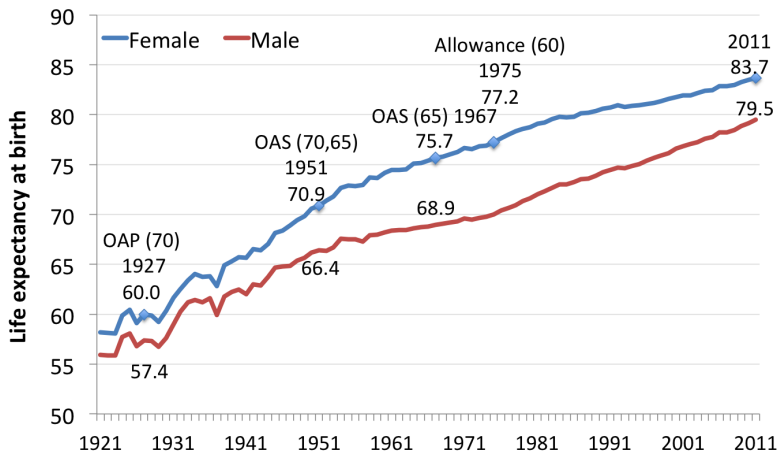


Work Capacity and Health of Older Canadians

Tammy Schirle (Wilfrid Laurier University)
with Kevin Milligan (University of British Columbia)

Future Well-Being of the Elderly, QICSS
December 2016

Motivation



Overview

What we see:

- Improvements in life expectancy, healthy life expectancy

What we ask:

- Is there capability to work longer?

What we do:

- Describe the capacity to work among older individuals
- Use mortality risk, health conditions, employment

Some findings:

- If working at same rate per unit of mortality risk as 1976, men (women) could work 5 (2) more years
- Employment rate of men 60-64 could ↑ 29 pts

Data for Analysis

Labour Force Survey (RDC)

- Age & sex specific employment rates
- Women - subsample worked since age 45
- Average usual hours worked

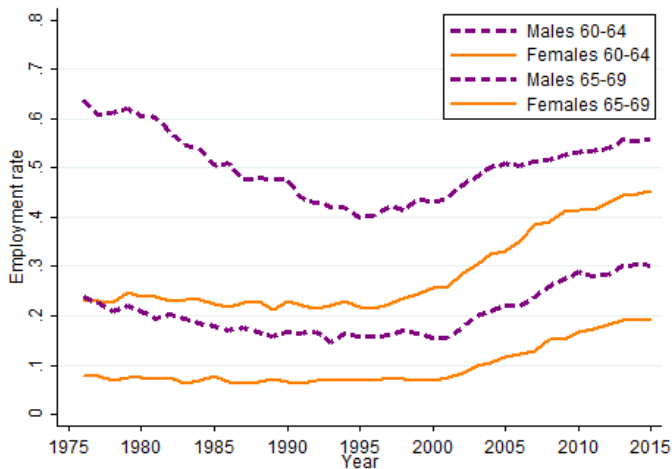
Canadian Human Mortality Database & StatCan lifetables

- Age & sex specific mortality rates 1976-2012

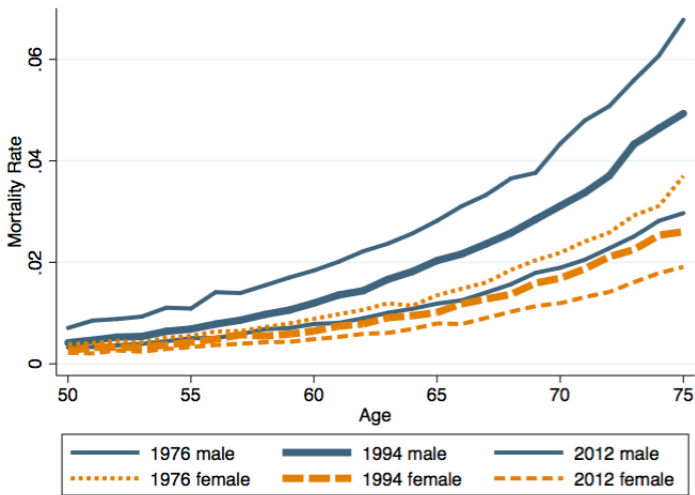
Canadian Community Health Survey

- 2001-2014 RDC files
- Employment status (worked or absent in week)
- Prevalence of health conditions, self-reported health, obesity smoking

Employment Rates



Mortality Rates

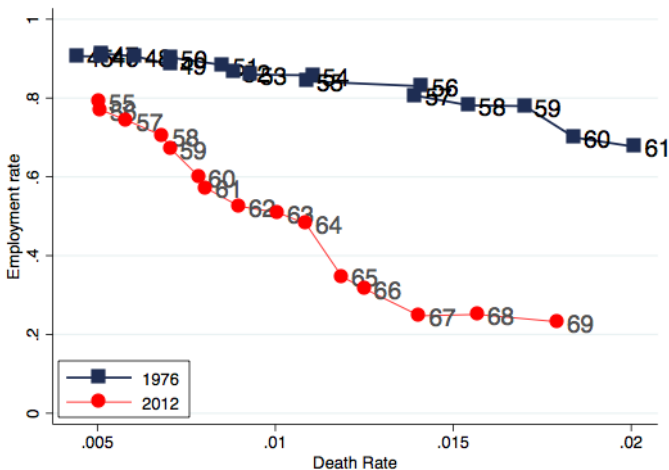


The Employment-Mortality Relationship

Map the evolution of the employment-mortality relationship

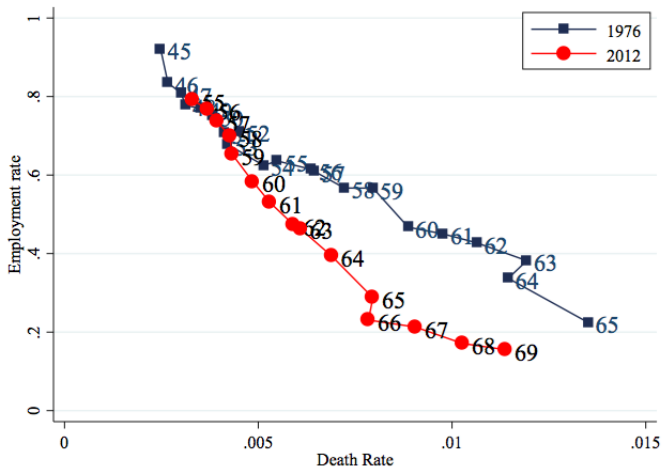
- Scatterplot - Age specific employment and mortality rates
- Relationship changes over time
- Compare employment rates for a given level of mortality risk

Employment-Mortality, Male, 1976 & 2012



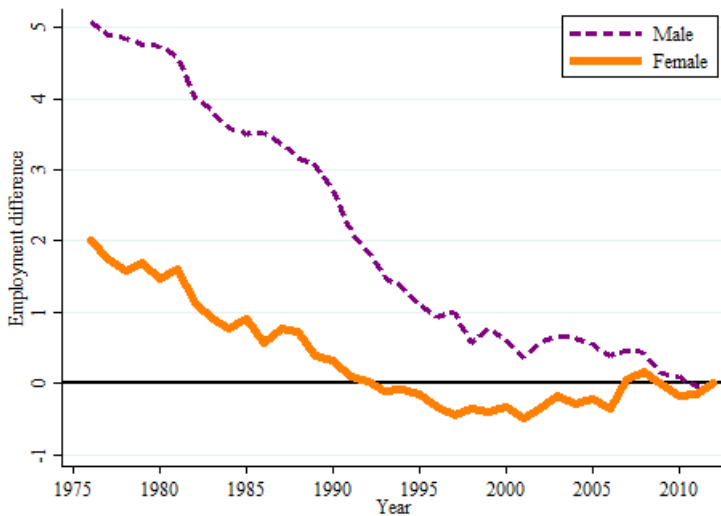
Sum of gaps = 5 years

Employment-Mortality, Female, 1976 & 2012

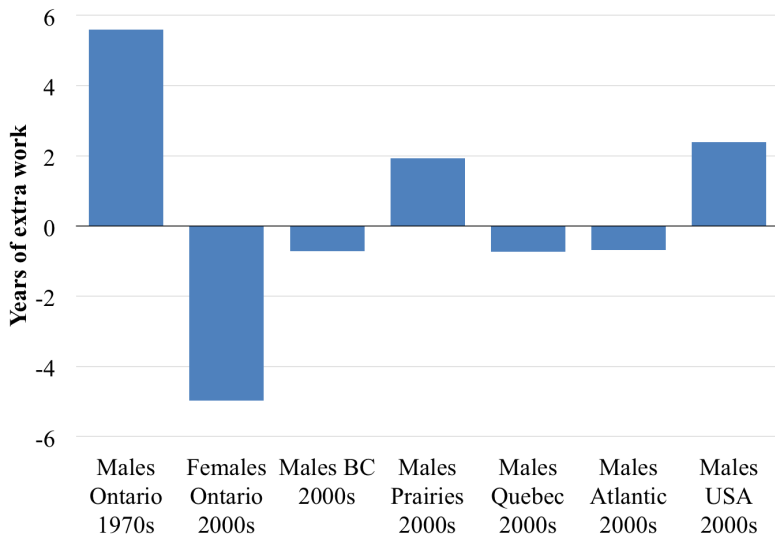


Sum of gaps = 2 years

Potential years of work



Potential years of work (Male, ON, 2000s)



Empirical Strategy

Canadian Community Health Survey 2001-2014

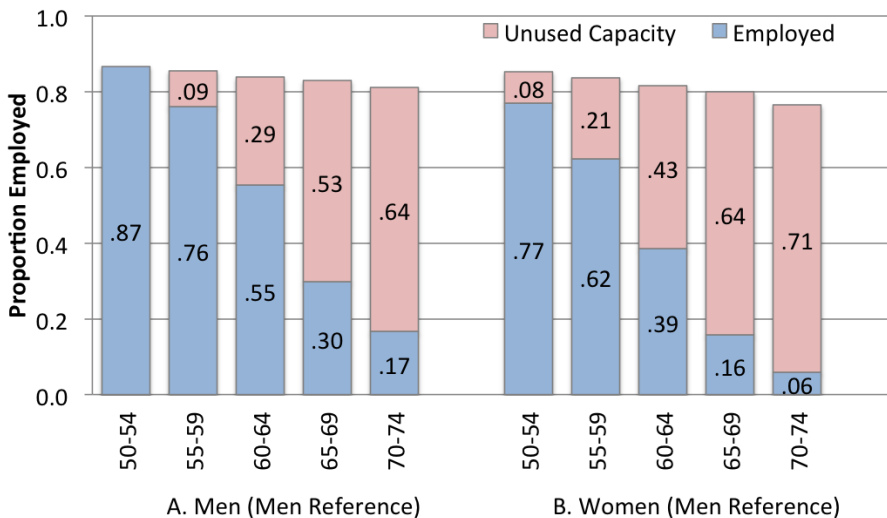
- 50-54 year old reference group

$$Employed_{it} = \beta_0 + \beta_1 X_{1it} + \beta_2 X_{2it} + \beta_3 X_{3it} + \epsilon_{it}$$

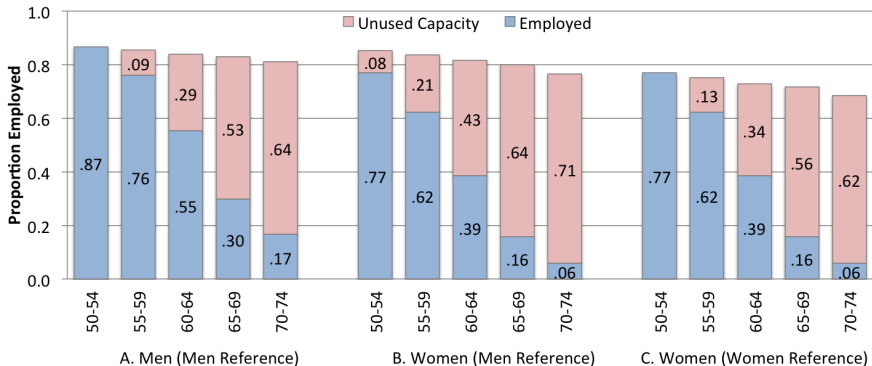
- 1 prevalence of health conditions, smoking, obesity, number of conditions
- 2 self-assessed health (poor-excellent)
- 3 education, marital status, race, immigrant, region, year indicators

Predict employment rates of men and women at older ages

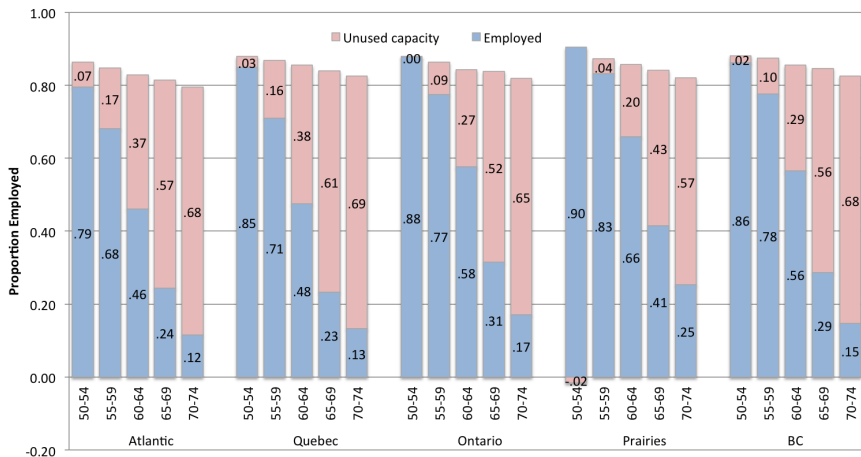
Simulation results: capacity to work



Simulation results: capacity to work



Simulation: Ontario Men reference group



Key Results

Substantial health capacity to work among older men and women in Canada

- Men 55-69 could work 5 more years
- Women 55-69 could work 2-5 more years
- Employment rates of men 60-64 could be 29 ppts higher, women 43 ppts.

Caveats:

- True ability to work unobservable
- Health measures may understate severity of health conditions
- Estimates of capacity depend on reference group
- Estimates do not speak to opportunities for employment, heterogeneity, or whether people *should* work more