# The association between household economic status and body mass index among women in Bangladesh

Rajat Das Gupta M.P.H., Maxwell Akonde M.L.S, Anthony J. Alberg Ph.D.

Department of Epidemiology and Biostatistics University of South Carolina, Columbia, SC rajatdas@email.sc.edu

**OBJECTIVE:** This study investigated the association between household economic status and body mass index (BMI) among Bangladeshi women of reproductive age (15-49 years).

# **Methods**

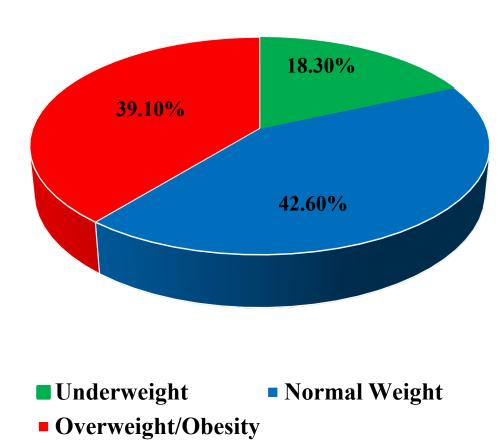
- Data Source: Bangladesh Demographic and Health Survey 2014
- Outcome variable: BMI (measured in kg/m^2)
  - ✓ Categorized according to an Asia specific BMI cut off
  - ✓ Underweight: <18.5 kg/m $^2$ ; Normal weight: 18.5-22.99 kg/m $^2$ ; Overweight/obesity:  $\geq 23.0 \text{ kg/m}^2$
- Exposure of Interest: Household economic status
  - ✓ Wealth index was constructed using principal component analyses
  - ✓ Wealth index was categorized into five quintiles: poorest, poorer, middle, richer, richest

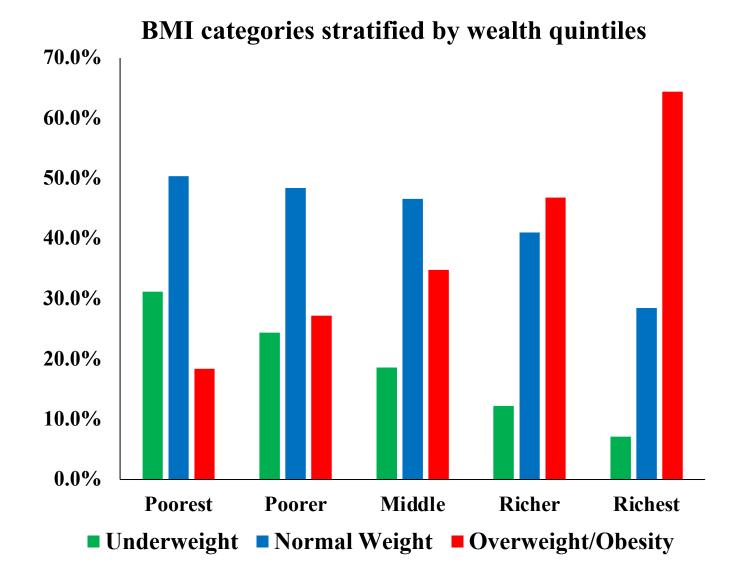
#### • Data Analyses:

- ✓ Multivariable logistic regression was conducted.
- ✓ Adjusted for age, highest educational attainment, place and division of residence, parity, marital status, number of household members in the family

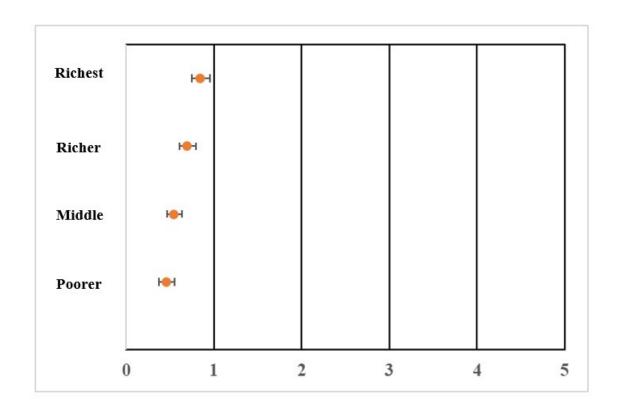
### **Results**

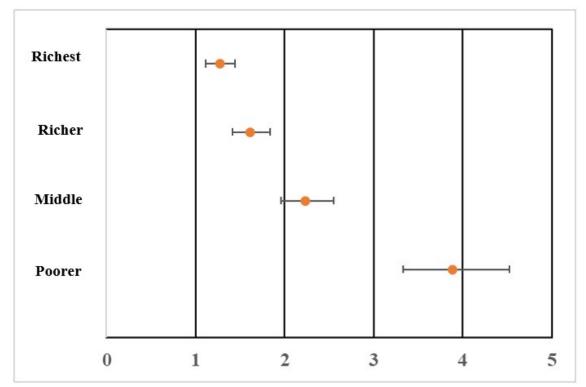
Proportion of BMI categories among total study population (N=17,421)





#### Results





Association between household economic status and underweight (The poorest wealth quintile was considered as referent group)

Association between household economic status and overweight/obesity (The poorest wealth quintile was considered as referent group)

# **Conclusion**

- Overweight/obesity consistently increased with increasing wealth index among women of reproductive age in Bangladesh
  - ☐ These results contrast upper income countries (i.e.: US), where obesity is more concentrated in lower socioeconomic groups
  - ☐ Food insecurity may play a role
- Achieving greater insight into the international differences in the association between wealth and BMI may generate strategies to control the growing prevalence of obesity globally