Understanding Inequalities and Inequities in Health and Wellness among Older Canadians

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Health equity as a barometer for successful aging of a population

- Successful aging: a common policy goal

    - Health: a key component

    - Individual and population levels

- Successful aging of a population

    - Overall level and distribution

    - Inequalities (differences) and inequities (unfair differences)

Current literature and key feature of our work

- Current literature
  - Health inequity: a complex concept with no single definition
  - Disciplinary divide: epidemiology/public health vs. health economics
    - Epidemiology/public health: health and socioeconomic status in aging populations
    - Health economics: equal opportunity for health in general populations
- Key feature of our work
  - Interdisciplinary, transparent, and flexible incorporation of alternative definitions of health inequity in the measurement

Methods

- Data: baseline data of the CLSA Comprehensive

- Health outcomes: overall health (the frailty index and the global health index); specific health (grip strength, cognition, and bone density)

- Health determinants: biological endowment, social background, health behaviour, and social support and care variables

- Health inequity definitions: equal opportunity for health, policy amenability, and social advantage

- Separate analysis for each health outcome and each definition of health inequity

Analysis

Step 1: Measuring health inequality

- Quantifying observed distribution of health across individuals using the Gini coefficient

Step 2: Understanding sources of health inequality

- Using regression analysis to quantify the association between health and its determinants

- Decomposing inequality into "ethically acceptable" and "ethically unacceptable" components

Step 3: Measuring health inequity

- Estimating "unfair" health

- Quantifying the unfair distribution of health across individuals using the Gini coefficient

Analysis example

Grip strength
Equal opportunity for health

Distribution of observed grip strength
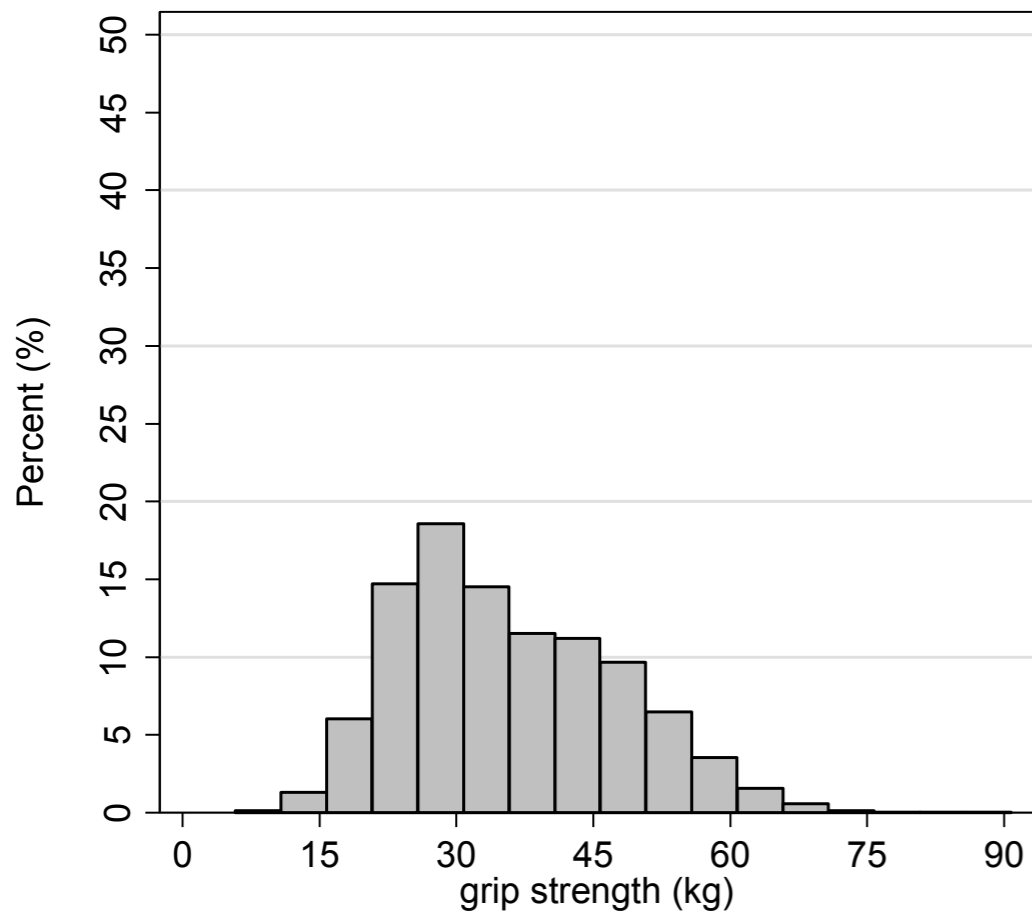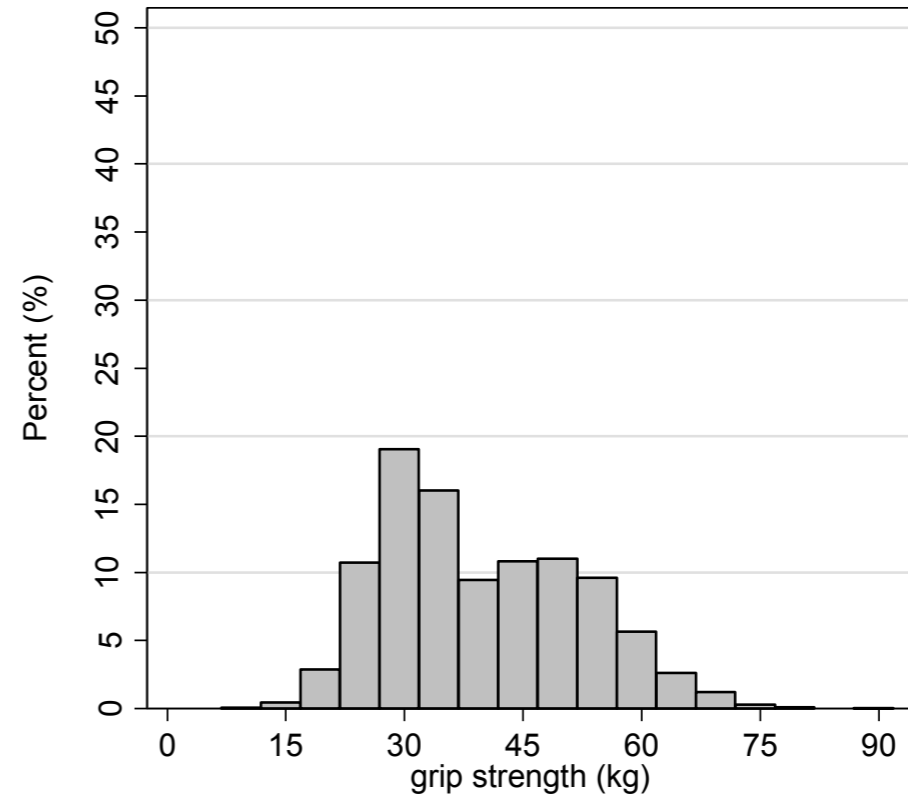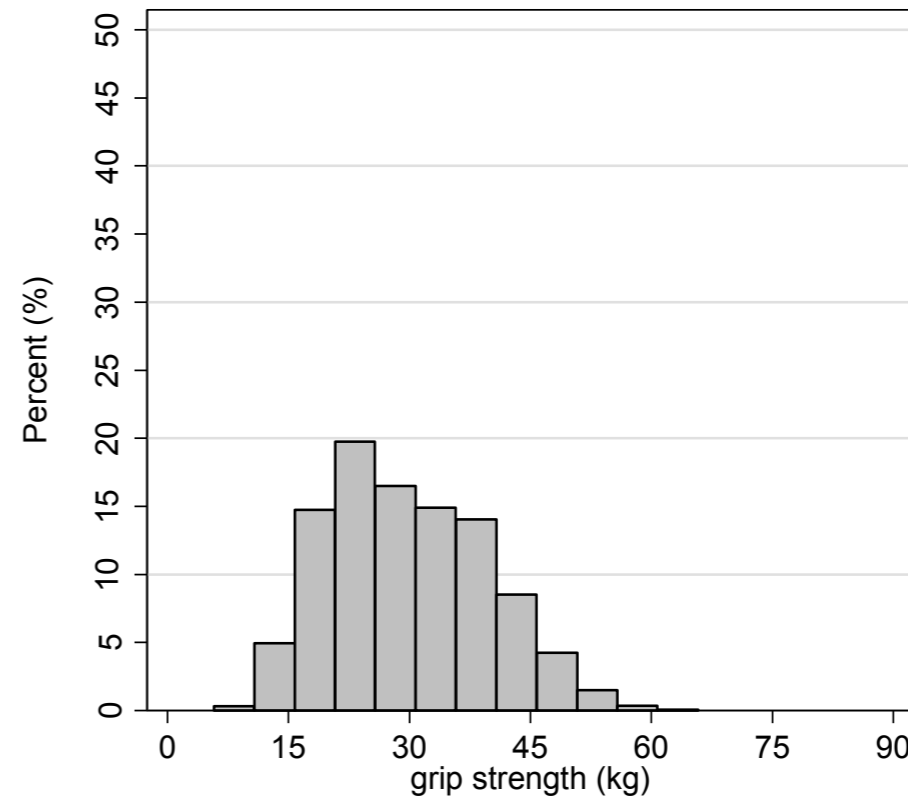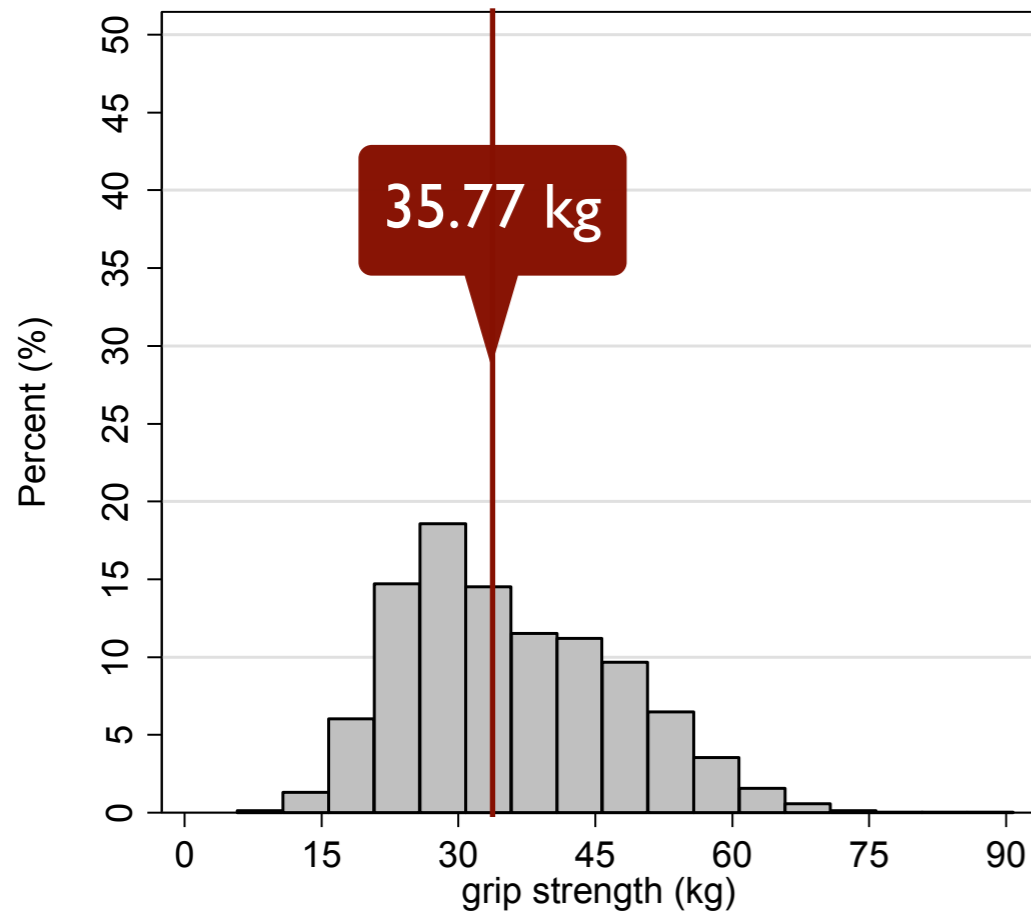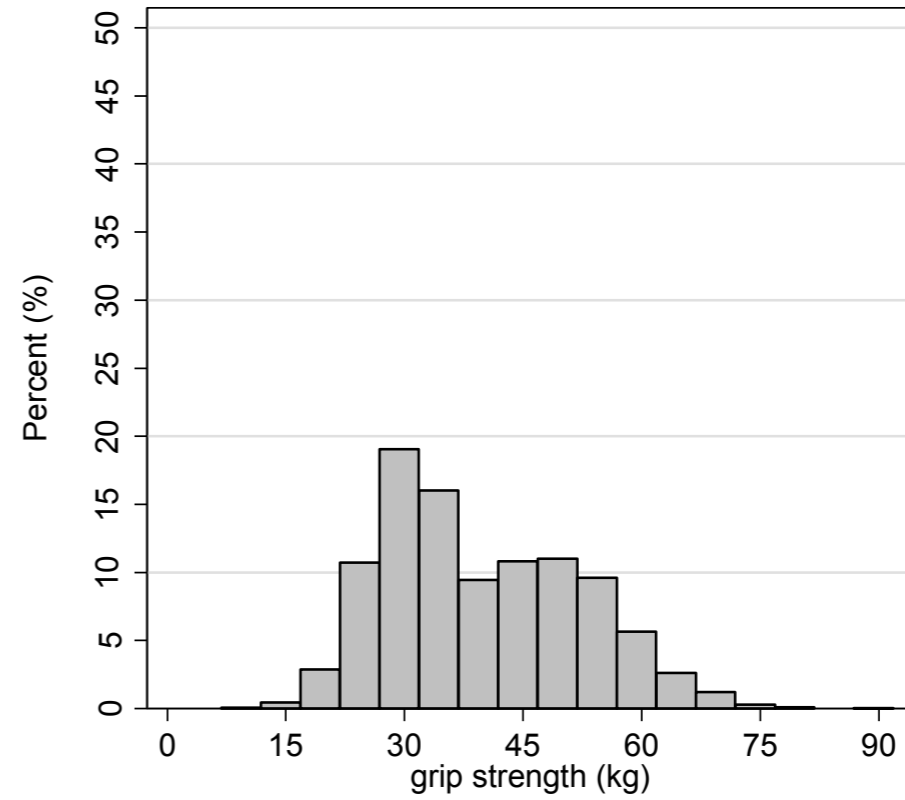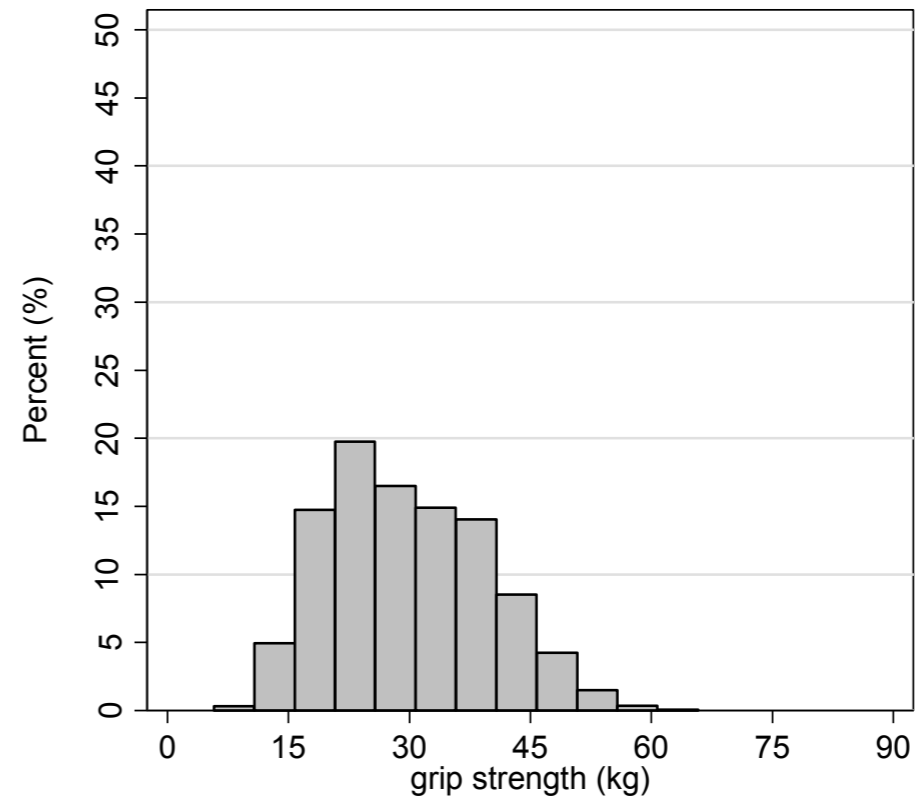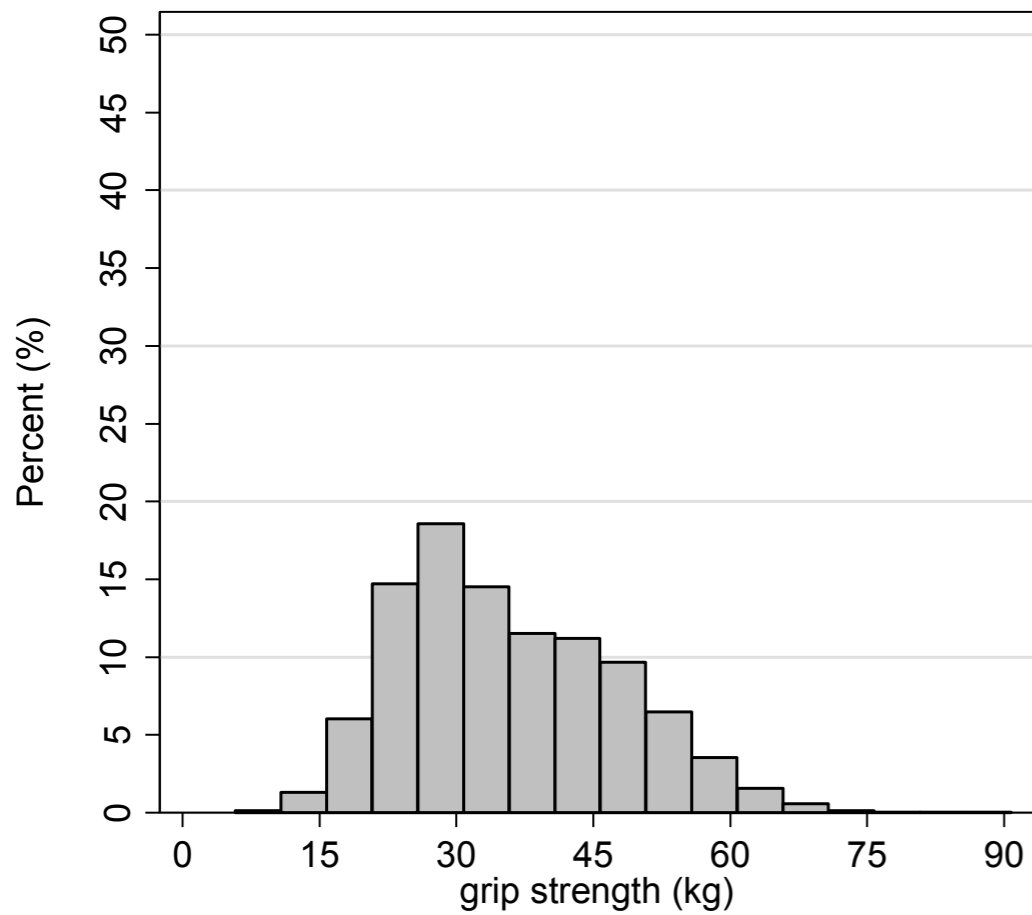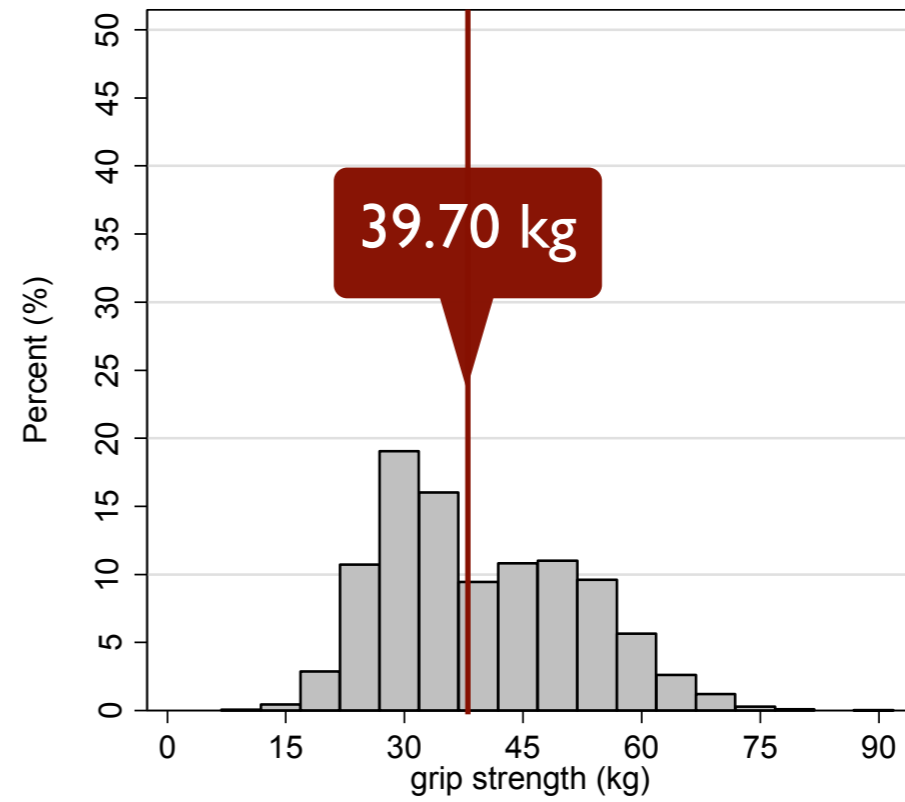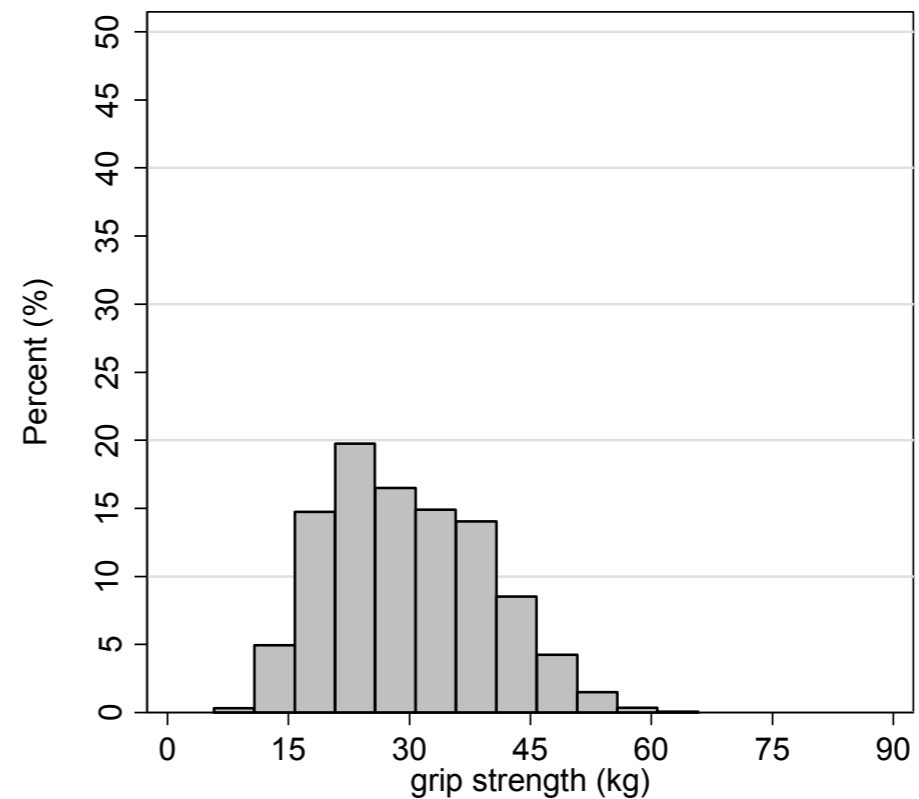
All ages (45-86 years)

45-54 years

75-86 years

Distribution of observed grip strength

All ages (45-86 years)

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Distribution of observed grip strength

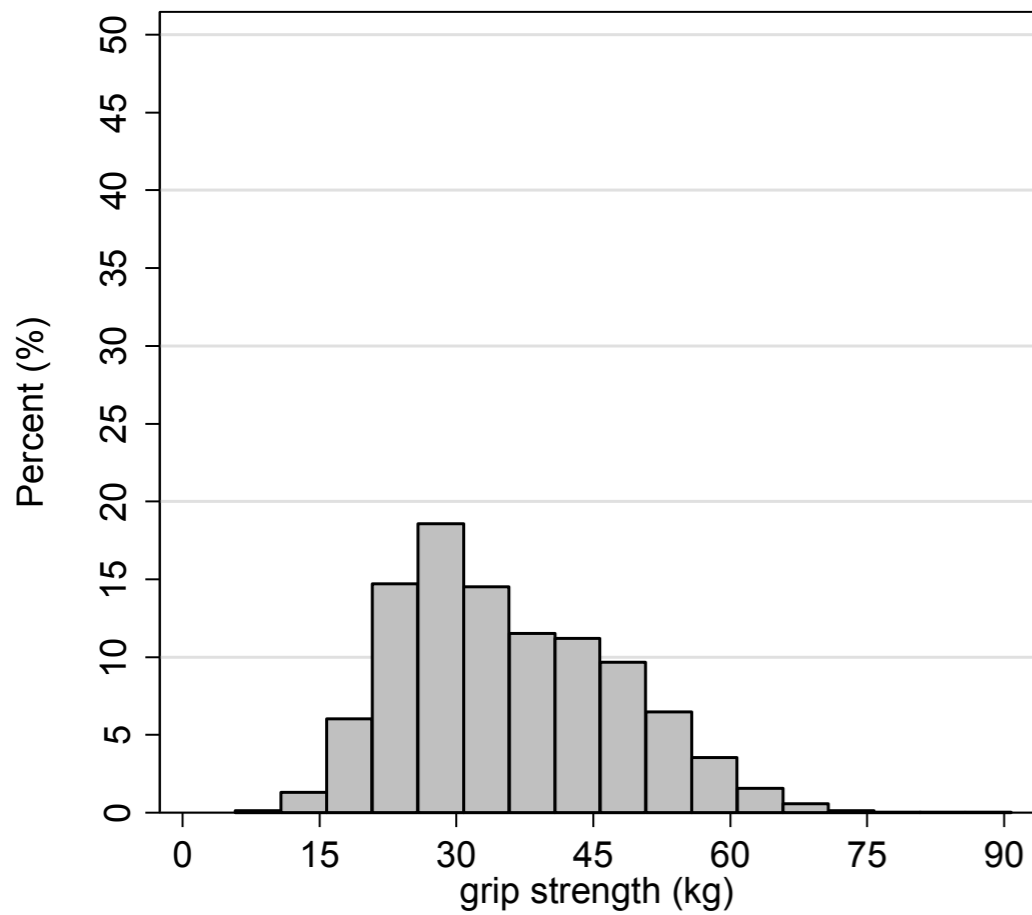All ages (45-86 years)

45-54 years

39.70 kg

75-86 years

Distribution of observed grip strength

All ages (45-86 years)

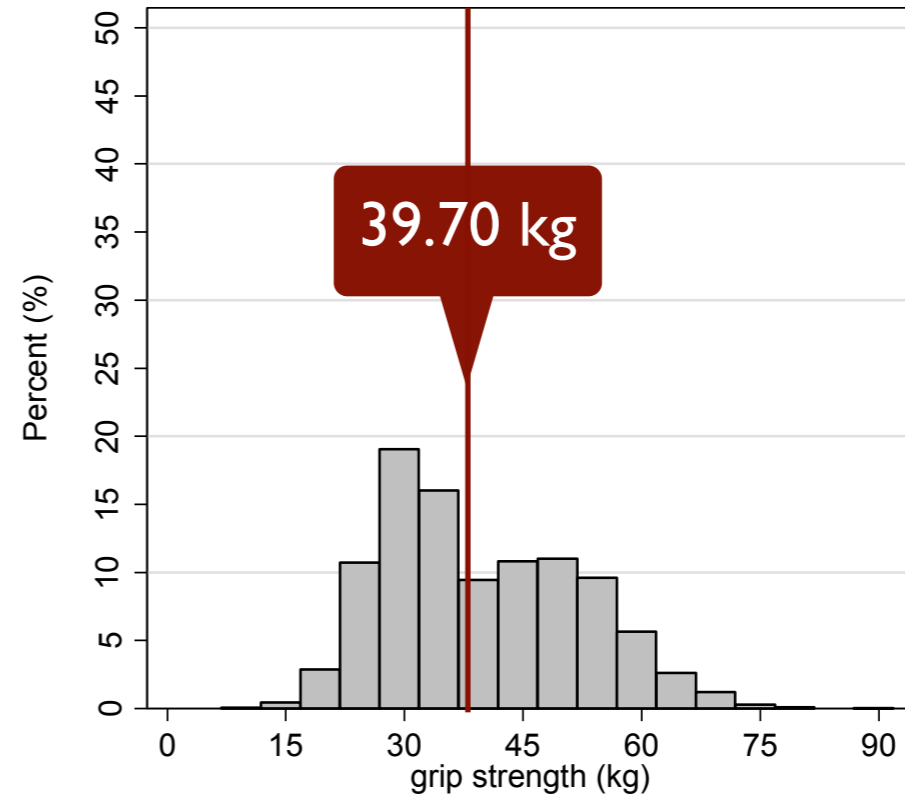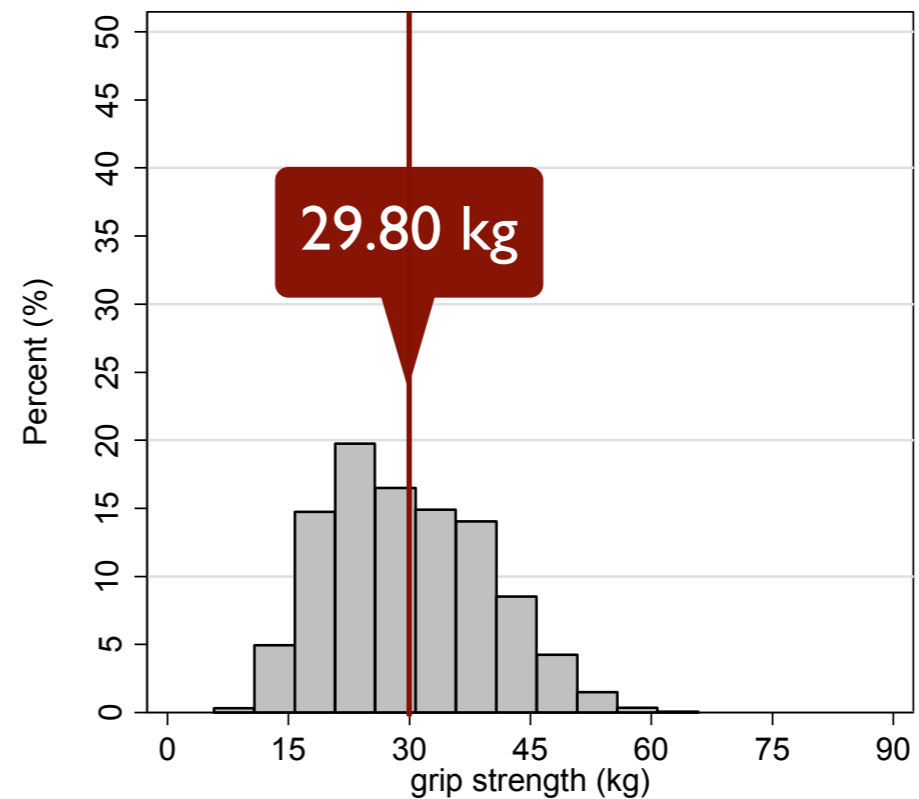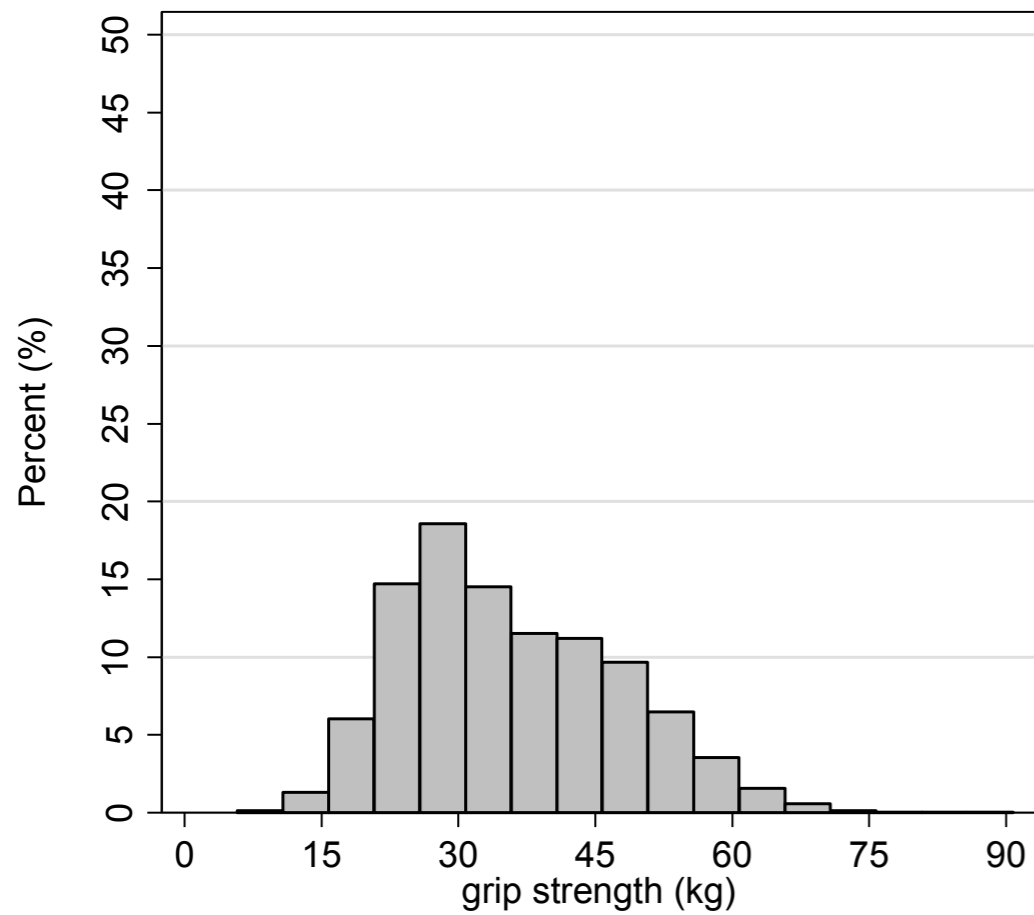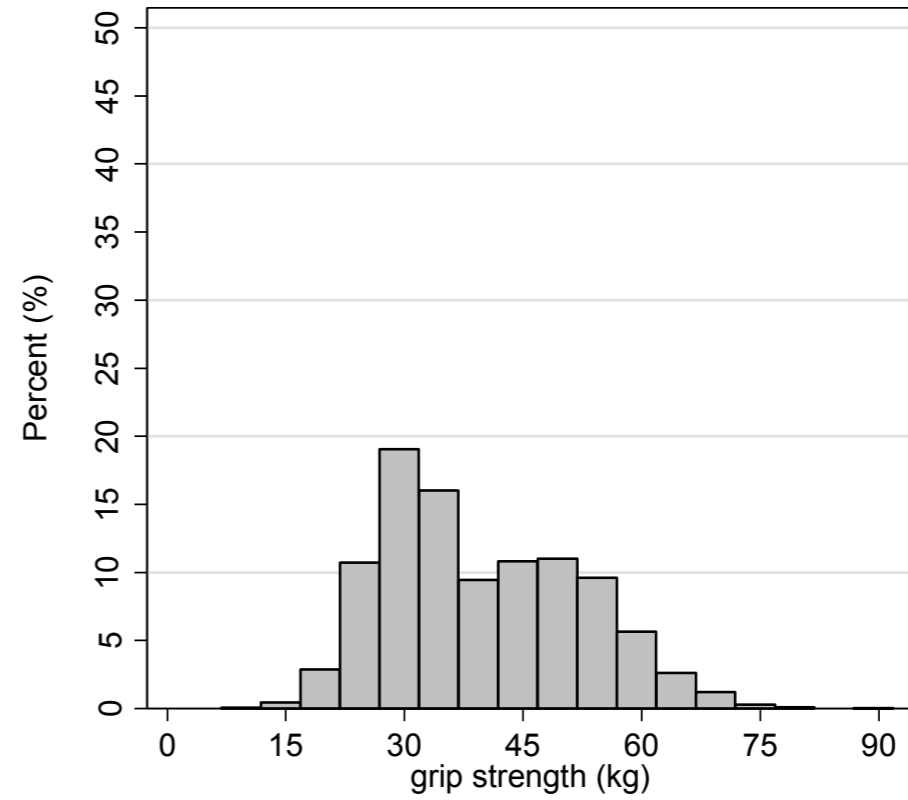45-54 years

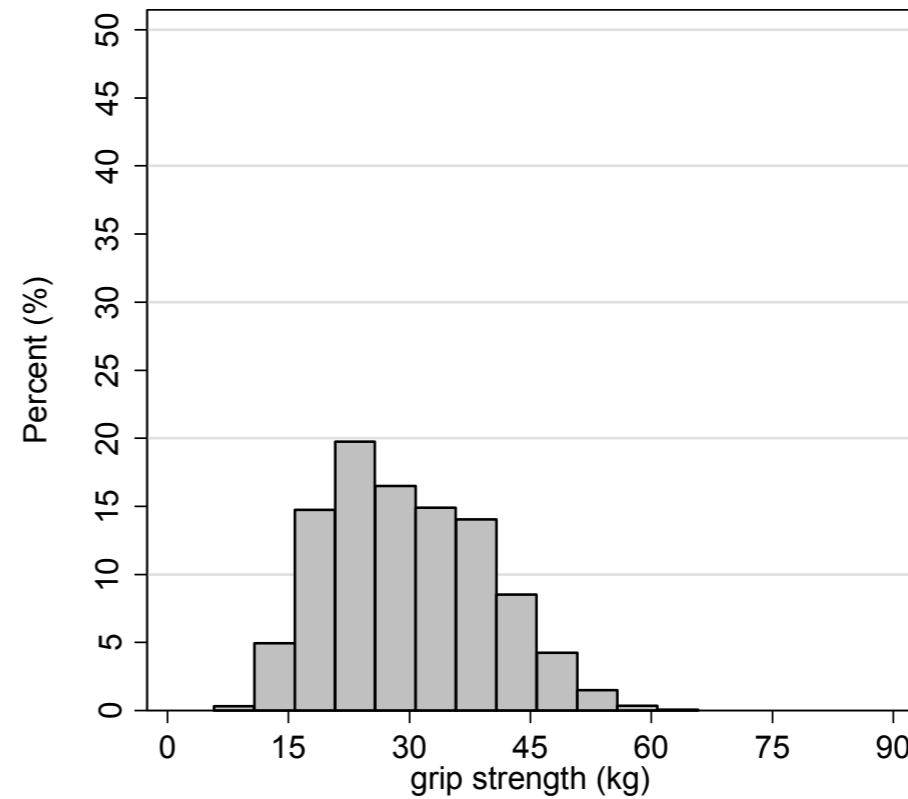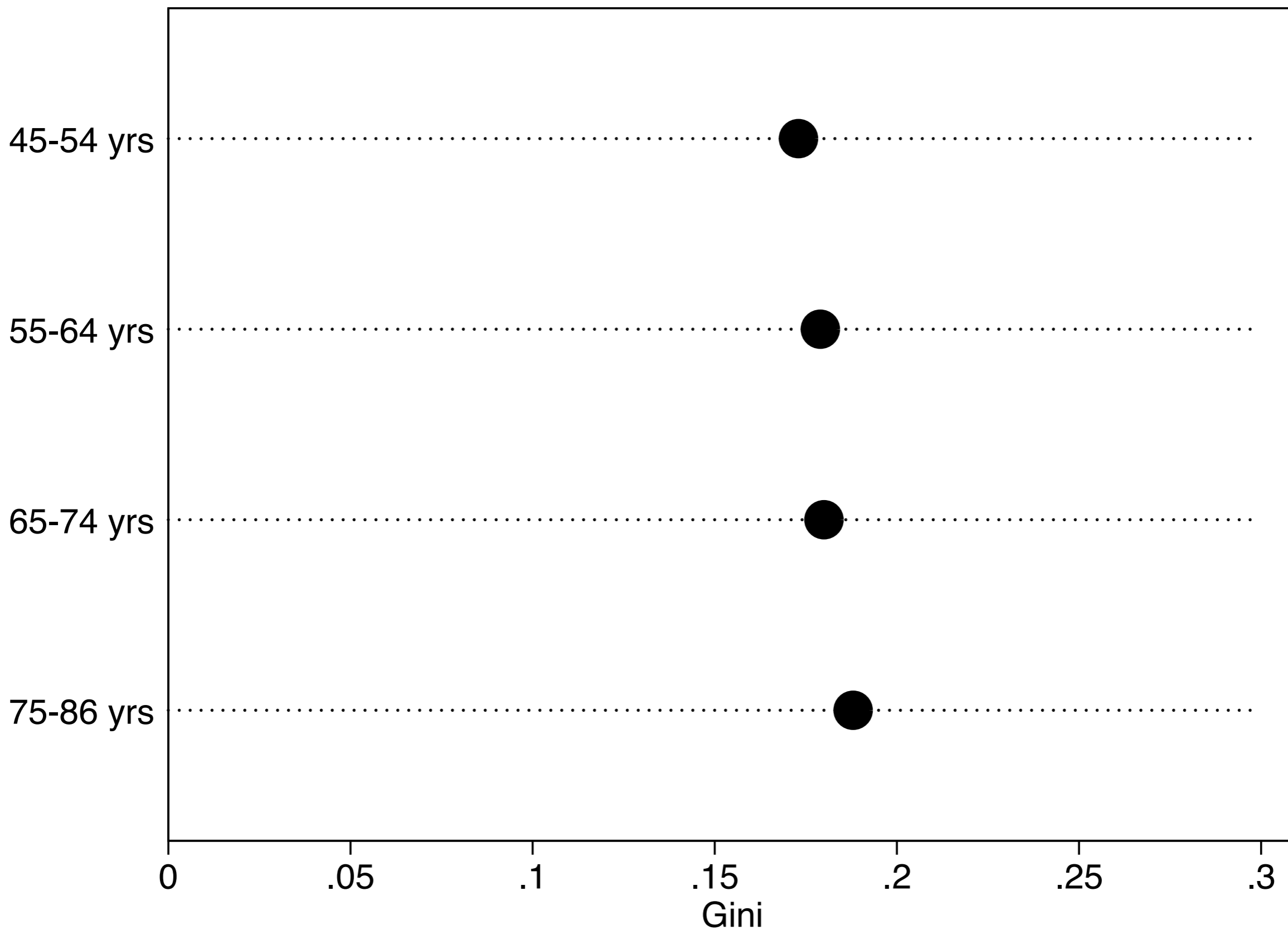39.70 kg

75-86 years

29.80 kg

Distribution of observed grip strength
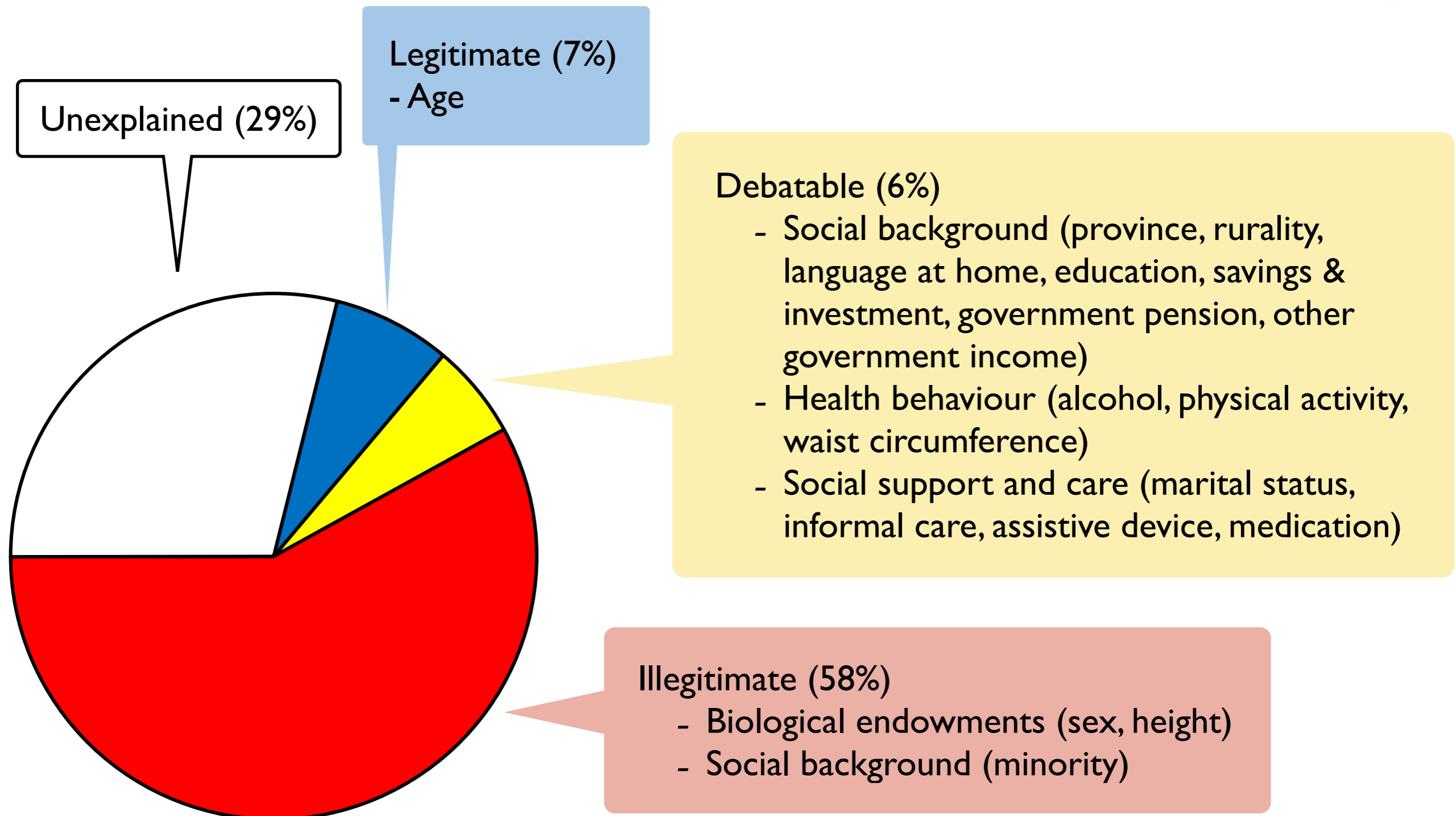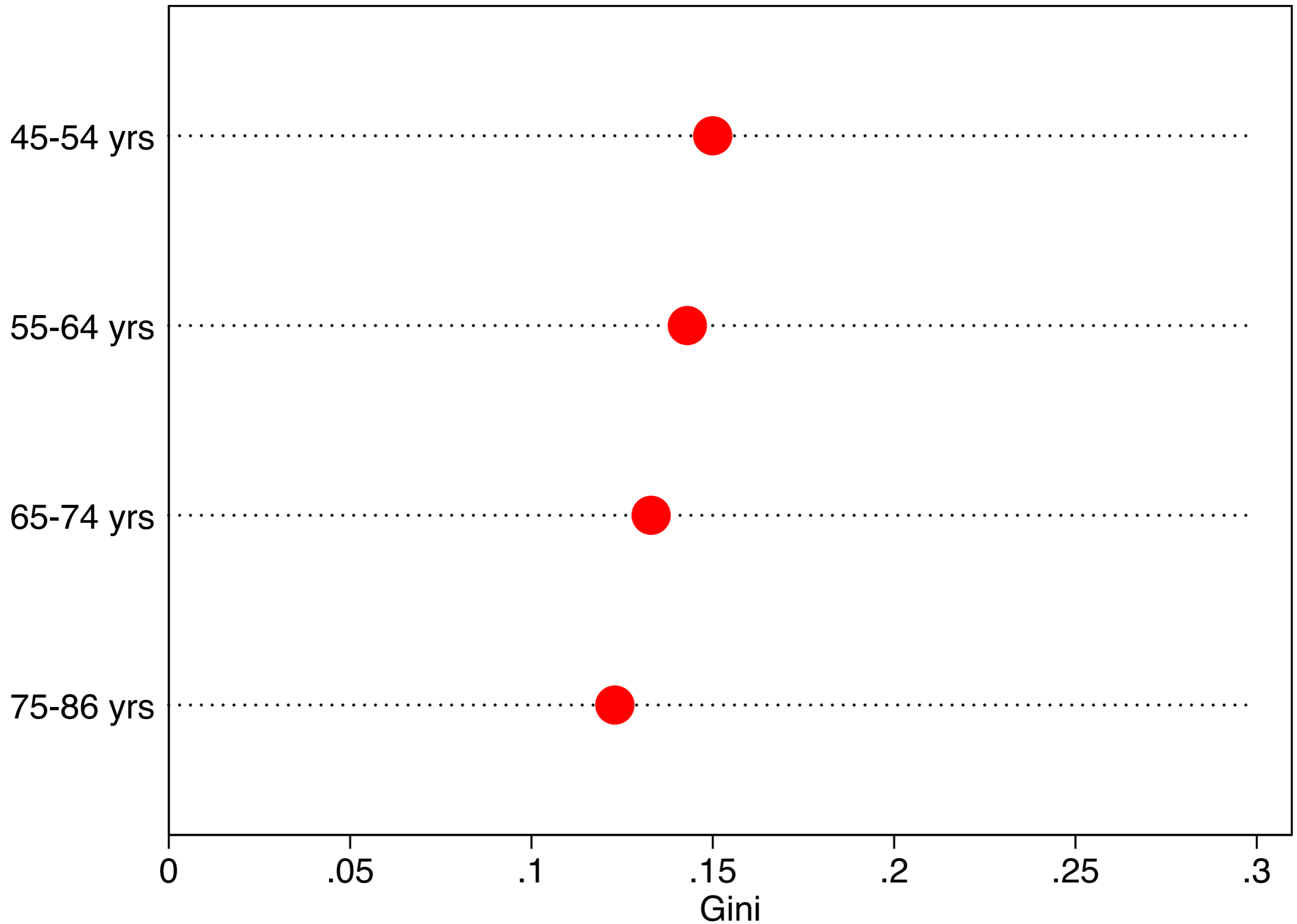

All ages (45-86 years)

45-54 years

75-86 years

Inequality in grip strength by age group

Inequality explained by illegitimate, legitimate, and unexplained components

Legitimate (7%)
- Age

Unexplained (29%)

Debatable (6%)
- Social background (province, rurality, language at home, education, savings & investment, government pension, other government income)
- Health behaviour (alcohol, physical activity, waist circumference)
- Social support and care (marital status, informal care, assistive device, medication)

Illegitimate (58%)
- Biological endowments (sex, height)
- Social background (minority)

Inequity in grip strength by age group

Inequality and inequity in grip strength by age group
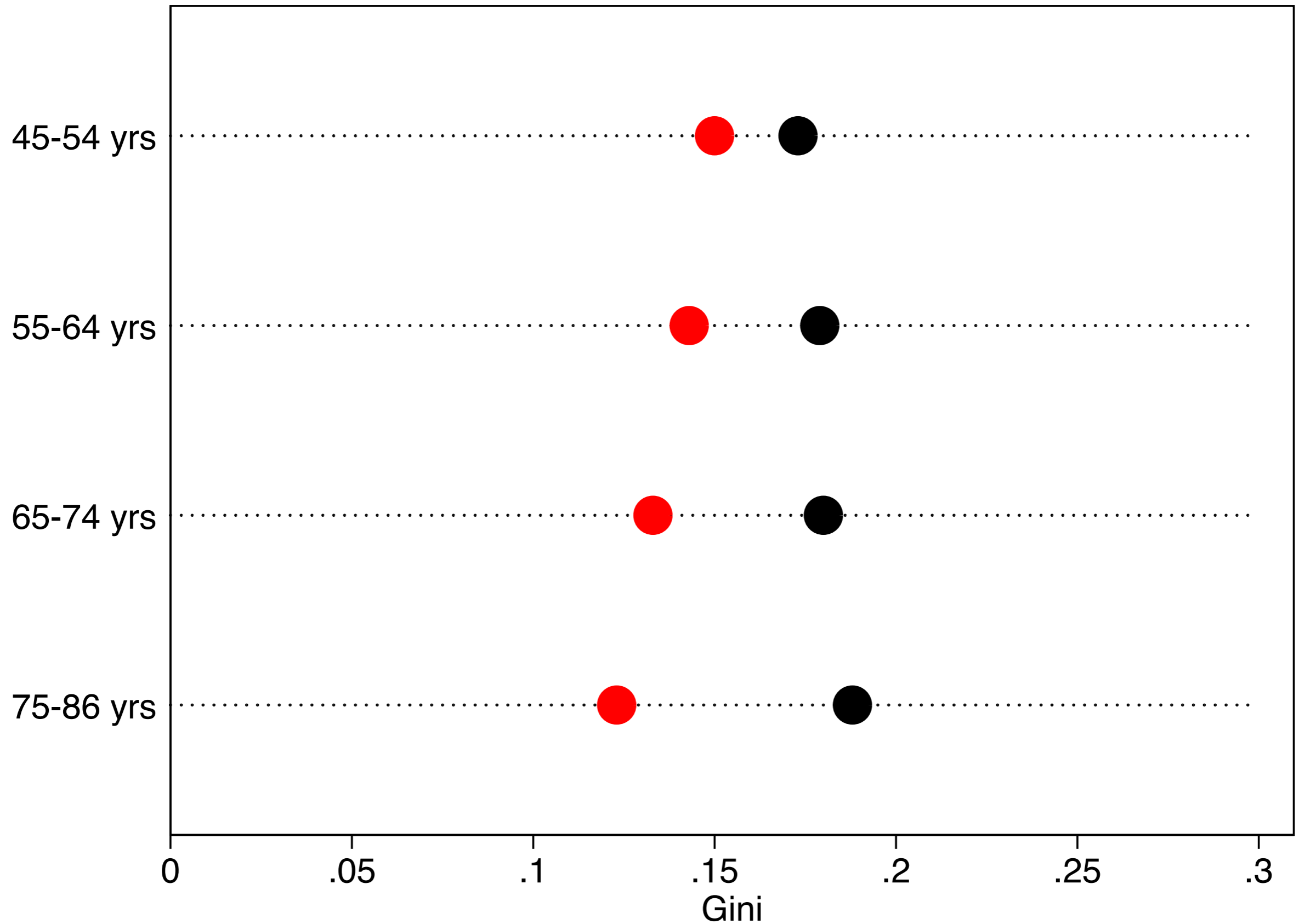
Implications

- Supporting equitable policies for successful aging by:

  - extending the examination of health inequalities and inequities in the context of aging populations

  - extending a methodological approach to measuring health inequities comparably across different health outcomes, health equity definitions, and countries

Contact information

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