

Comparison of urban-rural inequality in quality antenatal care among women in Bangladesh and Pakistan: a multivariate decomposition analysis

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Background

- ❖ Maternal Health
- ❖ Maternal Mortality Ratio (MMR) in 2020
 - Globally
 - Low- and middle-income countries (LMICs)
 - South Asia

Sustainable Development Goal (**SDG**) 3.1 aims to reduce the global MMR to less than 70 per 100,000 live births by 2030 [1].



Background (Cont....)

- ❖ Maternal health services
- ❖ Antenatal care (ANC)

Quality antenatal care [2,3]

- Woman has four or more ANC visits, of which at least one is with a medically trained provider
- Receives all the basic components of ANC at least once
 - weight and blood pressure measurements
 - urine and blood tests
 - information on signs of possible complications



Research Gap?

- Most studies revealed pro-rich inequalities [4]
- Globally 80% received at least four ANC [5]
- South Asia witnessed 55% in receiving at least four ANC [5]
- Globally 20% urban-rural inequality observed in at least four ANC visits [5]

Why Bangladesh and Pakistan?

- More than 60% people live in rural areas [6,7]
- Less likely to attend at least four ANC visits [8,9]

Objectives

⇒ Identify and compare the key modifiable factors driving the urban-rural inequality in the utilization of quality antenatal care services in Bangladesh and Pakistan

⇒ Recommend country-specific policies to reduce urban-rural inequality in the utilization of quality antenatal care services in Bangladesh and Pakistan

Methodology

Data:

- Demographic Health Surveys (DHS) (2017-2018)

Country focus: Bangladesh and Pakistan

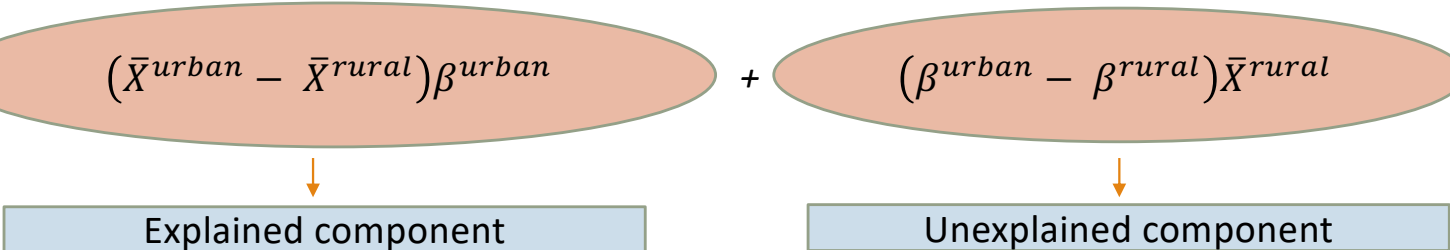
Study participants:

- women aged 15-49 years who had given birth in the three years prior to the survey

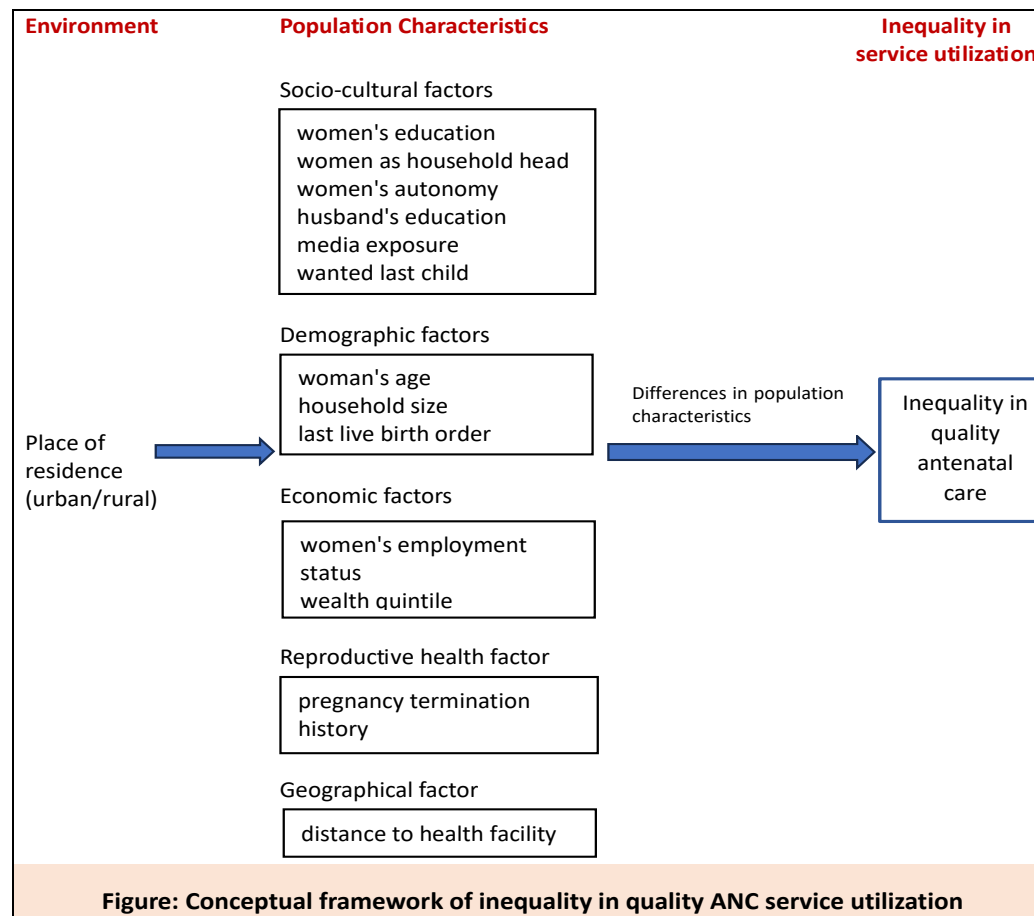
Outcome variables: quality antenatal care

Statistical Analysis: **Blinder-Oaxaca multivariate** decomposition model:

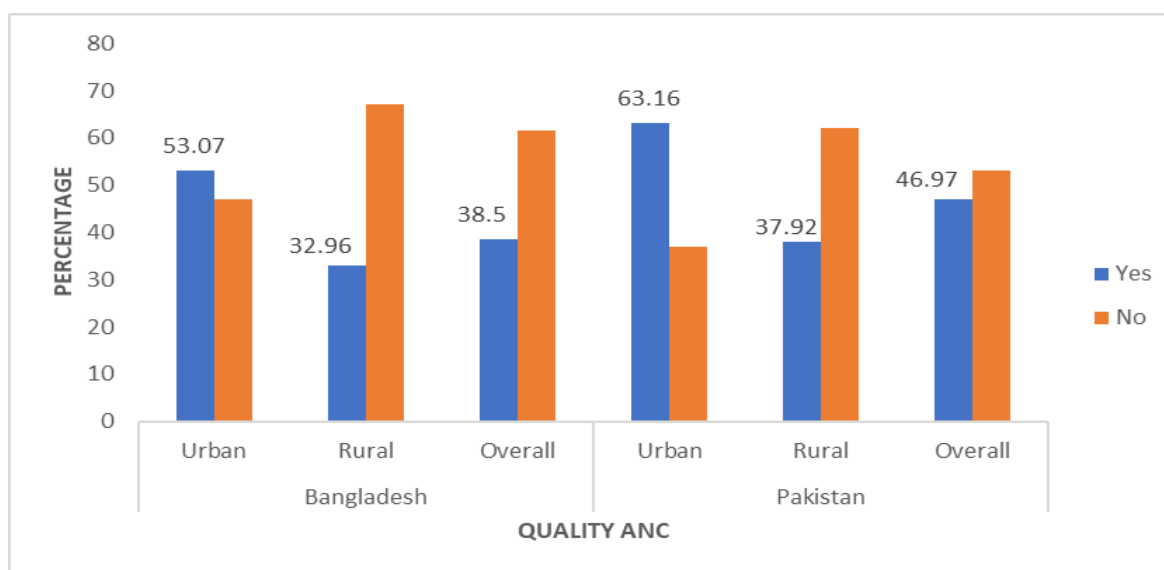
$$\bar{Y}^{urban} - \bar{Y}^{rural} = (\bar{X}^{urban} - \bar{X}^{rural})\beta^{urban} + (\beta^{urban} - \beta^{rural})\bar{X}^{rural}$$



Methodology: Conceptual framework



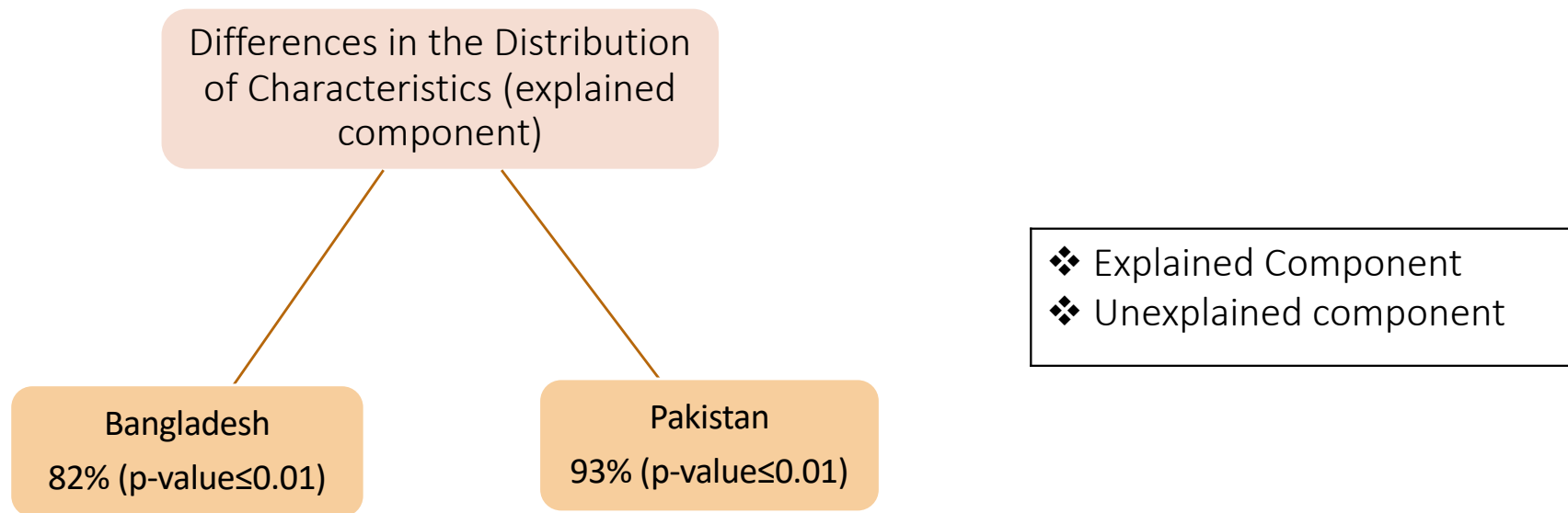
Results: Quality ANC by place of residence



Difference:
Bangladesh 20.12% (p-value≤0.01)
Pakistan 25.24% (p-value≤0.01)

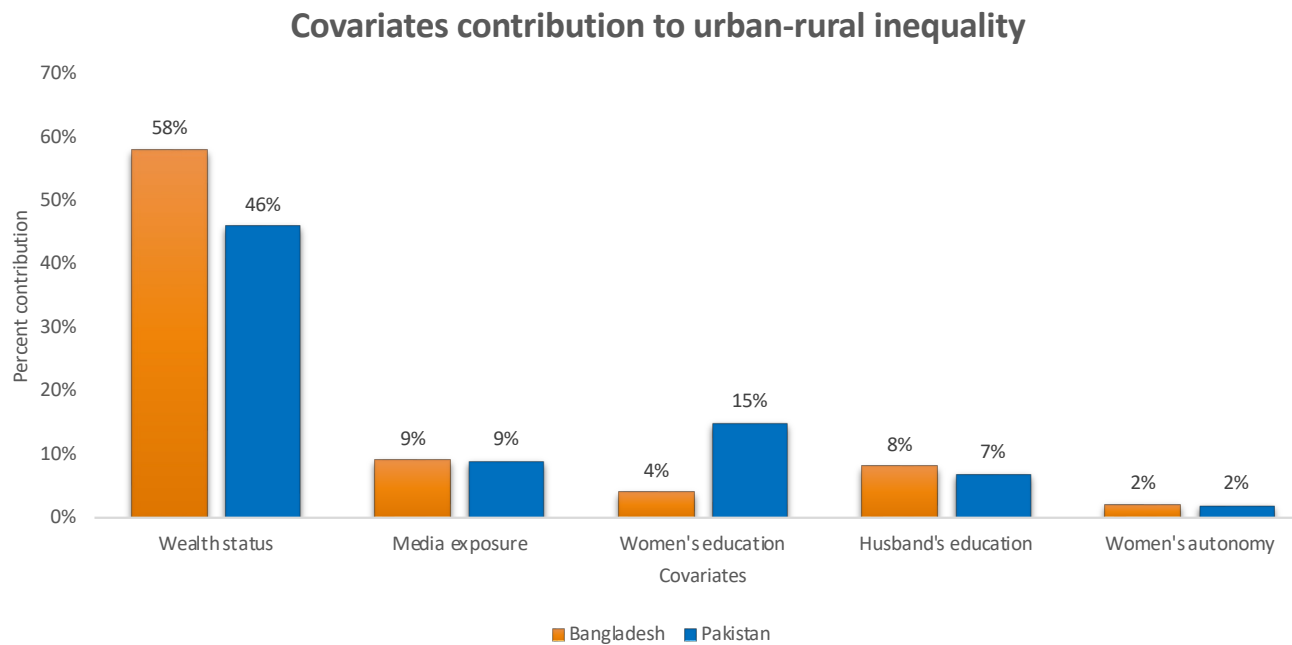
Figure: Proportion of quality ANC by place of residence in Bangladesh and Pakistan, DHS 2017-18.

Results: **Blinder-Oaxaca multivariate** decomposition



Note: The contribution of composition (characteristics) changes was more critical than behavior (coefficient) changes in reducing the inequality between urban and rural women's use of quality ANC in both countries.

Results: Blinder-Oaxaca multivariate decomposition



Note: all these covariates are significant (p-value \leq 0.01)

Implications

Based on the study's findings:

- ➔ Adoption of effective policies to help rural women escape poverty.
- ➔ Pool resources by public, private, and philanthropic institutions and change-makers to alleviate urban-rural inequality
- ➔ Implementing education program of Community-based Health Planning and Services to educate pregnant women to seek ANC
- ➔ Door-to-door campaigns and media coverage of ANC

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Thank you

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Research Article

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