



Towards a Better Understanding of Violence in the Workplace

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Occupational and Environmental Health Seminar

Feb 9th, 2018



Acknowledgement

The Institute for Work & Health operates with the support of the Province of Ontario.

The views expressed in this document are those of the authors and do not necessarily reflect those of the Province of Ontario.

Thanks to Stephanie Lanthier and Cynthia Chen for permission to share this work



Preventing workplace violence in the health care sector

Read this report on how we're working to reduce violent incidents in health care workplaces and boost safety for staff and patients.

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Message from the ministers

Workplace violence in our health care sector is a growing matter that we are committed to addressing. We've seen a concerning increase in the frequency and severity of incidents of workplace violence in our hospitals, mainly experienced by nurses.

Nurses play an integral role in providing care to patients in our hospitals and, because of their level of interaction with patients, they are the primary victims of workplace violence. That is unacceptable. Every worker in Ontario should expect a safe and healthy workplace.

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Workplace Violence Prevention

- Best Practices
- Measurement
- Tools & Resources
- Background

Best Practices



Created on October 31, 2017

"Insanity is doing things the way we've always done them and expecting different results."

Albert Einstein

Number of workplace violence incidents (overall) is a **new mandatory** indicator for the Quality Improvement Plans (QIPs). This indicator measures the number of workplace violence incidents against hospital workers. The *Occupational Health and Safety Act, 1990* defines workplace violence as the exercise or attempted exercise of physical force by a person against a worker that causes or could cause physical injury, and/or a statement(s) or behaviour(s) that could be interpreted as a threat to exercise physical force against a worker in the workplace.



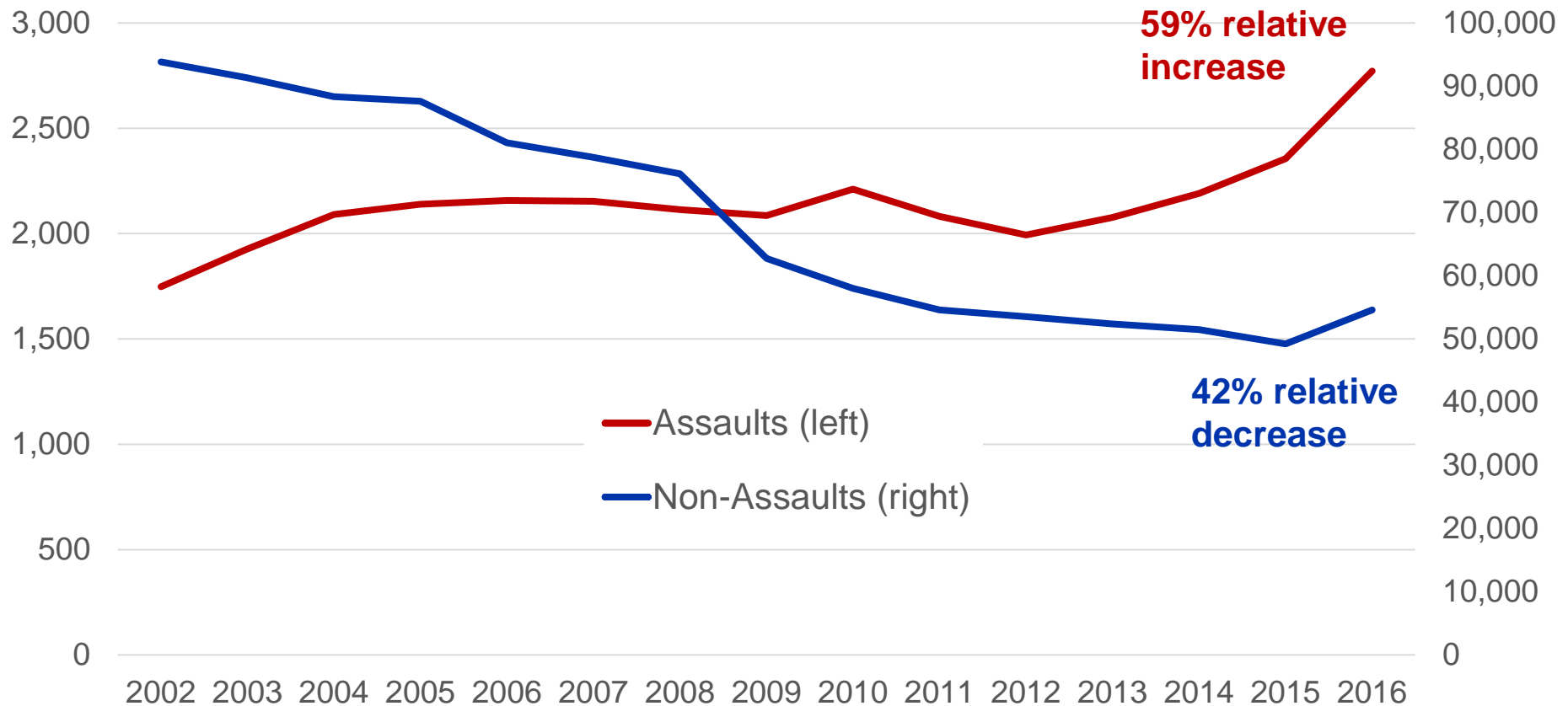
What is workplace violence?

- the exercise of physical force by a person against a worker, in a workplace, that causes or could cause physical injury to the worker,
- an attempt to exercise physical force against a worker, in a workplace, that could cause physical injury to the worker,
- a statement or behaviour that it is reasonable for a worker to interpret as a threat to exercise physical force against the worker, in a workplace, that could cause physical injury to the worker.

Source: Ontario Occupational Health and Safety Act



Number of lost-time claims accepted in Ontario. Assaults versus non-assaults. 2002 to 2016

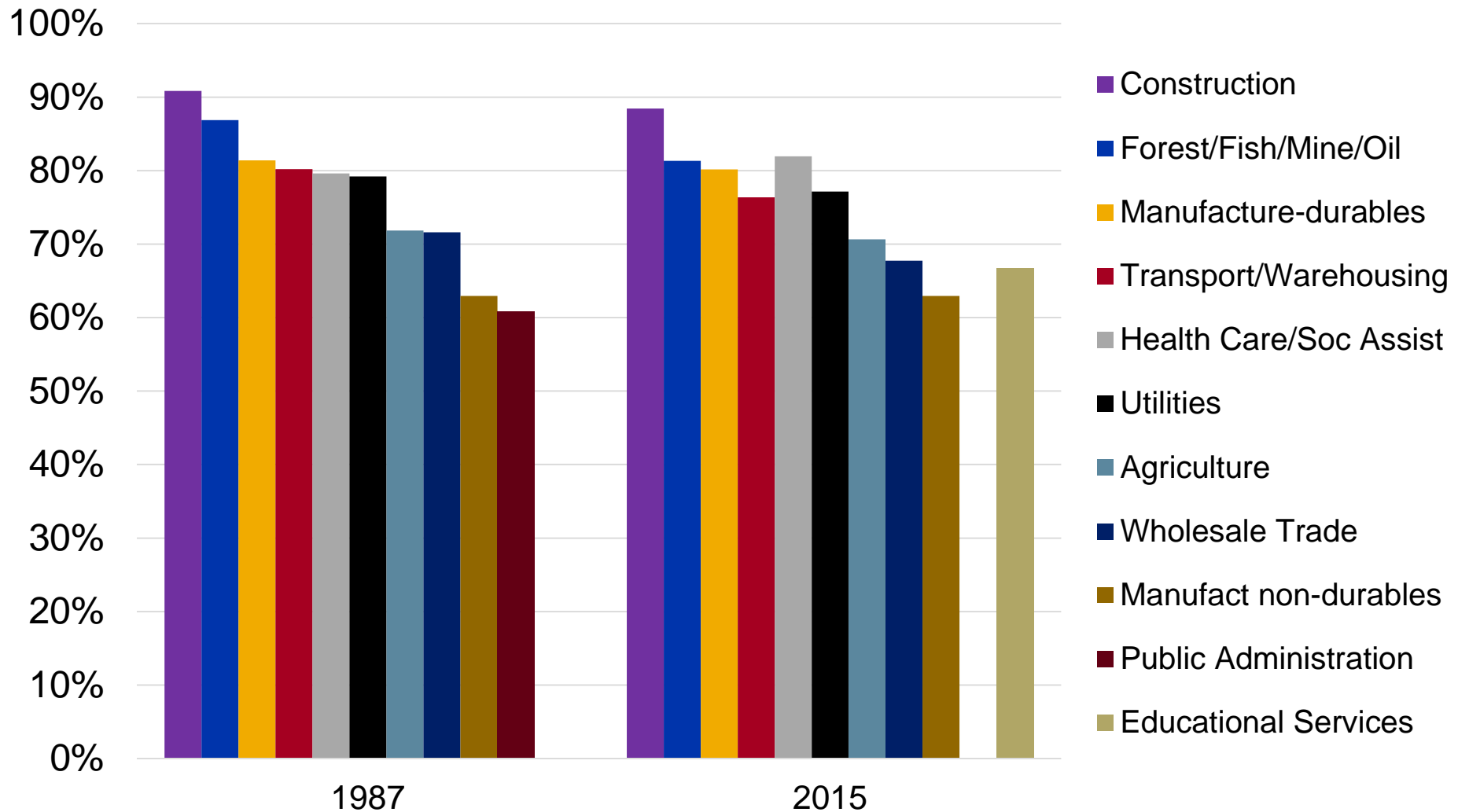




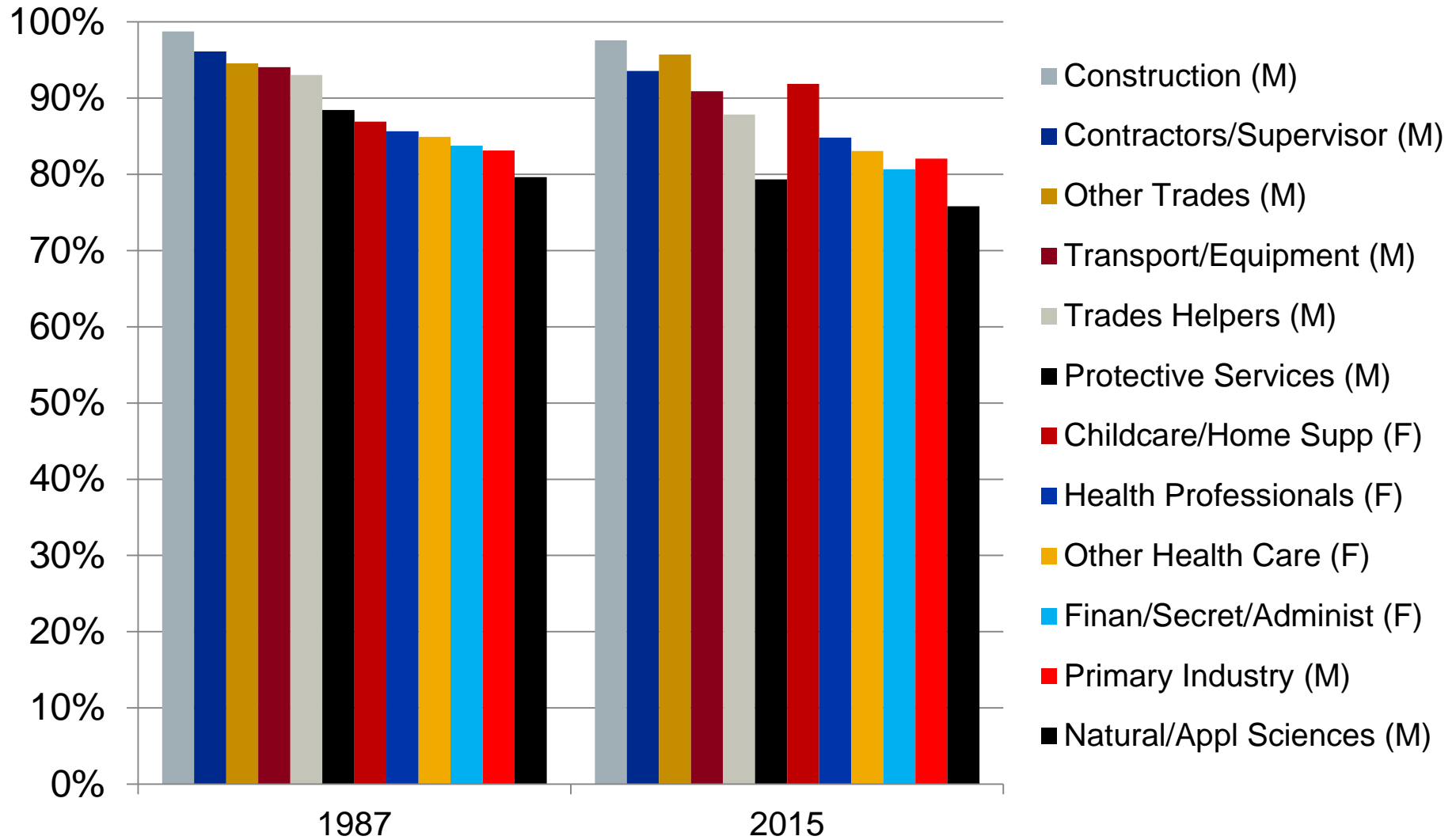
For today

- Examination of male/female differences in self-reported workplace violence
- Time trends in lost-time claims and emergency presentations for work-related violence in Ontario for men and women
- Reflections on current capacity to monitor workplace violence at population level, and evaluate prevention activities

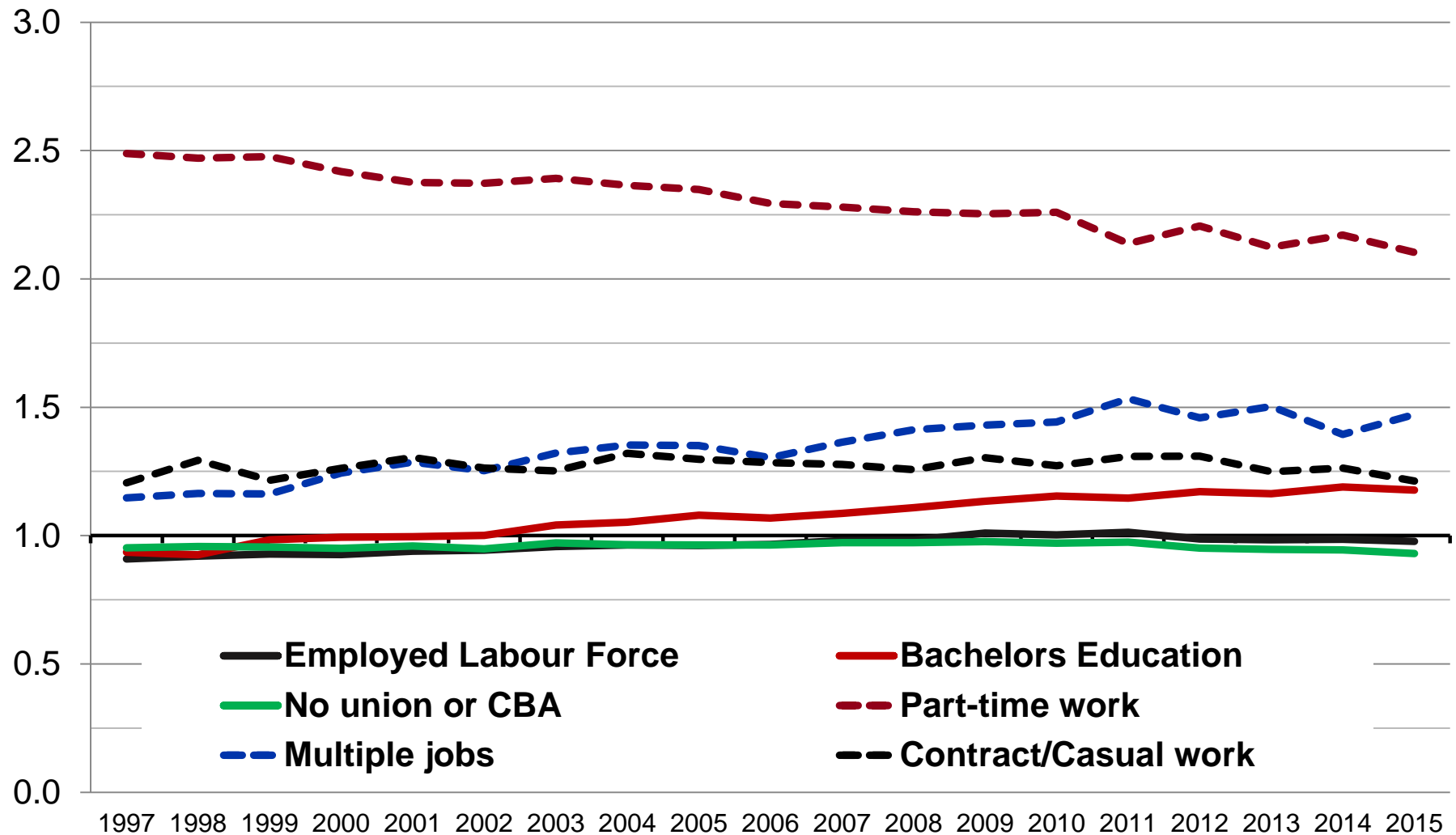
The 10 most sex/gender segregated industries in Canada in 1987 and 2015



The 12 most sex/gender segregated occupations in Canada in 1987 and 2015



Men and women occupy different positions in the labour market. Ratio of women to men across labor force groups





Study One: 2009 and 2014 General Social Surveys on Victimization (N = 27,643)

Objectives

- Estimate differences in risk of workplace violence for men and women
- Understand differences by nature of violence, type of violence, sex of perpetrator
- Understand the extent to which male/female differences are explained by workplace characteristics



Main outcome: Experience of workplace violence in previous 12 months

Taken from self-reported assaults, forced sexual activity or unwanted sexual touching, or from other events where assaults took place (e.g. robberies)

“An assault can be anything from being hit, slapped, grabbed or knocked down, to being shot, or beaten. This can also include forced sexual activity and unwanted sexual touching or grabbing. In this incident, were you assaulted in any physical or sexual way?”

Incidents that occurred at the respondents “place of work” were defined as workplace violence



Workplace violence subgroups

- Nature of violence: Physical versus sexual
- Person committing the violence: Colleague; stranger; or other
- Sex of person committing the violence: male or female

Workplace characteristics

- Industry: education; health; accommodation/food; and other
- Occupation: Nurses and HC support; teachers; protective services; managers; professionals; clerical; sales and service; and other
- Work Schedule: regular days; regular evenings; regular nights; rotating shifts; split shift/casual/on-call; other
- Hours of work in previous 12 months



Covariates

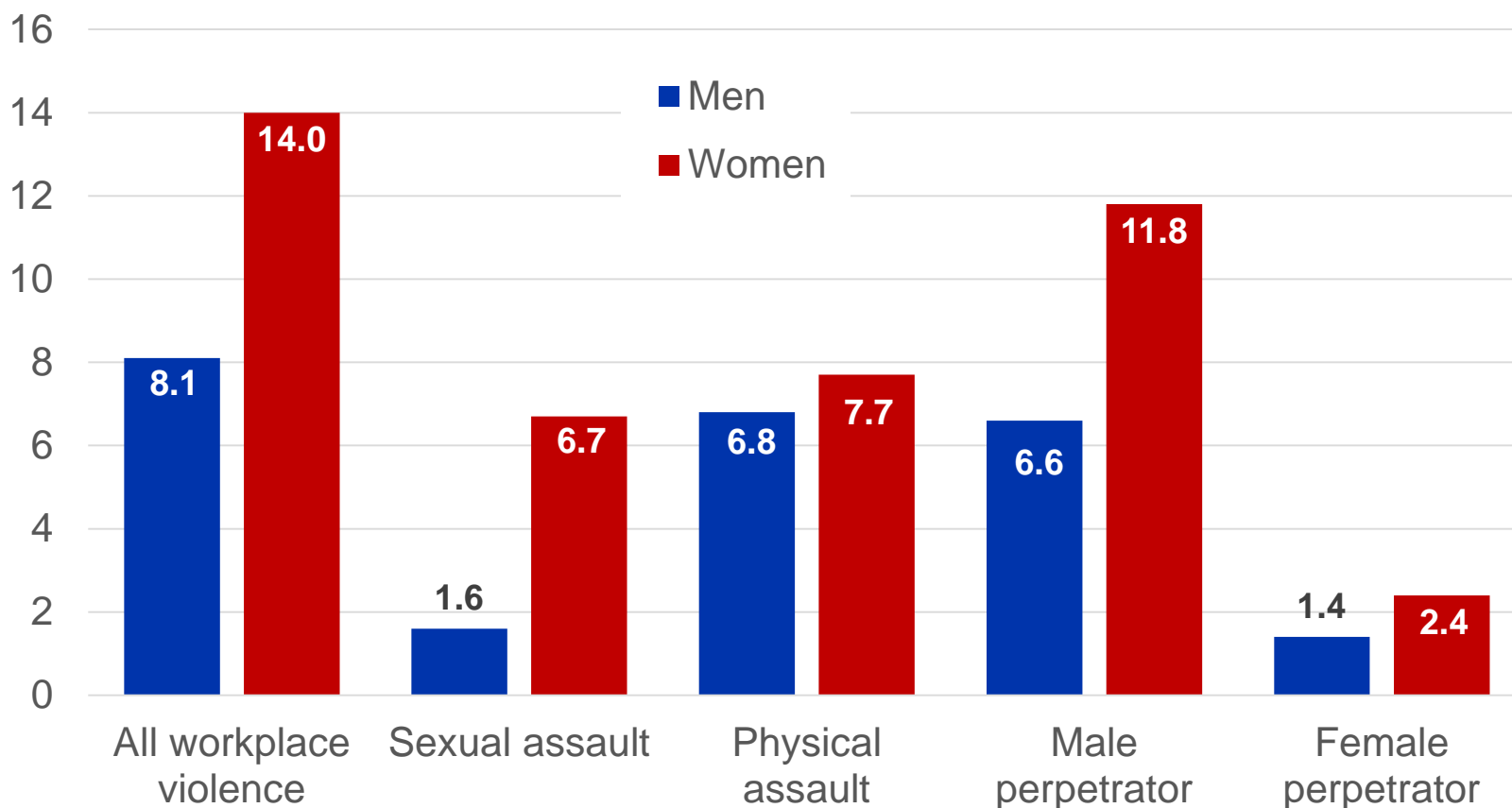
- Age; marital status; province of residence; rural/urban living location; education level

Analyses

- Logistic regression with sex of respondent as primary independent variable
- Models adjusted for work hours (exposure); exp + other work characteristics; exp + covariates; fully adjusted
- Also examined relationship by workplace violence sub-groups
- Standard errors adjusted using 500 bootstrap replicate weights

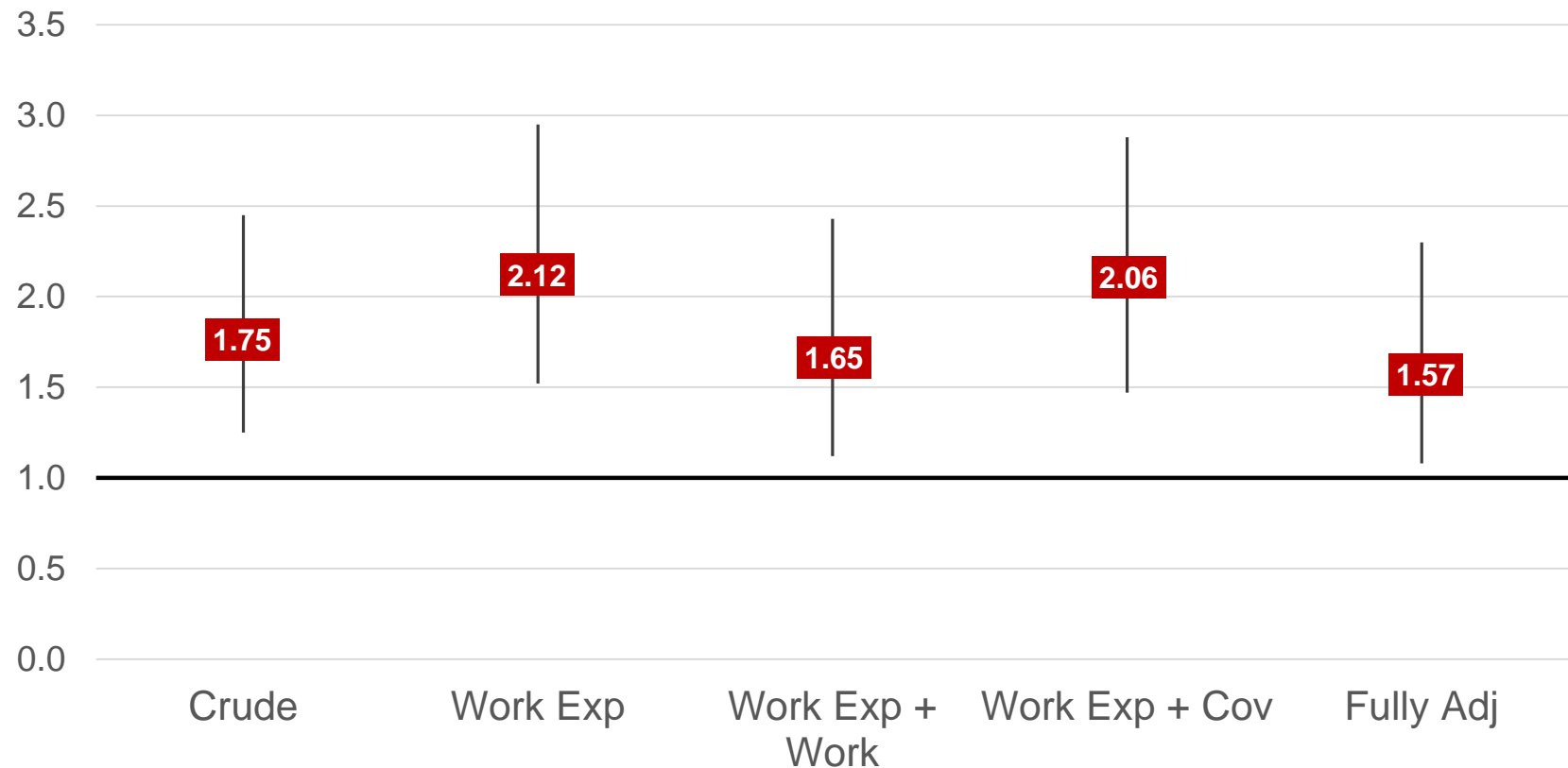


Rates of workplace violence per 1,000 persons. Overall and by sub-groups of violence (N = 27,643). GSS 2009 and 2014.

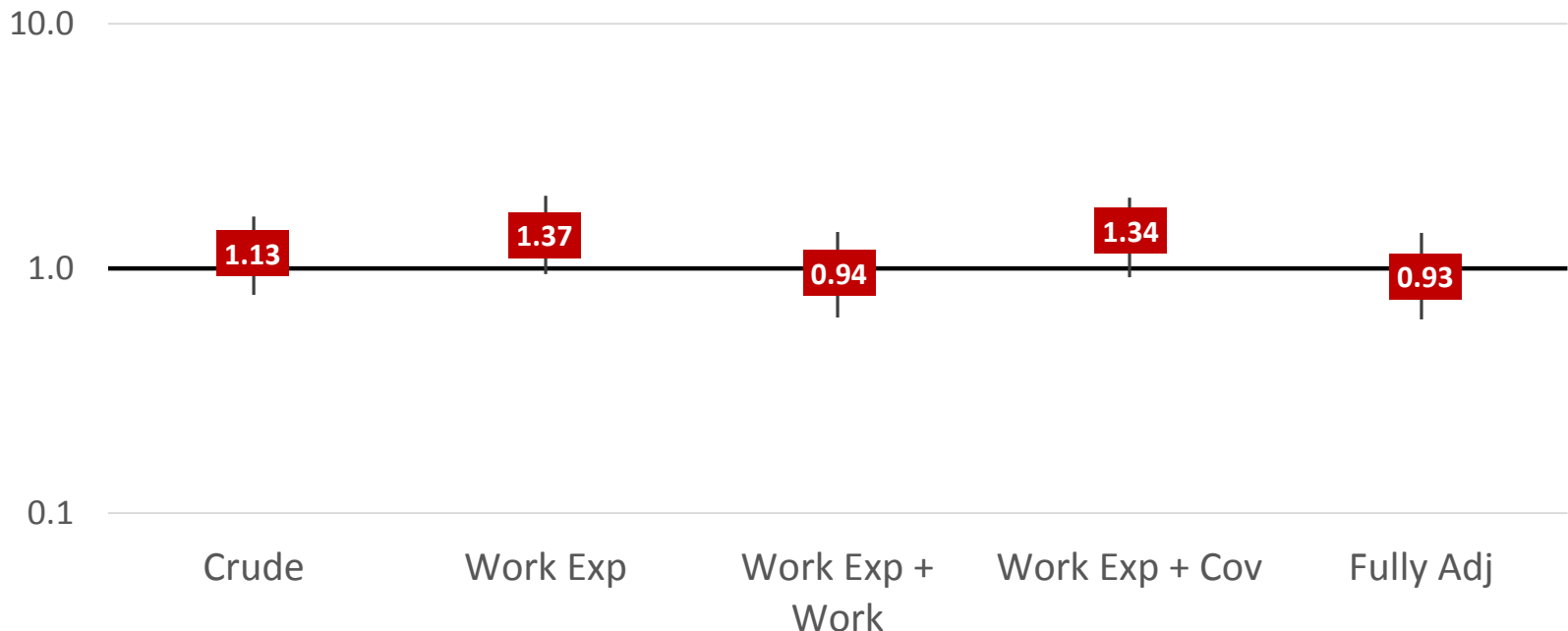




Odds of experiencing any workplace violence (women relative to men)



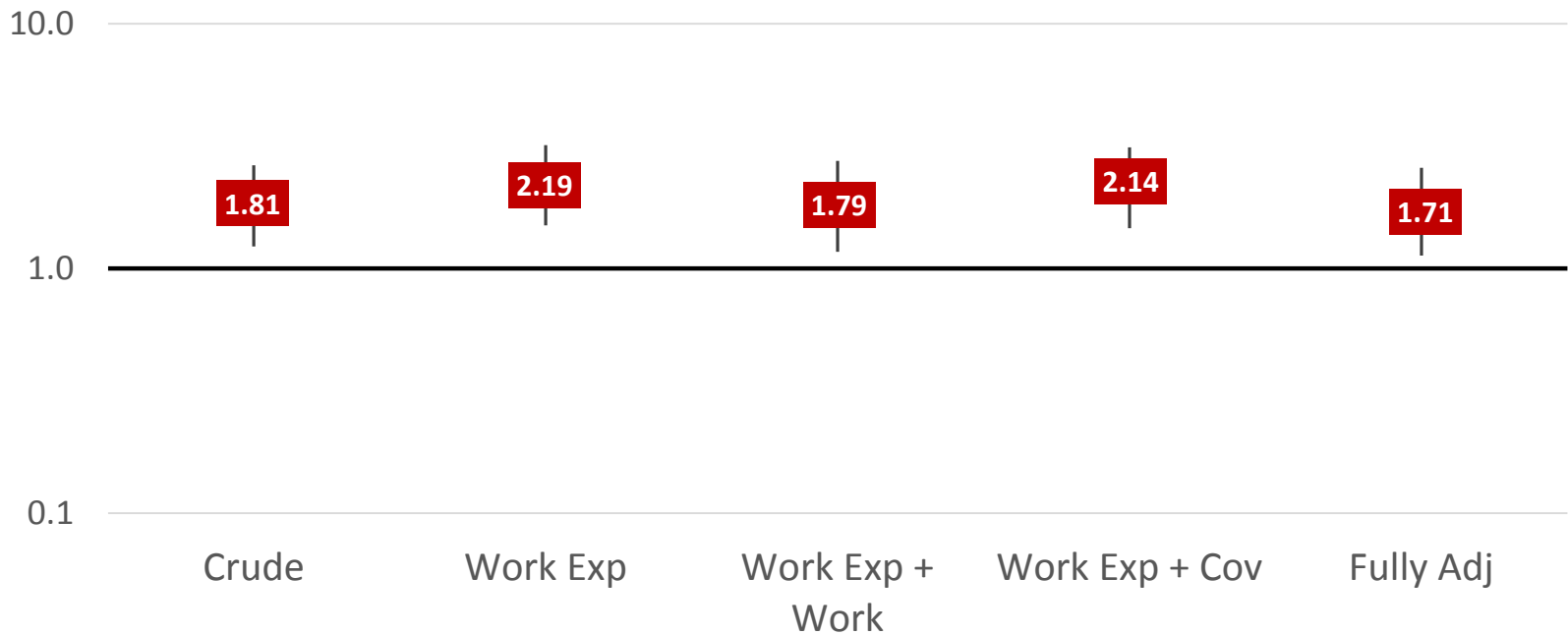
Physical Violence



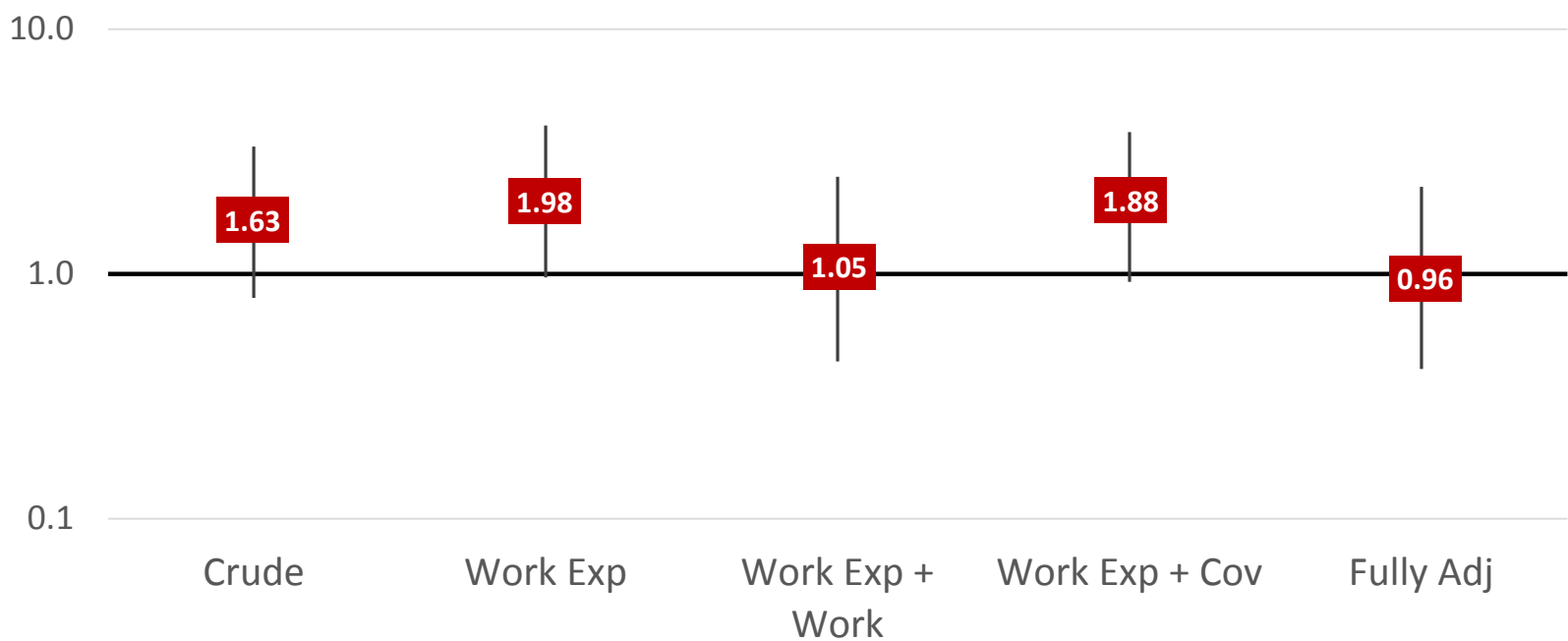
Sexual Violence



Male perpetrator



Female perpetrator





Study Two: Time trends in rates of workplace violence between men and women in Ontario

Objectives

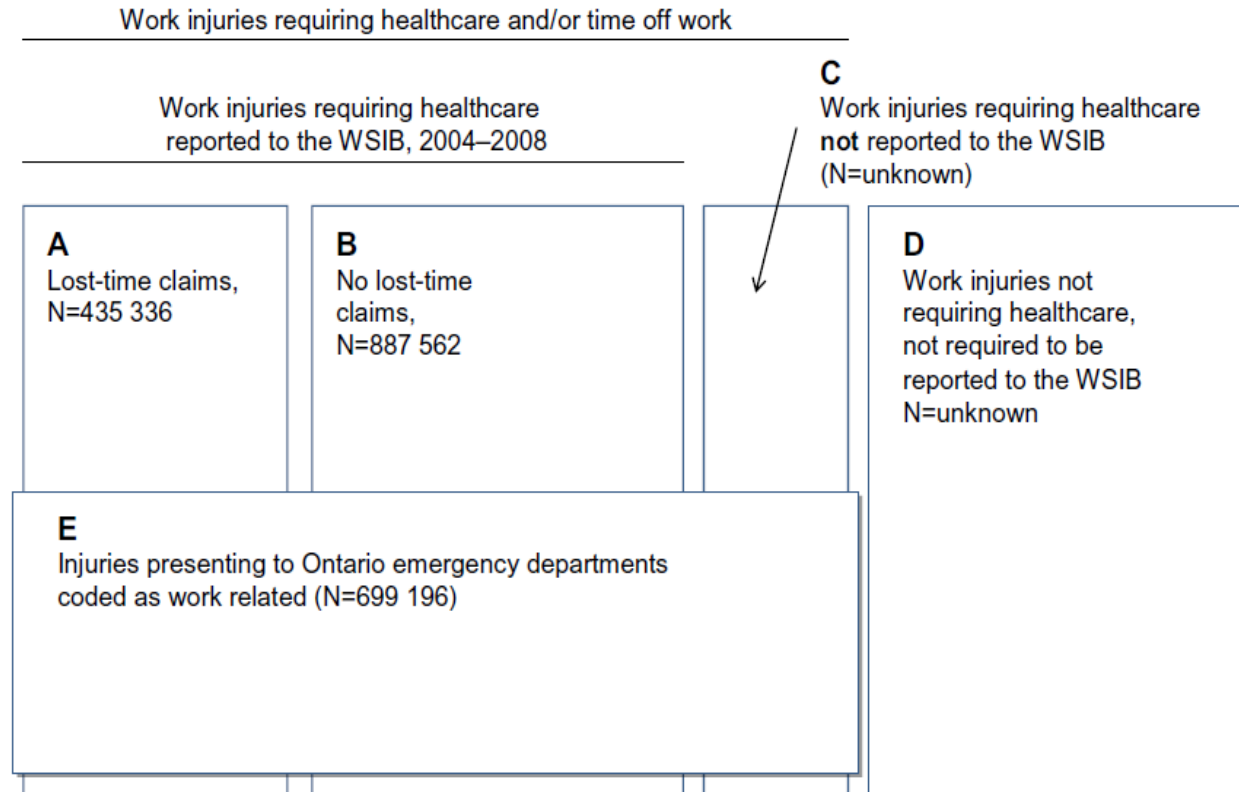
- To estimate trends in workplace violence at the population level over the period 2002 to 2015, for men and women in Ontario
- Examine male/female differences in workplace violence within industry sectors



| | Workers' Compensation Data (WSIB) | Emergency Visit Data (NACRS) |
|-------------------------------------|--|--|
| Eligibility | One or more days of wage replacement (other than DOI). Assessed for work-relatedness. Workplace covered by WSIB (approx. 65% of labour market) | Responsibility for payment (filled in by treating HCP) is WSIB |
| Time period | 2002 to 2015 | 2004 to 2014 |
| Definition of Workplace violence | Based on event (CSA-Z795): Assaults and violent acts (6.*) | Assault: Based on ICD-10 codes (X92-Y09) |
| Denominator | Estimated from the Labour Force Survey* | Estimated from the Labour Force Survey |
| Other relevant information recorded | Age, sex, occupation, industry, tenure | Age, sex |
| Number | 21,228 (1,516 per year) | 13,245 (1,204 per year) |



Figure 1 Work injuries requiring healthcare and/or time off work. WSIB, Workplace Safety & Insurance Board Ontario.





Analysis

- Descriptive analysis examined crude rates of assaults at work by age, sex, year
- Age-standardised rates by sex and year (direct method)
- 95% confidence intervals around rates estimated using Gamma distribution
- Regression models estimated time trend of WPV. Breaks in trend examined using Joinpoint Trend Analysis Software
- Industry specific estimates (education, health care, other) estimated for claims data only



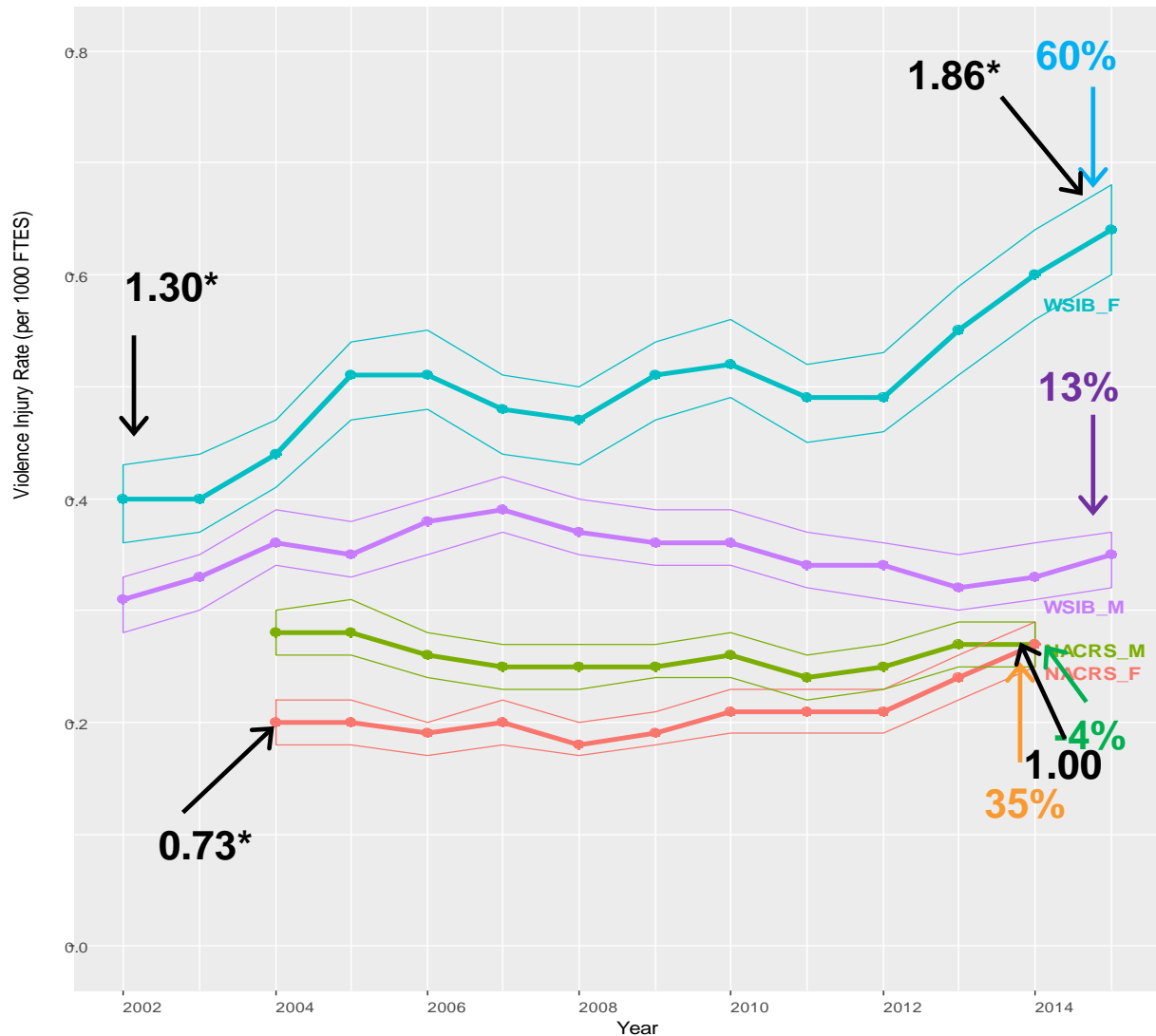
Rate of violence claims/ED visits per 1,000 full-time-equivalents, stratified by sex. Ontario 2002 to 2015

Blue = Female claims

Purple = Male claims

Green = Male ED visits

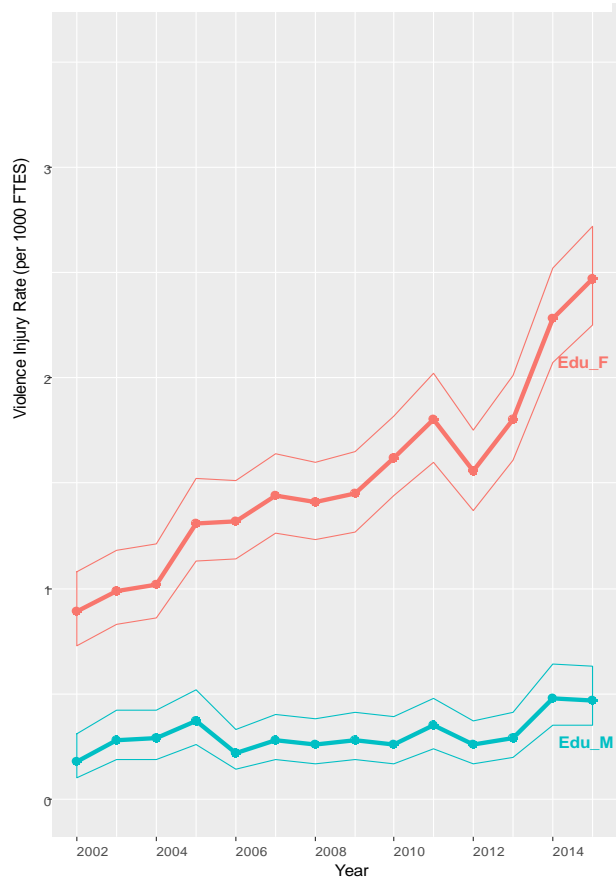
Orange = Female ED visits



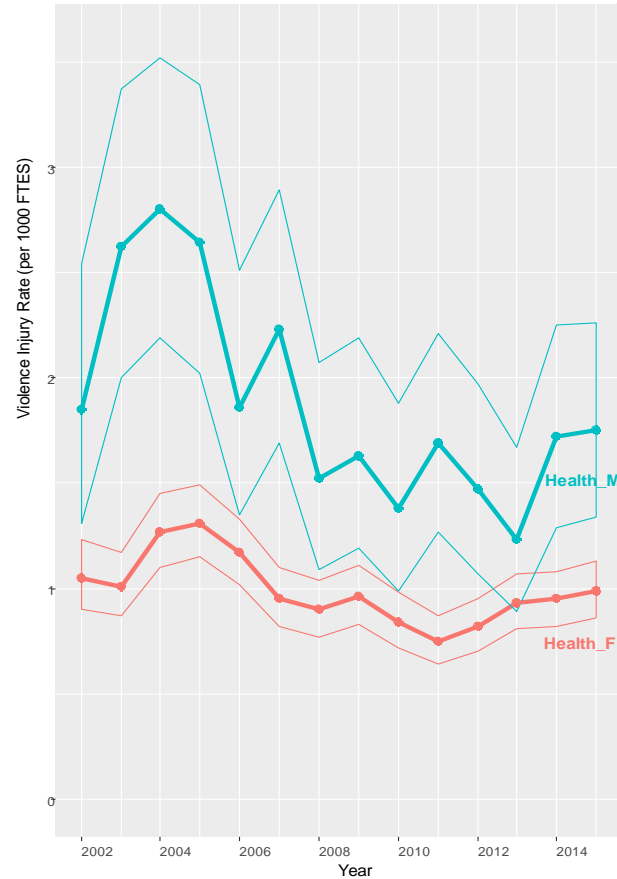


Rate of violence claims per 1,000 full-time-equivalents by industry and sex. Ontario 2002 to 2015

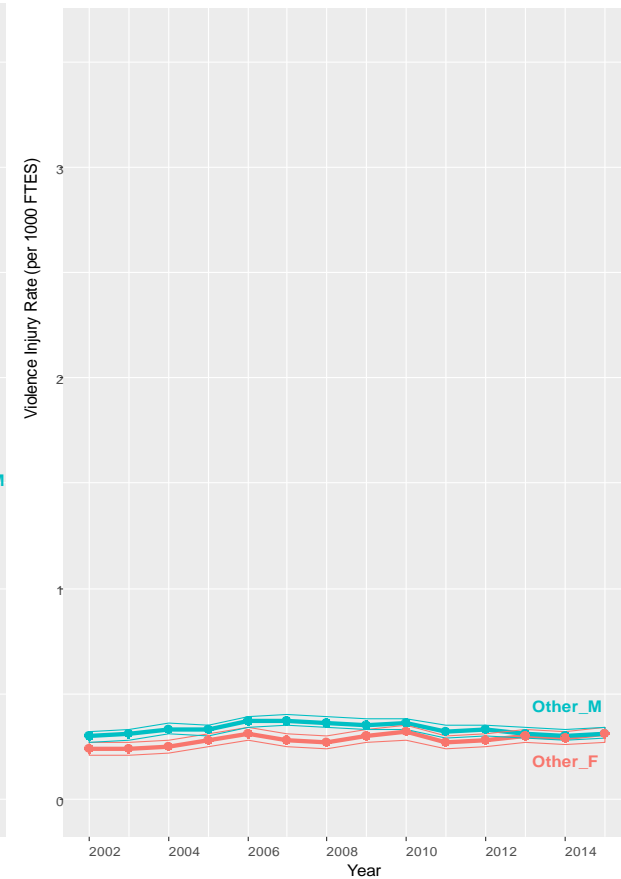
Education



Health Care



Other Industries





| Metric | Avg Ann Perc Change |
|--|---------------------|
| Women | |
| Lost-time claims due to workplace violence | 2.79 |
| Lost-time claims not due to workplace violence | -5.88 |
| ED visits due to violence – work-related | 2.69 |
| ED visits due to violence – not work-related | -0.37 |
| Men | |
| Lost-time claims due to workplace violence | 0.15 |
| Lost-time claims not due to workplace violence | -6.67 |
| ED visits due to violence – work-related | -0.48 |
| ED visits due to violence – not work-related | -2.16 |



Key messages from studies (1)

The relative risk of experiencing workplace violence for women compared to men depends on:

- Proper adjustment for work hours
- Type of violence examined
- Industry under examination
- Time period of interest

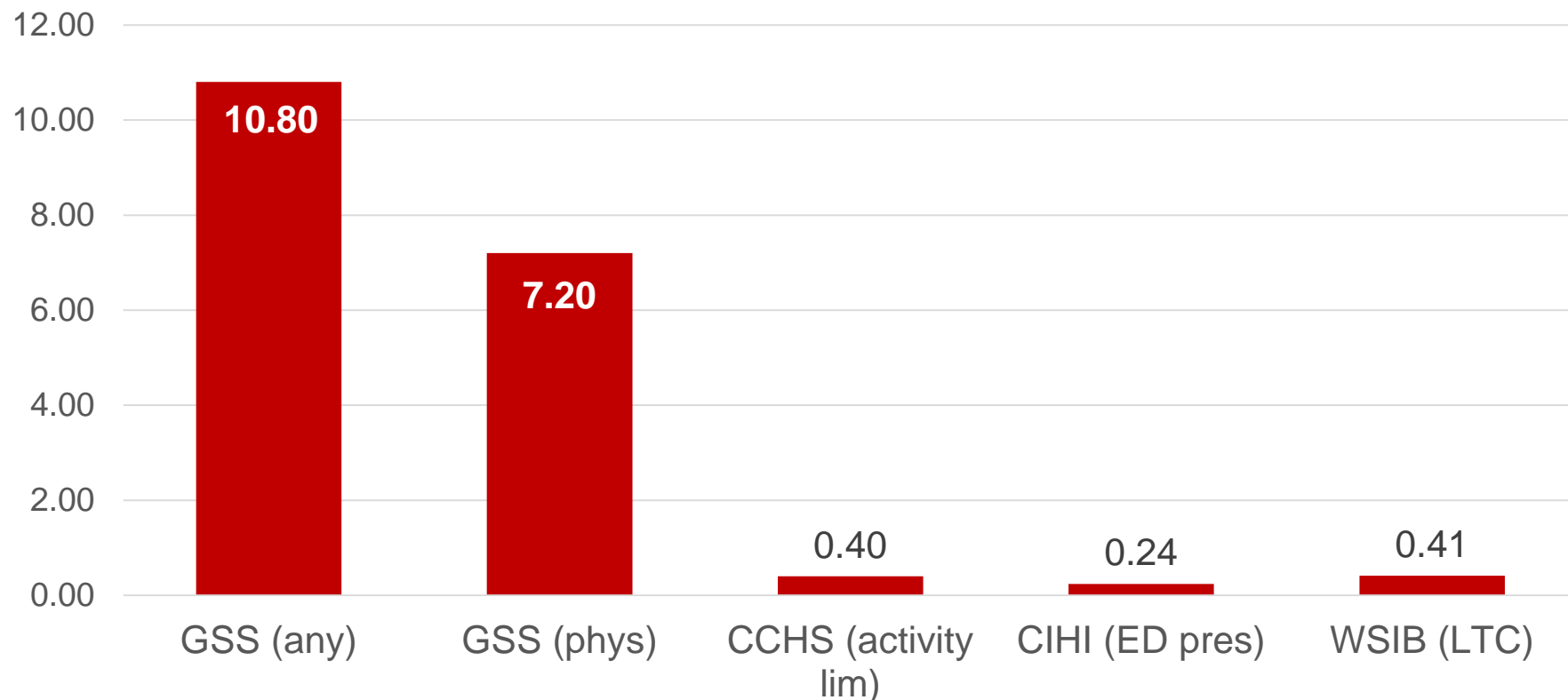


Key messages from studies (2)

- Gendered work exposures account for female/male differences in physical violence and female-perpetrated violence
- Gendered work exposures do not account for female/male differences in sexual violence or male perpetrated violence
- Based on LTCs and ED visits, rates of workplace violence among women is increasing
- Based on LTCs female/male inequalities in workplace violence are increasing. Overall and in particular in education sector

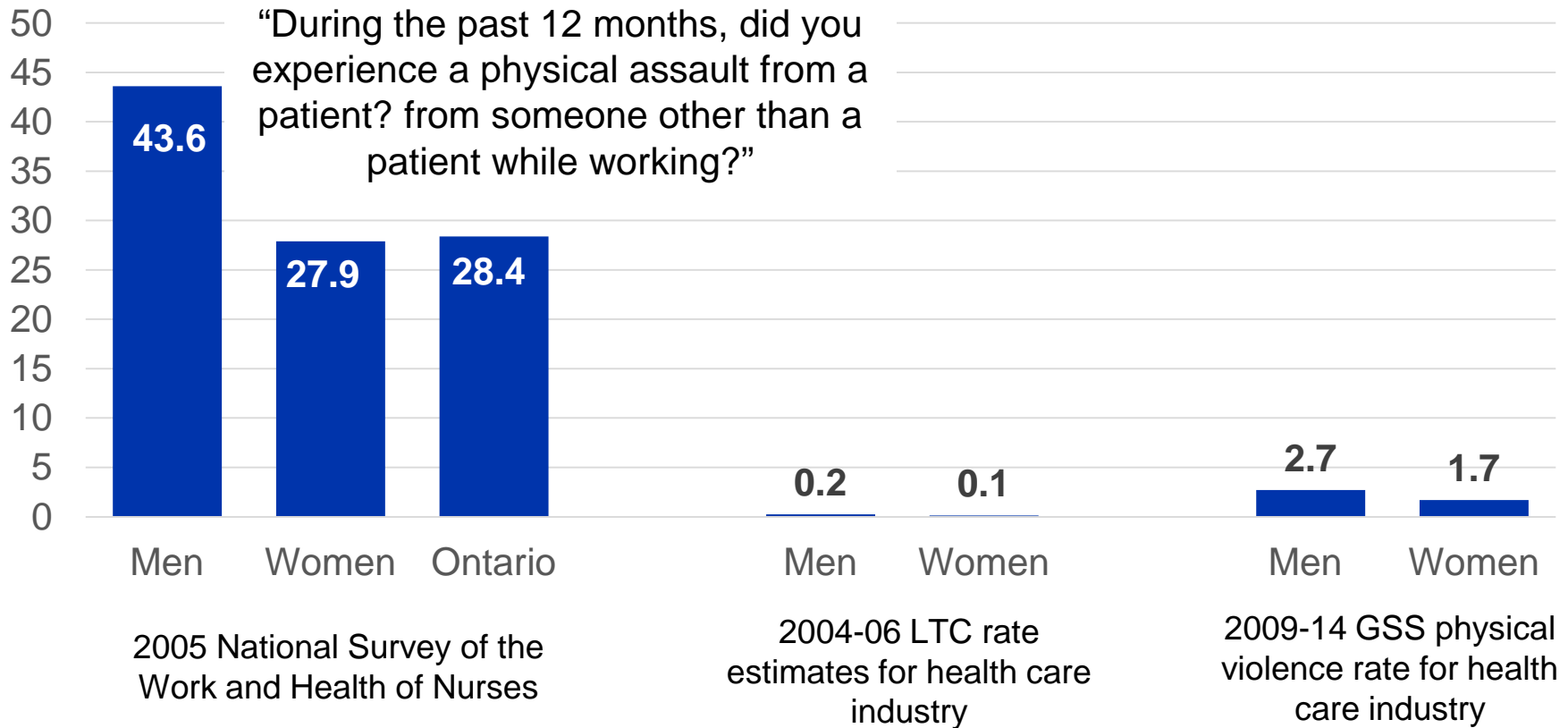


Comparison of estimates of workplace violence by data source. Rate per 1000 FTEs (workers). Circa 2009 to 2014





Comparing self-reported assault among nurses to workers' compensation claims rates in health care (2005). Per 100 workers/FTEs





Workplace Violence Prevention

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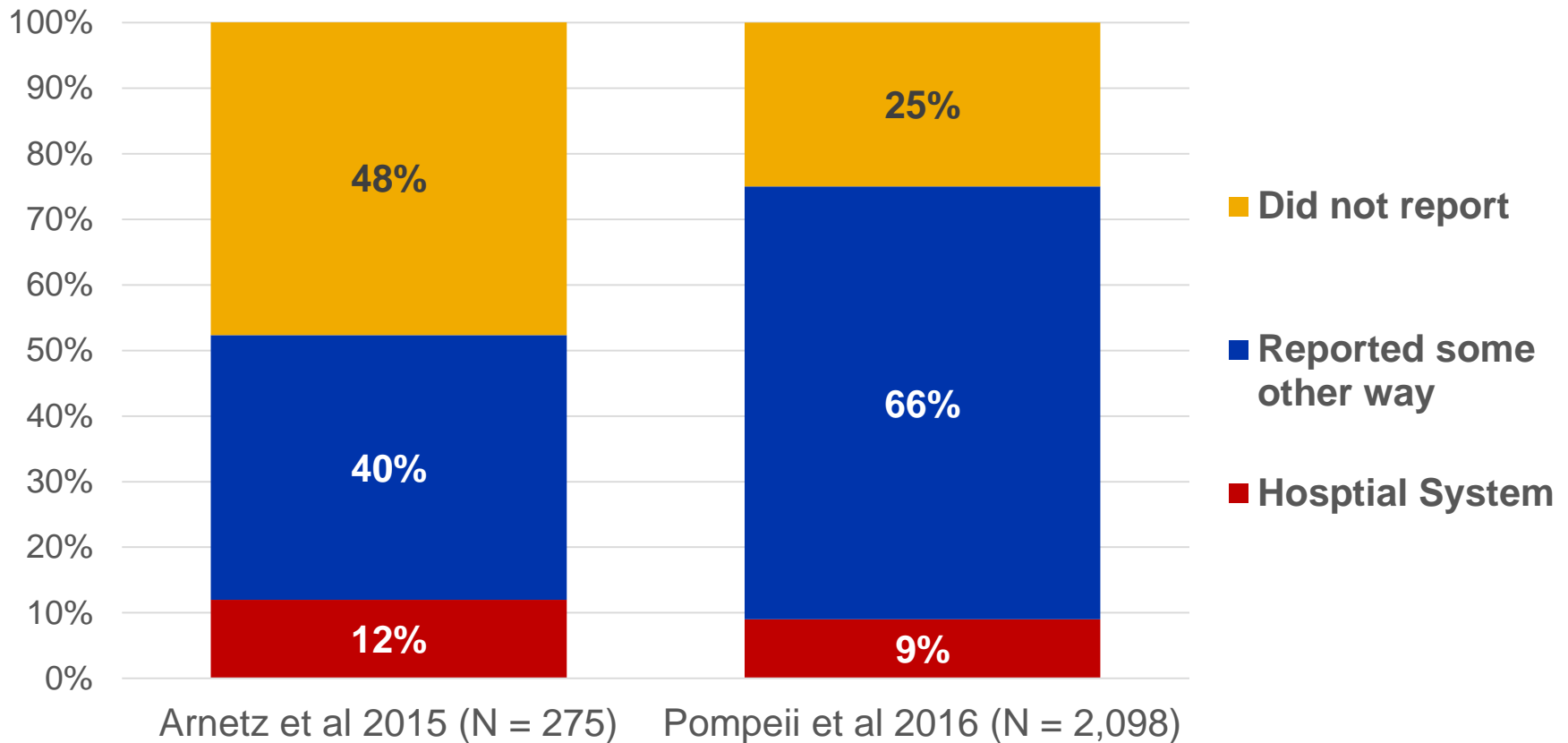
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Hospital (or other workplace) reporting systems as an method to monitor workplace

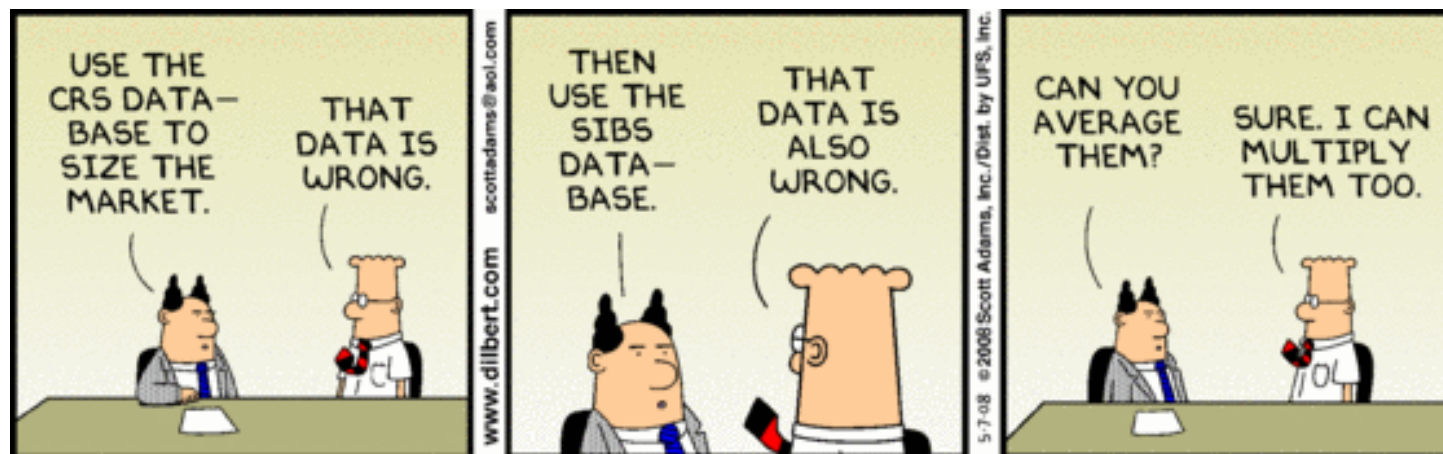
| | Arnetz et al (2015) | Pompeii et al (2016) |
|----------------------------|--|---|
| Target population | Employees in 42 hospital units within seven hospitals in Midwest United States (approximately 15,000 employees). | Two large hospital systems in Texas and North Carolina (approximately 11,000 employees) |
| Num invited to participate | 2,010 | 11,000 |
| Response rate (N) | 22% (N=446) | 49% (N=5,385) |
| Types of violence examined | All Types (violence or aggression) | Type II only (patient/visitor) (assaults, attempted assault and threats) |
| Experienced violence | 62% | 39% |



Hospital (or other workplace) reporting systems as an method to monitor workplace



Estimating the number of workplace violence events in Ontario



Scientific results inevitably involve functional relations among measured variables, and the science of [discipline/subject area] can progress no faster than the measurement of its key variables

(Nunnally and Berstein, 1994, pg 7)



Concluding comments

- Rates of workplace violence (that results in ED visits or lost-time claims) are increasing in Ontario.
 - Largest increase among women in education sector
- We need to develop better systems for the surveillance of workplace violence.
 - Identification of risk factors
 - Evaluation of primary prevention efforts
 - Information on self-reported workplace violence would enhance understanding time trends and differences between men and women by data source.



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