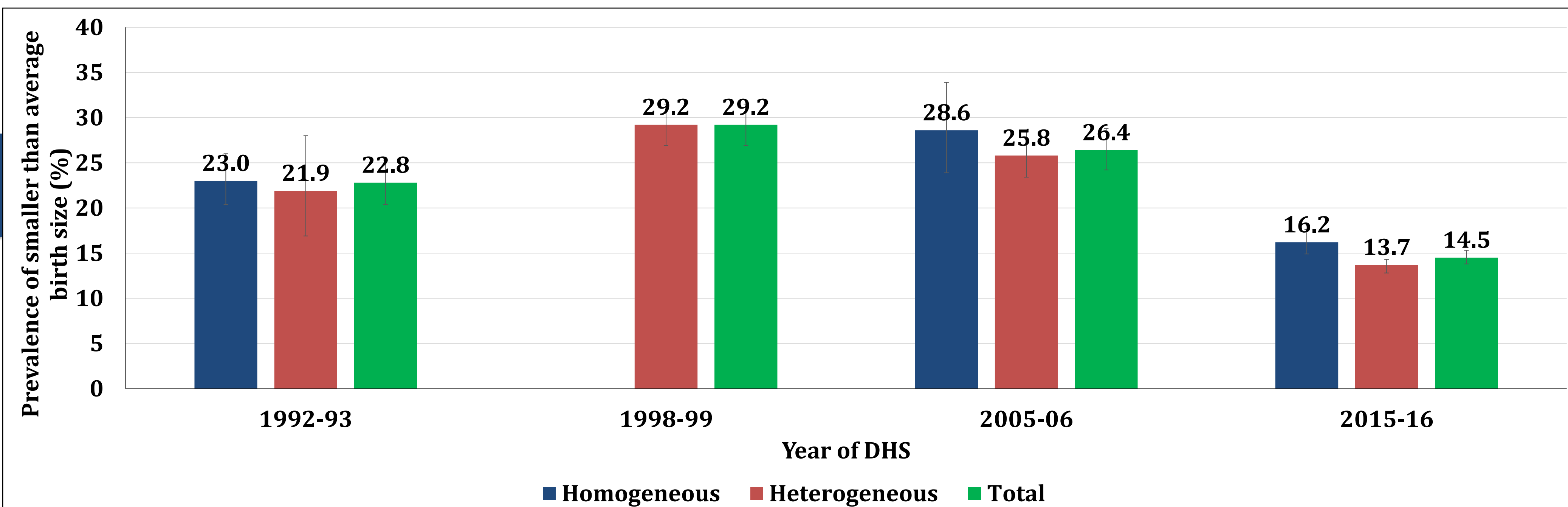


Figure 3: Prevalence of smaller than average birth size by sociocultural factors among children below five years belonging to ethnically homogeneous tribal population, India, 2015-16

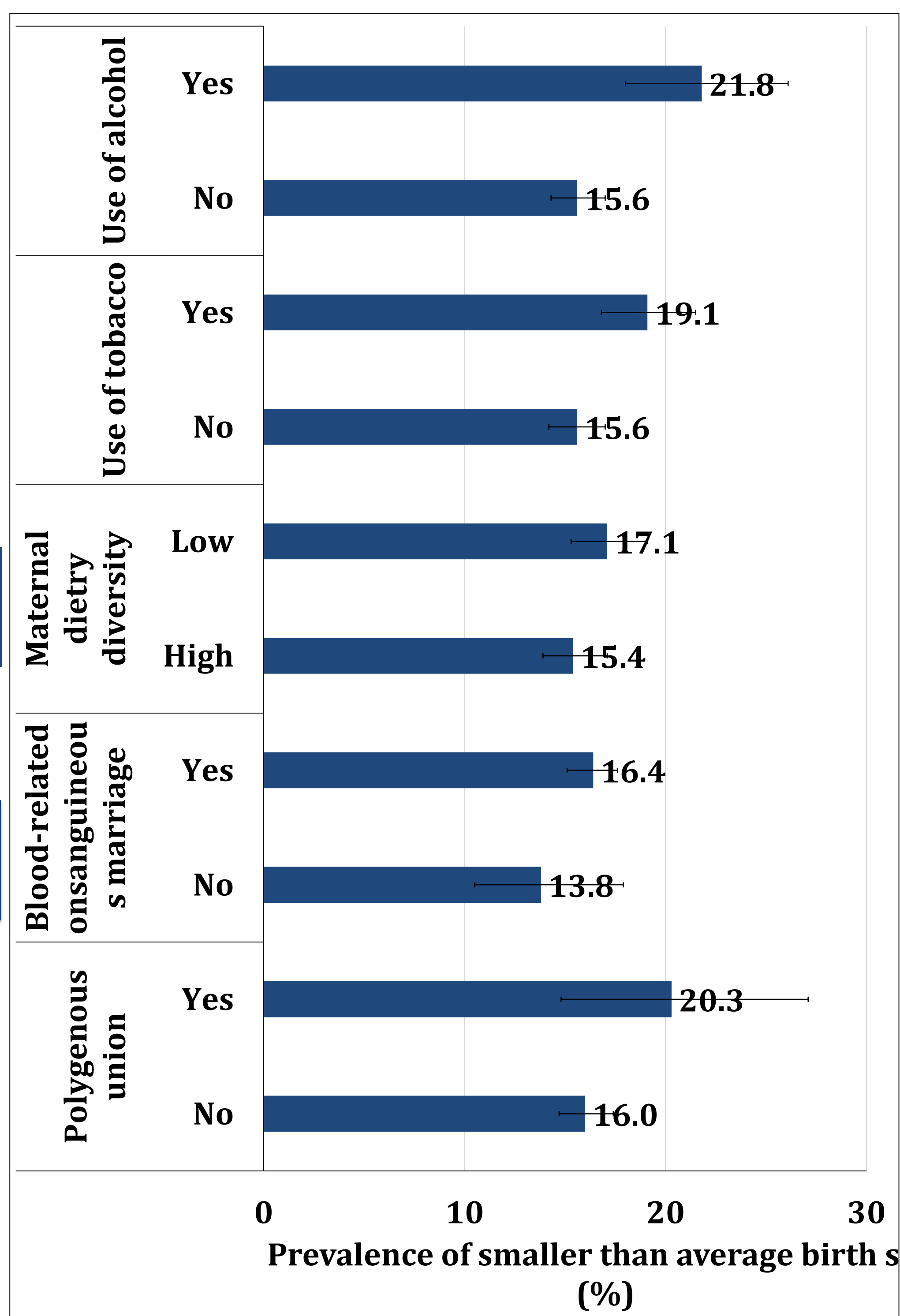
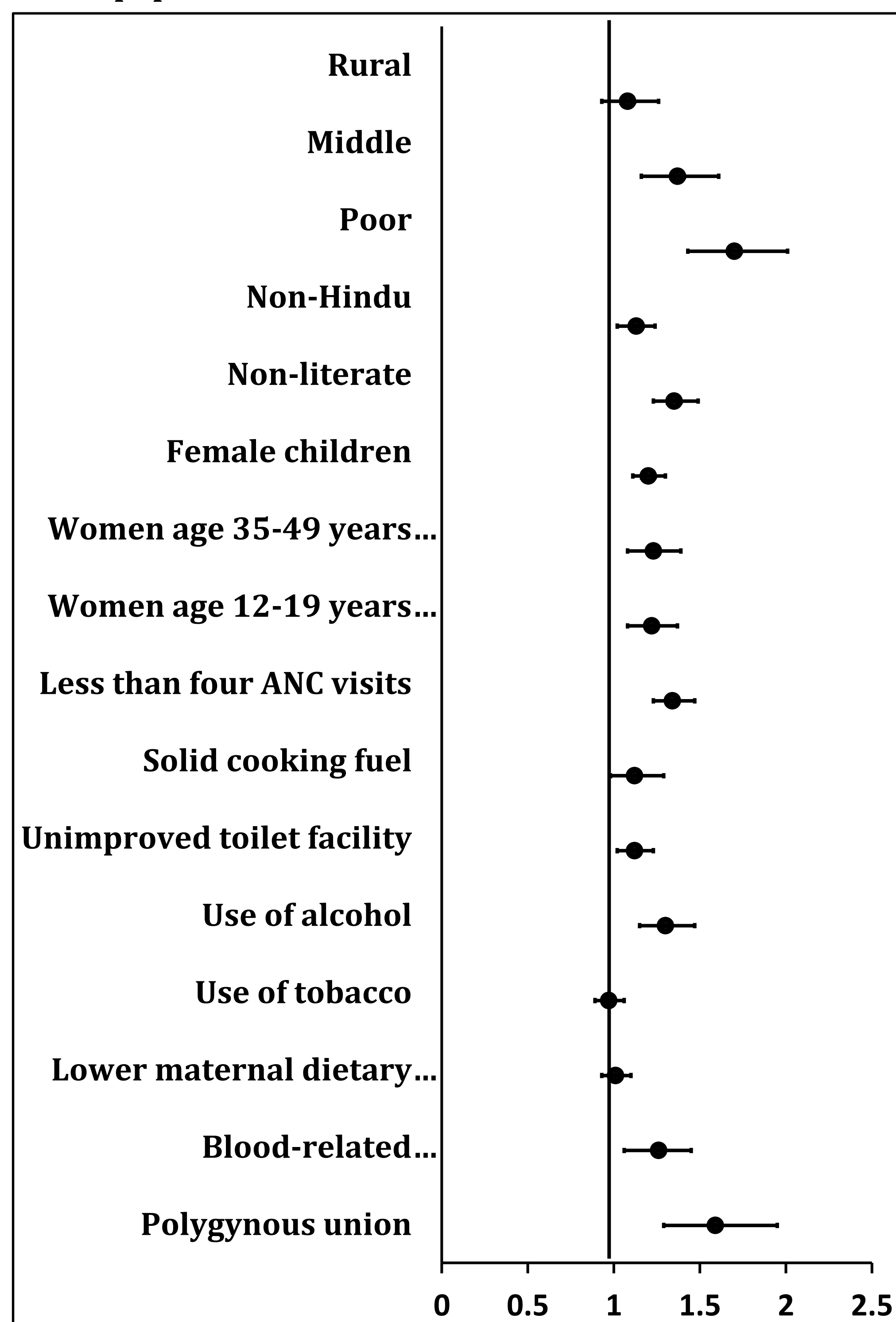


Figure 4: Results of binary logistic regression showing the risk of smaller than average birth size among children below five years belonging to ethnically homogeneous tribal population, India, 2015-16



CONCLUSION

- Our study is the first, perhaps, to investigate the socio-cultural risk factors of smaller than average birth size in ethnically homogenous tribal populations in India
- The study uses the most recent large-scale nationally-representative population-based NFHS-4 data for this purpose
- The prevalence of smaller than average birth size is comparatively higher among children belonging to ethnically homogenous ST populations than those belonging to the

ethnically heterogeneous population

The study confirms that sociocultural factors like polygynous union, consanguineous marriage, and maternal use of alcohol are significant risk factors of smaller than average birth size in homogenous ST population in India

The significant reduction in the prevalence of smaller than average birth size can be achieved through the activities addressing the sociocultural practices in tribal populations