

**Symptoms associated with complications during pregnancy and low birthweight in Bangladesh: The role of intimate partner violence**



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# Background

**About 830 women die/day**



## Maternal Deaths

### World

- 532000 (1990)
- 303000 (2015)

### Bangladesh

- 21000 (1990)
- 5500 (2015)

**Global MMR: 216/ 100000 live births in 2015**

| Year | MMR (Bangladesh)        |
|------|-------------------------|
| 1990 | 569/100000 live births  |
| 2015 | 176/ 100000 live births |

- 4.7% annual rate of reduction (WHO, 2015)



# Background

## Low Birthweight

## Global

- More than **20** million
- **16%**

## LBW

## Bangladesh

- LBW in Bangladesh: **20%-55%** (Klemm et al. 2015, BDHS, 2014)

- MMR <70/100000

- NMR: 12/1000

- Under-5 mortality: 25/1000

to achieve by 2030\*

\*Sustainable Development Goal 3.1 & 3.2




**Global  
Target**



# Intimate Partner Violence

**Intimate Partner Violence** is one of the most common forms of violence against women (WHO 1997)



| Lifetime Prevalence of IPV | Global (%) | Bangladesh (%) |
|----------------------------|------------|----------------|
| Physical IPV               | 13-61      | 42-51          |
| Sexual IPV                 | 6-59       | 37-50          |
| Physical and/or sexual IPV | 15-71      | 52-63          |

**Physical IPV during pregnancy: 1%-28%**  
(Garcia-Moreno C et al. 2005)

**Varies: 32% (Egypt); 40% (South Africa)**  
**In Bangladesh: 10-12%**



## Study Questions



- What is the prevalence of IPV during pregnancy among recent mothers in Bangladesh?
- Is IPV associated with complications during pregnancy or around delivery and the health of their newborn infants?



## Methods

### Study Settings: **Rajshahi Medical College Hospital**

- **530** beds
  - Primary to tertiary treatment
  - In 2015-
  - **10,155** registered pregnant women
  - **9363** delivered (**5,582** normal; **3,827** cesarean)
- (Ministry of Health and Family Welfare, 2016)



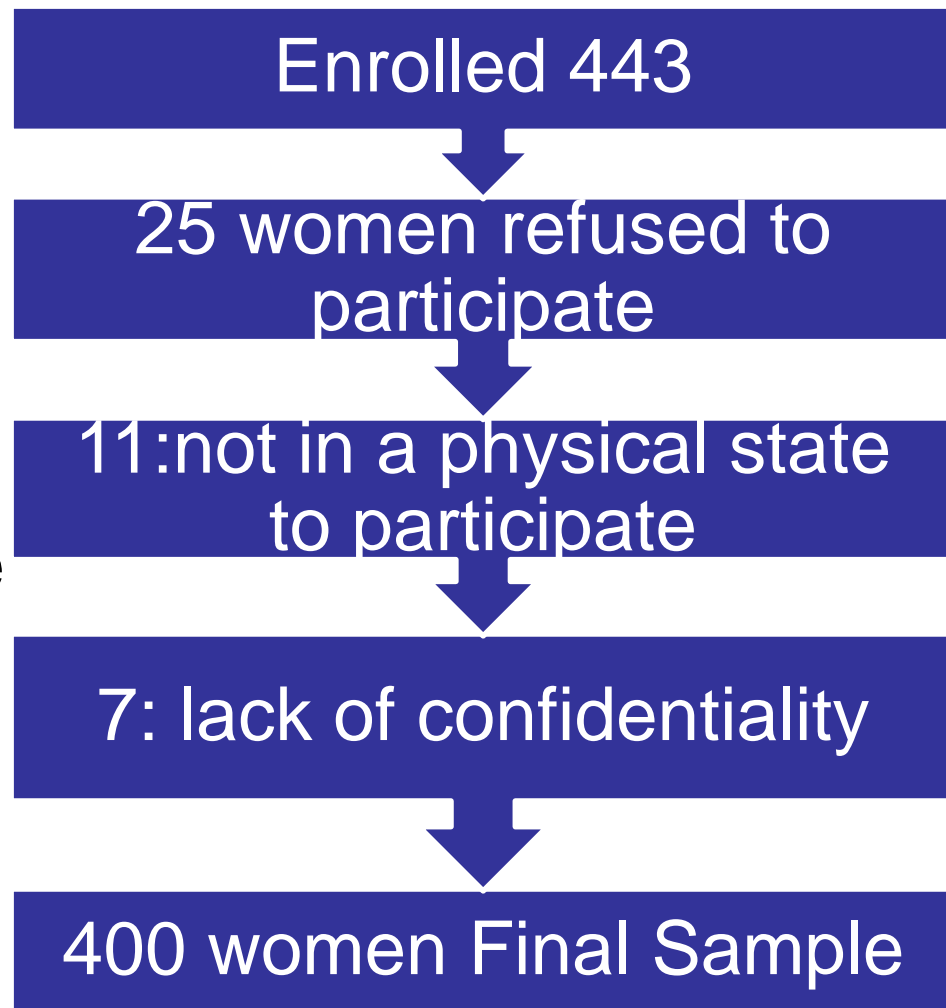


## Sample

- Sample size: With 95% confidence interval
- $p=58\%$  (BDHS, 2007)
- Precision 10% of the prevalence
- 10% non-response rate

$$n = \frac{Z_{\alpha/2}^2 p(1 - p)}{E^2}$$

=309





# Variables Selection

## Outcome Variables

- MC
- OC
- AC
- LBW

## Predictor Variables

Physical IPV

Sexual IPV

Physical and  
/or sexual IPV

## Confounding Variables

Age

Age at marriage

Place of residence

Occupation

Education

Pregnancy intention

Autonomy

Antenatal checkups

Duration of  
pregnancy

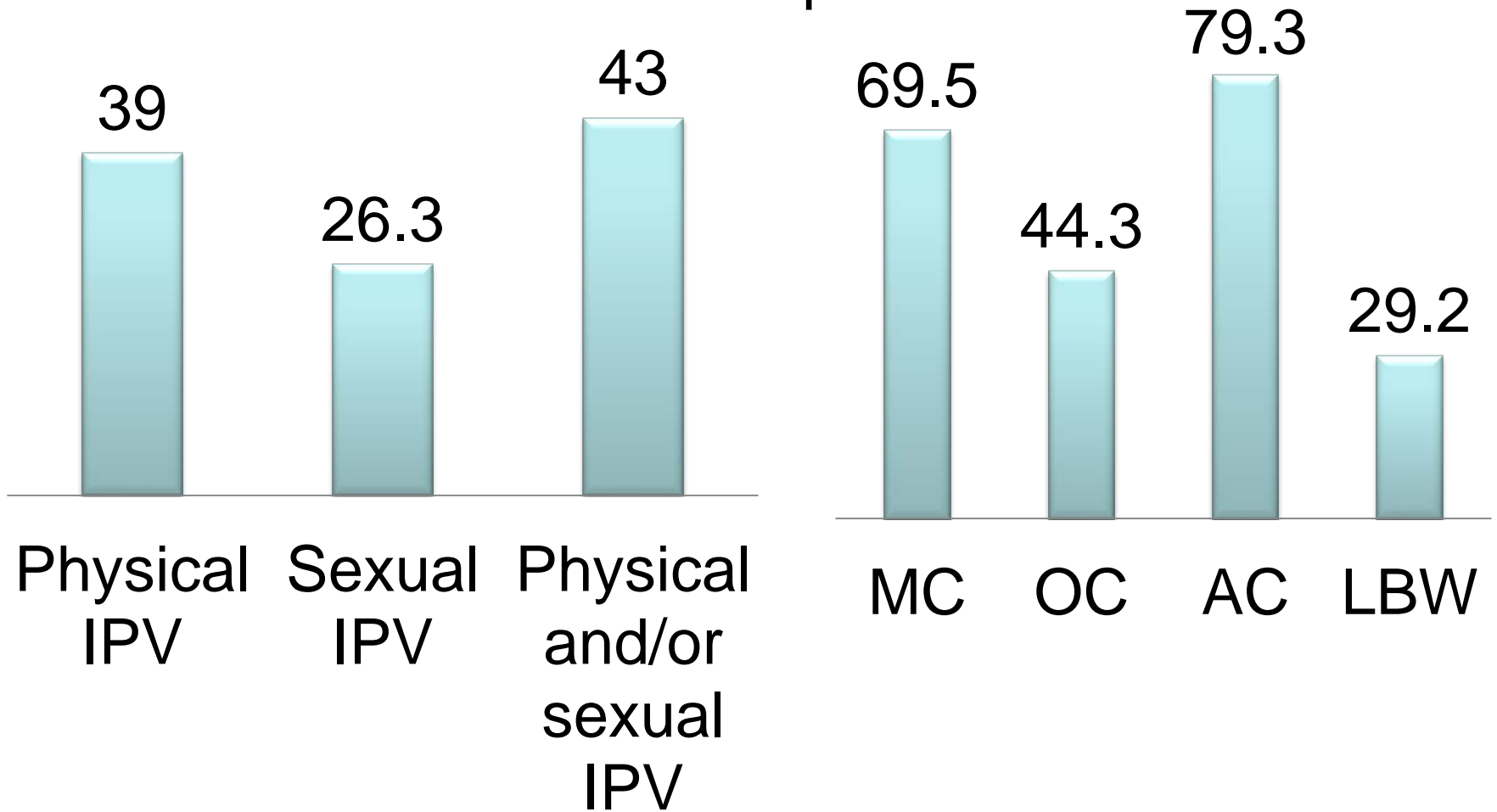
Maternal BMI





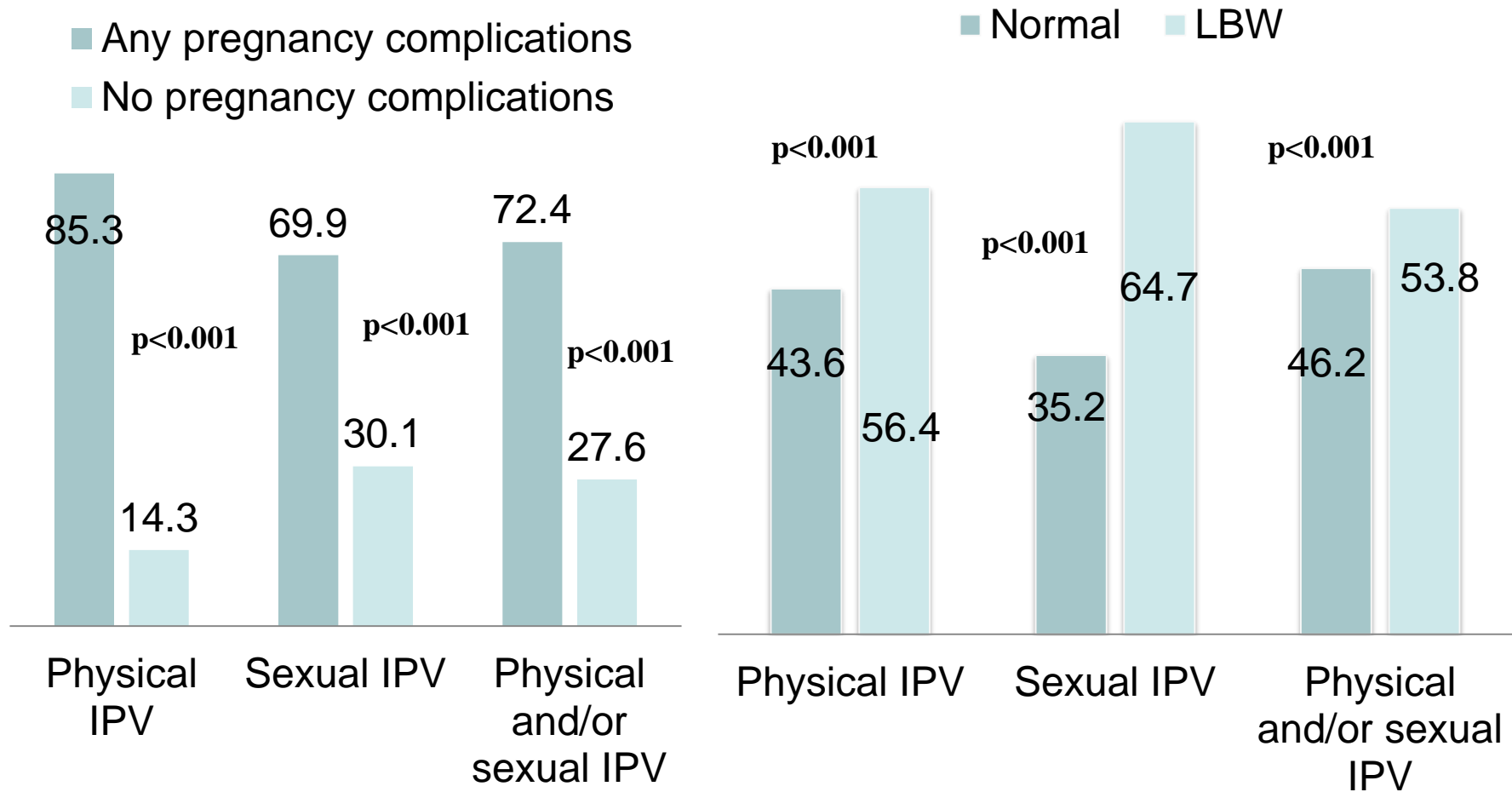
# Results

**Figure 1.** Prevalence of IPV during pregnancy and maternal complications

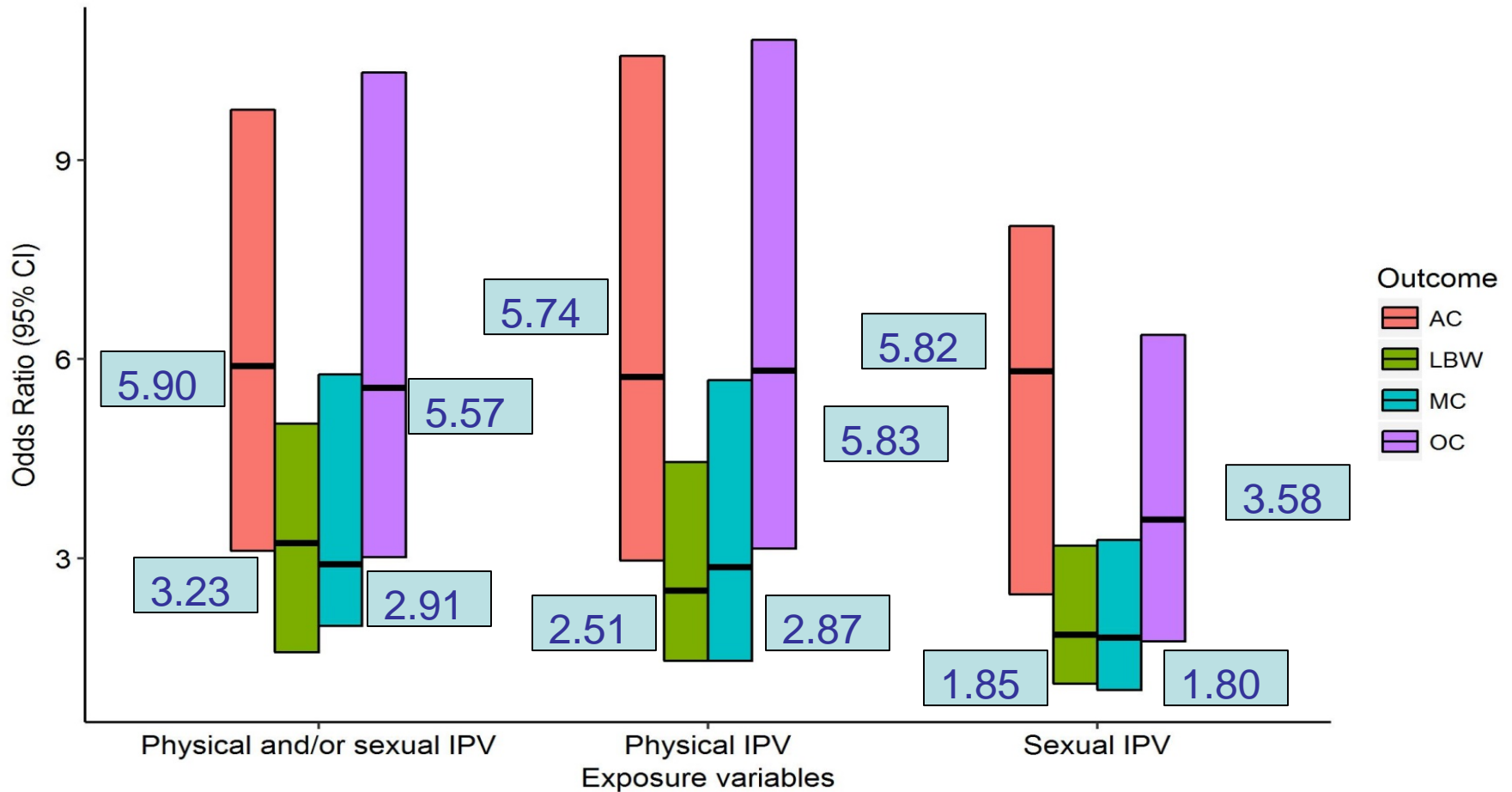




# Figure 2. Association between IPV and pregnancy complications and LBW



**Figure 3.** Odds ratios and 95% CI for the association between IPV during pregnancy and pregnancy complications and low birth weight





## Discussion



- IPV during pregnancy is alarmingly commonplace; 43% mother experiencing IPV.
- Incidence of complications during pregnancy and around delivery are high. LBW is still high
- Complications during pregnancy and LBW is much higher than the previous study findings conducted in Bangladesh with nationally representative BDHS data.
- Women who experienced IPV during pregnancy had increased odds of having complications during pregnancy and LBW, even after controlling for confounding factors





## Public Health Implications

- Since IPV during pregnancy is common and associated with harmful consequences, it is a significant public health concern.
- Routine screening for IPV by health care providers is necessary to identify the victims of IPV and refer them to the appropriate services.

