

Trends in use of maternity care in India: Growing disparity across different social groups

Abhishek Kumar, PhD

October 21, 2015

Global Maternal & Newborn Health Conference, Mexico

Background

- Indian society is highly stratified by caste and by socioeconomic position
- Caste is a hereditary, endogamous group; having a traditional association with an occupation and a particular position in the hierarchy of society
- There is four caste groups in the country – Scheduled Tribes(STs), Scheduled Caste (SCs), Other Backward Caste (OBC), Others
- SCs/STs are at the bottom of the hierarchy, and constitutes about 25 percent of the Indian population (**Census of India, 2011**)

Cont.....

- In India, Scheduled Castes and Scheduled Tribes have been excluded from the Hindu society for thousands of years.
- These communities had traditionally been related to the most menial labour with no possibility of upward mobility, and subject to extensive social disadvantage and exclusion, in comparison to the wider community (**Dunn, 1993**).
- The SCs/STs are far behind than Other caste groups in several socio-economic indicators.

Comparison of selected indicators of married women by caste groups

	SCs/STs	Others
Mean age marriage (years)	17.7	18.9
Mean age at first birth	19.4	20.9
Mean years of schooling	2.7	4.1
% partners with high school and above	20.4	43.4
% belonging to poorest wealth quintile	40.1	13.6
% with no media exposure	38.8	24.1
% currently not using any contraceptive	60.1	49.6
% living in rural area	81.6	63.6
Infant mortality	44	51

Source: National Family Health Survey, 2005-06

Objective

To examine the disparity in utilization of antenatal care and delivery care across the social groups in India and its region for last 14 years

Data

Multi-rounds of National Family Health Survey (NFHS) data conducted during 1992-2006

Outcome variables

Antenatal care – It is defined as four or more antenatal check-up during pregnancy

Medical assistance at delivery: Delivery care is defined as any home or institutional delivery assisted by medical professionals, such as a doctor, an Auxiliary Nurse Midwife (ANM) /nurse/ midwife/Lady Health Visitor (LHV) or other health personnel

The variables are estimated for the most recent birth in the five years prior to the survey date

Main predictor

There are four major caste group – Scheduled Caste(SC), Scheduled Tribe(ST), Other Backward Class (OBC), and other caste.

NFHS, 1992–93 collected information about **SCs, STs, Others**

NFHS, 1998–99 collected information about **SCs, STs, OBC, Others**

NFHS, 2005–06 collected information about **SCs, STs, OBC, Others**

We excluded OBC from the analysis and only focused on SC/ST and Others. We used the term “**caste**” and “**social groups**” interchangeably in the study.

Methods

- **Descriptive statistics:** to understand the level of services utilization across the social groups in India
- **Binary logistic regression:** to examine the differences in utilization of MCH services between social groups after adjusting the covariates. Result obtained from the logistic regression analysis was presented in terms of adjusted percentage.

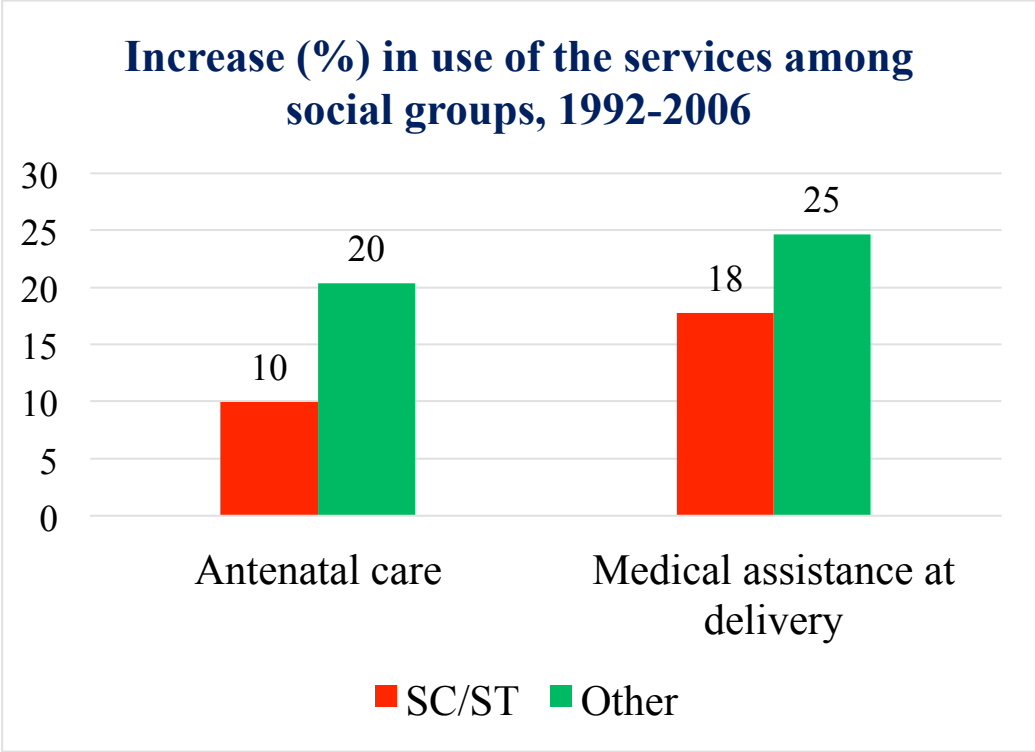
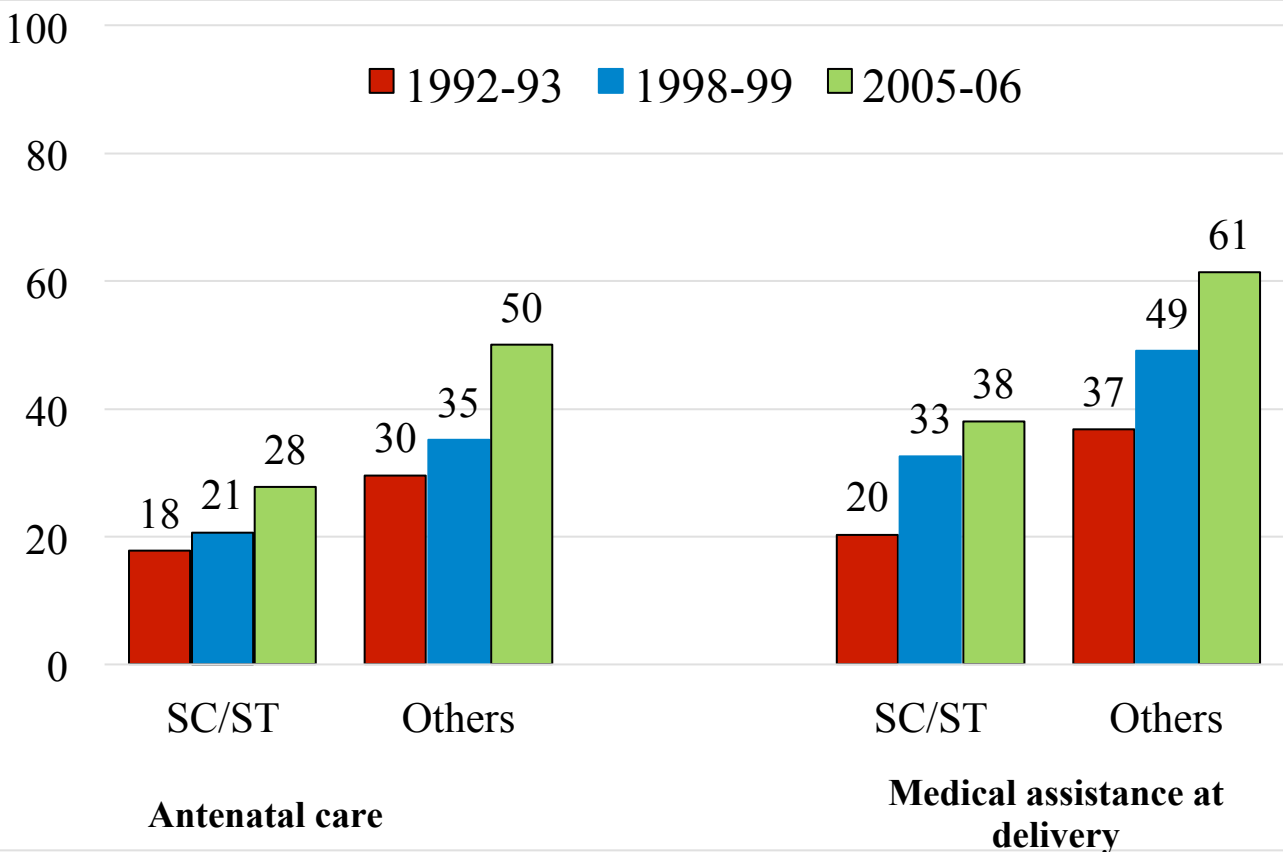
Results

Percentage distribution of women* across social groups in India, 1992-2006

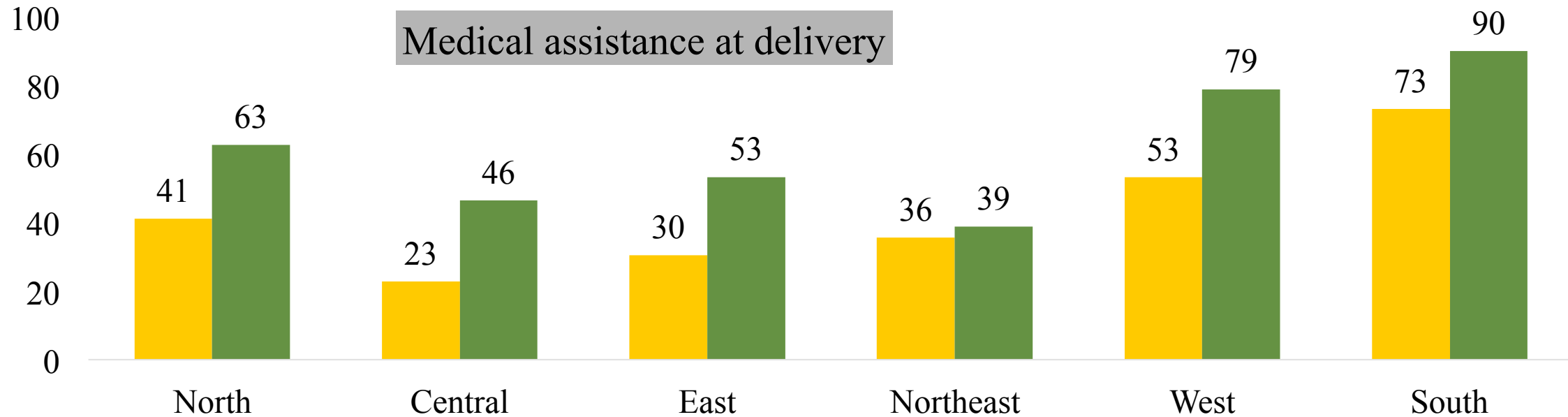
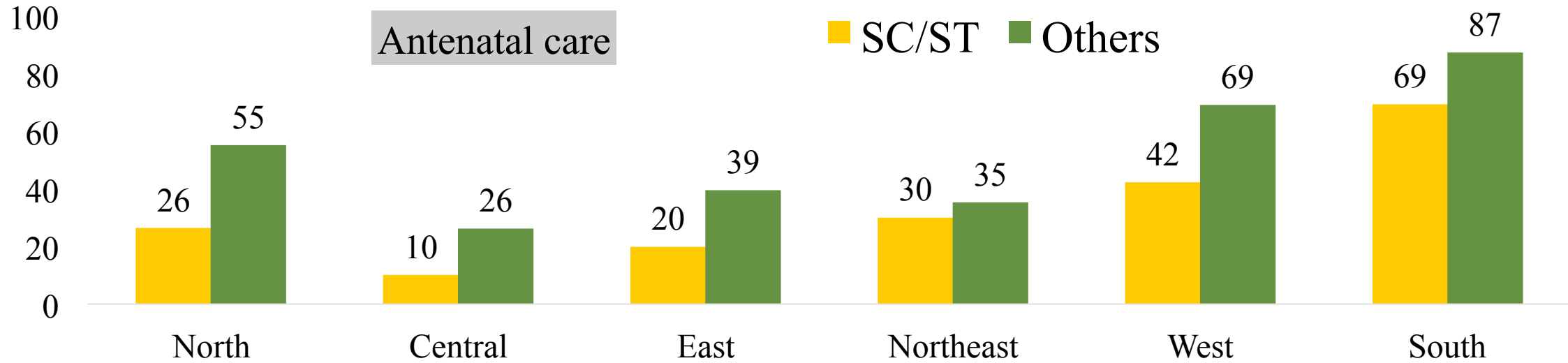
	Antenatal care			Medical assistance at delivery		
	SC/ST (%)	Others (%)	Numbers	SC/ST (%)	Others (%)	Number
NFHS, 1992-93	22.6	77.4	37,405	22.6	77.4	37,679
NFHS, 1998-99	29.8	37.6	28,735	29.8	37.6	32,753
NFHS, 2005-06	30.4	28.2	35,217	30.9	27.6	29,800

*Women with last child in five years preceding the survey date

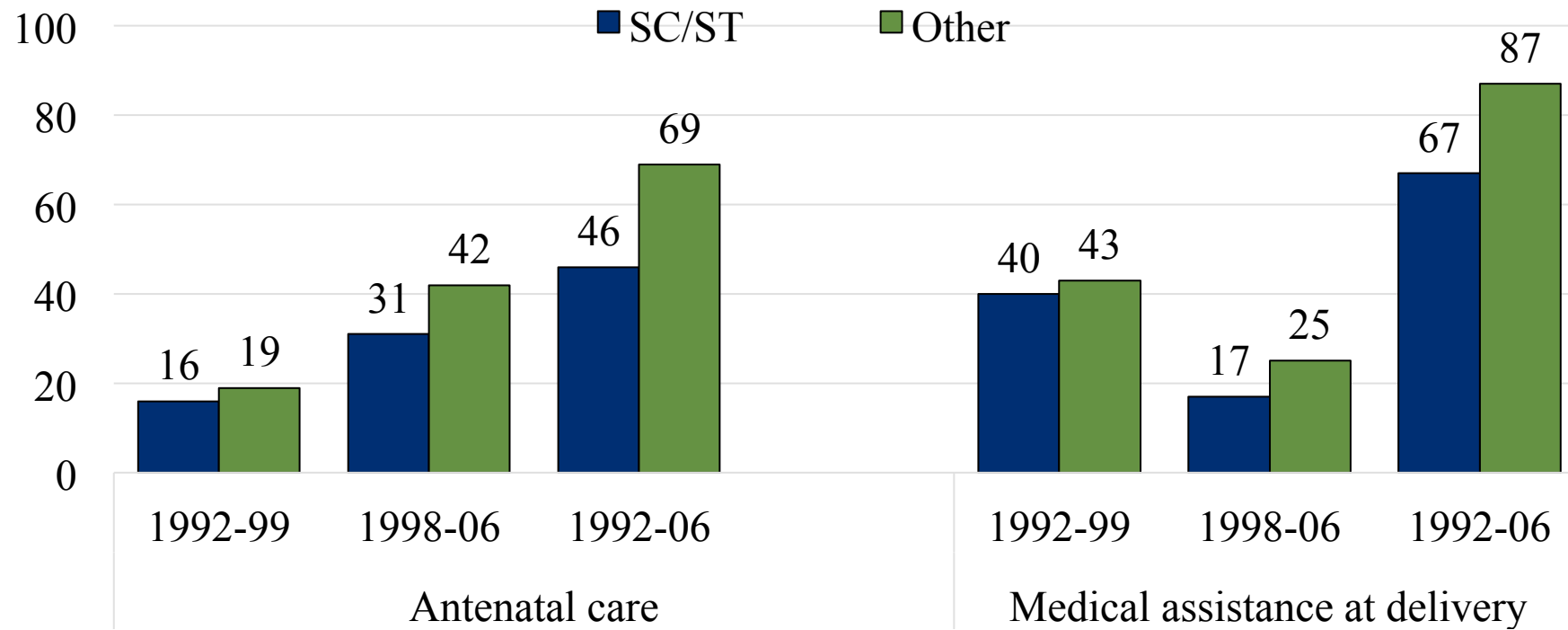
Trends (%) in use of maternal care services among social groups in India, 1992-2006



Use of maternal care services (%) among social groups across the regions, 2005-06

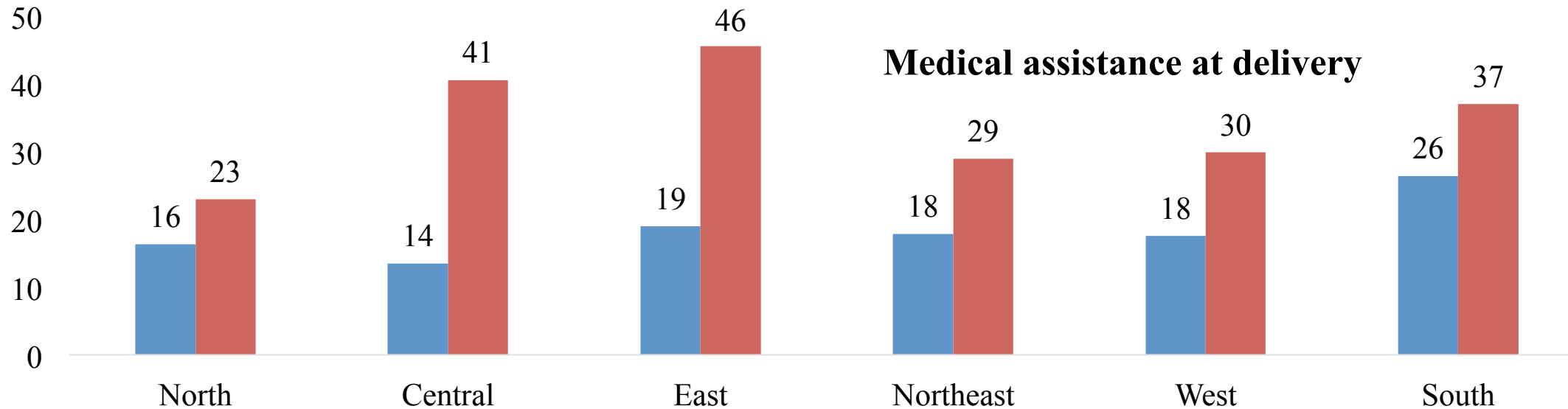
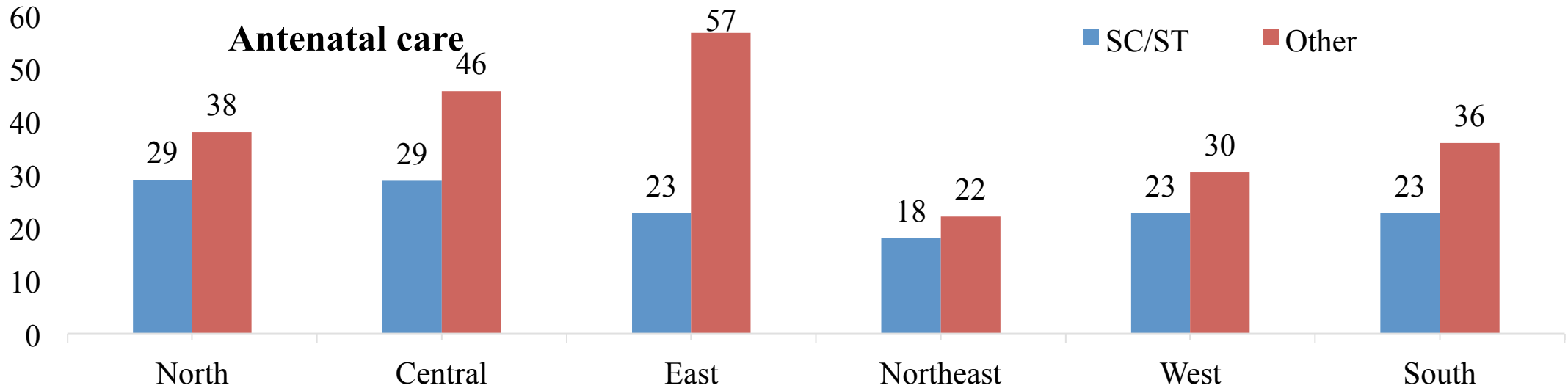


Increase (adjusted* %) in coverage of maternal care services among social groups, 1992-06



*Adjusted percentages are based on multivariate analysis (Binary logistic regression) where age, education, parity, exposure to media, current working status of mother; husband education and working status; household wealth, religion and region of country is controlled

Increase (adjusted* %) in coverage of maternal care services among social groups across the regions, 1992-06



Interaction effect of household wealth and social groups on use of maternal care services in India, 1992-2006

Odds ratio (95% confidence interval) based on binary logistic regression showing the interaction effect on use of the services

Antenatal care	1992-93	1998-99	2005-06
Others®			
SC/ST*Poorest	0.10 (0.03, 0.17)**	0.05 (0.01, 0.39)*	0.17 (0.04, 0.53)***
SC/ST*Poor	0.16 (0.02, 0.36)*	0.40 (0.23, 0.59)***	0.28 (0.13, 0.42)***
SC/ST*Middle	0.34 (0.19, 0.53)***	0.51 (0.25, 0.88)***	0.64 (0.32, 0.92)***
SC/ST*Rich	0.74 (0.52, 1.01)**	0.83 (0.59, 0.98)**	0.82 (0.54, 1.04)**
SC/ST*Richest	1.21 (1.02, 1.43)**	1.22 (1.11, 1.36)**	1.25 (1.06, 1.38)***
Institutional delivery			
Others®			
SC/ST*Poorest	0.04 (0.00, 0.18)**	0.16 (0.06, 0.30)***	0.22 (0.16, 0.28)***
SC/ST*Poor	0.10 (0.02, 0.25)***	0.25 (0.16, 0.52)***	0.36 (0.24, 0.52)***
SC/ST*Middle	0.34 (0.14, 1.49)***	0.51 (0.31, 0.89)***	0.58 (0.37, 0.81)***
SC/ST*Rich	0.68 (0.45, 0.91)***	0.75 (0.49, 1.01)***	0.82 (0.63, 1.02)**
SC/ST*Richest	1.12 (0.98, 1.27)**	1.18 (1.02, 1.38)**	1.28 (1.06, 1.49)***

®: Reference category; ***p<0.01; **p<0.05; *p<0.10

Models are adjusted for age, education, parity, exposure to media, current working status of mother; husband education and working status; household wealth, religion and region of country is controlled

Conclusions

- There is profound gap in utilization of antenatal care and medical assistance at delivery between the SC/ST and other social groups in India over time
- Though the coverage has increased across both the social groups, but the pace of increase is high among Others than SC/ST. It is resulted in the growing disparity between the social groups
- The SC/ST are at disadvantages in use of MCH services cutting across the regions. But the gap is higher among the north, central, and east region of country
- Only richest of the rich SCs/STs are benefitted with the caste based reservation, economic development, and ongoing MCH/RCH programs in the country

Scope for future research

There is a need to further investigate the disparity in accordance with the individual factors such as economic status and educational status of the social groups

A further investigation is required to understand factors associated with persisting gap in use of MCH services between the social groups in India

Thank you

Contact: abhi85_iips@rediffmail.com