



Project for an **O**ntario **W**omen's Health **E**vidence-Based **R**eport

# Burden of Illness

## *Chapter 3*

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Cynthia Damba, Janice Dusek, Susan K. Shiller, Yingzi Li, Stephanie Ross,  
Gabriel Shapiro, Douglas Manuel.



Improving Women's  
Health in Ontario

Pour l'amélioration de la  
santé des ontariennes

**ST. MICHAEL'S HOSPITAL**

*A teaching hospital affiliated with the University of Toronto*

**KEENAN RESEARCH CENTRE**

LI KA SHING KNOWLEDGE INSTITUTE

**ICES** Institute for Clinical  
Evaluative Sciences

# Burden of Illness

## Chapter 3



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### INSIDE

- Health and Functional Status
- Chronic Disease Risk Factors
- Chronic Conditions
- Sexually-transmitted Infections
- Mortality



Project for an Ontario Women's Health Evidence-Based Report

# A Tool for Monitoring and Improvement

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The **P**roject for an **O**ntario **W**omen's Health **E**vidence-Based **R**eport (**POWER**) will serve as a tool to help policymakers and providers to improve the health of and reduce inequities among the women of Ontario.

# Uses for POWER Study

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- Priority Setting
- Informing Practice and Policy
- Tool for Improvement
- Integrating Equity into Planning and Quality Improvement
- Building the Evidence Base

# Stakeholder Consultations

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- Power Study Roundtables
- Consumers: representatives of community based groups and associations
- Providers: clinicians, government, health data agencies, LHINs, CHCs, CCACs
- Range of areas and interests
  - Including cancer, cardiovascular, and depression
  - Representation from outside GTA

# Ontario Women's Health Equity Report

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## Volume 1

- Burden of Illness
- Cancer
- Depression
- Cardiovascular disease
- Access to Health Care
- Conclusions and Policy Implications

## Volume 2

- Diabetes
- HIV Infection
- Musculoskeletal Disorders (arthritis, osteoporosis)
- Reproductive and Gynecological Health
- Special Populations (low income, immigrant and older women)
- Social Determinants of Health

## Interactive data cube

# Measuring and Monitoring Gender Differences in Health and Health Care

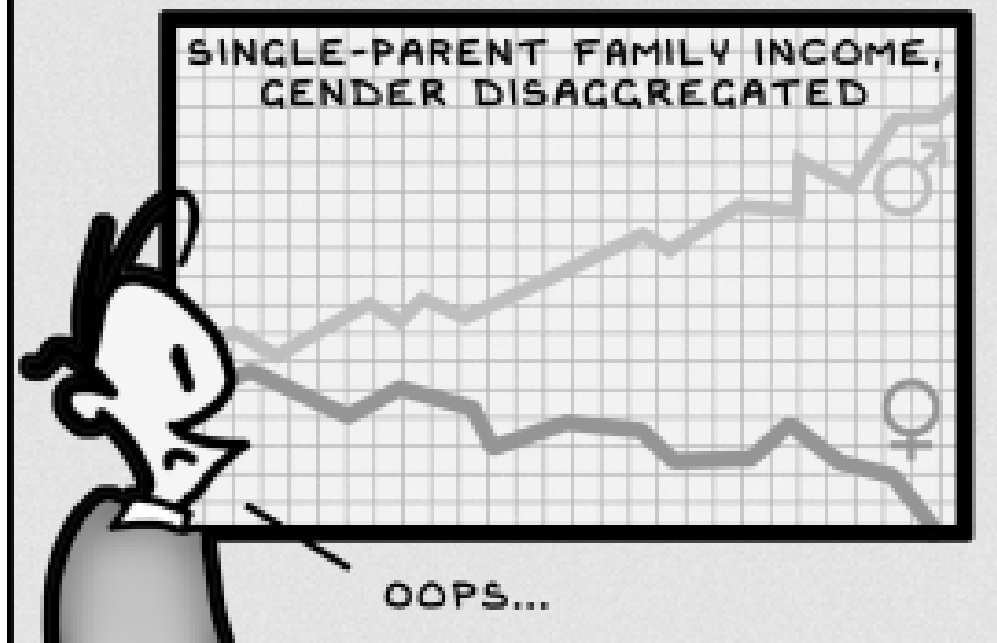
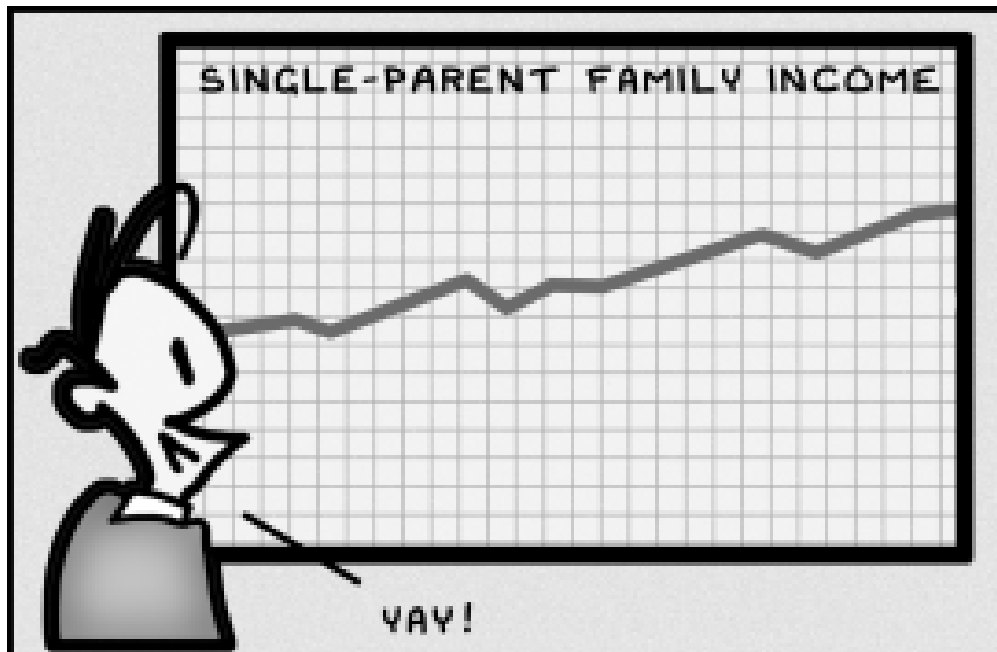
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## **Women and men have very different:**

- Patterns of illness, morbidity, and mortality
- Social contexts
- Experiences with health care

## **Health inequities among women associated with:**

- Socioeconomic position
- Ethnicity
- Geography





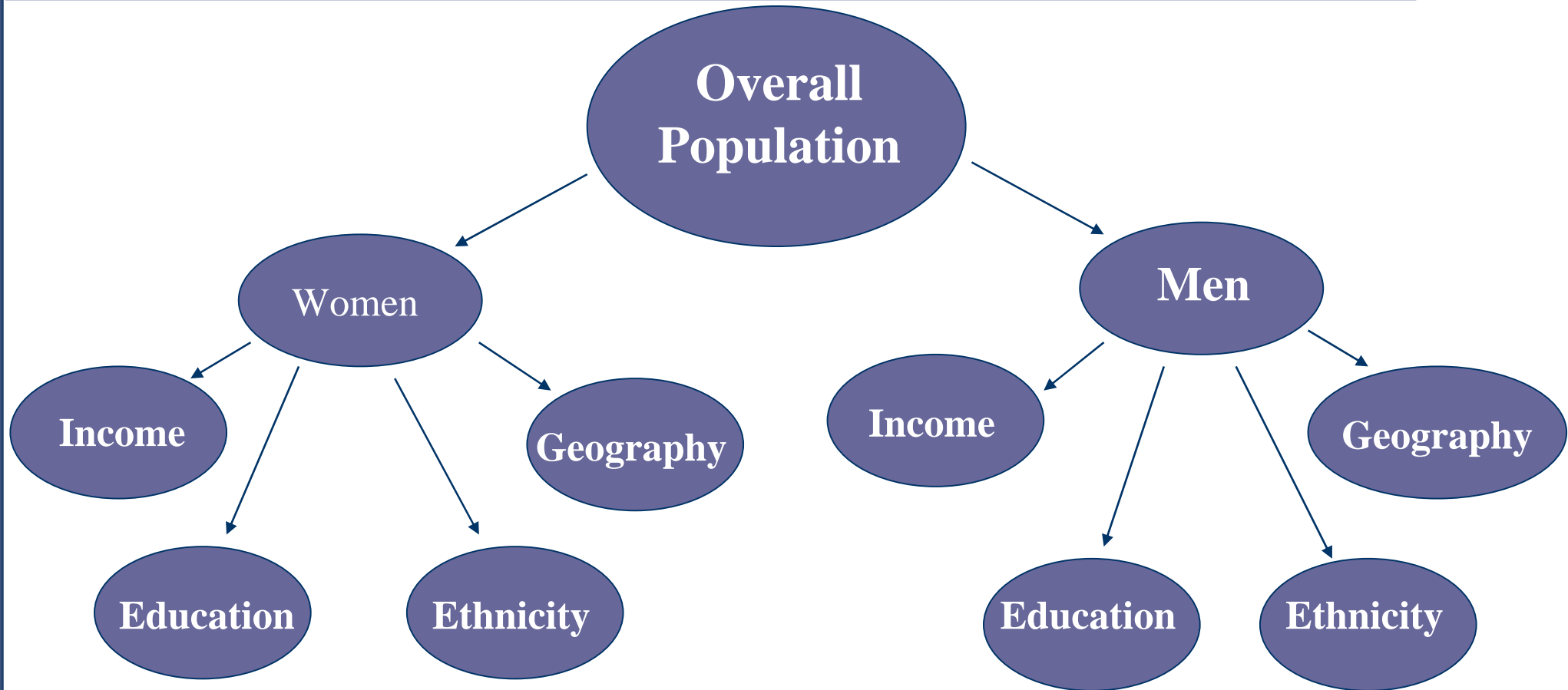
# Women's Health Reporting: Developing a New Model

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- The Ontario Women's Health Equity Report can serve as a model for
  - incorporating gender and equity as an integral component of improvement efforts;
  - focusing on the need to integrate efforts to improve population health and health care services;
  - building upon evidence-based analyses to provide new information on factors and pathways contributing to gender and socioeconomic differences in health outcomes.

# Assessing Equity

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# Health Indicator Measurement and Reporting: A Tool to Drive Change

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**Health indicator measurement and reporting provide essential tools for informing and monitoring efforts to:**

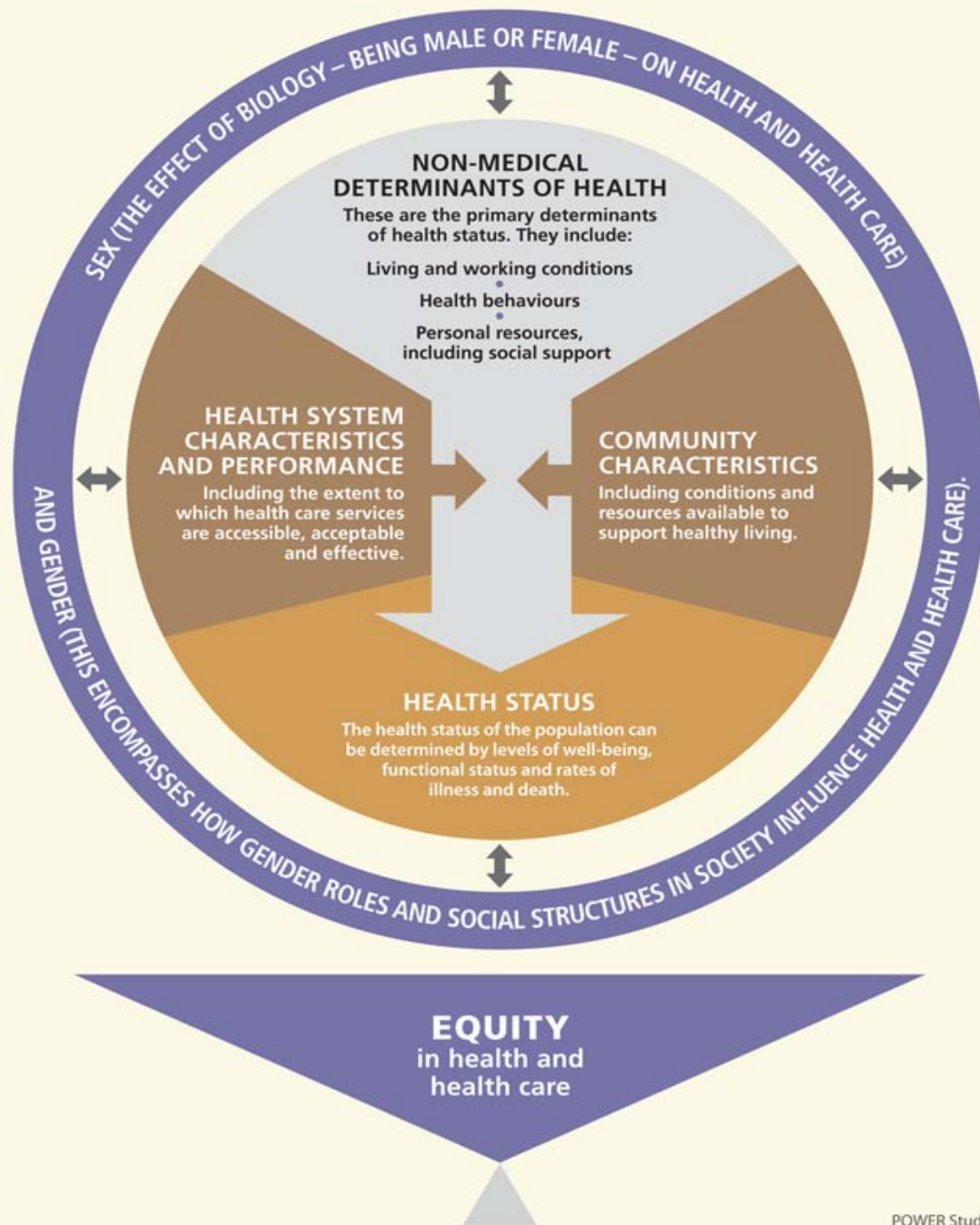
- Improve population health
- Improve access to quality and outcomes of health care services
- Reduce inequities in health and health care

# Effecting Change . . .

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- Reporting by itself does not result in improvement.
- For performance measurement and reporting to result in change it needs to be evidence-based, strategy driven, linked to a commitment for change by health system leaders and providers, and mechanisms for accountability.

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- POWER Study Women's Health Equity Framework



# POWER Study Gender and Equity Health Indicator Framework

# Burden of Illness chapter

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- Health and Functional Status
- Chronic Disease Risk Factors
- Chronic Disease Prevalence
- Sexually Transmitted Infections
- Mortality

# LHIN-level analysis

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- All indicators with the exception of those reported on mortality were available at the regional (LHIN level)
- LHINs have received their data on:
  - Self-rated health (percentage of population reporting fair or poor health)
  - Self-rated mental health
  - Percentage of population reporting activity limitations
  - Percentage of population IADL and/or ADL limitations
  - Fall-related hospitalization rate
  - Prevalence of heart disease and/or stroke
  - Prevalence of diabetes
  - Prevalence of urinary incontinence
  - Physical inactivity
  - Inadequate fruit and vegetable intake
  - Smoking

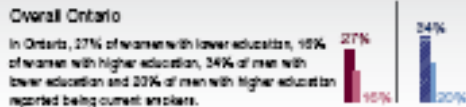


**EXHIBIT 3B.10** | Age-standardized percentage of adults aged 25 and older who reported being daily or occasional smoker, by sex, education level and Local Health Integration Network (LHIN), in Ontario, 2005

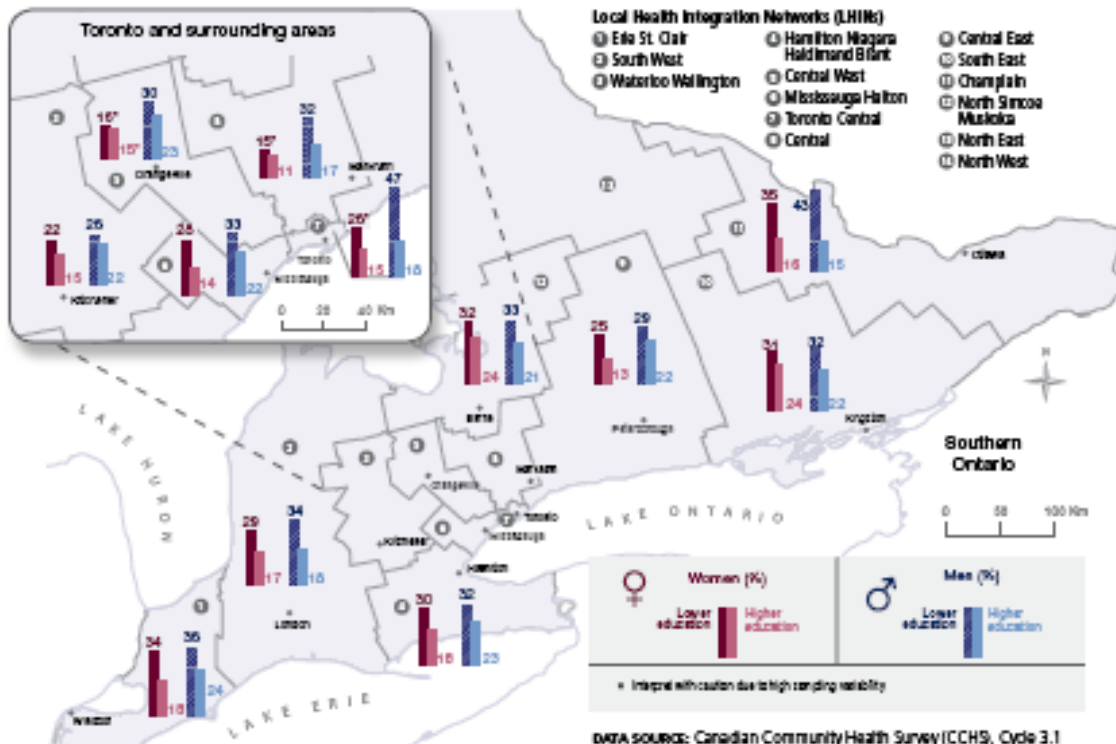
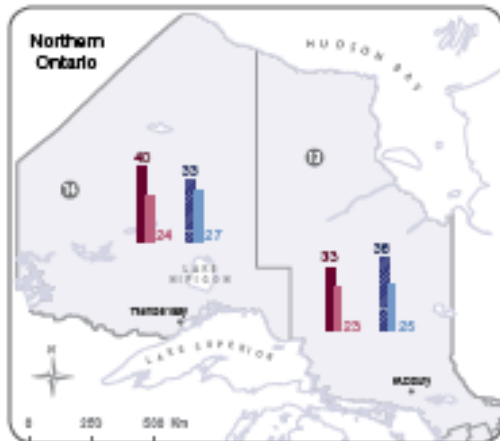
**FINDINGS**

- There was variation across LHINs in the percentage of adults who reported being current smokers.
- Reported smoking behaviour varied with education level, ranging from 11 percent in more educated to 38 percent in less educated women (in the Central and North West LHINs, respectively) and 15 percent in more educated men to 47 percent in less educated men (in the Champlain and Toronto Central LHINs, respectively).
- The magnitude of the difference between women and men with similar levels of education varied across LHINs.

POWER Study



Note: Lower education denotes secondary school graduation or less

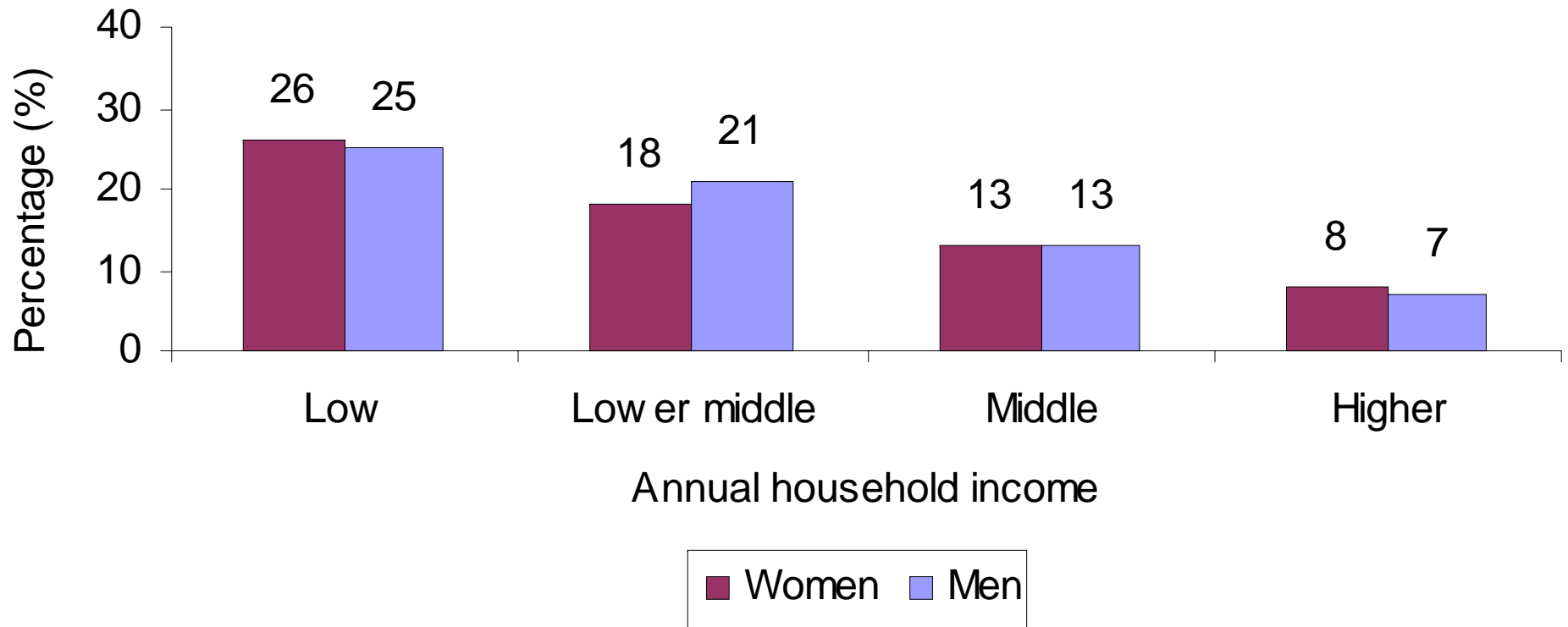


Age-standardized percentage of adults aged 25 and older who reported being a daily or occasional smoker, by sex, education level and Local Health Integration Network, in Ontario, 2005

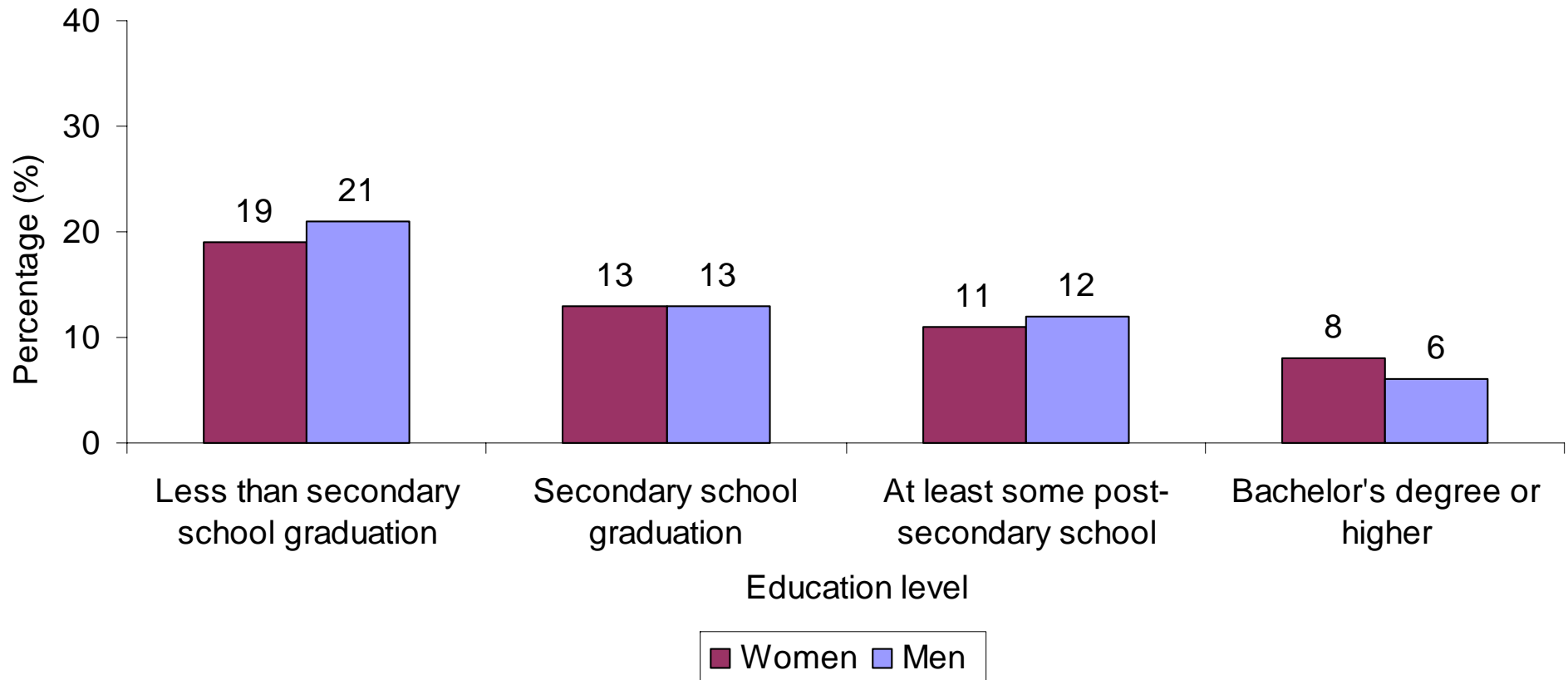
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- Health and Functional Status

# Age-standardized percentage of adults aged 25 and older who reported their health as fair or poor, by sex and annual household income, in Ontario 2005

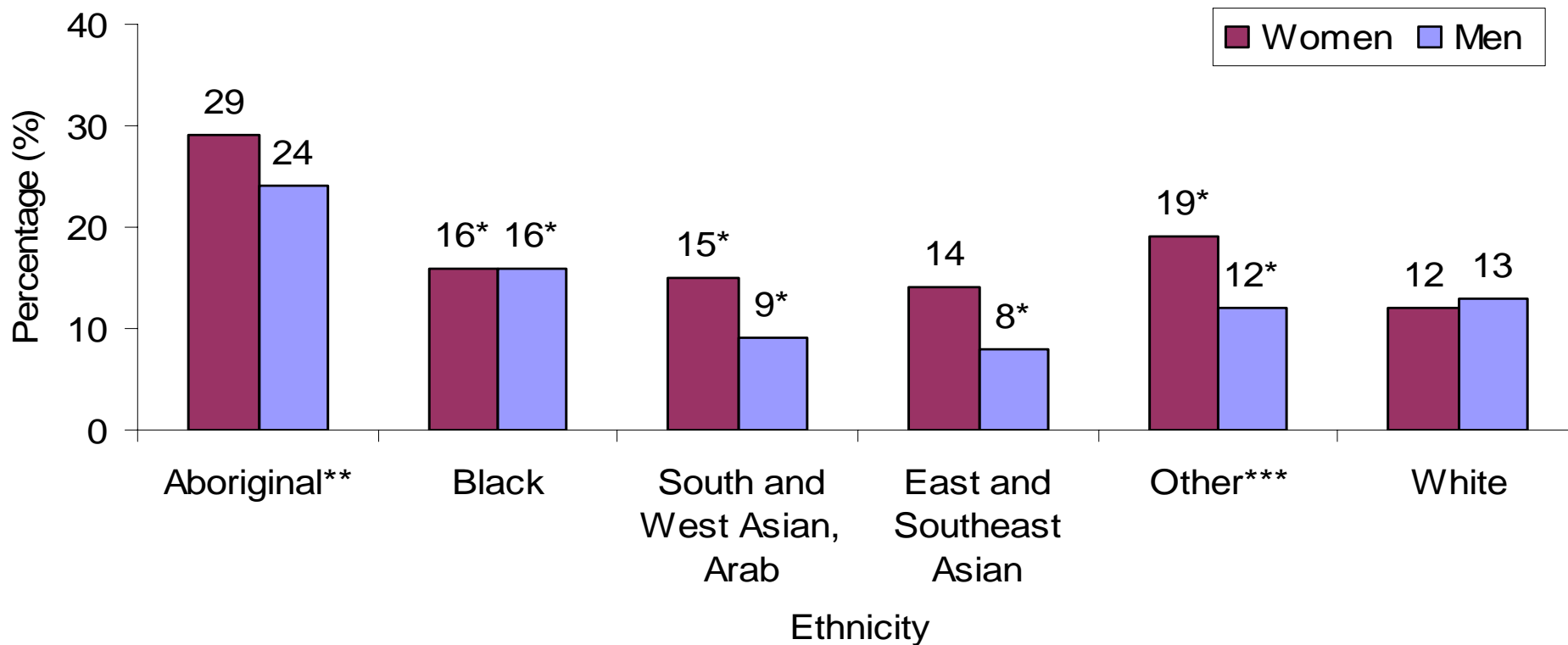


# Age-standardized percentage of adults aged 25 and older who reported their health as fair or poor, by sex and education level, in Ontario 2005



Data source: Canadian Community Health Survey cycle, 3.1

# Age-standardized percentage of adults aged 25 years and older who reported their health as fair or poor, by sex and ethnicity, in Ontario, 2005



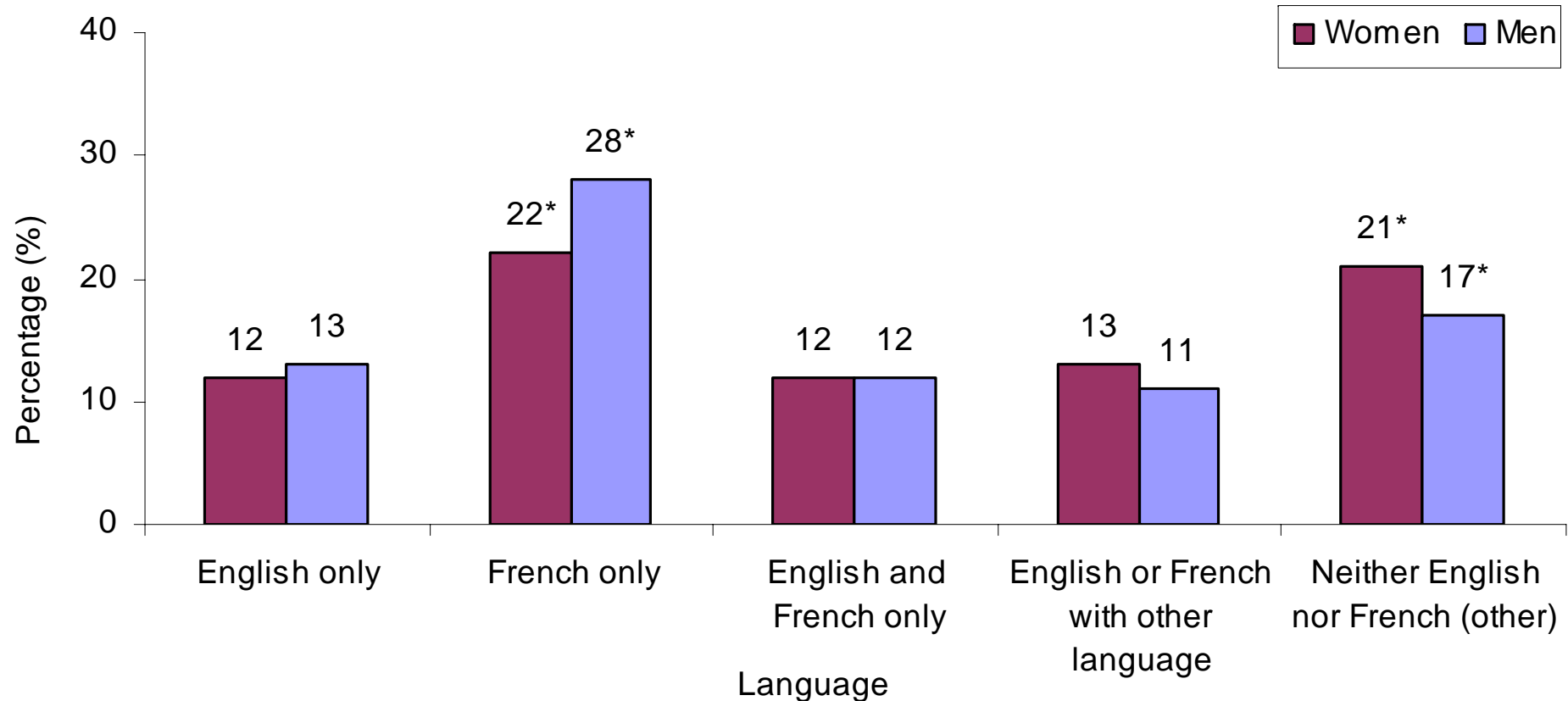
Data source: Canadian Community Health Survey 3.1

\*Interpret with caution due to high sampling variability (coefficient of variation 16.6–33.3)

\*\*Only includes off-reserve Aboriginals (North American Indian, Metis, Inuit)

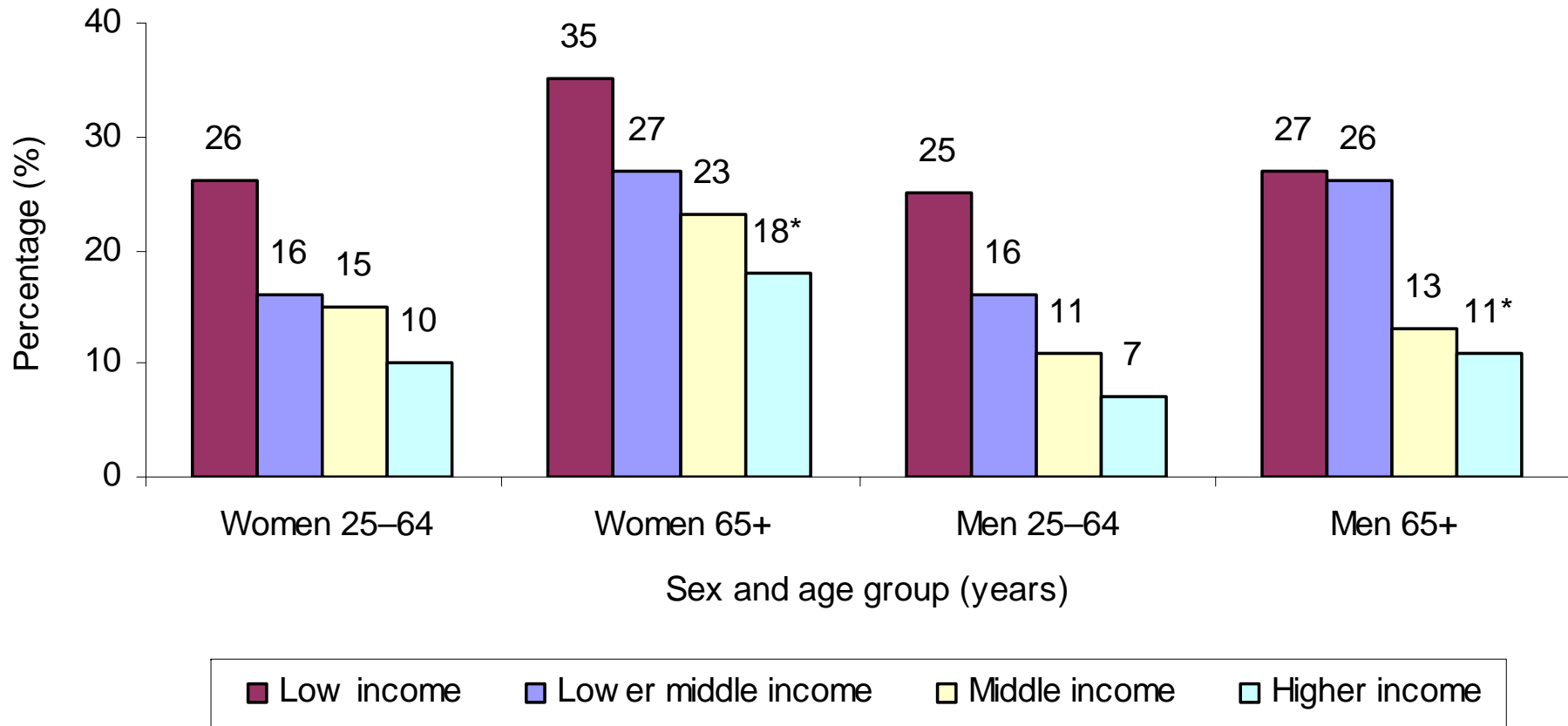
\*\*\*Includes Latin American, other racial and multiple racial origins.

# Age-standardized percentage of adults aged 25 years and older who reported their health as fair or poor, by sex and language, in Ontario, 2005



\*Interpret with caution due to high sampling variability (coefficient of variation 16.6–33.3)  
Data source: Canadian Community Health Survey cycle, 3.1

# Age-specific percentage of adults aged 25 years and older who reported that their activities were prevented due to pain or discomfort, by sex and annual household income, in Ontario, 2000/01



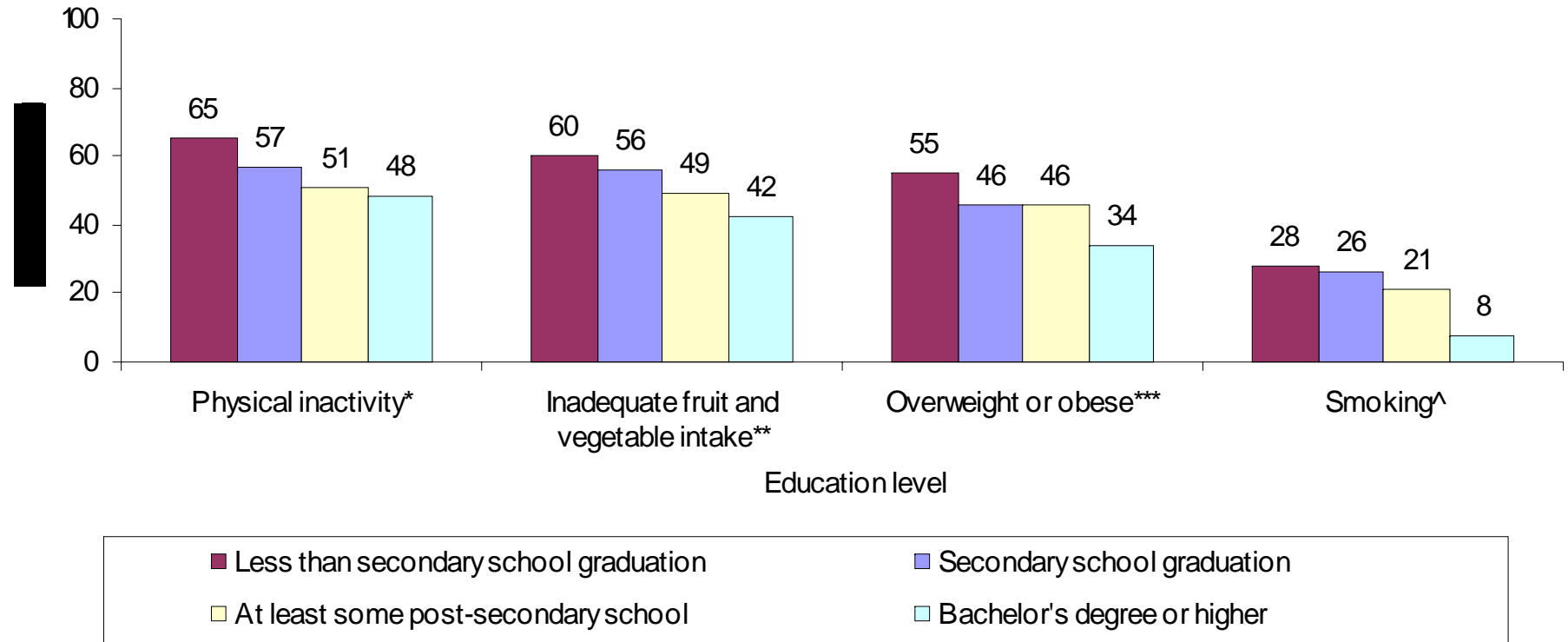
\*Interpret with caution due to high sampling variability (coefficient of variation 16.6-33.3)  
 Data source: Canadian Community Health Survey cycle, 1.1

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- Chronic disease risk factors



# Age-standardized percentage of women aged 25 and older who reported health behaviours that increase the risk of chronic diseases, by education level, in Ontario, 2005



Data source: Canadian Community Health Survey cycle, 3.1

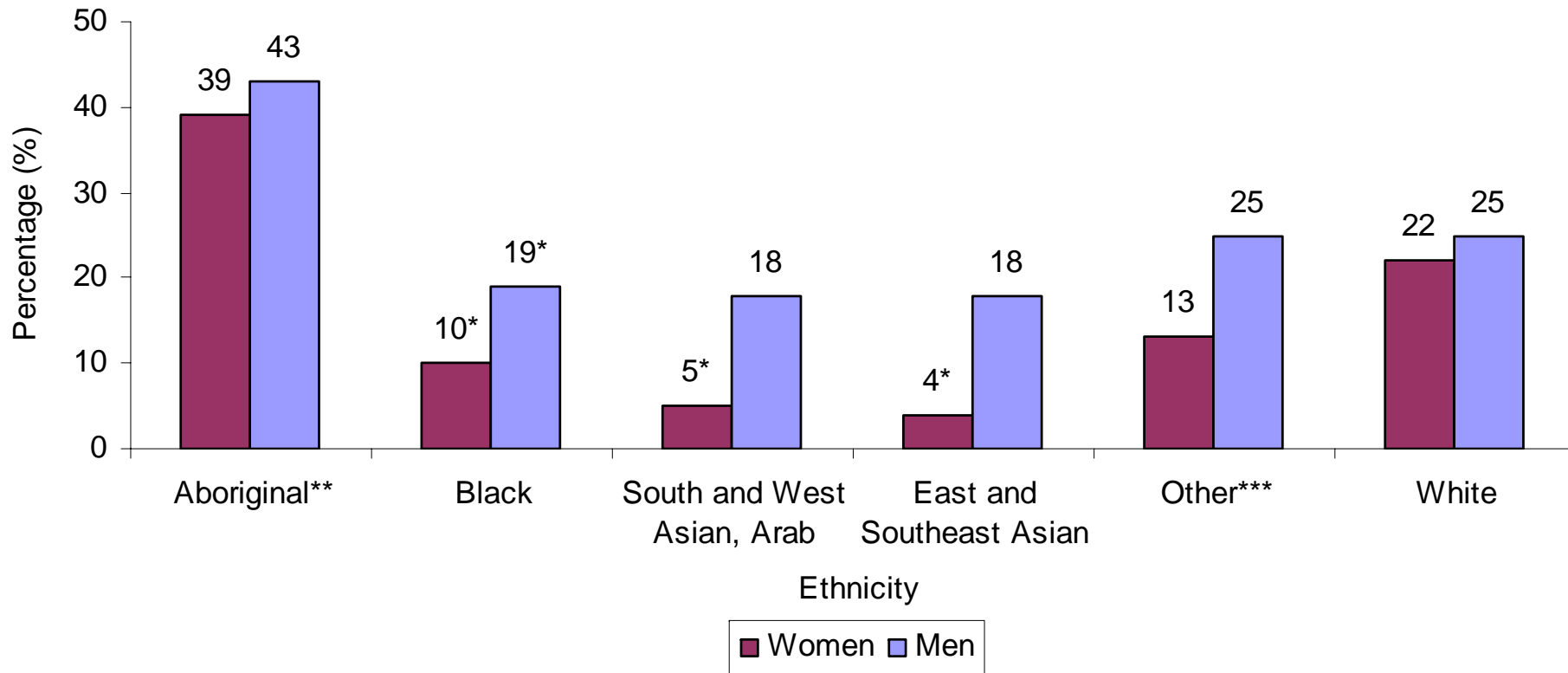
\*Physical activity index was less than 1.5 kcal/kg/day

\*\* Less than five servings per day

\*\*\*Body Mass Index (BMI) >greater than or equal to 25 (calculated from self-reported height and weight)

^Daily or occasional smokers

# Age-standardized percentage of adults aged 25 years and older who reported being current smokers, by sex and ethnicity, in Ontario, 2005



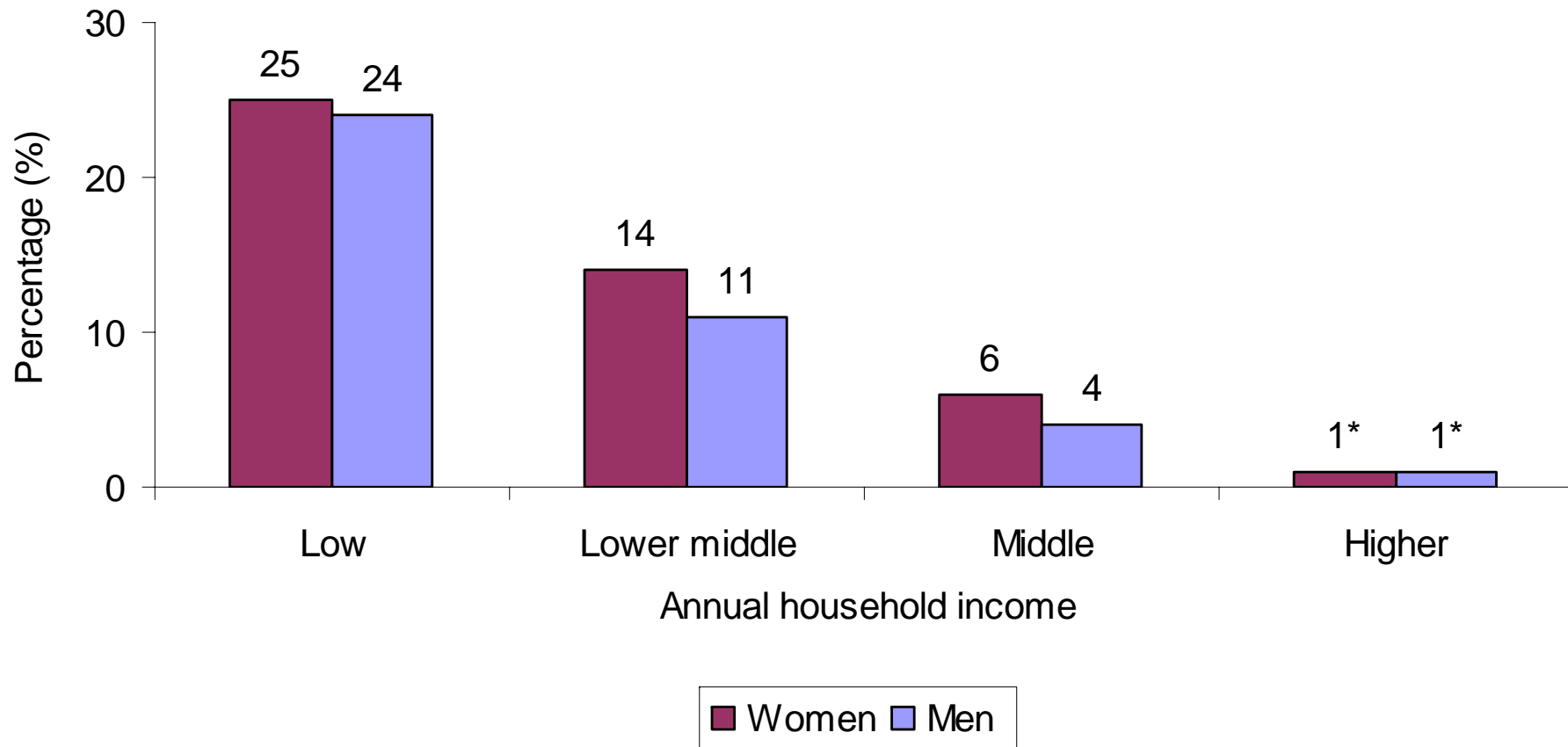
Data source: Canadian Community Health Survey 3.1

\*Interpret with caution due to high sampling variability (coefficient of variation 16.6–33.3)

\*\*Only includes off-reserve Aboriginals (North American Indian, Metis, Inuit)

\*\*\*Includes Latin American, other racial and multiple racial origins.

# Age-standardized percentage of adults aged 25 and older who reported food insecurity<sup>^</sup>, by sex and annual household income, in Ontario 2005



Data source: Canadian Community Health Survey 3.1

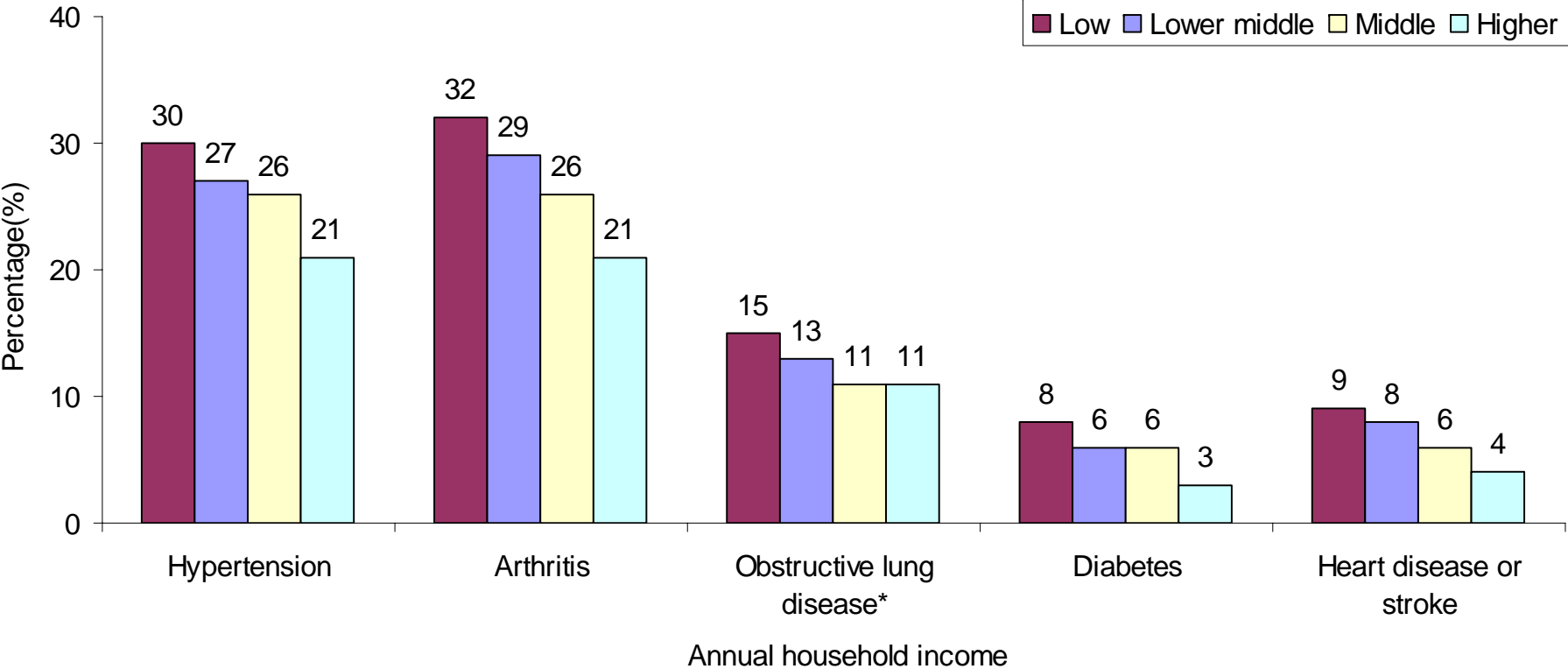
<sup>^</sup> Refers to people who reported that they did not have enough to eat, worried about there not being enough to eat or did not eat the quality or variety of foods desired due to a lack of money

\*Interpret with caution due to high sampling variability (coefficient of variation 16.6–33.3)

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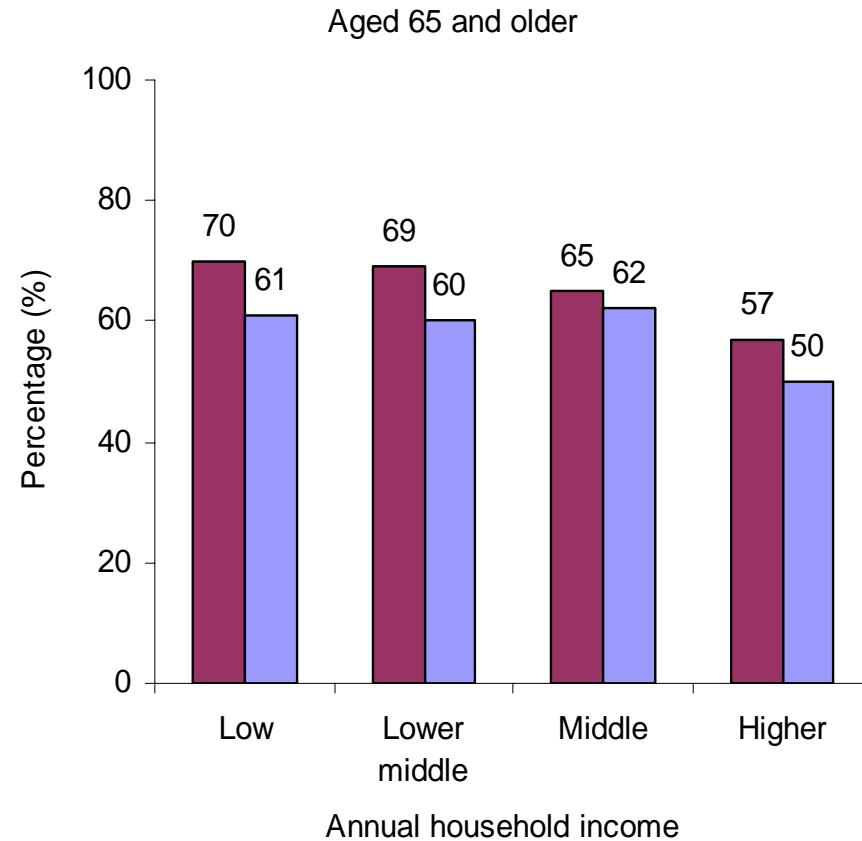
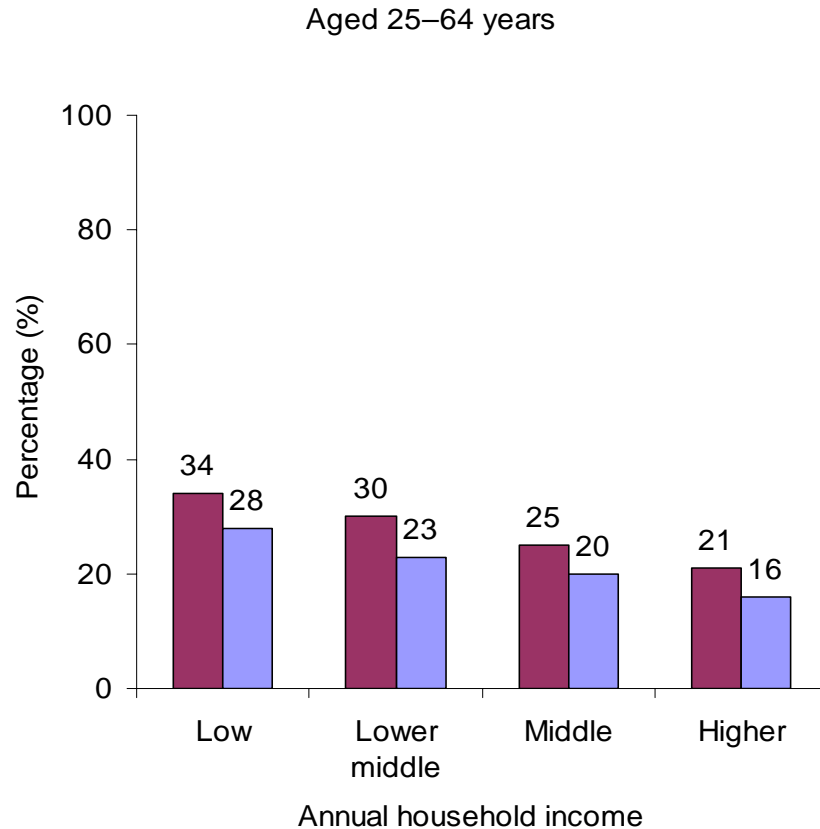
- Prevalence of chronic conditions

# Age-standardized percentage of women aged 25 and older who reported having selected chronic diseases, by annual household income, in Ontario, 2005

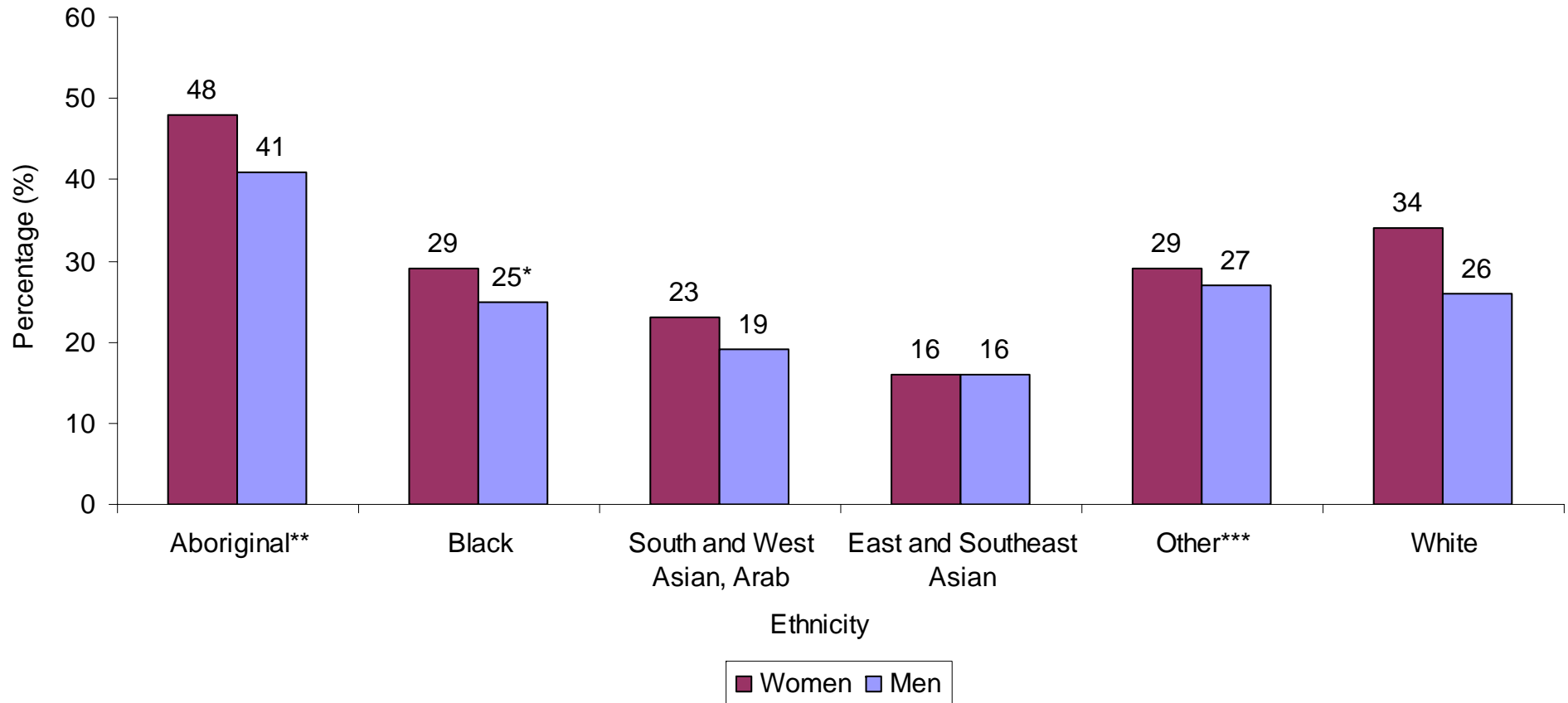


Data source: Canadian Community Health Survey, Cycle, 3.1  
\* Includes asthma, chronic bronchitis, emphysema or chronic obstructive pulmonary disease

# Age-specific percentage of adults aged 25 years and older who reported having two or more chronic conditions, by sex and annual household income, in Ontario, 2005



# Age-standardized percentage of adults aged 25 years and older who reported having two or more chronic conditions, by sex and ethnicity, in Ontario, 2005



Data source: Canadian Community Health Survey 3.1

\*Interpret with caution due to high sampling variability (coefficient of variation 16.6–33.3)

\*\*Only includes off-reserve Aboriginals (North American Indian, Metis, Inuit)

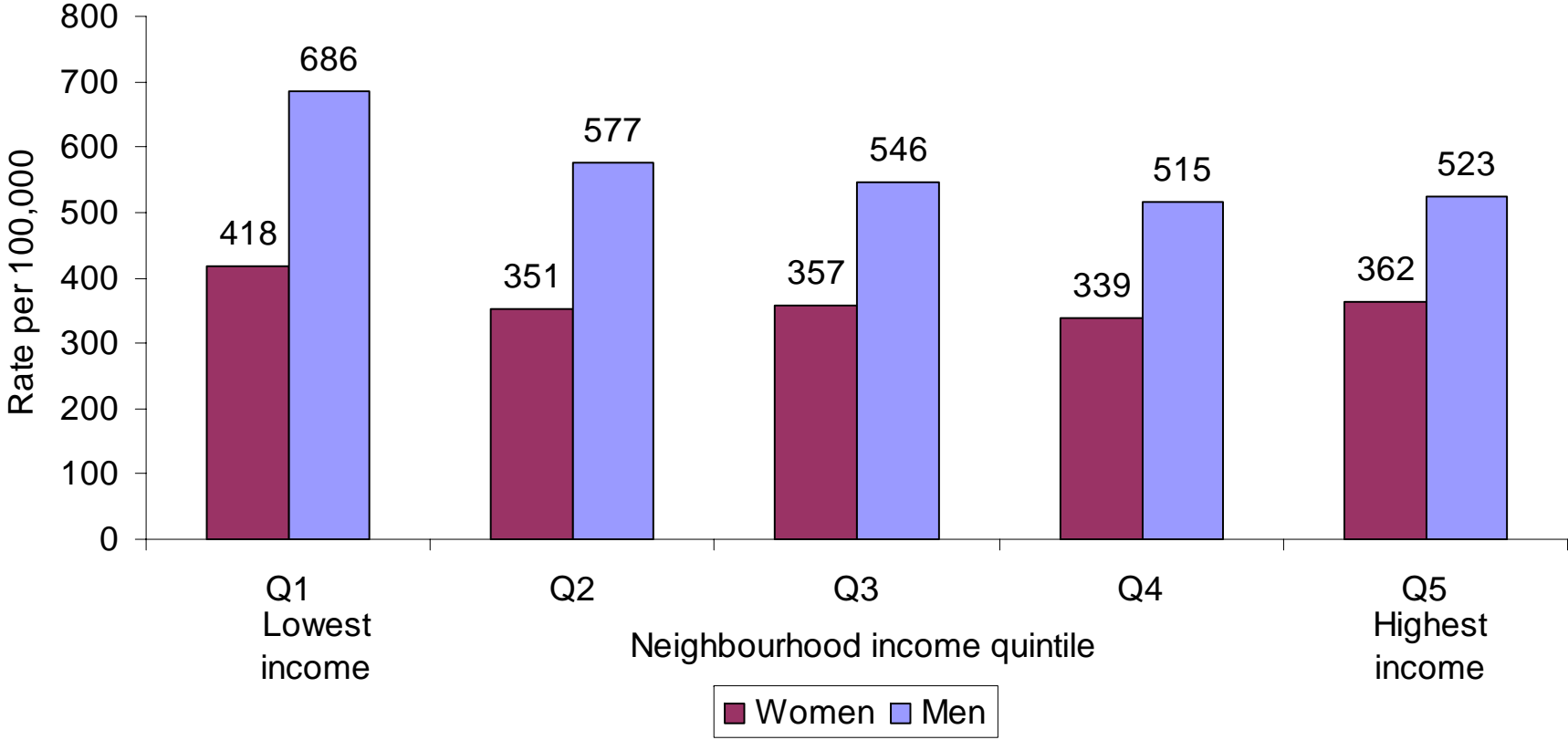
\*\*\*Includes Latin American, other racial and multiple racial origins.

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- Mortality



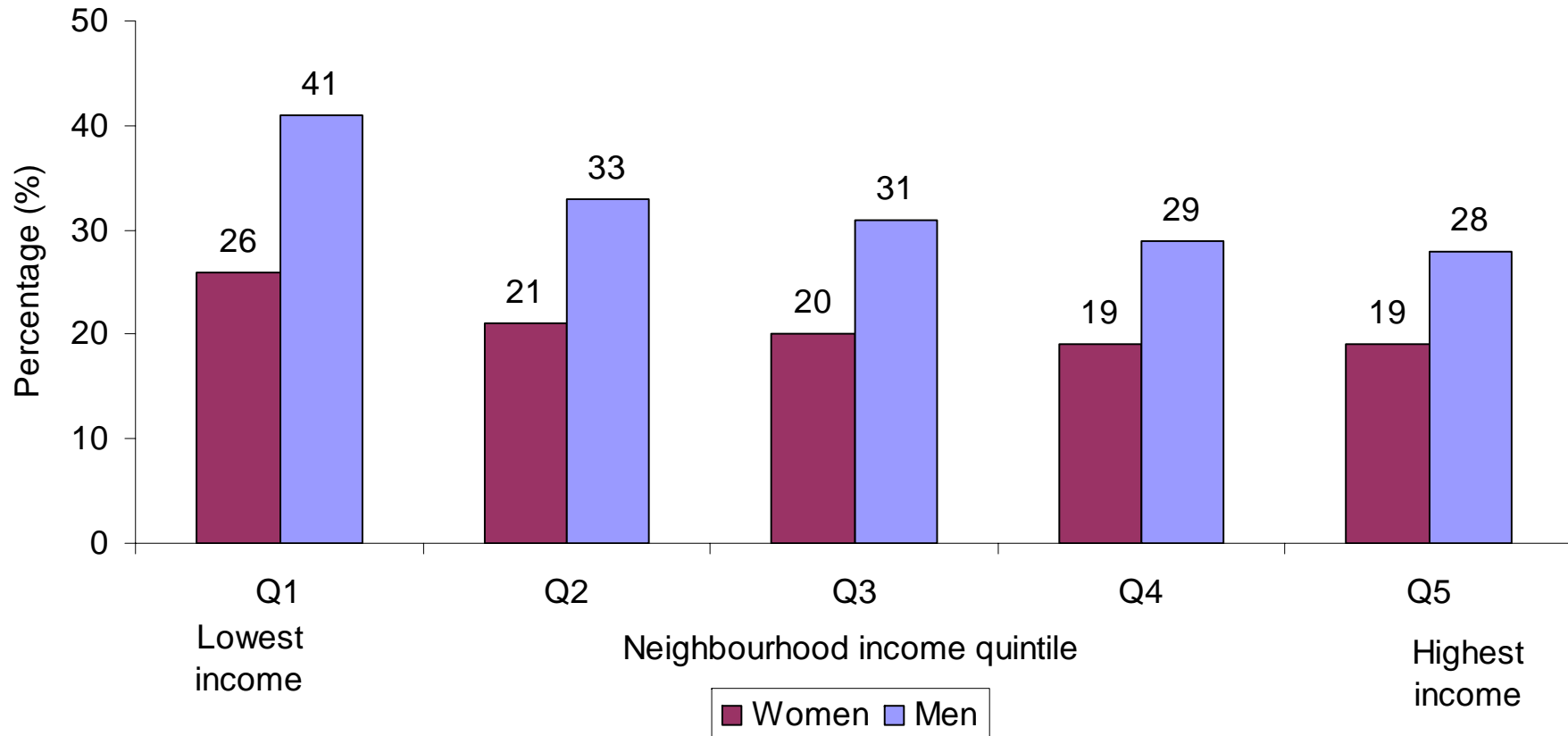
# All-cause mortality rate per 100,000 population, by sex and neighbourhood income quintile, in Ontario<sup>^</sup>, 2001



Data sources: Statistics Canada's Canadian Mortality Database and 2001 Census

<sup>^</sup> Only Ontario Census Metropolitan Areas (CMAs) were included.

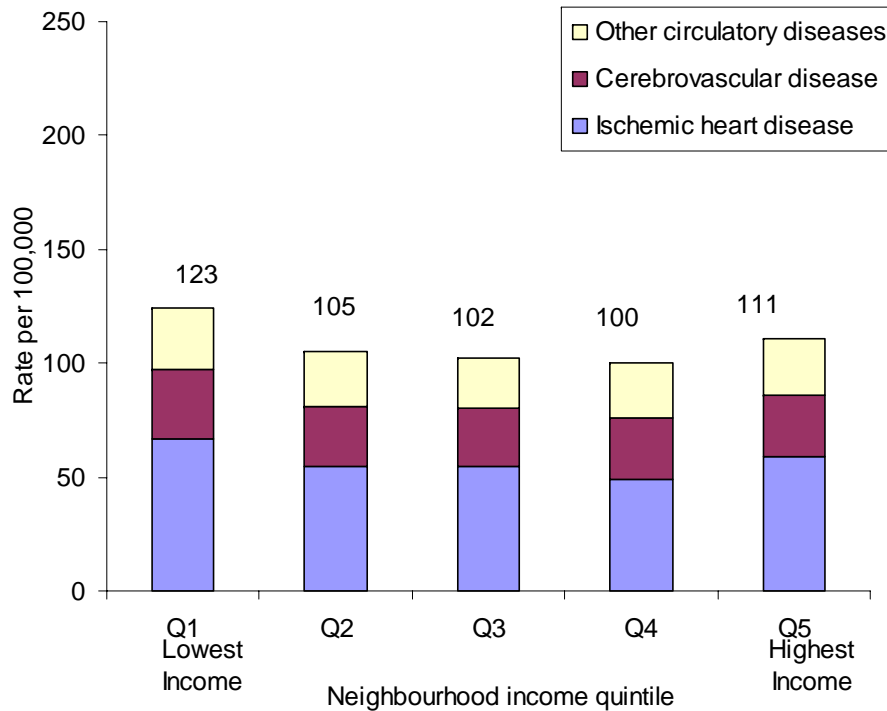
# Premature mortality (percentage of the population who died before age 75 years), by sex and neighbourhood income quintile, in Ontario<sup>^</sup>, 2001



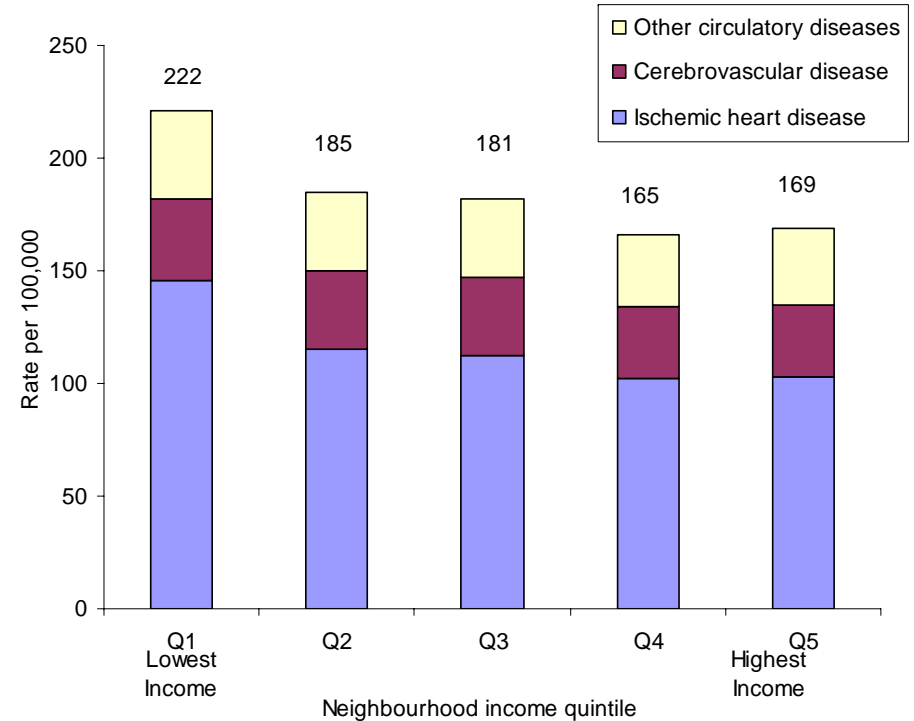
Data sources: Statistics Canada's Canadian Mortality Database and 2001 Census

<sup>^</sup> Only Ontario Census Metropolitan Areas (CMAs) were included.

# Mortality rate from circulatory diseases per 100,000 population, by sex, type of disease and neighbourhood income quintile, in Ontario<sup>^</sup>, 2001



Women



Men

Data source: Canadian Community Health Survey cycle, 3.1  
<sup>^</sup> Proportions may not add up to 100 percent due to rounding

# Impact of Inequities is Large

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- If all Ontarians had the same health as Ontarians with higher incomes,
  - an estimated 318,000 fewer people (166,000 women and 152,000 men) would be in fair or poor health
  - an estimated 231,000 fewer people (110,000 women and 121,000 men) would be disabled;
  - There would be an estimated 3,373 fewer deaths each year (947 women and 2,426 men) among Ontarians living in metropolitan areas.

# Conclusions

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- Sizable and modifiable health inequities on multiple measures across multiple domains.
- Low income women experience highest burden of chronic illness and disability
- Opportunity to improve population health while reducing health inequities by focusing on chronic disease prevention and management and targeting at-risk populations.
- Reducing illness burden is key to health system sustainability as population ages.

# Driving Improvement and Equity

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- Prioritize Chronic Disease Prevention and Management
- Coordinate Population Health, Community, and Clinical Responses
- Address the Broader Determinants of Health
- Routinely Include Gender and Equity Analysis in Health Indicator Monitoring

# POWER Study

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- Chapter 1 Introduction
- Chapter 2 Framework
- Chapter 3 Burden of Illness
- POWER Forum
- Supplementary Data Tables
- POWERpoint Slides

# For more information, please contact us:

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