



# Cannabis Use and Perceptions Among Canadian Workers After Legalization

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Institute for Work & Health Speaker Series

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# Acknowledgements

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## Research Team

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**CIHR** **IRSC**

Canadian Institutes of  
Health Research

Instituts de recherche  
en santé du Canada

# Stakeholder Advisory Committee

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## Occupational health & safety associations

- Public Services Health & Safety Association
- Workplace Safety North
- Workplace Safety & Prevention Services
- Nova Scotia Trucking Safety Association

## Employer associations

- Office of the Employer Advisor, Nova Scotia
- Federally Regulated Employers-Transportation and Communication

## Workers' compensation

- WorkSafeBC

## Labour organizations

- Unifor
- Provincial Building and Construction Trades Council of Ontario

## Government departments and agencies

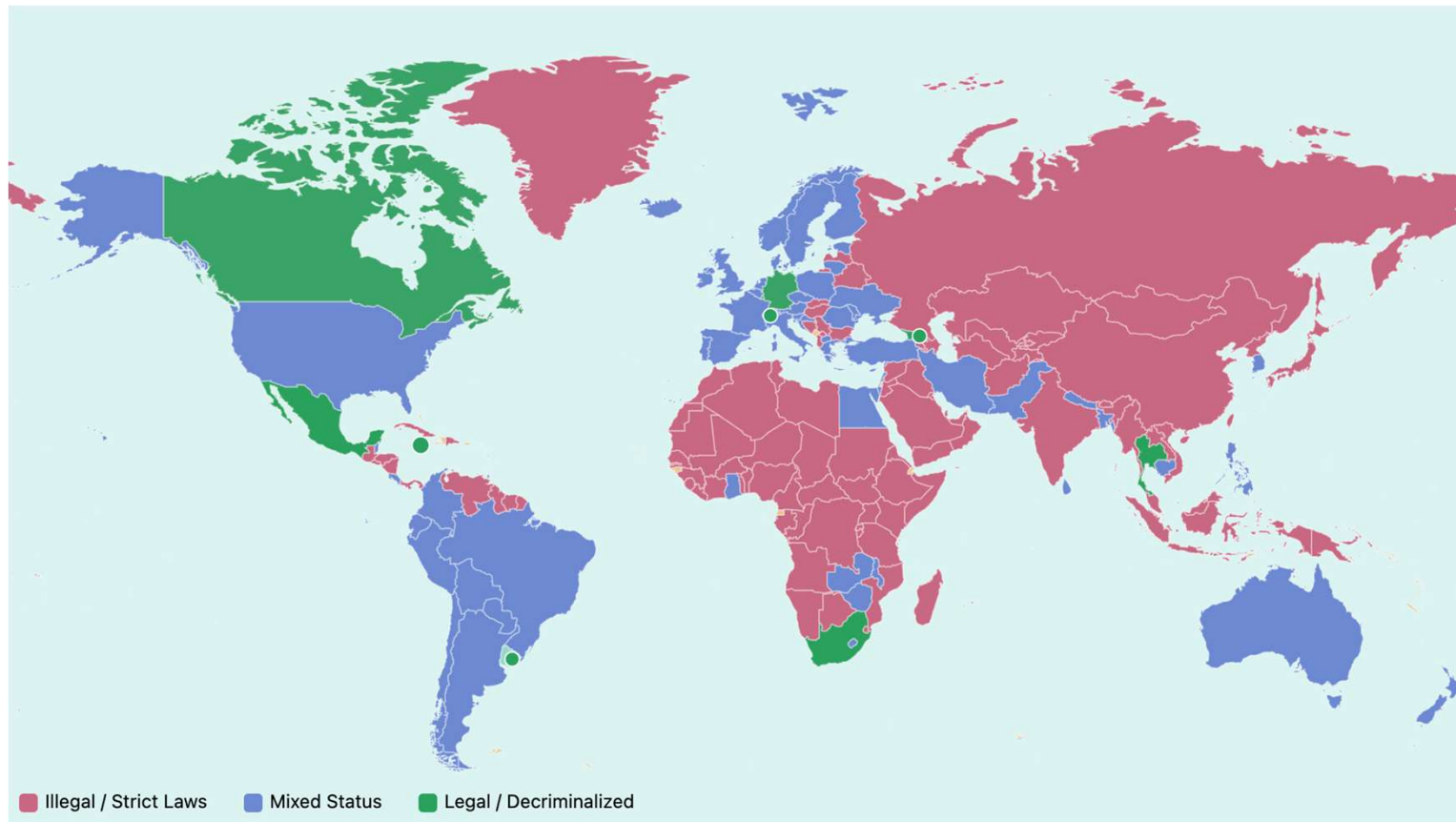
- Health Canada
- Labour Program, Employment and Social Development Canada
- Transport Canada
- Ontario Ministry of Labour
- Canadian Centre for Occupational Health and Safety
- Canadian Centre on Substance Use and Addiction

# Key findings from today's presentation

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- **Perceptions of risk of workplace cannabis use:** largely remained unchanged
- **Awareness of workplace policies:** increase in awareness of having a substance use policy at work, but no change in drug testing
- **Cannabis use patterns:** prevalence of use and daily use have increased, but workplace use has remained stable at 1 in 10 workers

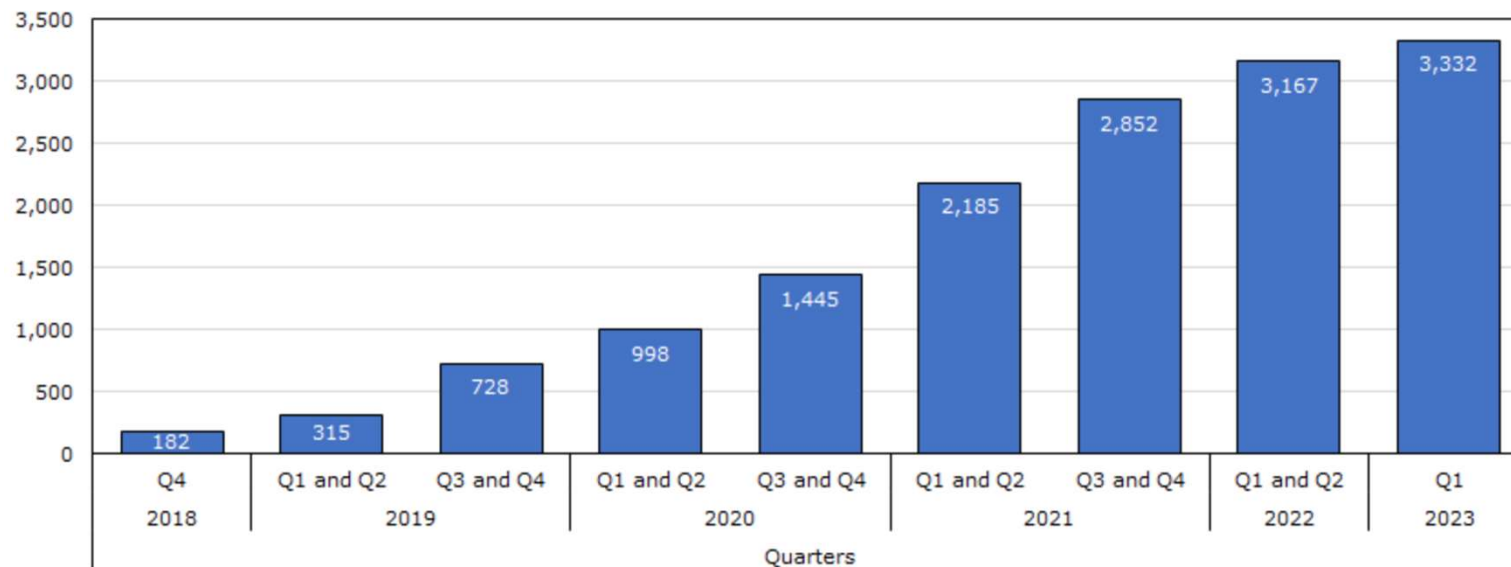
# The legal status of cannabis use is changing worldwide



# What has changed since legalization in Canada?

**Chart 4**  
**Legal cannabis stores, Canada, 2018 to 2023**

number of stores



**Notes:** Counts are subject to multiple revisions and may include e-commerce only entities. Q3 and Q4 2022 estimates are not available.

**Source:** Statistics Canada, Business Register.

# What has changed since legalization in Canada?

DOI: 10.1111/add.16274

REVIEW

ADDICTION

SSA

## The implementation and public health impacts of cannabis legalization in Canada: a systematic review

Wayne Hall  | Daniel Stjepanović  | Danielle Dawson | Janni Leung 

Prevalence of use among working-aged adults has increased

Unclear findings on changes in daily use

Mixed findings on cannabis impairment in motor vehicle driving

# Data on workers in Canada

- Health Canada's *Canadian Cannabis Survey (2018-2022)*:

	2018	2019	2020	2021	2022
Past-year use among employed Canadians	25%	27%	29%	28%	31%
Use to get high before work among respondents using cannabis in the past-year	26%	21%	18%	18%	22%



# Objectives

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Using data collected from 2018 to 2021 from a cohort of Canadian workers, examine changes from before legalization through 3 years after legalization in:

- cannabis use patterns;
- workplace risk perceptions of cannabis use; and
- awareness of workplace substance use policies

# Sample recruitment

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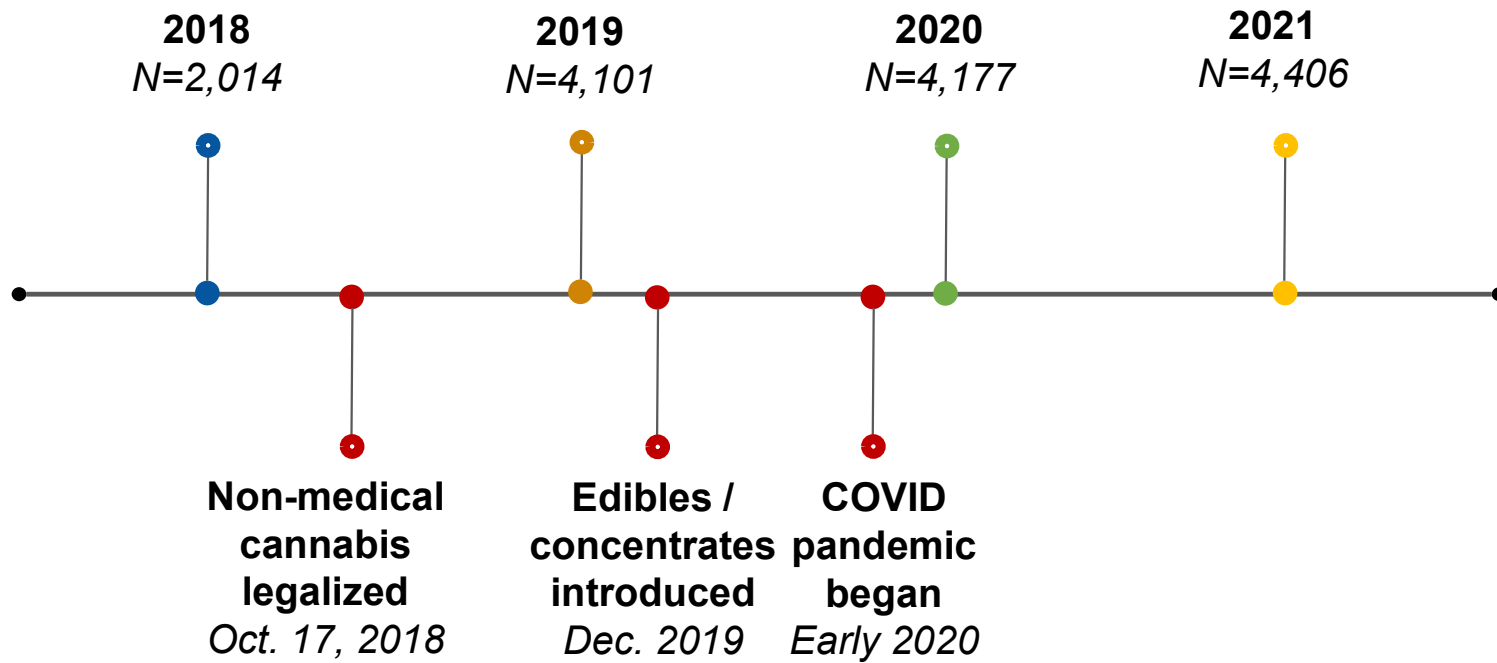
Worker surveys conducted yearly from 2018 (pre-legalization) to 2021

- Workers from across Canada
- Employed for at least 15 hours per week in workplaces with 5 or more employees
- Various occupations and industries
- Workers who used and did not use cannabis

Recruitment of sample by EKOS Research Associates

- Primarily obtained from pre-existing panel of ~100,000 households
- Small proportion obtained using traditional random digit dialing approach

# Study timeline



# Perceptions of risk of workplace cannabis use

## Perceived risk of cannabis use:

	2018	2019	2020	2021
On productivity – use within 2 hours before work	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>
On productivity – use while working and/or on breaks	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>
On safety - use within 2 hours of hazardous work	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>

# Policy awareness in the workplace

## Aware of having a:

Substance use policy in their workplace

Drug testing program in their workplace

2018	2019	2020	2021
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>

# Overall past-year cannabis use

Any past-year use

Frequency of use

2018	2019	2020	2021
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>

# Workplace past-year cannabis use

	2018	2019	2020	2021
Use within 2 hours before work	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Use while working (excluding breaks)	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Use on lunch or other breaks	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Use at the end of a workshift while still at work	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>

# Analysis

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**Trend test:** global test for trend in all outcomes over time from 2018 to 2021

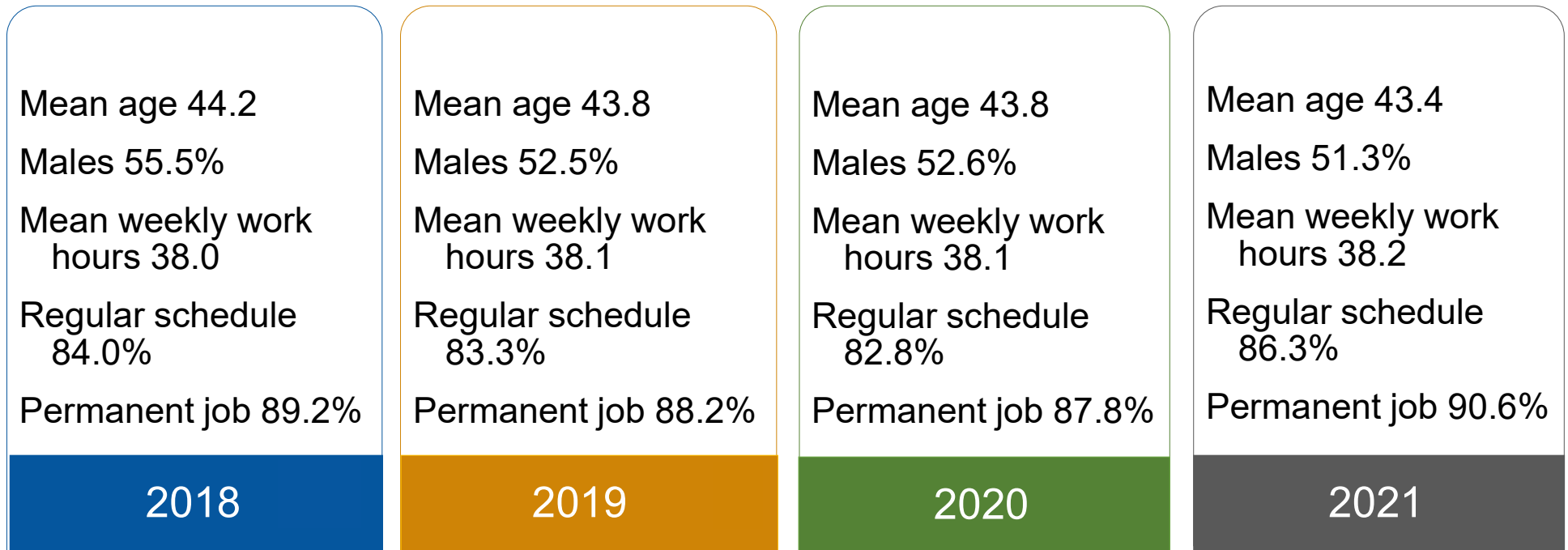
- To identify if there was an overall change in the outcome over time

**Pre- and post-legalization comparisons (wave-to-wave):** covariate-adjusted logistic regression models for each outcome comparing pre- and post-legalization periods

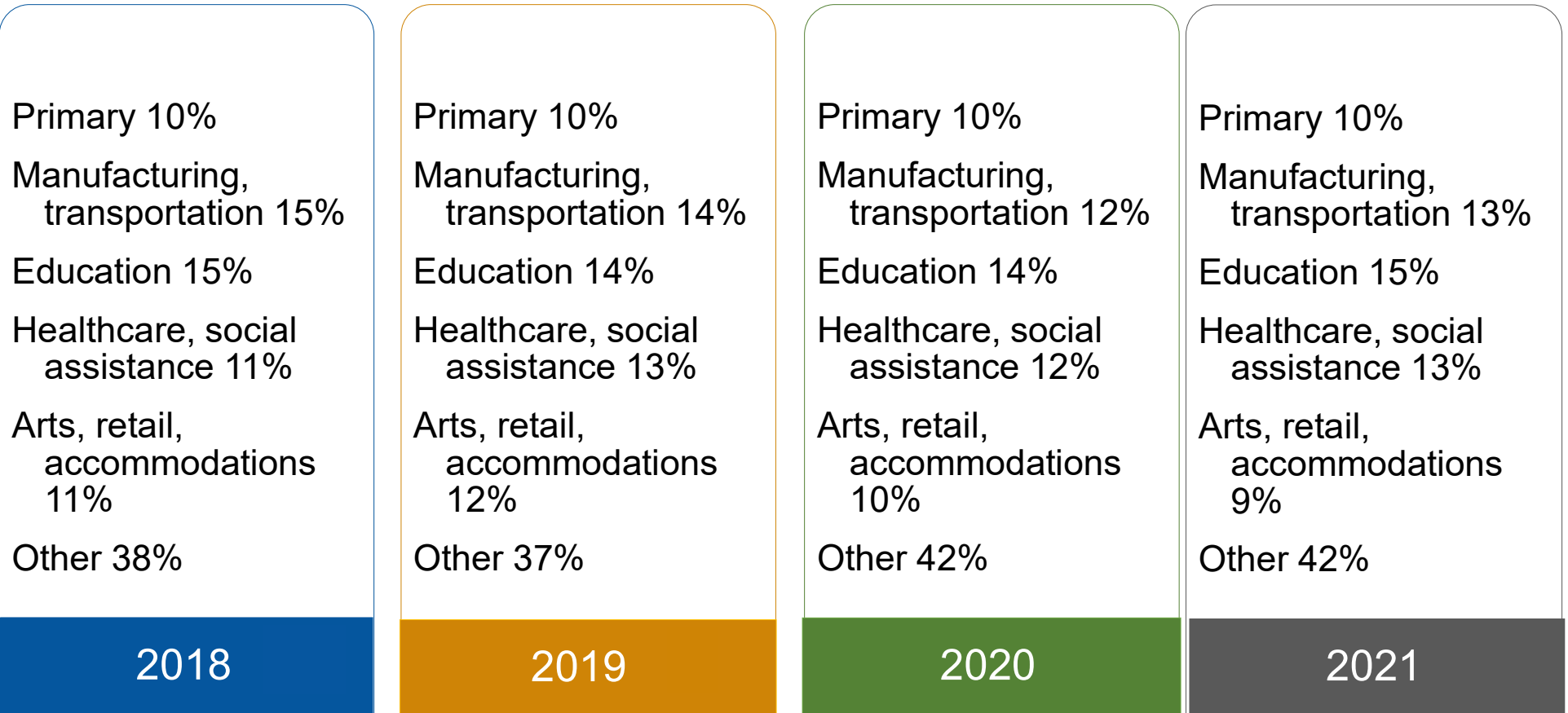
- To identify when changes in the outcome occurred after legalization and whether they were different from pre-legalization



# Worker characteristics



# Industry



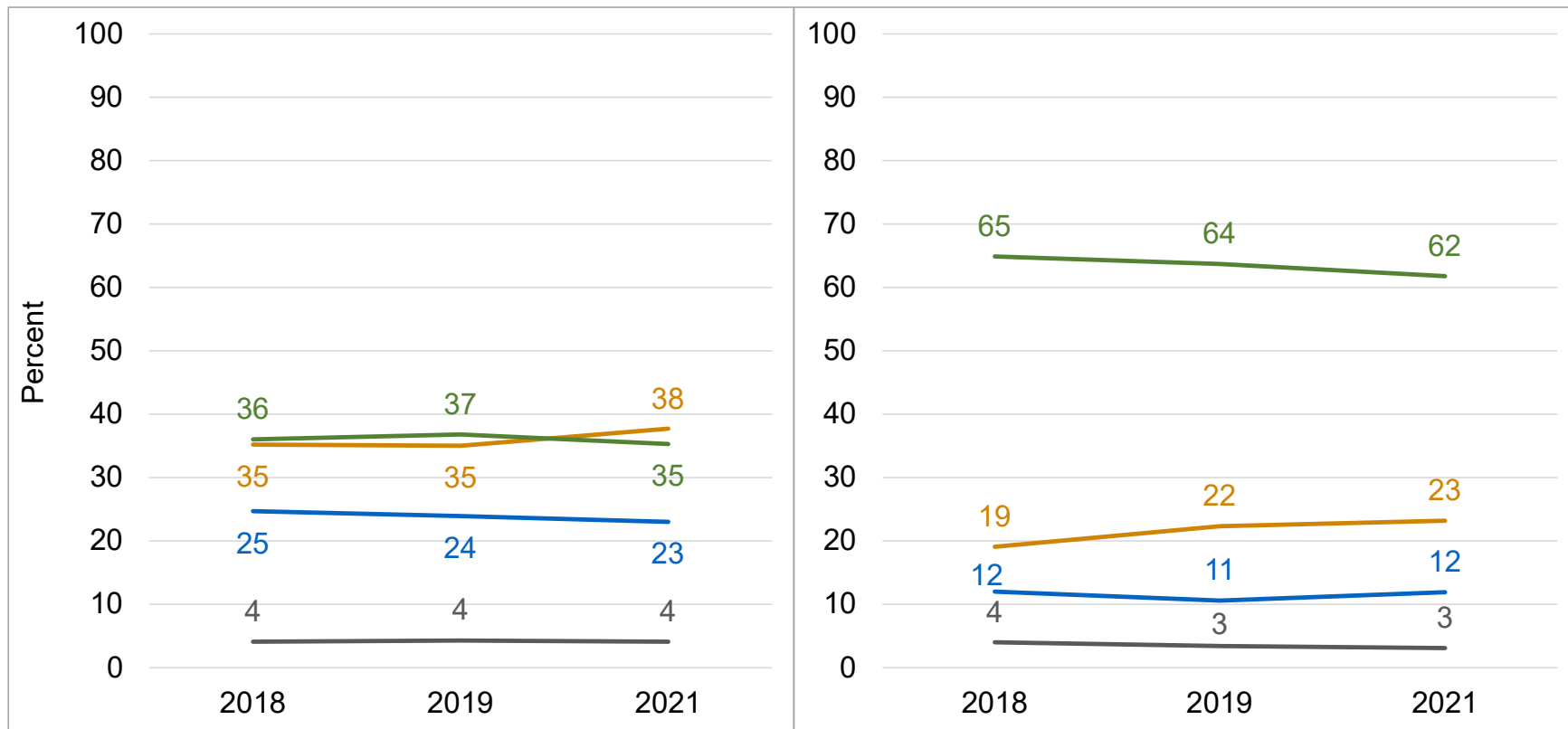
# Perceptions of risk of workplace cannabis use

# Perceived risk of interfering with productivity

Trend NS  
Post vs pre NS

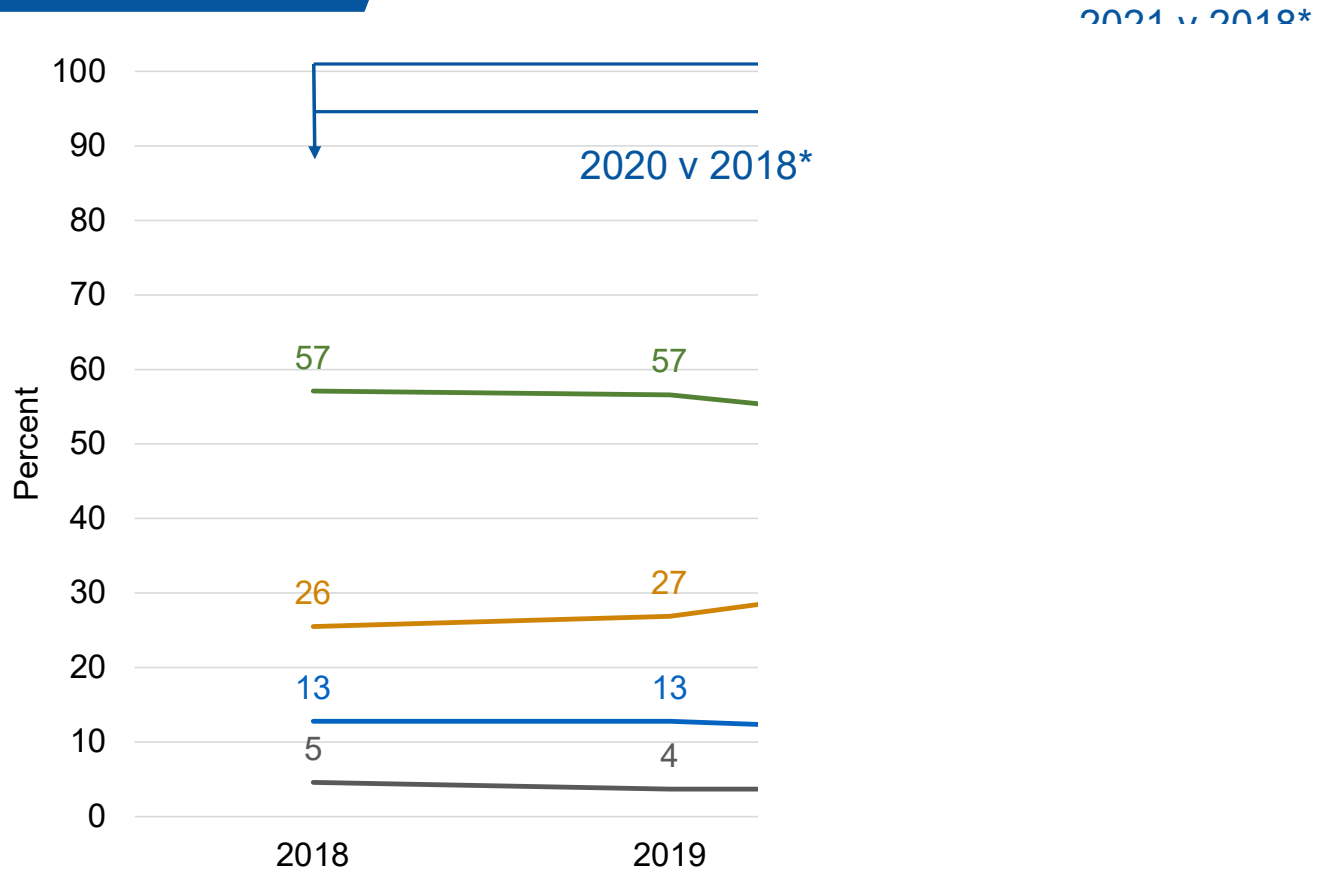
Using cannabis within 2 hours before work

Using cannabis while working or on breaks



# Perceived risk of harm when using 2 hours before safety-sensitive work

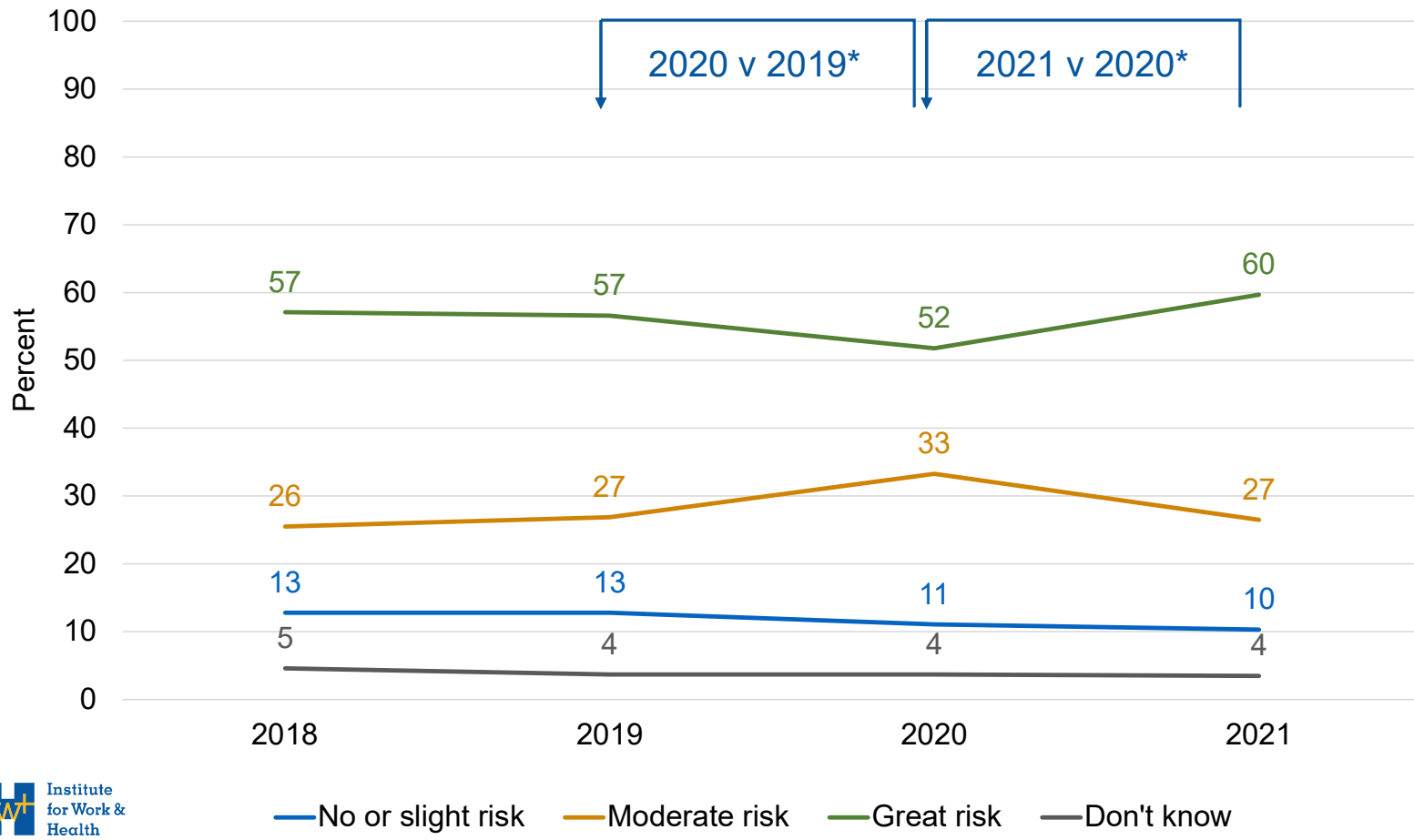
Trend  $p < 0.05$



\* $p < 0.05$

# Perceived risk of harm when using 2 hours before safety-sensitive work

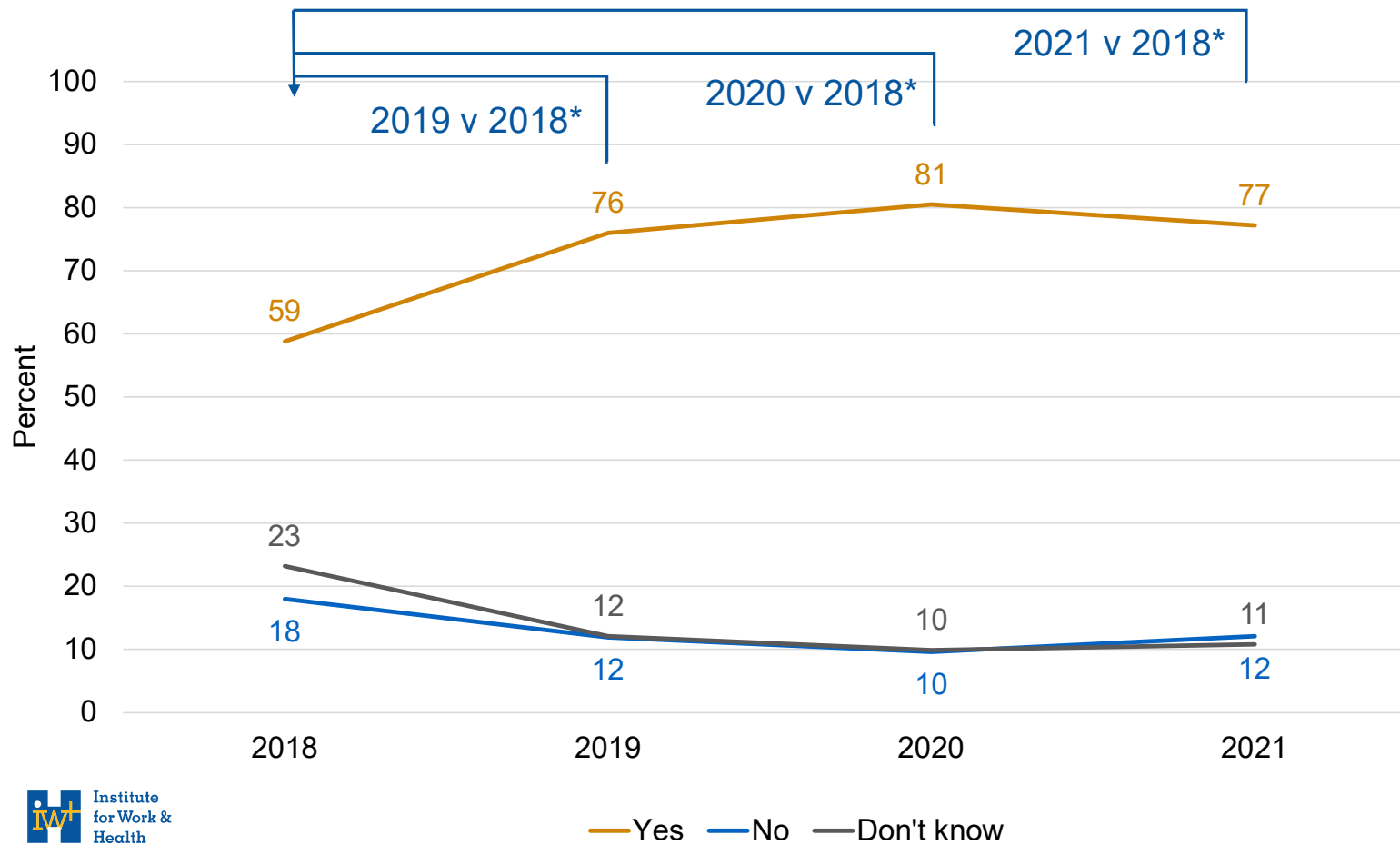
Trend p<0.05



# Awareness of workplace substance use policies

# Awareness of a substance policy in the workplace

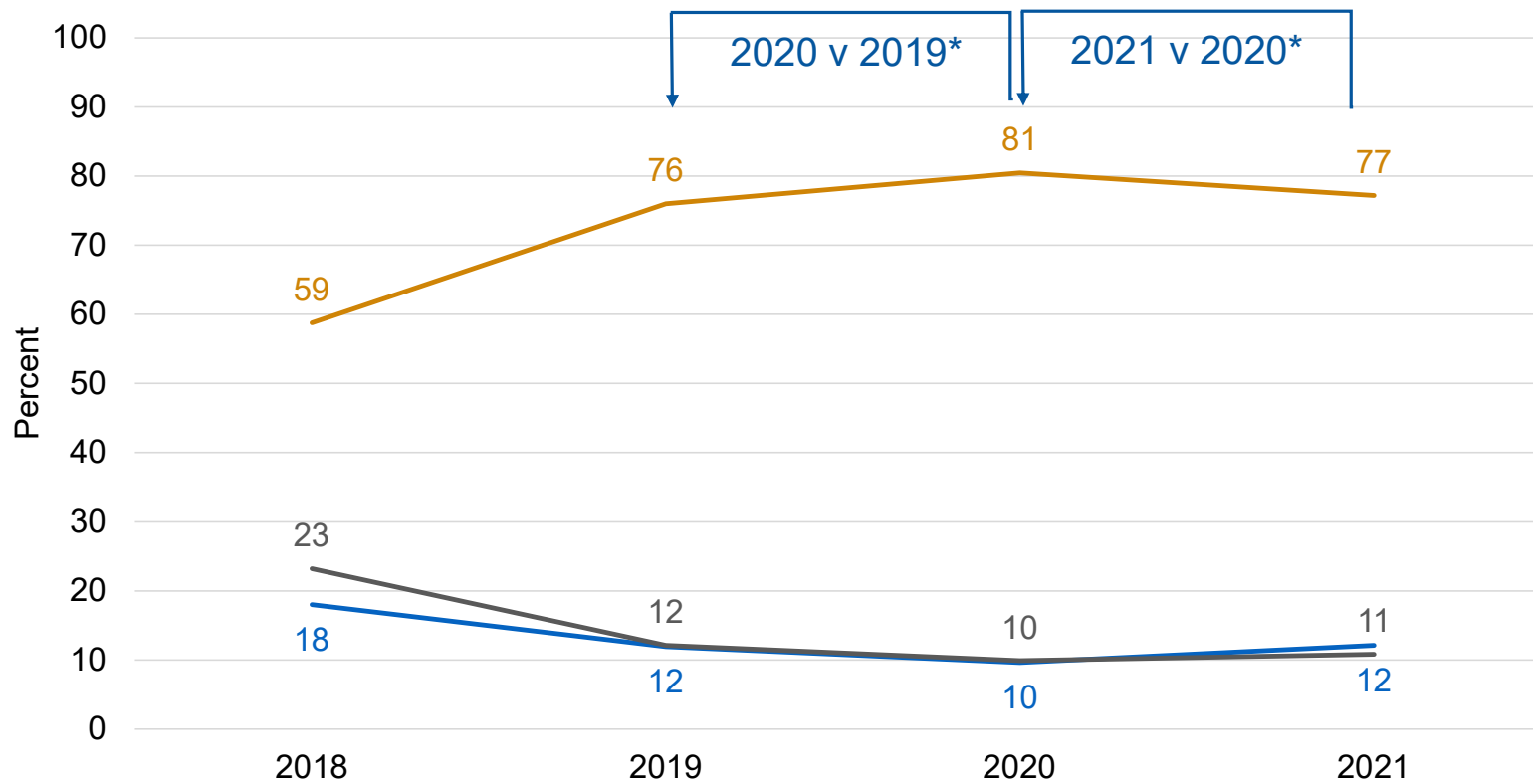
Trend  $p < 0.05$



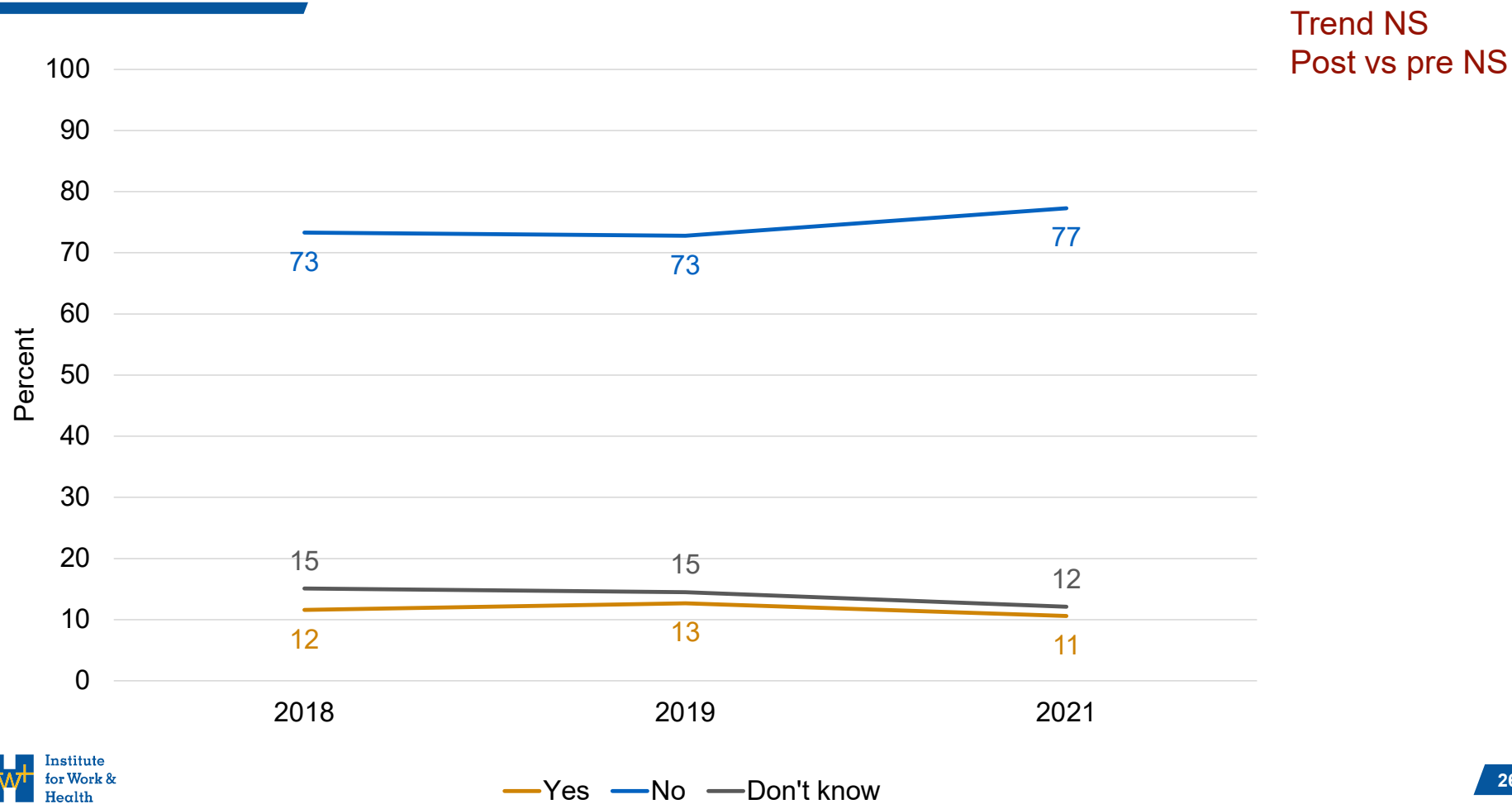


# Awareness of a substance policy in the workplace

Trend  $p < 0.05$



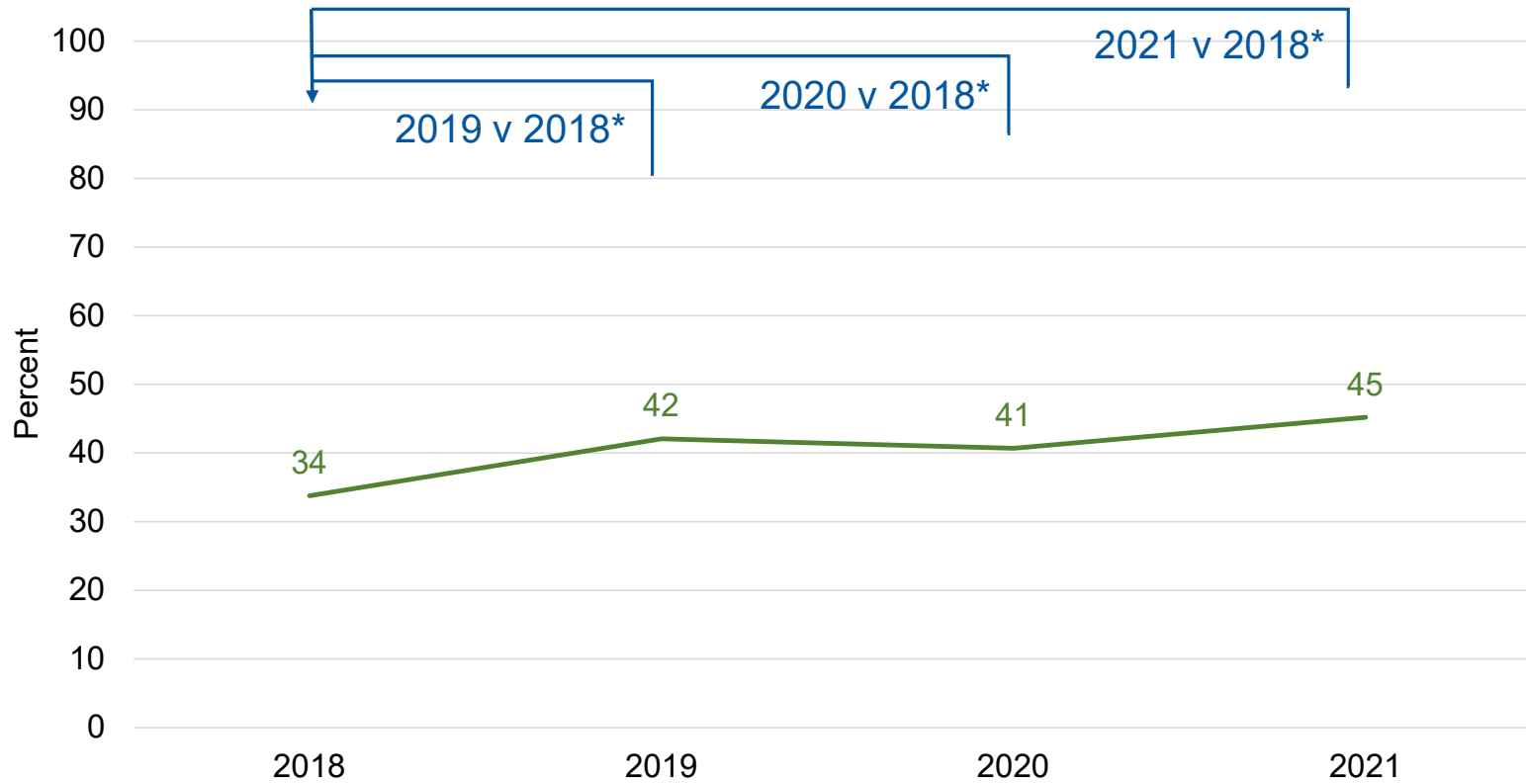
# Awareness of drug testing program in the workplace



# Overall and workplace cannabis use

# Prevalence of past-year cannabis use

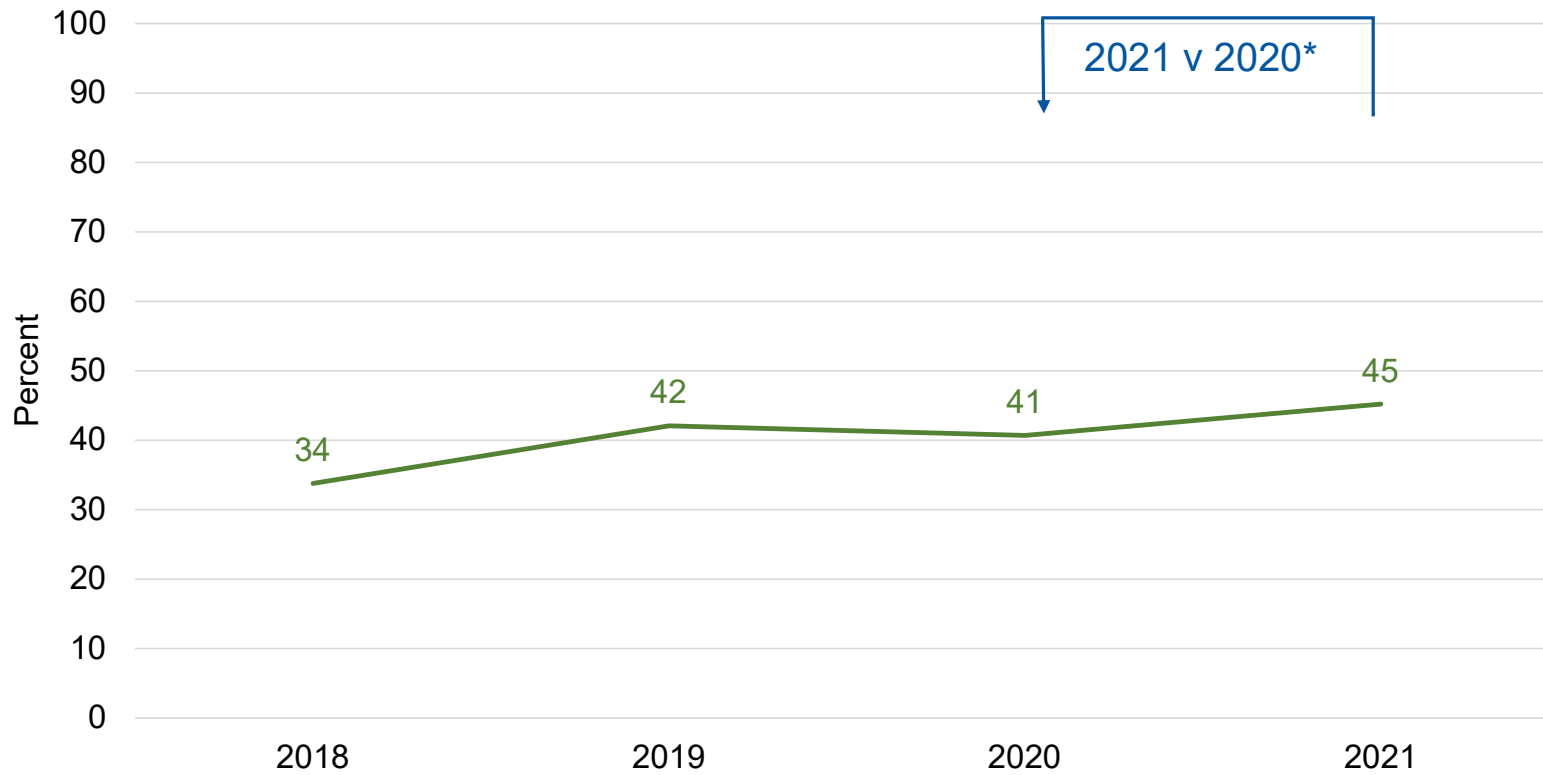
Trend  $p < 0.05$



\* $p < 0.05$

# Prevalence of past-year cannabis use

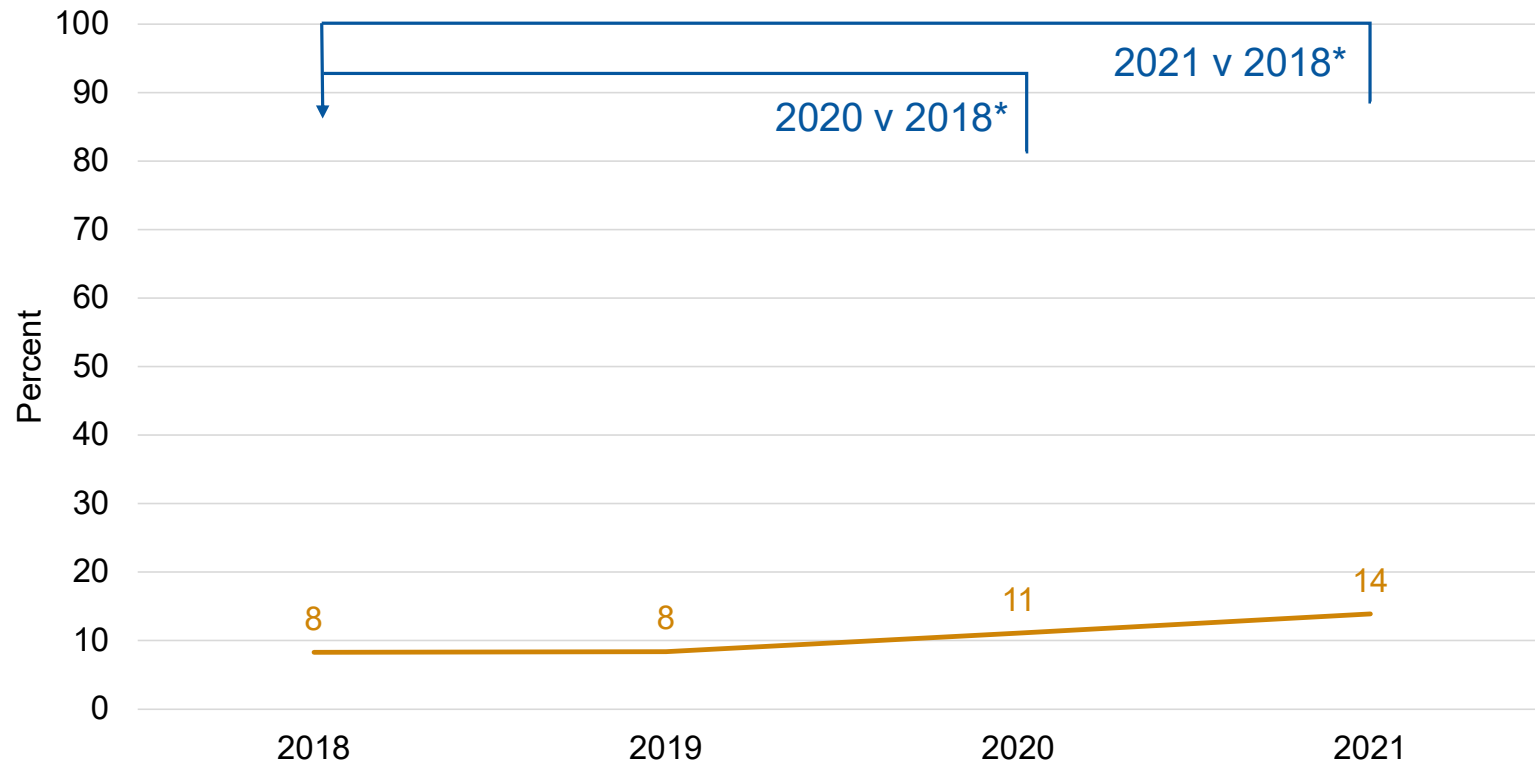
Trend  $p < 0.05$



\* $p < 0.05$

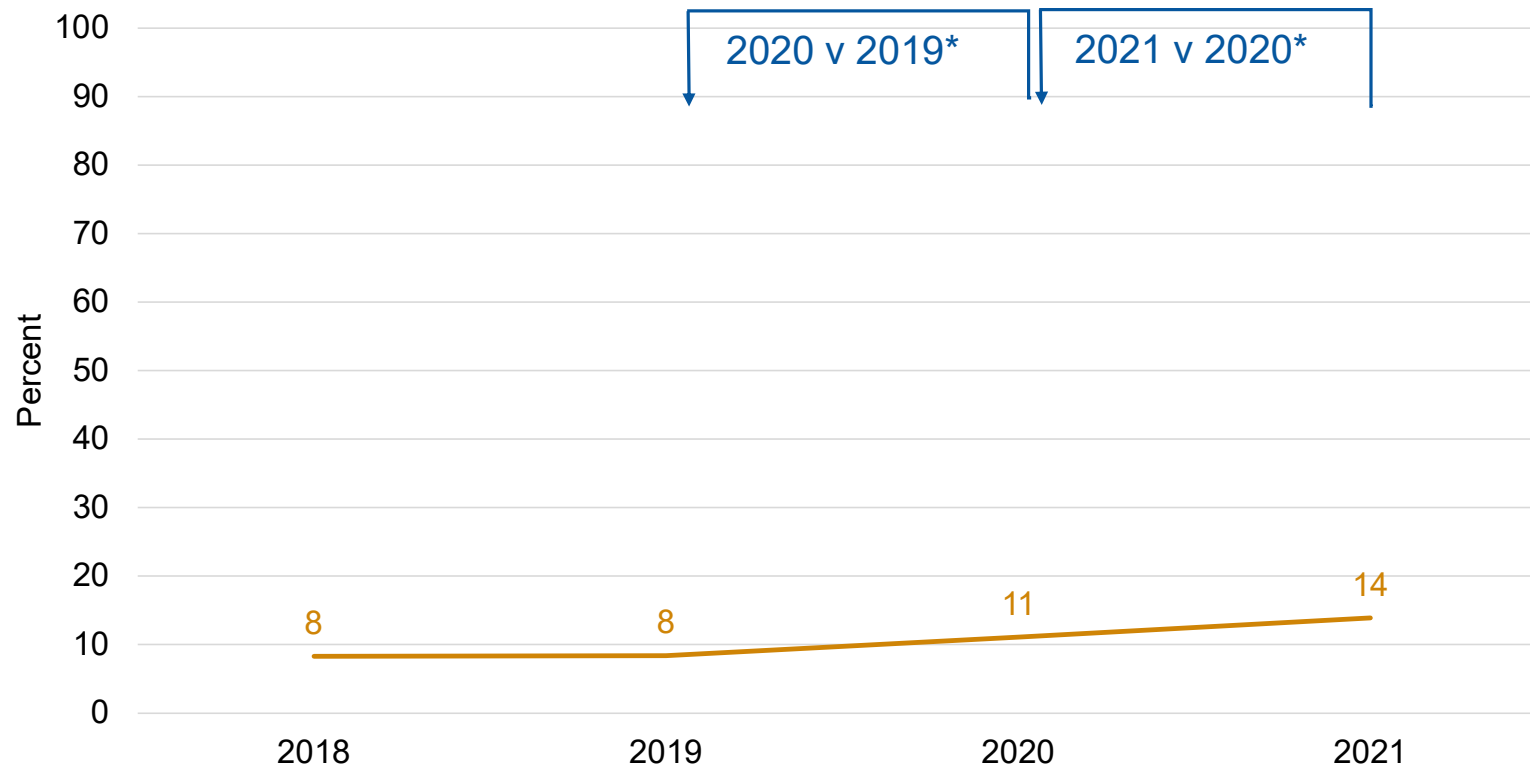
# Daily cannabis use

Trend  $p < 0.05$



# Daily cannabis use

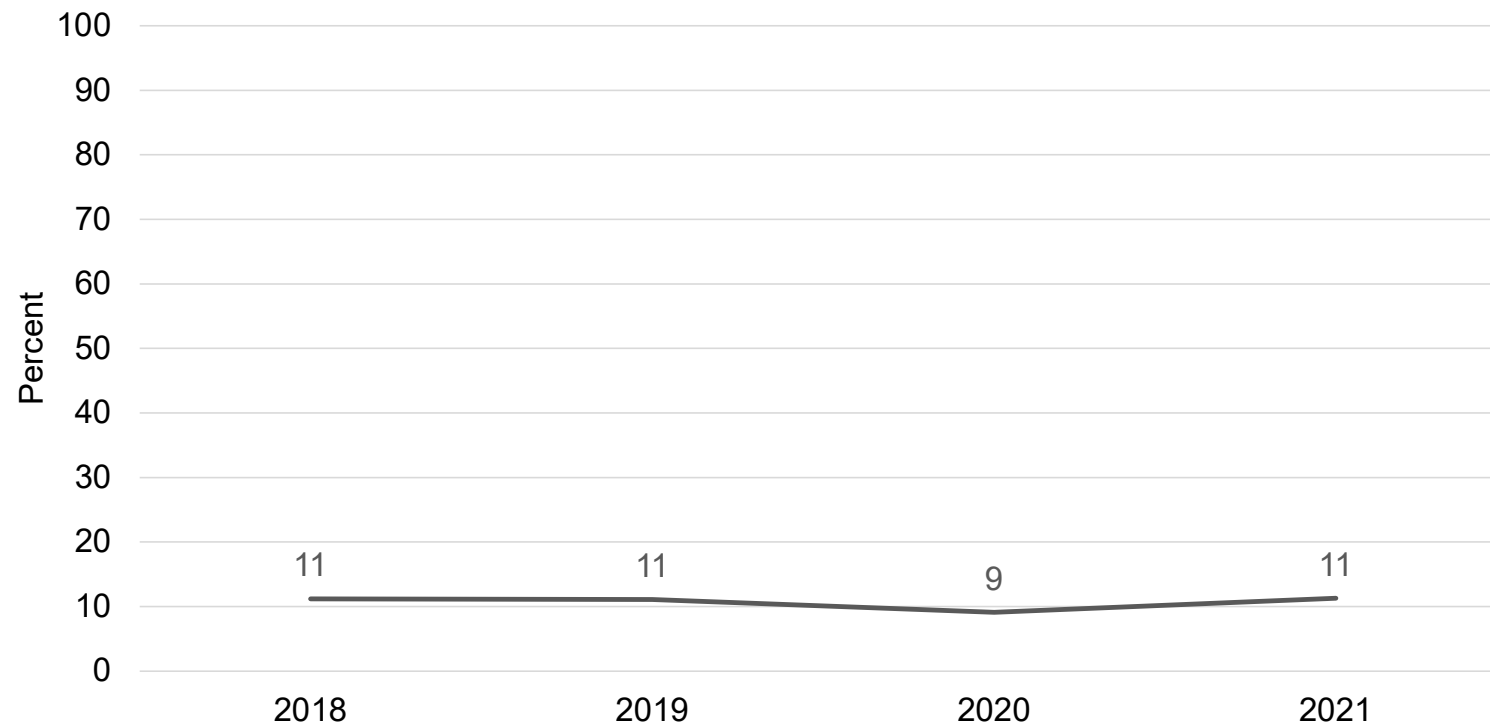
Trend  $p < 0.05$



\* $p < 0.05$

# Past-year workplace use

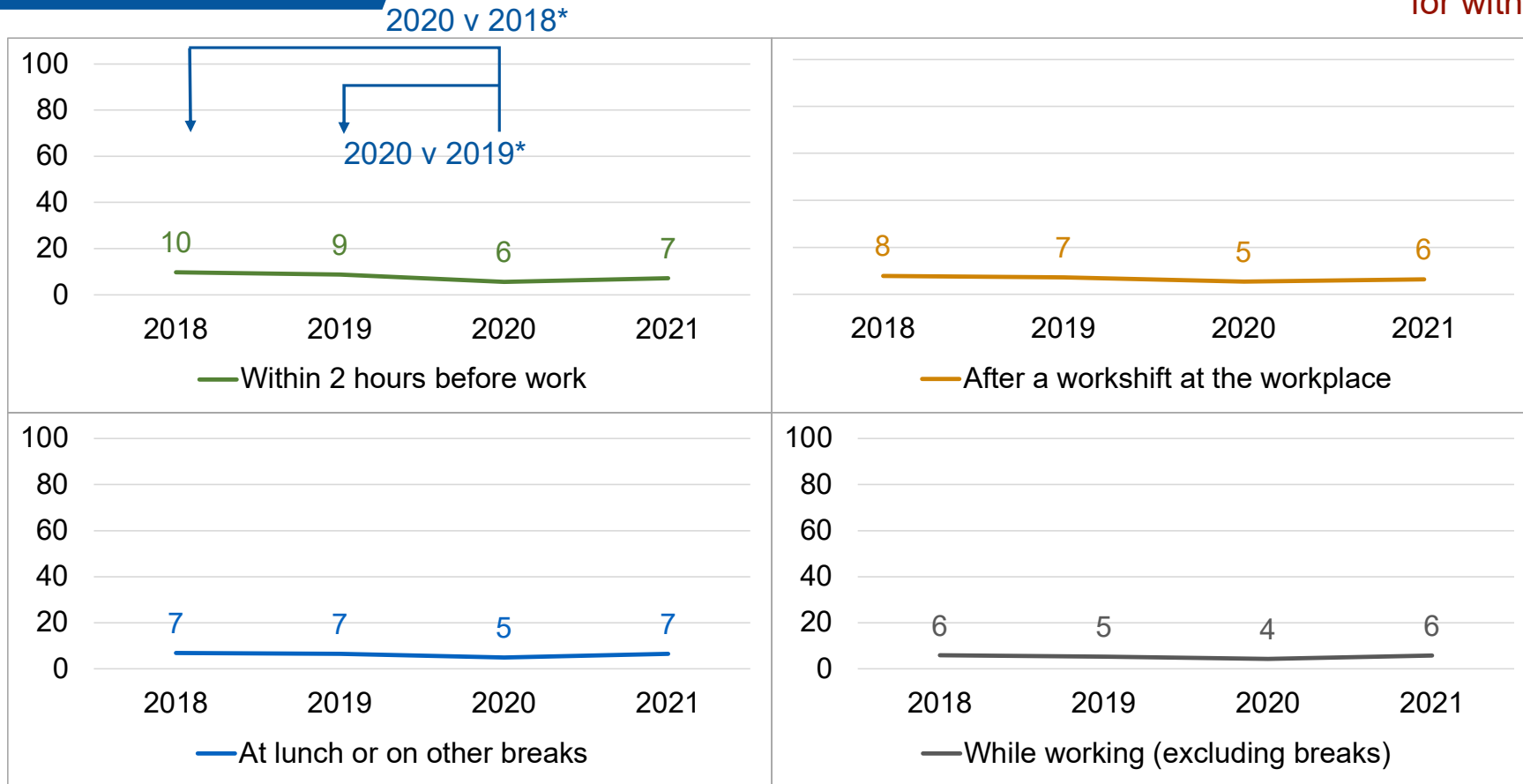
Trend NS  
Post vs pre NS





# Past-year workplace use: specific situations

Trend  $p < 0.05$  only for within 2 hours



# Summary and implication of findings

## Some strengths and limitations

- ✓ Moderately large sample of workers from across the country
- ✓ Data gathered not only on cannabis use, but modifiable factors
- ✓ Controlled for variety of potential confounders
- ✗ Pre-legalization data based on one time point
- ✗ No control group of those that did not experience legalization
- ✗ Lack more recent data that goes beyond 2021
- ✗ Did not collect data on certain variables in 2020
- ✗ Cannot necessarily generalize to the Canadian working population

# Summary: perceptions of risk

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- Broadly stable with one exception
  - Fewer workers felt using cannabis 2 hours before safety-sensitive work posed a great risk in 2020
    - Influence of pandemic?

## Summary: awareness of workplace policies

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- More workers reported knowing their workplace has a substance use policy, especially in the year after legalization
  - Unsurprising given the push prior to legalization
- No change in drug testing
  - Expected given no change in legislation

## Summary: cannabis use patterns

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- Workers in this sample increasingly reported using cannabis after legalization, including daily/near daily use
- Workplace use remained stable through 2021

# Study implications

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- Despite a broad stability in perceptions and workplace use, there continues to be (potentially) problematic overall patterns
  - 1 in 7 workers use daily or nearly daily
  - 1 in 7 workers consider use before safety-sensitive work poses no/little risk or don't know about risk
  - 1 in 10 workers use cannabis before or at work

# Risk of workplace injury associated with cannabis use

Canadian Journal of Public Health (2023) 114:947–955  
<https://doi.org/10.17269/s41997-023-00795-0>

QUANTITATIVE RESEARCH



## Workplace and non-workplace cannabis use and the risk of workplace injury: Findings from a longitudinal study of Canadian workers

Nancy Carnide<sup>1,2</sup> · Victoria Landsman<sup>1,2</sup> · Hyunmi Lee<sup>1</sup> · Michael R. Frone<sup>3</sup> · Andrea D. Furlan<sup>1,4,5</sup> · Peter M. Smith<sup>1,2,6</sup>

Compared to no past-year cannabis use:



Workplace cannabis use

2-fold increased risk of workplace injury



Non-workplace cannabis use

No increased risk of workplace injury



# Study implications

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- Despite a broad stability in perceptions and workplace use, there continues to be (potentially) problematic overall patterns
  - 1 in 7 workers use daily or nearly daily
  - 1 in 7 workers consider use before safety-sensitive work poses no/little risk or don't know about risk
  - 1 in 10 workers use cannabis before or at work
- Findings point to knowledge gaps and the need for more proactive education of workers in Canada
  - Emphasis on education about workplace use warranted

# Thank you

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