

# Socioeconomic Status and Health among Older Singaporeans

Santosh Jatrana

(Asian Metacentre, Asia Research Institute,  
National University of Singapore)

Angelique Chan

(Department of Sociology, National University of  
Singapore)

# Background

- Socioeconomic differences in **mortality risks** have been widely documented.
- Fewer studies have focused on socioeconomic inequalities in **other aspects of health status** among older adults.
- Little consensus on whether impact of socioeconomic factors diminish with age.  
**Diminish vs. continue?**
- Can we add “life” to the years of socio-economically disadvantaged older adults?

# Research Aim

- We examine socioeconomic inequalities in health status among older adults in Singapore, controlling for demographic variables, and whether these inequalities diminish with age.
- We use three measures of health status:
  - Perceived health status
  - Presence of chronic illnesses
  - Presence of functional disability

# The Singapore Case

- Fertility decline and increasing longevity have led to a rapid aging of Singapore's population.
- Currently 7% of population 65+, by 2030 → 19%.
- Older adults use a larger proportion of medical resources compared to younger adults.
- Need to anticipate health care needs.

# Data and Methods

- 1999 *Transitions in Health, Wealth, and Welfare of Older Singaporeans*
- Sample = 59+ (n=1,977).
- Separate multivariate logistic regressions for each health measure; perceived health, chronic illness, and functional disability.
  - Run for full sample, n=1977
  - Separately for 3 age groups; 59-73, 74-83, and 84+

# Our health measures

- Self reported health
- Number of chronic conditions
- Functional disability

# Percentage of Older Adults Reporting a Particular Health Problem

Health status	Percentage
Poor self-assessed health	45
Reporting at least one chronic condition	73
Reporting at least one functional disability	31

# Our independent variables

- Socioeconomic characteristics:
  - Education, income level, perceived income adequacy, homeownership, assets.
- Demographic characteristics:
  - Age, sex, ethnicity, marital status

# Socio-economic characteristics of older Singaporeans

- 60% have no formal education, 26% completed primary school, and 13% completed secondary school.
- 69% own their own home.
- Average monthly income: 31% less than \$1,000, 69% more than \$1,000.
- 53% possess assets (mainly savings).
- 83% perceive their income as adequate or more than adequate.

At the bivariate level we see socioeconomic differences in perceived health status

- More likely to report **poor self-assessed health** if:
  - **Lower monthly income**  
(Odds ratio = 1.5,  $p < 0.000$ ).
  - **Inadequate perceived income**  
(Odds ratio = 2.4,  $p < 0.000$ ).
  - **No education**  
(Odds ratio = 1.6,  $p < 0.01$ ).
  - **Do not own home**  
(Odds ratio = 1.,  $p < 0.08$ ).

At the bivariate level we see socioeconomic differences in the presence of at least one **chronic illness** if:

- More likely to report a chronic illness if:
  - **Perceived income is inadequate**  
(Odds ratio = 1.8,  $p < 0.000$ ).
  - **Lower education**  
(Odds ratio = 1.5,  $p < 0.03$ )
  - **Do not own assets**  
(Odds ratio = 0.8,  $p < 0.07$ )

At the bivariate level we see socioeconomic differences in the presence of at least one functional disability if:

- More likely to report a **functional disability** if:
  - **Lower income**  
(Odds ratio = 1.5,  $p < 0.002$ )
  - **Inadequate perceived income**  
(Odds ratio = 1.5,  $p < 0.001$ )

# Conclusion at the bivariate level:

- Perceived health status is most affected by socioeconomic variables.
- Strong demographic effects: Older age, being female associated with poorer health status on all health measures.

# Multivariate results for perceived health

- Lower income, lower perceived income adequacy, lower education → poorer perceived health.
- Not currently married, minorities, older respondents and females report poorer perceived health.

# Multivariate results for presence of at least one chronic illness

- Lower perceived income adequacy, lower education, and no assets → at least one chronic illness.
- Older ages and being female → at least one chronic illness.

# Multivariate results for presence of at least one functional limitation

- Lower income, inadequate perceived income adequacy → at least one functional limitation.
- Minorities, older respondents, females → at least one functional limitation.

# Do the effects of socioeconomic factors decline with age when predicting perceived health status?

- At ages 59-73 what matters?
  - Income, perceived income adequacy, education, owning assets, being a minority, gender.
- At ages 74-83 what matters?
  - Income, perceived income adequacy, being a minority.
- At ages 84+ what matters?
  - Perceived income adequacy, being a minority, gender.

Do the effects of socioeconomic factors decline with age when predicting the presence of a chronic illness?

● At ages 59-73 what matters?

- Perceived income adequacy, education, gender.

● At ages 74-83 what matters?

- Perceived income adequacy.

● At ages 84+ what matters?

- Gender.

Do the effects of socioeconomic factors decline with age when predicting the presence of a functional limitation?

● At ages 59-73 what matters?

- Income, perceived income adequacy, being a minority, gender.

● At ages 74-83 what matters?

- Nothing

● At ages 84+ what matters?

- Being a minority, gender.

# Conclusions

- The effect of socioeconomic characteristics is strongest when predicting perceived health.
- Across all health measures, the perception of income adequacy proves the most important predictor of health.
- Separate regressions by age point to a decrease in the importance of socioeconomic characteristics as one ages.

# The perception of how well you are doing and health status

- The perception of income adequacy inversely related to health status.
- Level of stress reported strongly positively related to poor health status.