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# Avoidable mortality in Canada: Trends, geographic variations and health disparities

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# Avoidable Mortality-Concept

- Avoidable mortality-premature deaths that should not occur in the presence of
  - timely and effective health care
  - other public health and policy interventions
- Focuses on the portion of population health attainment that can potentially be influenced by the health system
- Broad definition of health system (WHO):
  - “all activities whose primary purpose is to promote, restore or maintain health”

# Avoidable Mortality-History

- First introduced in 1976
  - Rutstein et al.- list of “untimely and unnecessary deaths” for evaluating the quality of medical care for a medical audit
- Several countries use avoidable/amenable mortality for evaluating the performance of their health systems
  - European Community Atlas of “Avoidable Death”
  - Australia and New Zealand: Atlases of avoidable mortality
  - Australia: Potentially avoidable deaths indicator reported for the National Healthcare Agreements
  - U.K.: included in the NHS and Public Health Outcomes frameworks

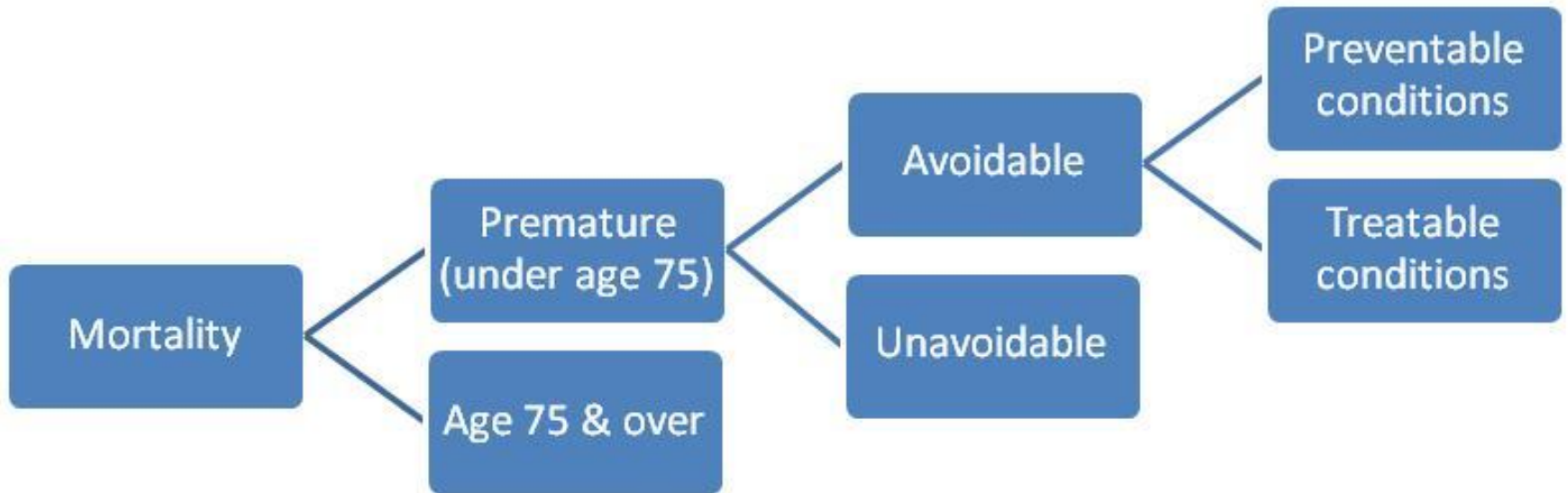
# Avoidable Mortality-Use

- A “whole-of-system” health outcome indicator—that would act as an initial screen of health system performance
- A tool to assess the performance of health systems and to track changes over time
- To estimate and track gains in population health

# Avoidable Mortality Indicators for Canada

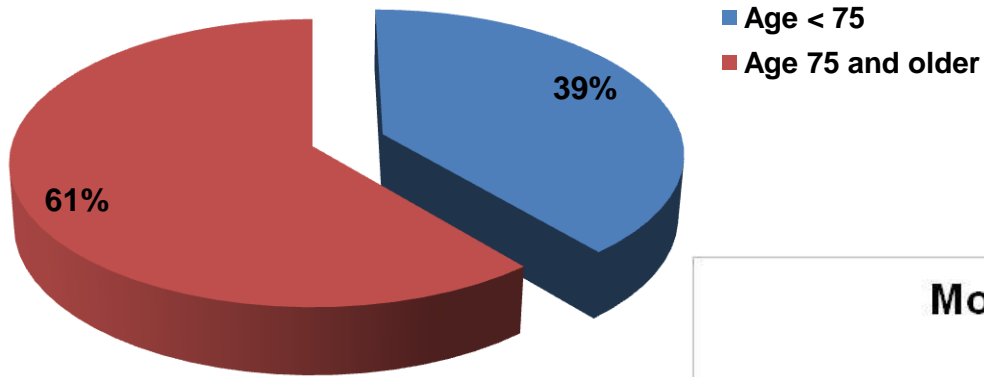
- Developed through collaboration between CIHI and Statistics Canada (building on international work)
- **Potentially avoidable mortality**- premature deaths that could have been potentially avoided through all levels of prevention
  - **Mortality from preventable causes**-a subset that includes deaths which could be avoided by preventing disease from developing or injury from occurring. Includes deaths from conditions considerably linked to modifiable risk factors and to public health interventions. Informs incidence reduction efforts.
  - **Mortality from treatable causes**-a subset that includes deaths which could be averted or significantly delayed by screening, early detection and appropriate treatment. Informs case fatality reduction efforts.
- Source: Vital Statistics - Death Database; Statistics Canada

# Avoidable Mortality

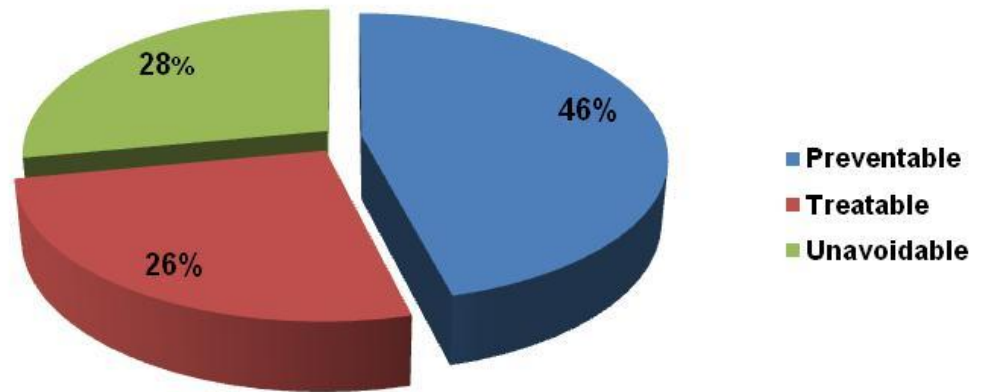


# Avoidable Mortality in Canada, 2008

## Overall Mortality



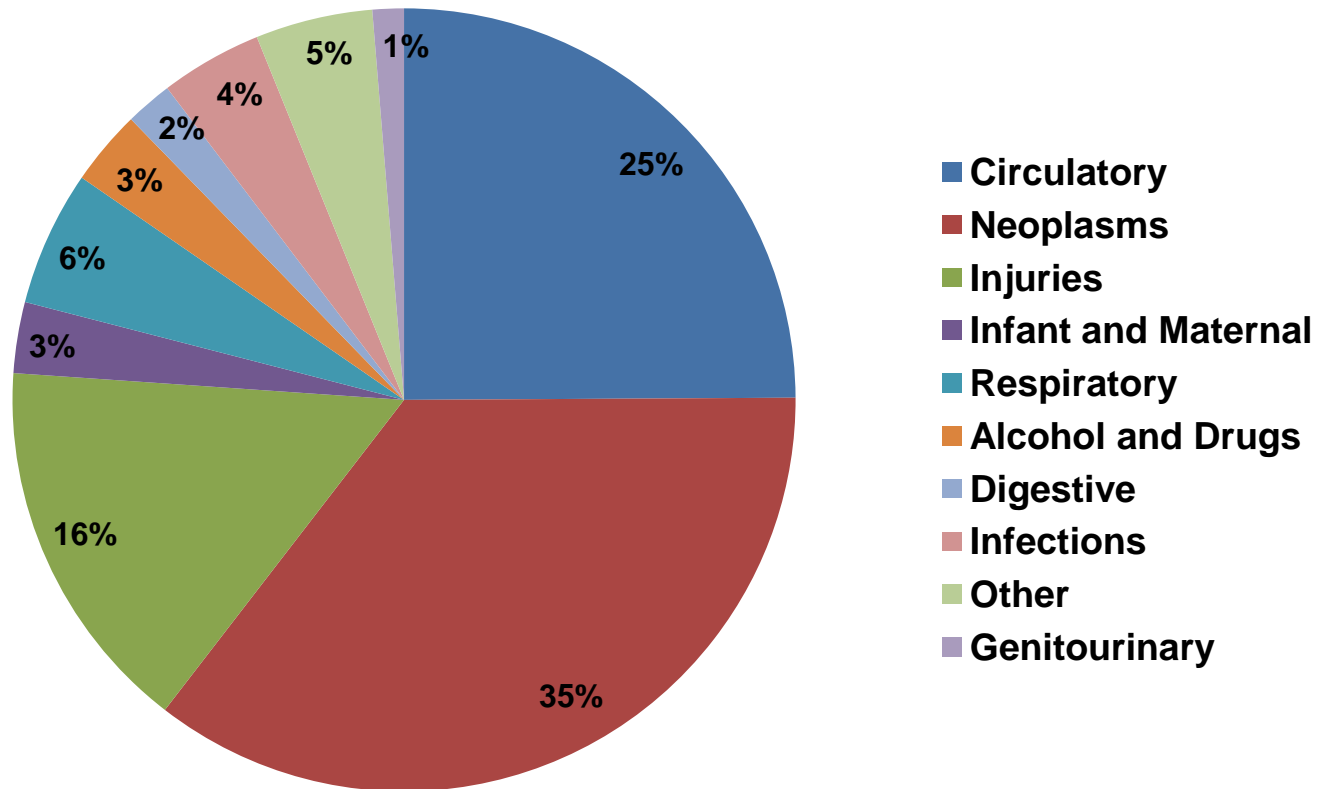
## Mortality Under Age of 75 Years



### Source

Vital Statistics—Death Database; Statistics Canada

# Causes of Avoidable Mortality, Canada, 2008

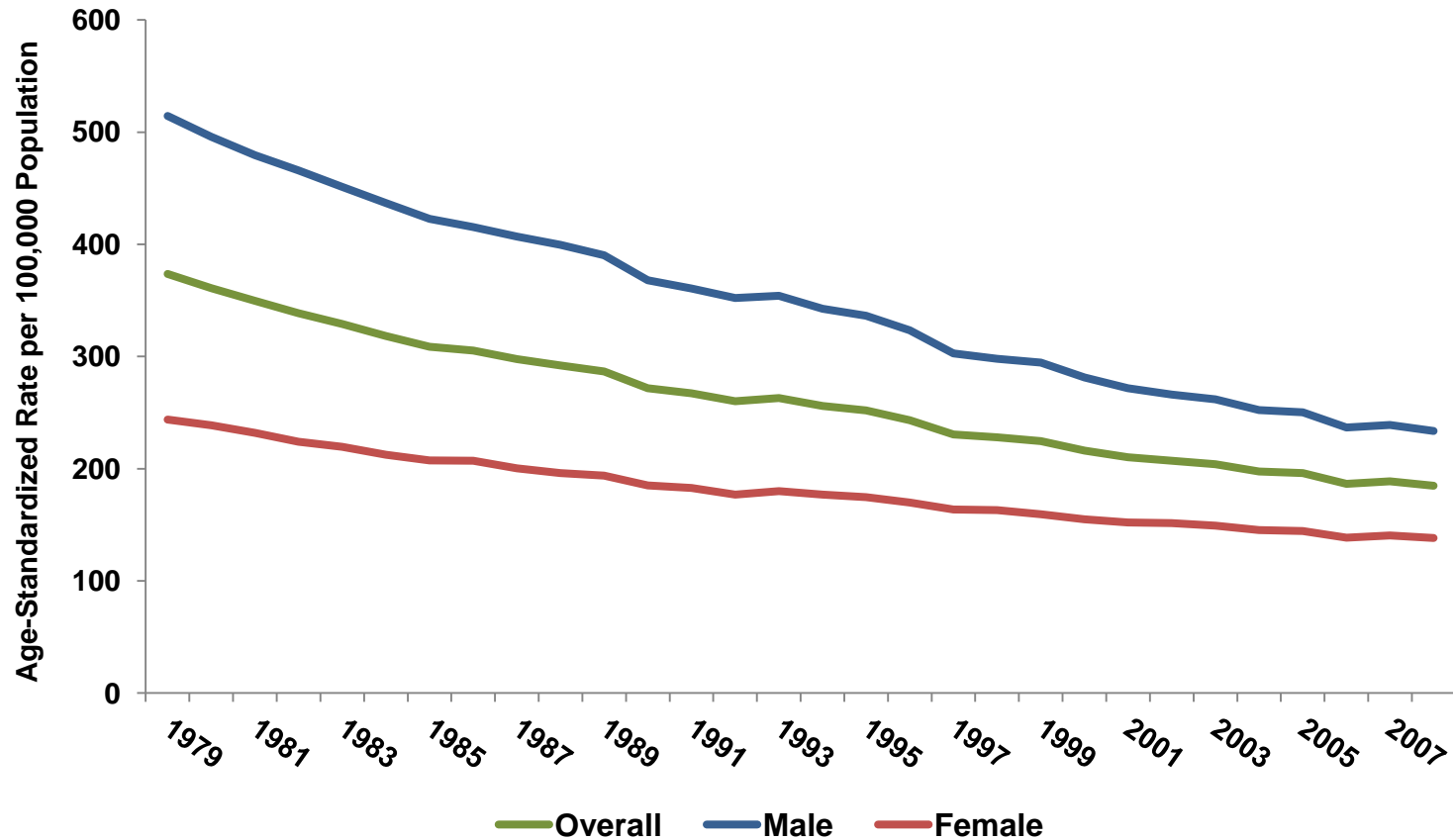


## Source

Vital Statistics—Death Database; Statistics Canada



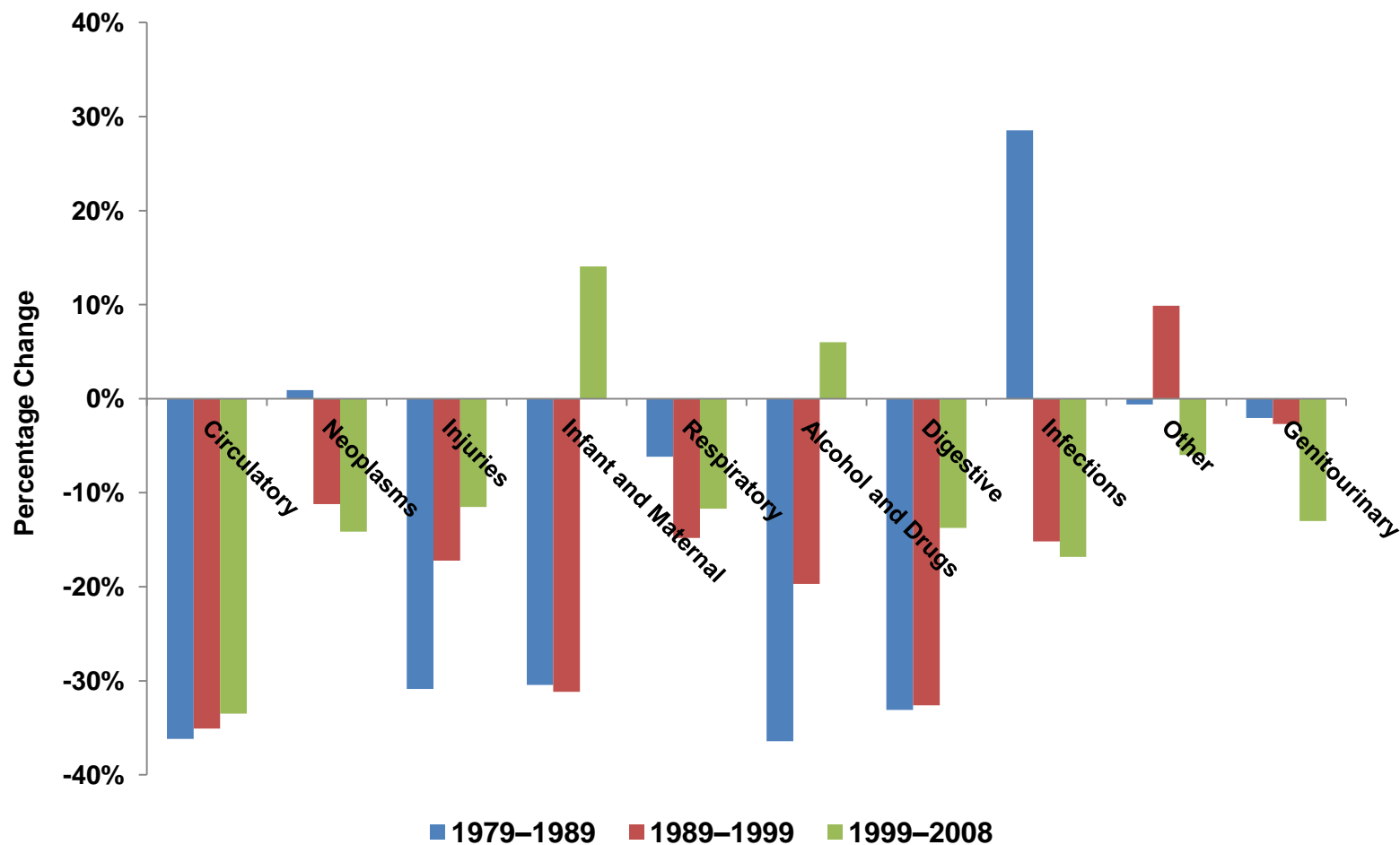
# Avoidable Mortality, Canada, 1979 to 2008 – 50% reduction



## Source

Vital Statistics—Death Database, Statistics Canada

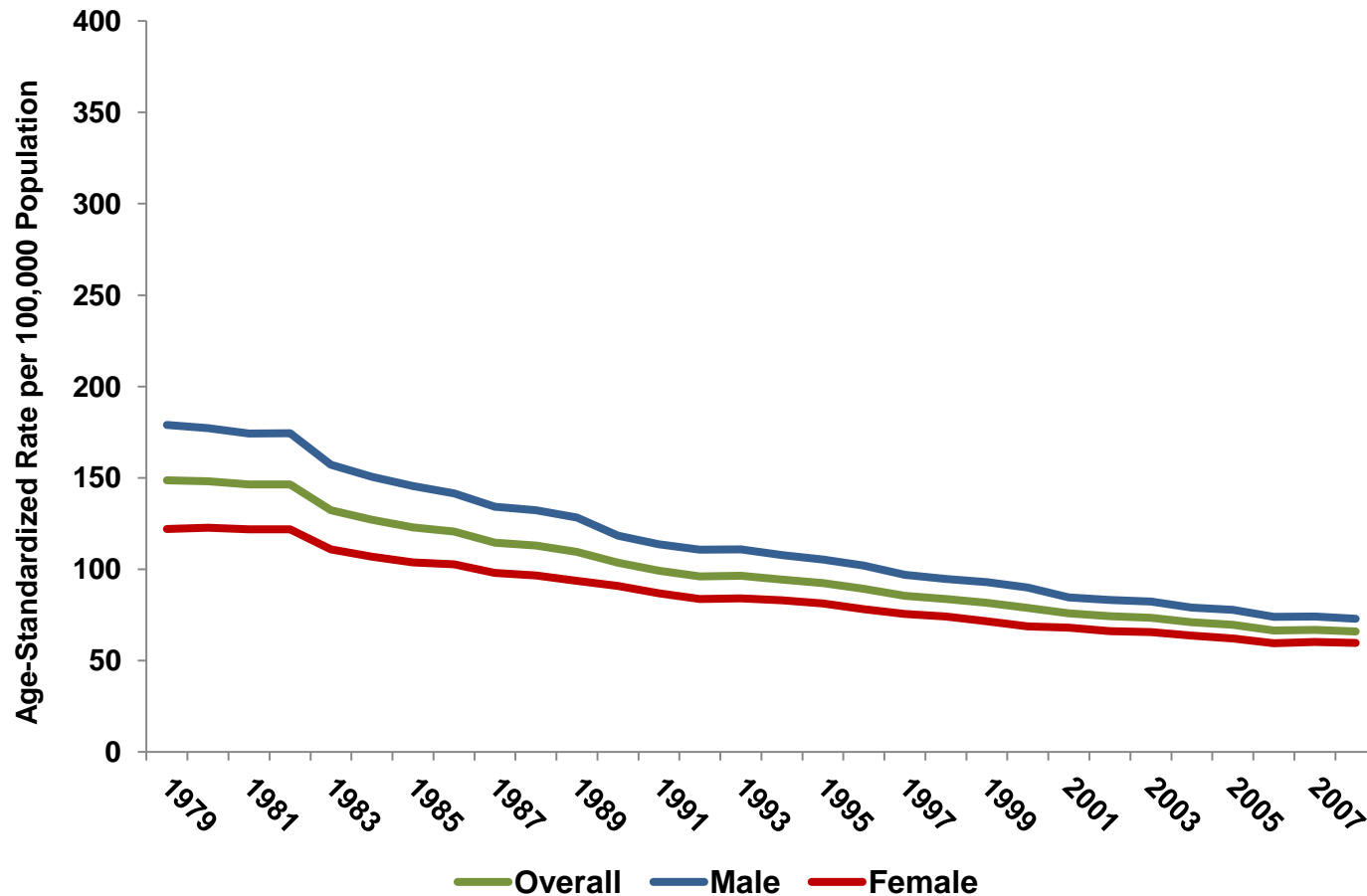
# Change in Age-Standardized Rates of Avoidable Mortality, by Cause of Death, Canada



## Source

Vital Statistics—Death Database, Statistics Canada

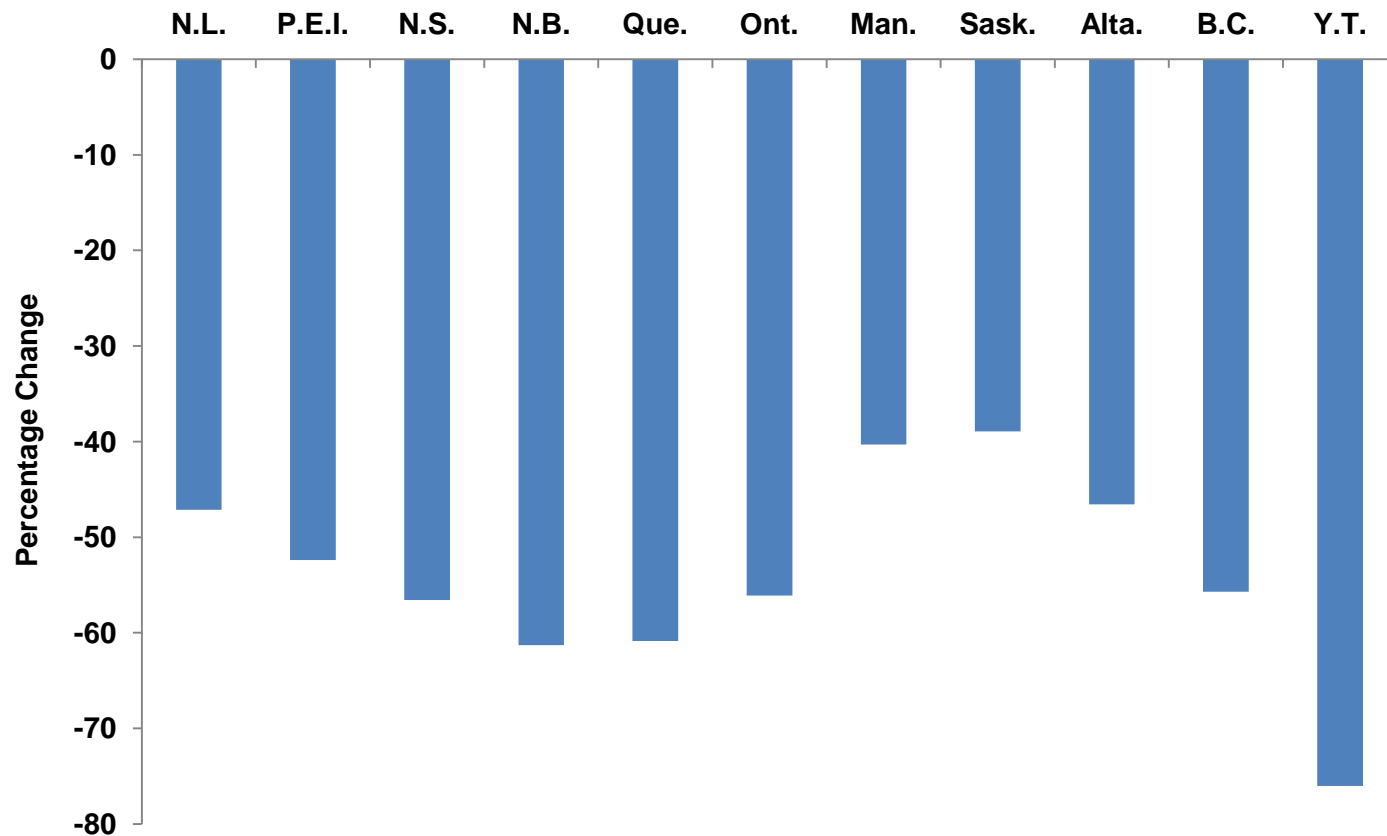
# Mortality from treatable causes, Canada, 1979 to 2008 – 56% reduction



## Source

Vital Statistics—Death Database, Statistics Canada

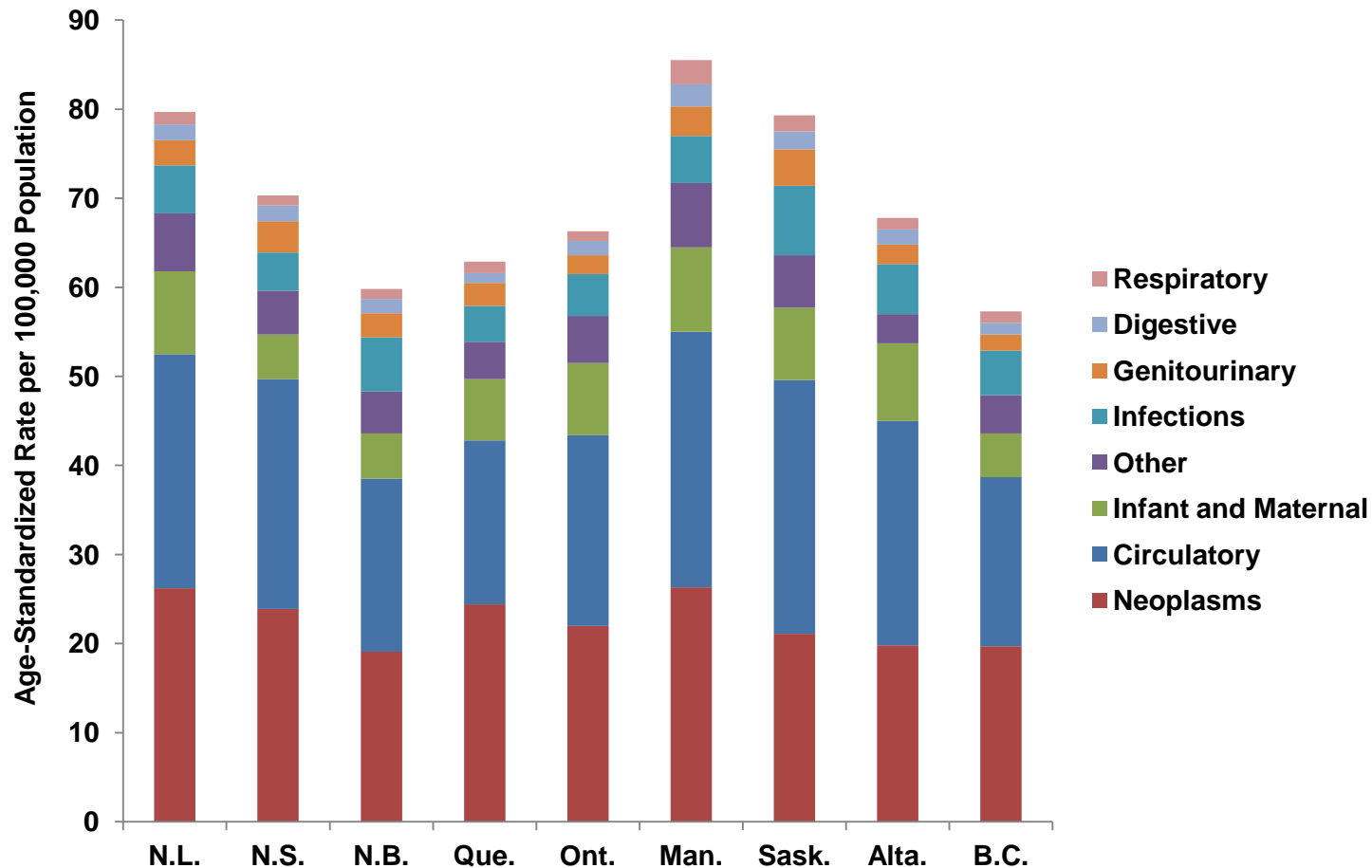
# Change in Age-Standardized Rates of Mortality from Treatable Causes, by Province/ Territory, 1979 to 2008, Canada



**Source:** Vital Statistics—Death Database, Statistics Canada

**Note:** Data for Nunavut and Northwest Territories is not presented as it cannot be analyzed for the whole study period

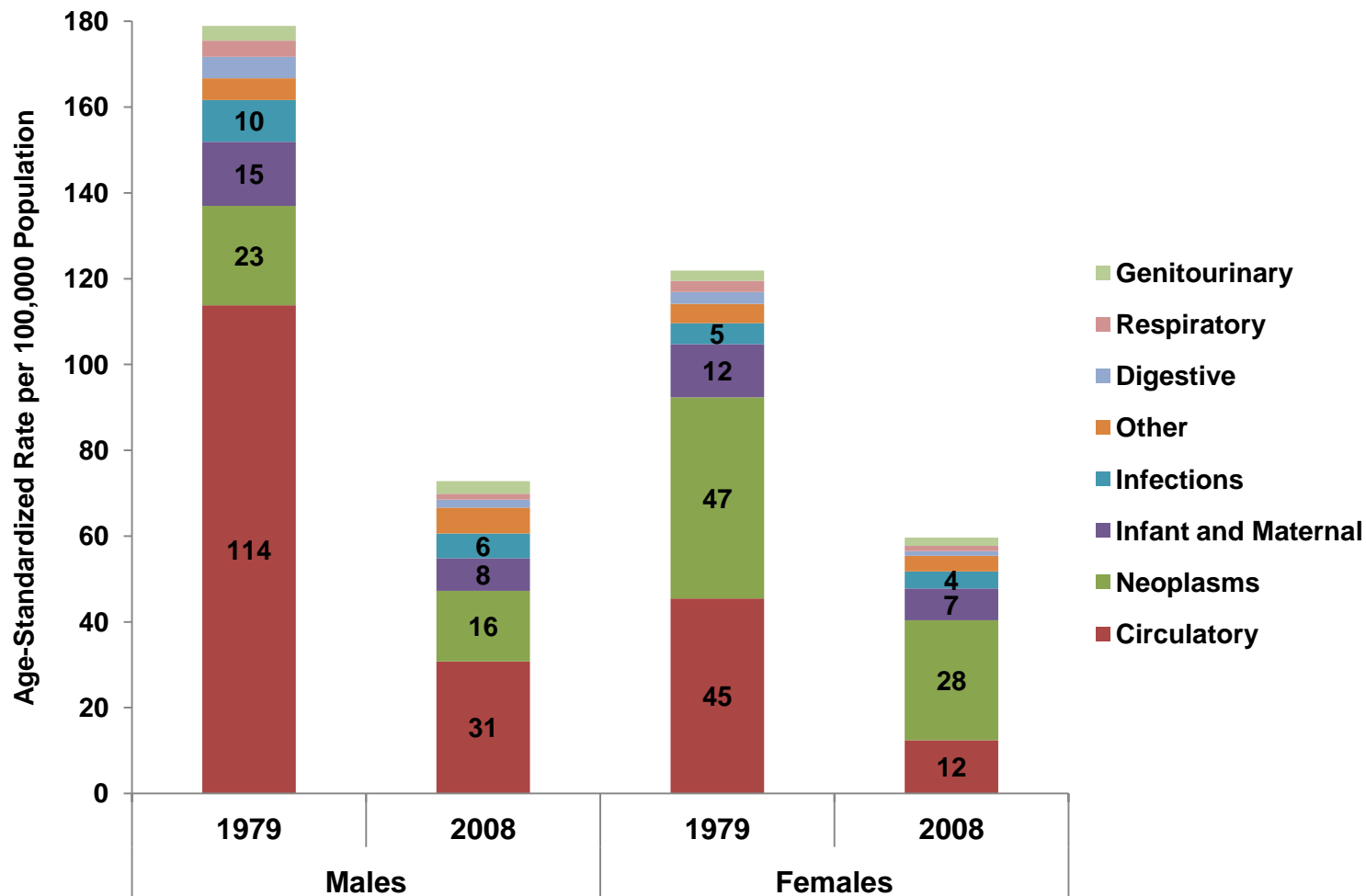
# Mortality from Treatable Causes, 2008, by Province



## Source

Vital Statistics—Death Database, Statistics Canada

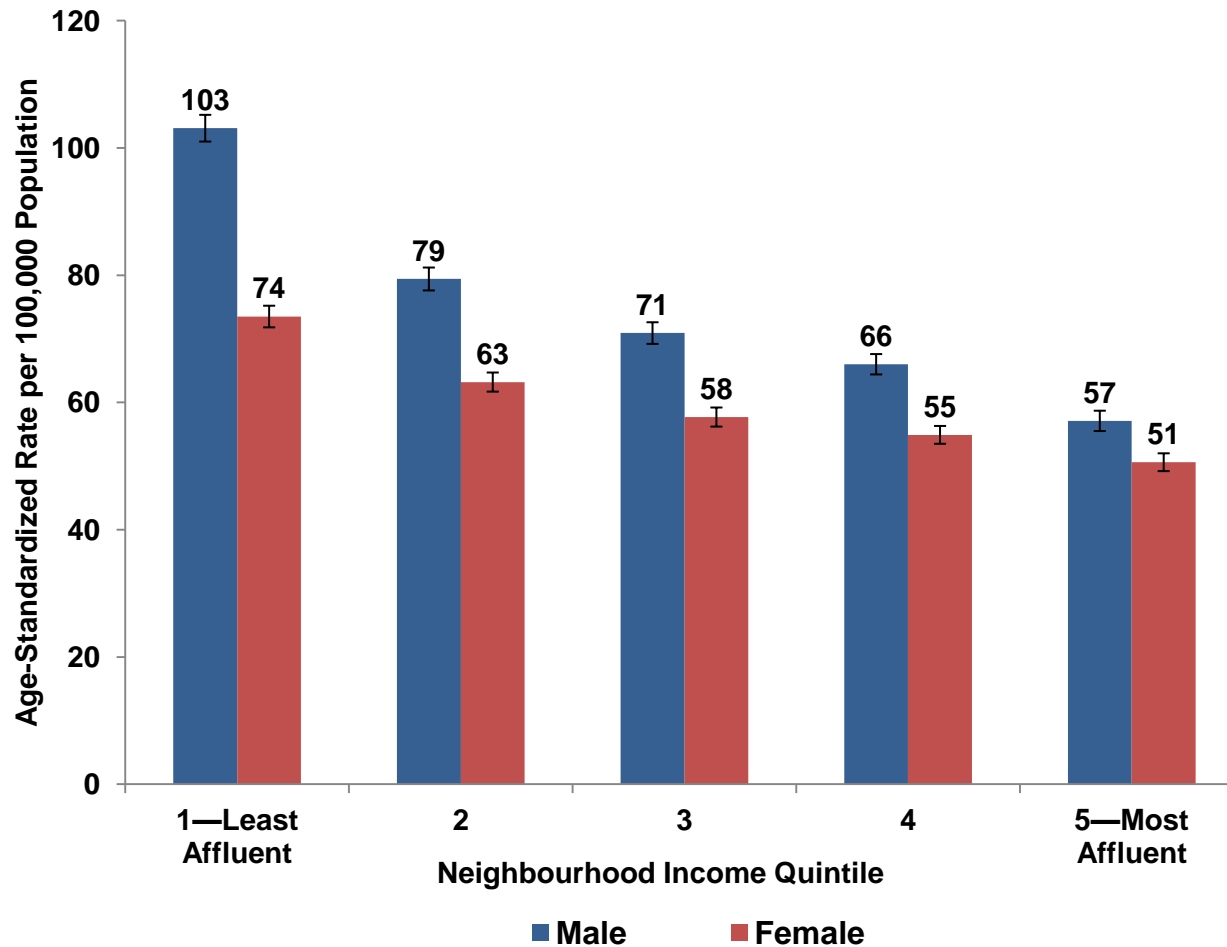
# Mortality from Treatable Causes: Sex Gap



## Source

Vital Statistics—Death Database, Statistics Canada

# Mortality From Treatable Causes: Socio-Economic Gap



## Source

Vital Statistics—Death Database, Statistics Canada, 2005 to 2007

# Policy Implications

- The avoidable mortality indicators can serve to inform where Canada's health system has made gains and to point to where more work is needed
- Prevention may fall outside the jurisdiction of the ministries of health
- Intersectoral collaboration is essential in order to implement policies outside of health care that are needed to support health

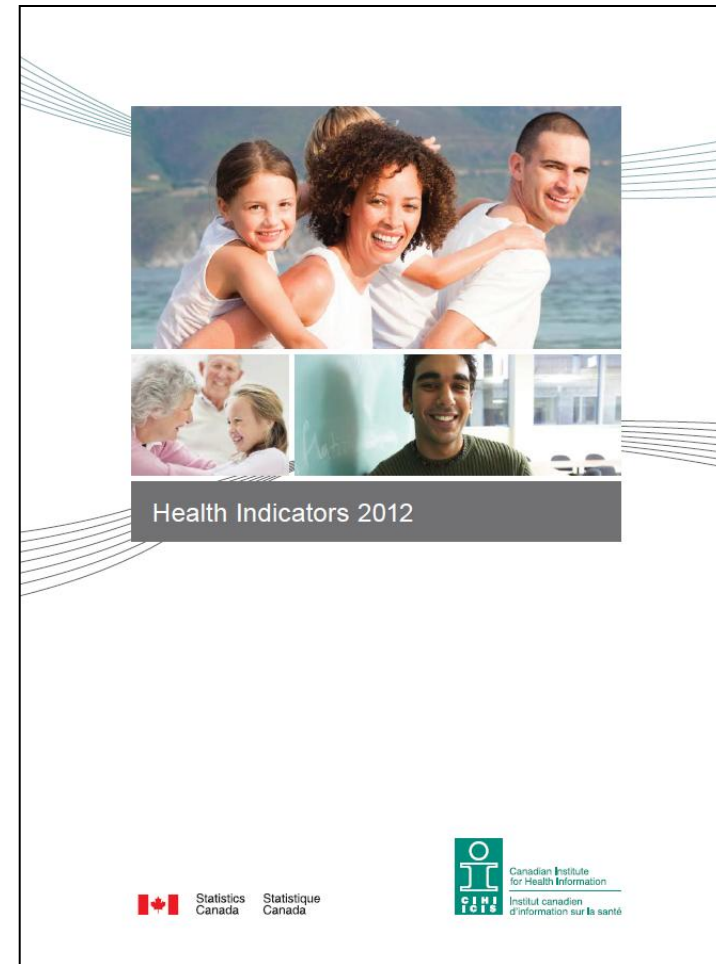


## Policy Implications (cont'd)

- Examining trends and variations could help jurisdictions identify areas for improvement
- Could be used to target efforts needed to close sex and socio-economic gaps

# For More Information

- Health Indicators 2012 report
  - Analysis of avoidable mortality
  - Avoidable Mortality Indicators for health regions, provinces and territories
    - Age-standardized mortality rates
    - Age-standardized potential years of life lost (PYLL)
- Health Indicators e-publication
- Contact: [indicators@cihi.ca](mailto:indicators@cihi.ca)



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