

**Author:** Masoud Vaezghasemi

**Co Author:** Fahad Razak (Harvard Center for Population and Development Studies, Harvard University, South Africa); Nawi Ng (Umeå University, Sweden, South Africa); SV Subramanian (Harvard T.H.Chan School of Public Health, Harvard University, South Africa)

**Topic:** Malnutrition treatment and prevention

**Title:** Inter-individual inequality in BMI: An analysis of Indonesian longitudinal family life surveys (1993-2007)

**Presentation Type:** Oral

## INTRODUCTION

Widening inequalities in mean body mass index (BMI) between social and economic groups are well documented. However, whether changes in mean BMI are followed by changes in dispersion (or variance) and whether these inequalities are also occurring within social groups remain understudied. Additionally, a substantial body of literature exists on the global increase in mean BMI and prevalence of overweight and obesity. However, whether this weight gain is shared proportionately across the whole spectrum of BMI distribution, also remain understudied.

## METHOD

Utilizing four waves (from 1993-2007) of Indonesian Family Life Survey (IFLS), we estimated absolute and relative changes in the mean and the variance of BMI over time and across socioeconomic groups based on education and households' expenditure per capita in 53,648 men and women aged 20-50 years.

## RESULTS

An increase in mean and standard deviation was observed among men (by 4.3% and 25%, respectively) and women (by 7.3% and 20%, respectively) over time. Quantile-Quantile plots showed that higher percentiles had greater increases in BMI compared to the segment of the population at lower percentiles. While between socioeconomic group differences decreased over time, within group differences increased and were more prominent among individuals with poor education and lower per capita expenditures.

## CONCLUSION

Population changes in BMI cannot be fully described by average trends or single parameters such as the mean BMI. Moreover, greater increases in within group dispersion compared with between-group differences imply that growing inequalities are not merely driven by these socioeconomic factors at the population level.