

Towards a Better Understanding of Violence in the Workplace

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Institute for Work & Health Speaker Series

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Recent activity on workplace violence in Ontario

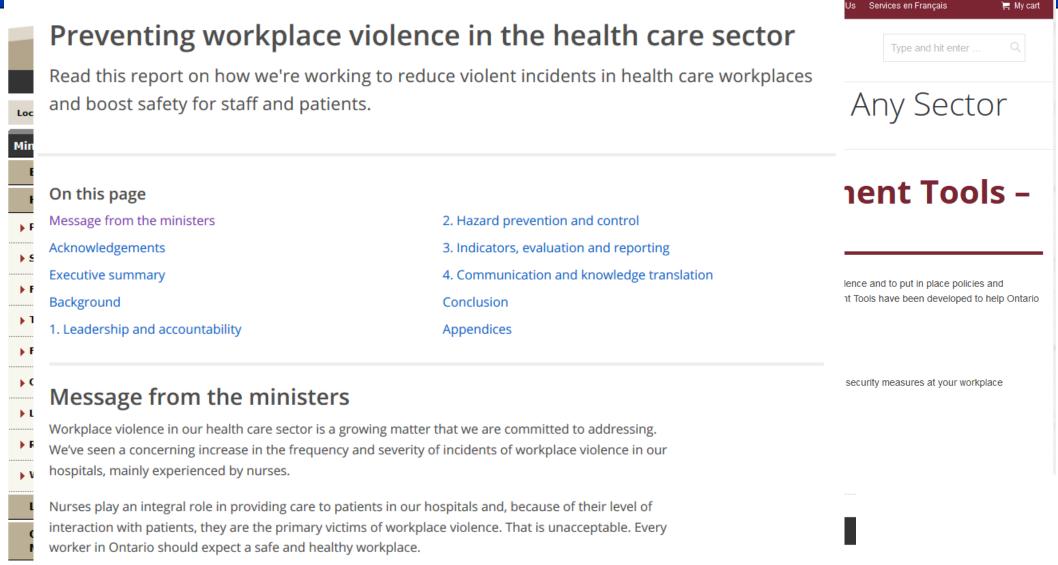
Bill 168 (June 15, 2010)

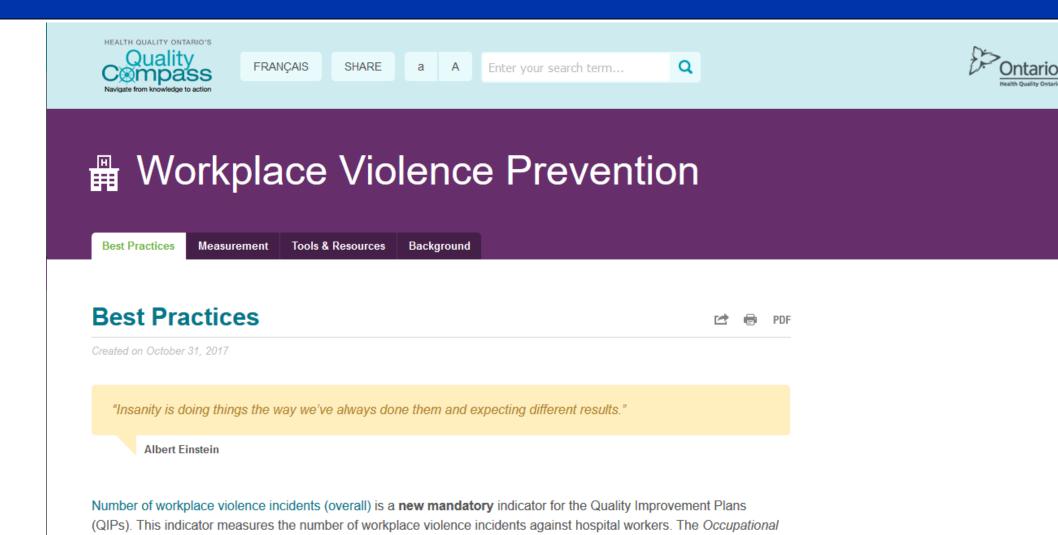
Required employers to have policies and programs in place to deal with workplace violence, workplace harassment and domestic violence that may occur in the workplace.

Employers are required to:

- Have procedures in place for workers to report incidents
- Investigate incidents of workplace violence, harassment or threats of violence
- Give workers information about the policies and programs







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

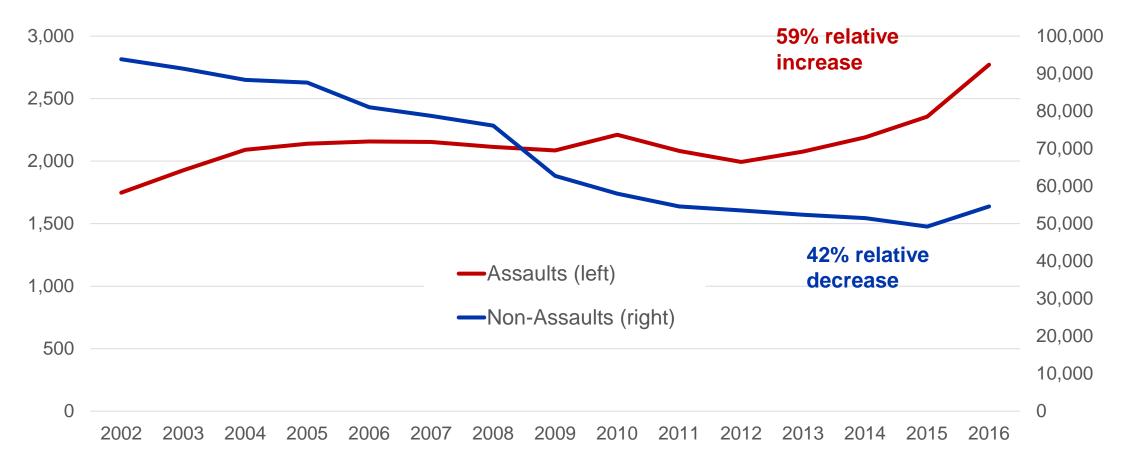
interpreted as a threat to exercise physical force against a worker in the workplace.

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



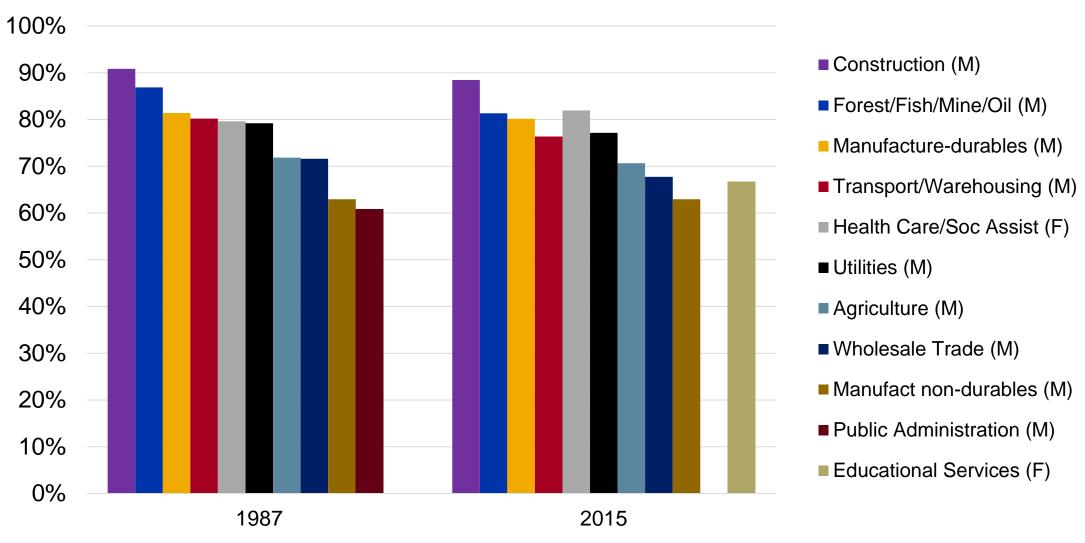
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Source: WSIB By The Numbers

For today

- Examination of male/female differences in self-reported workplace violence
- Male/female differences in time trends for incidence of injuries attributed to workplace violence in Ontario.
- Reflections on current capacity to monitor workplace violence at population level, and evaluate prevention activities

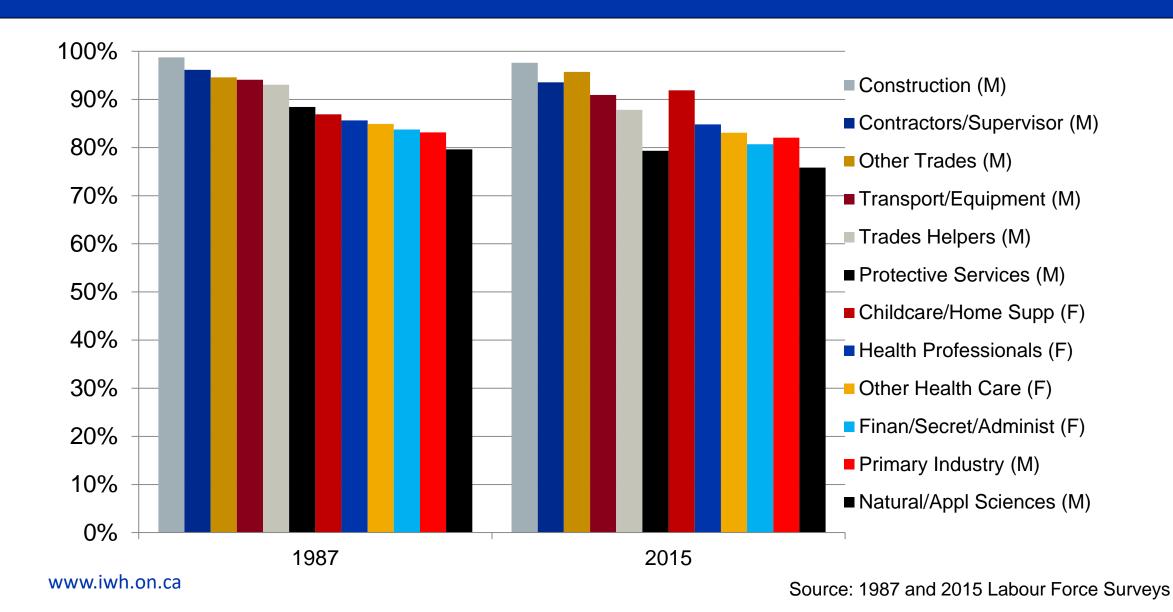
The 10 most sex/gender segregated industries in Canada in 1987 and 2015



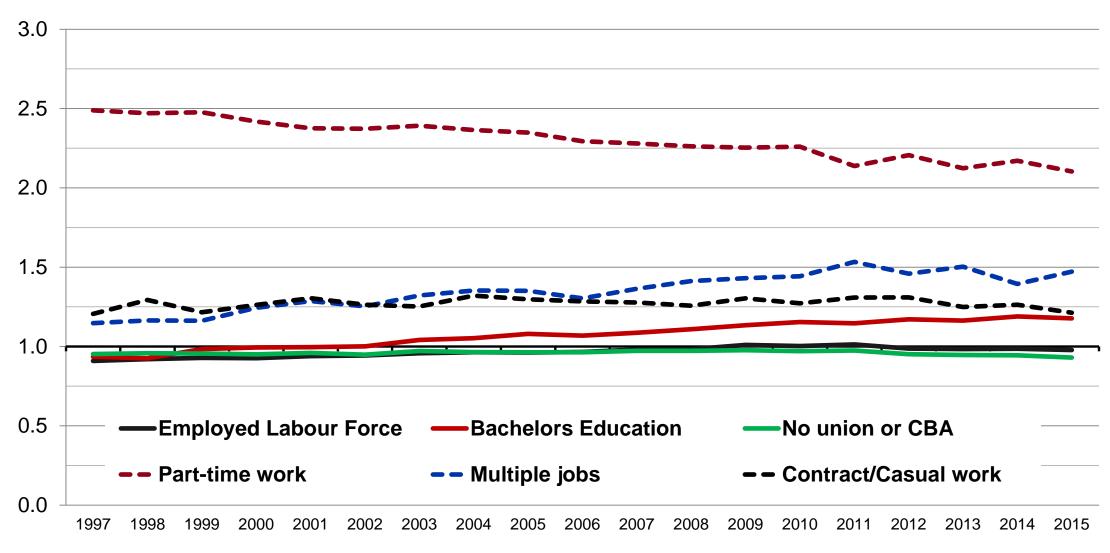
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Source: 1987 and 2015 Labour Force Surveys

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 = 30,379)

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 (4 groups): education; health; accommodation/food; and other
- Occupation (7 groups): Nurses and HC support; teachers; protective services; managers; professionals; clerical; sales and service; and other
- Work Schedule (6 groups): regular days; regular evenings; regular nights; rotating shifts;
 split shift/casual/on-call; other
- Hours of work in previous 12 months

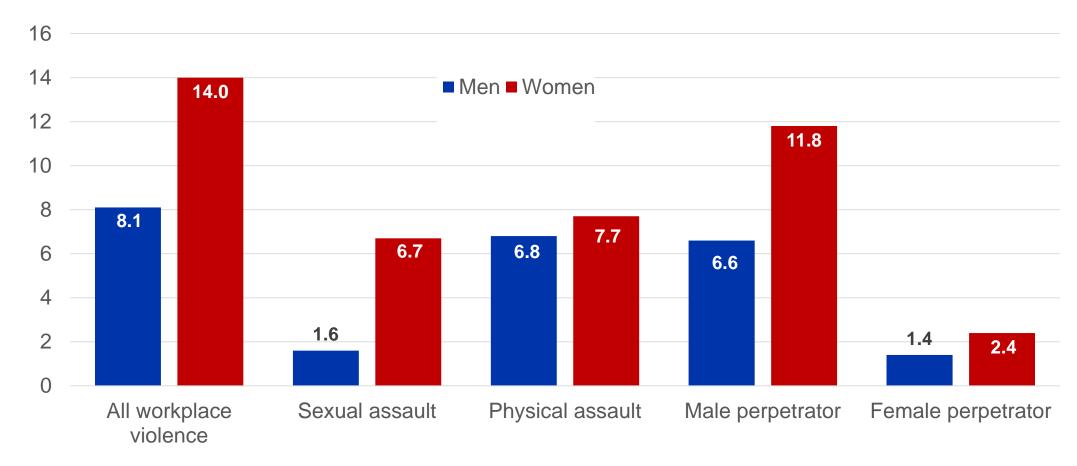
Covariates

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

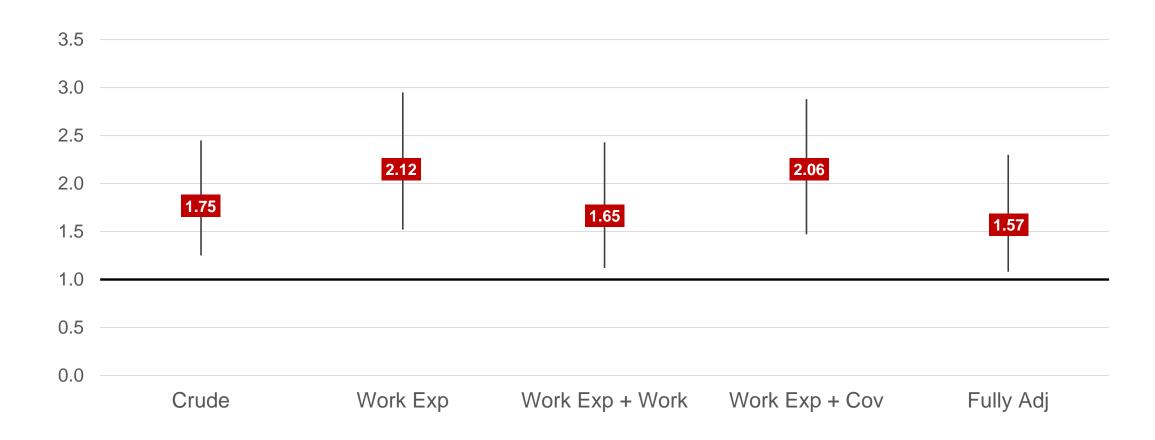
Analyses

- 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

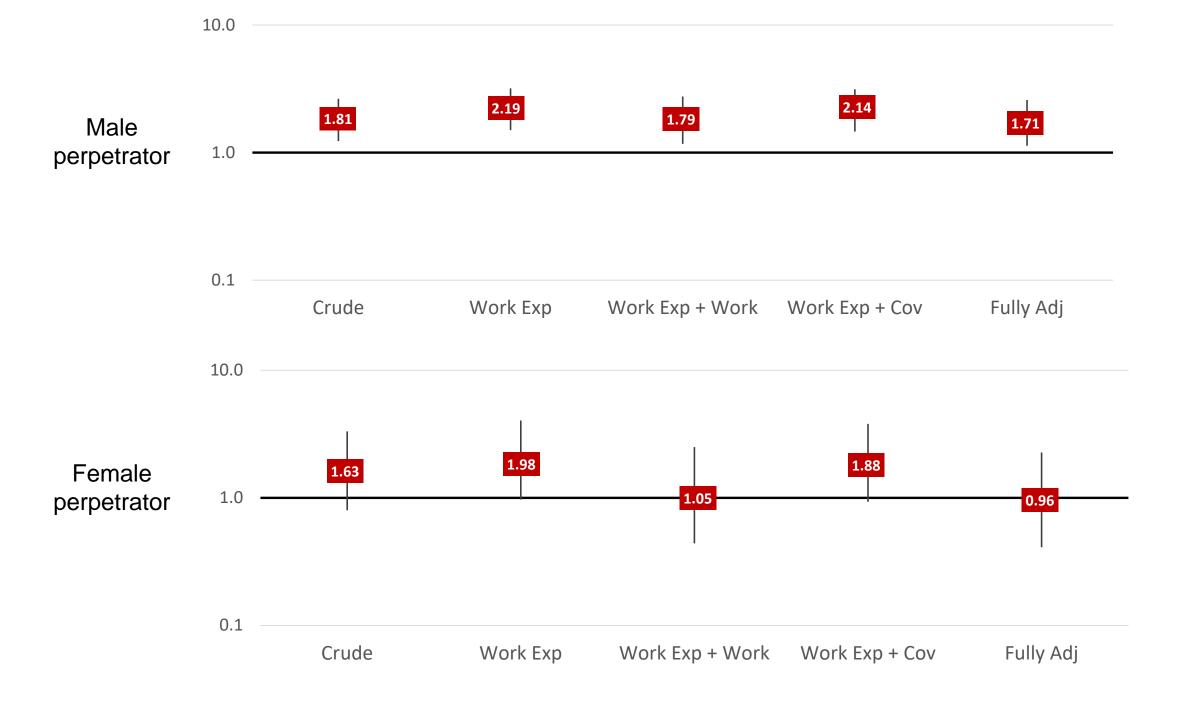
Rates of workplace violence per 1,000 persons. Overall and by sub-groups of violence (N = 27,643). GSS 2009 and 2014.



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







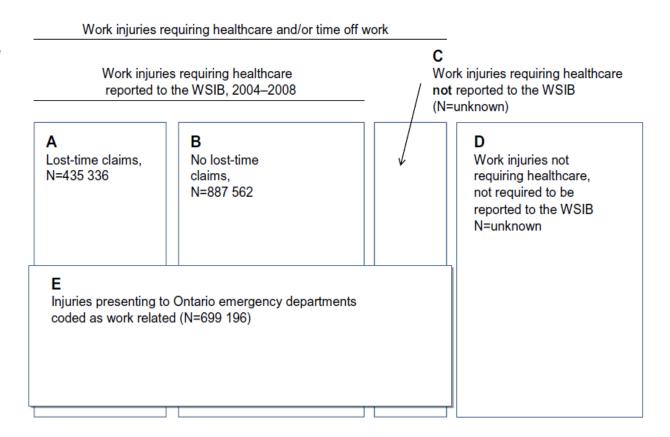
Study Two: Time trends in rates of injury attributed to workplace violence for men and women in Ontario

Objectives

- To estimate trends in injuries attributed to 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.



Mustard et al, OEM, 2012

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

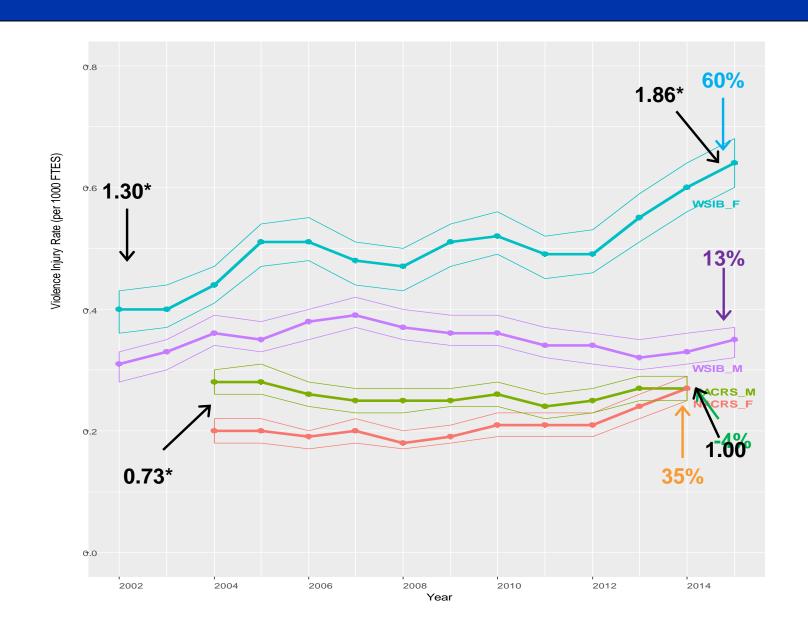
Injury incidence rates (per 1000 FTEs) due to violence or aggression, stratified by sex.
Ontario 2002 to 2015

Blue = Female claims

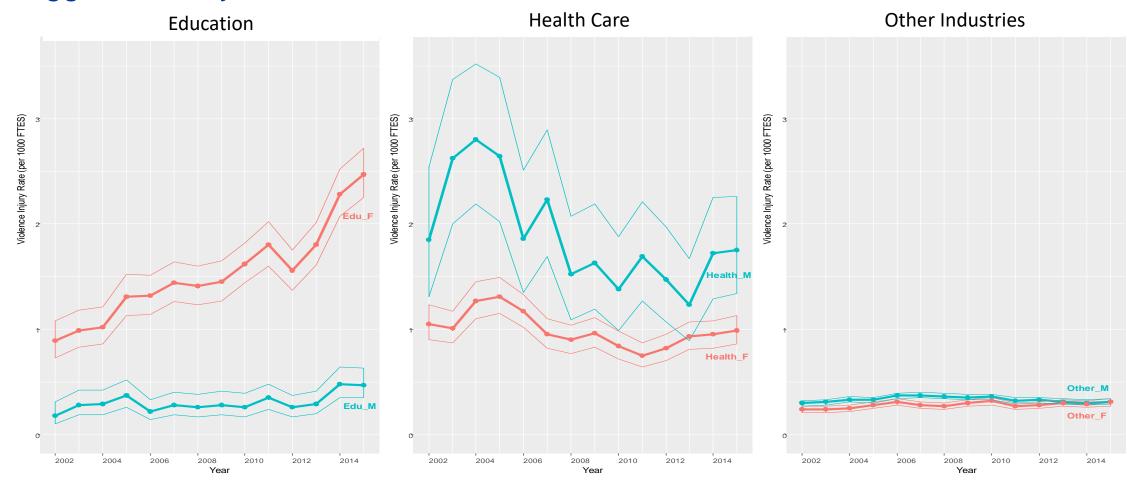
Purple = Male claims

Green = Male ED visits

Orange = Female ED visits



Lost-time injury incidence rates (per 1,000 FTEs) due to violence or aggression, by sector and sex. Ontario 2002 to 2015



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)

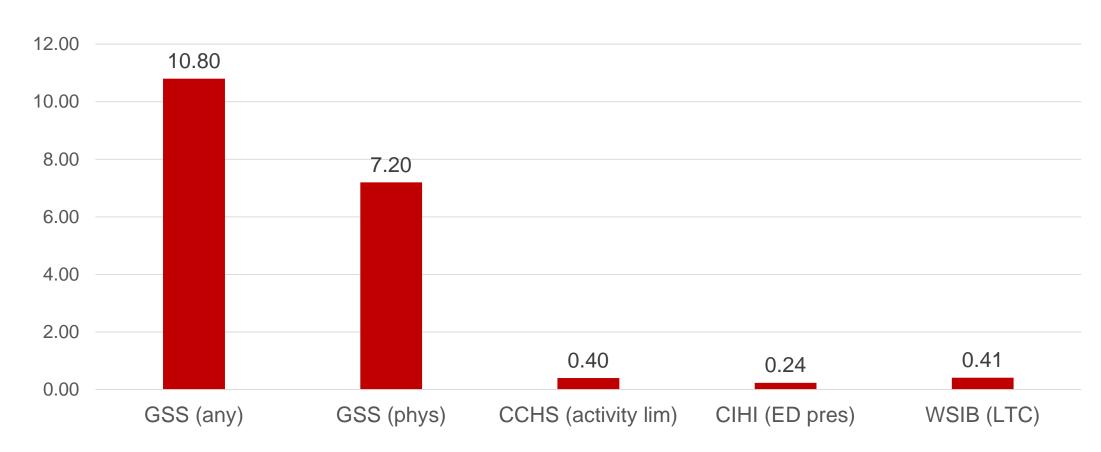
The relative risk of experiencing workplace violence for women compared to men depends on:

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

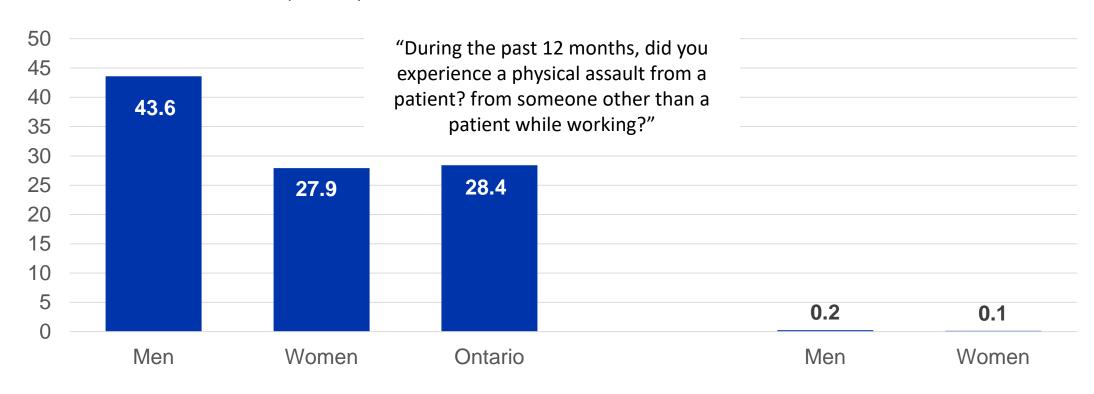
Key messages from studies (2)

- 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 working women are 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

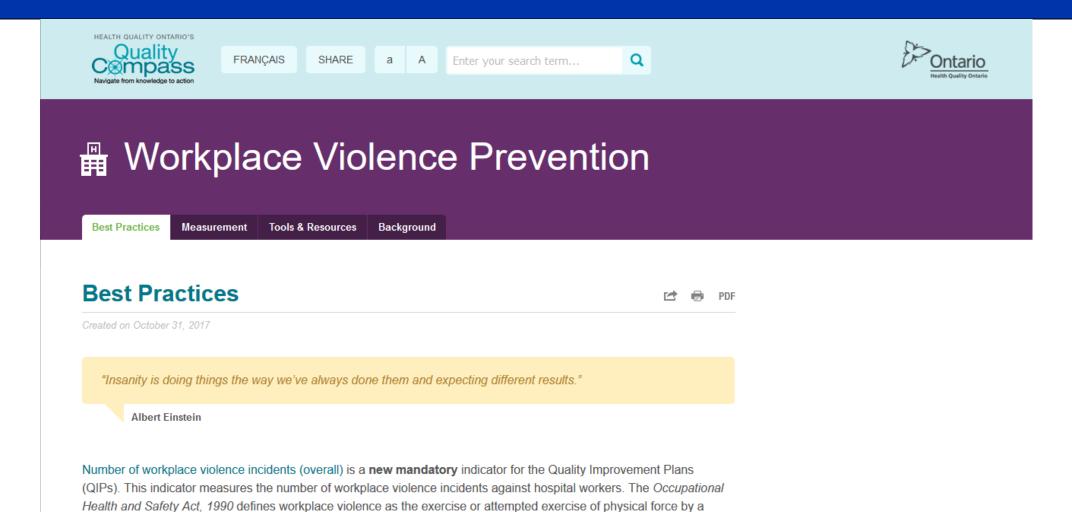


Comparing self-reported assault among nurses to workers' compensation claims rates in health care (2005). Per 100 workers/FTEs



2005 National Survey of the Work and Health of Nurses

2004-06 LTC rate estimates for health care industry



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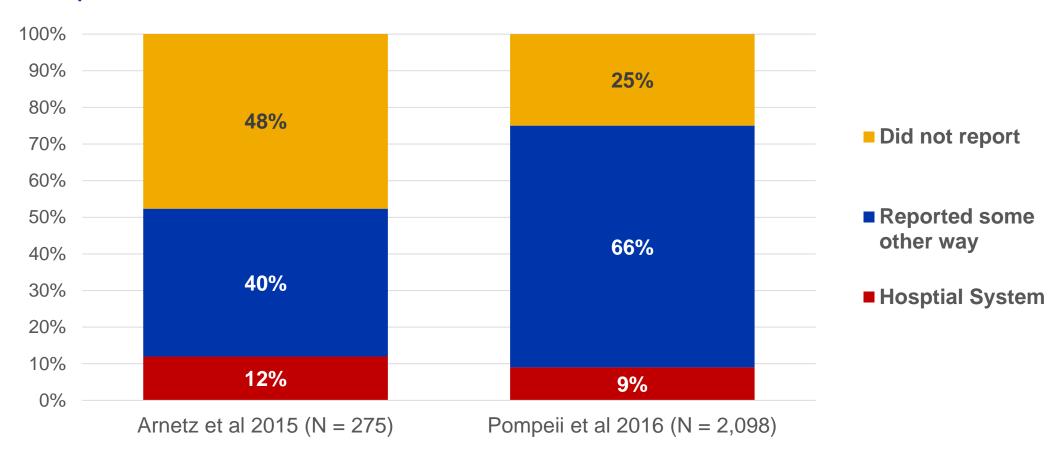
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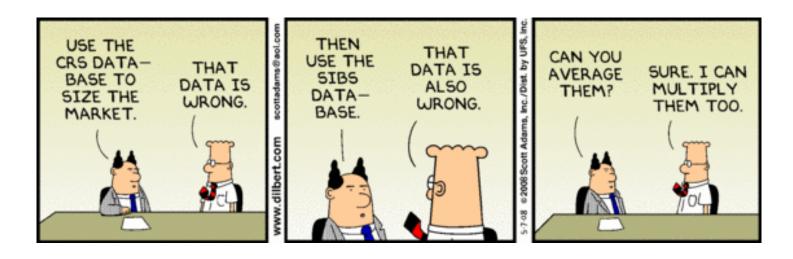
Hospital (or other workplace) reporting systems as an method to monitor workplace

	Arnetz et al (2015)	Pompeii et al (2016)
Target population	Employees in 42 hospital units within seven hospitals in Mid-west 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



Surveillance of workplace violence 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

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.
 - May 22nd presentation on workplace violence reporting in six Ontario hospitals

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