

Alcohol-Attributable Hospitalizations: A public health perspective

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Why focus on alcohol?

A serious health issue

- One of the leading risk factors for death, disease and disability
- Linked to **200+** types of diseases and injury¹

High Cost

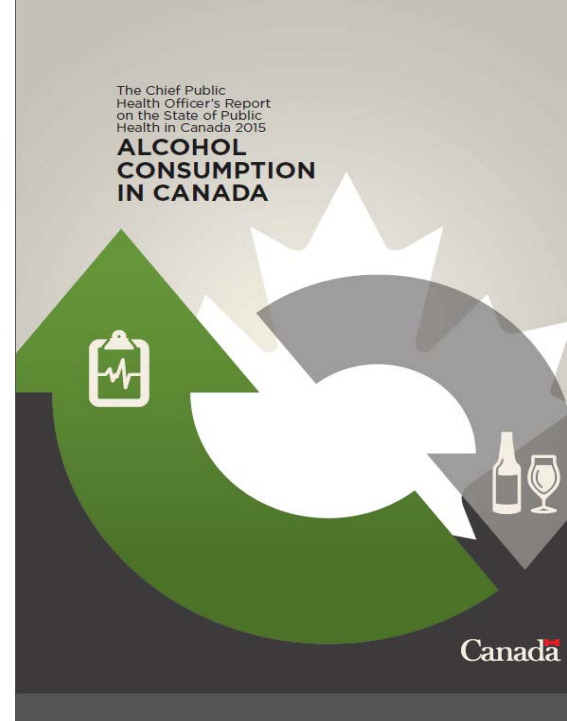
- **\$14.6 billion** estimated cost of alcohol abuse in Canada²
- **\$3.3 billion** attributed to direct healthcare costs²

It is preventable

- Implementation of population-based interventions can reduce alcohol attributable burden and its costs

1 Rehm et. al, 2009 <http://www.ncbi.nlm.nih.gov/pubmed/19560604>

2 Rehm et. al, 2006 <http://www.ccsa.ca/Resource%20Library/ccsa-011332-2006.pdf>



What is the goal?

- Nationally comparable indicator on **alcohol attributable hospitalizations**
- Support monitoring and drive action to reduce and prevent burden of alcohol use
- Public reporting at the national, provincial/territorial and regional levels starting in Spring 2017



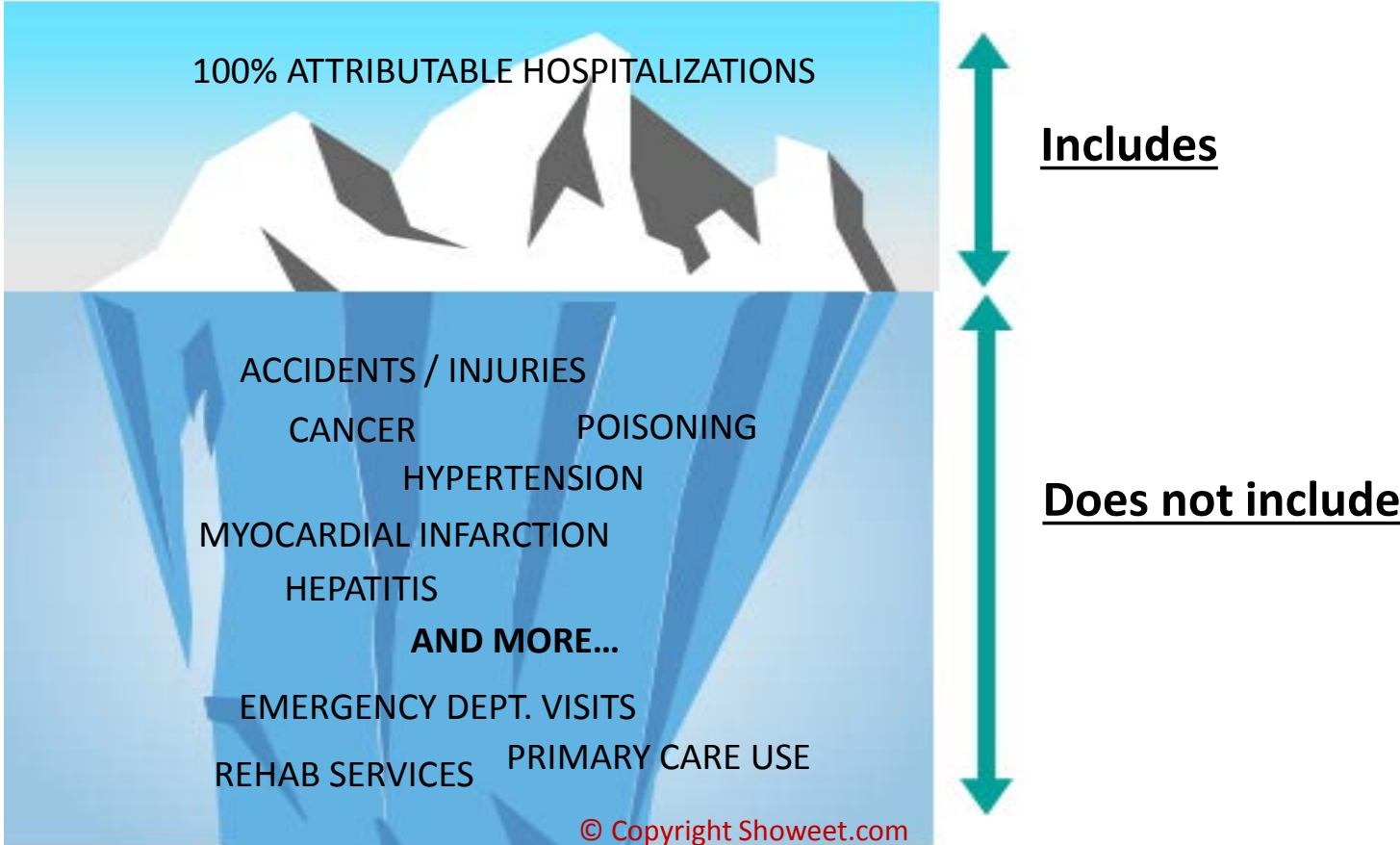
Working Indicator Definition

Age-standardized rate of alcohol-attributable hospitalizations per 100,000 population aged 15 years and older

- **Hospitalizations for conditions that are 100% attributable to alcohol**
- **Inpatient care at general and psychiatric hospitals**
- **Conditions described as the most responsible for patient's stay in hospital**
 - exploring including hospitalizations that have a significant alcohol diagnosis contributing to the hospital stay

Data Sources: Hospital Morbidity Database, Discharge Abstract Database, Ontario Mental Health Reporting System

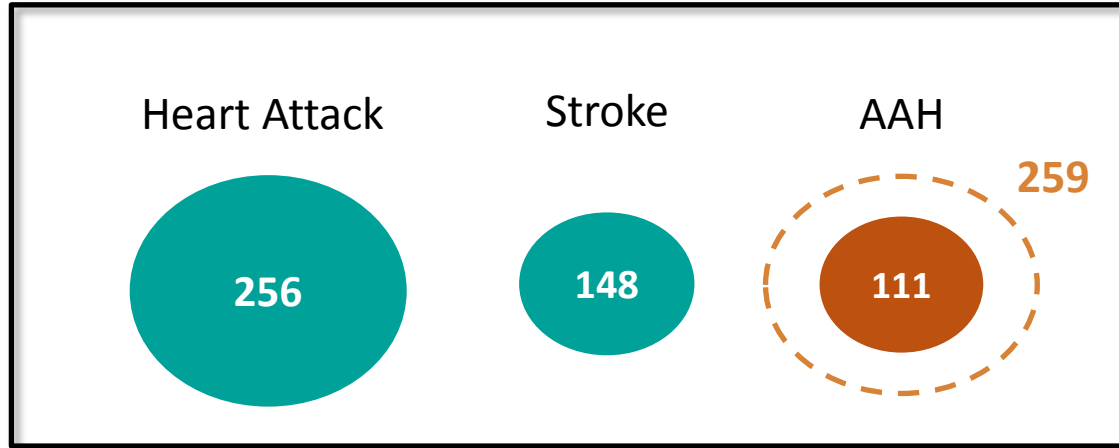
Just the tip of the iceberg, but a starting point...



Preliminary Results for 2013-14

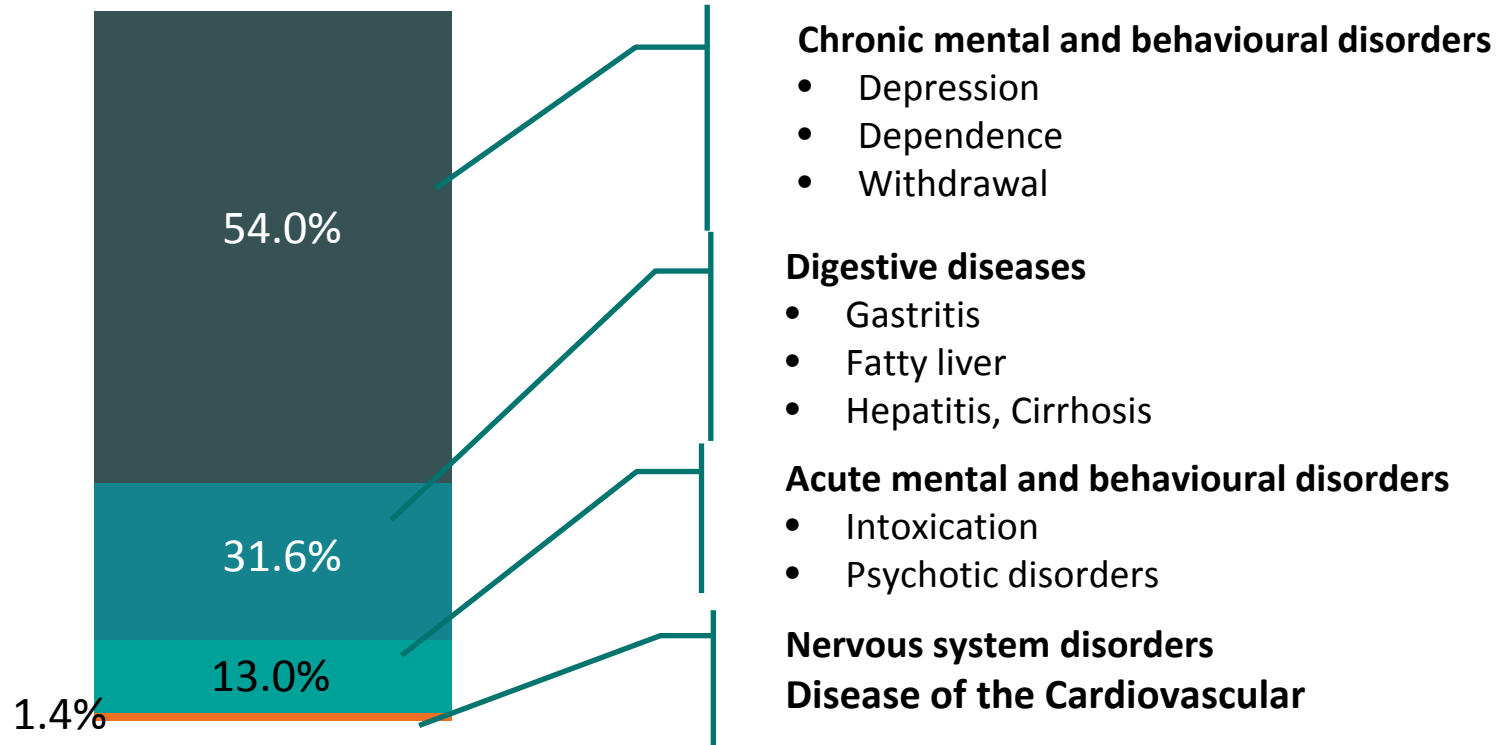
Burden of AAH on hospital sector

- In 2013-14, 33,000 hospitalizations were wholly attributable to alcohol
- 111 hospitalizations per every 100,000 Canadians 15 years and older



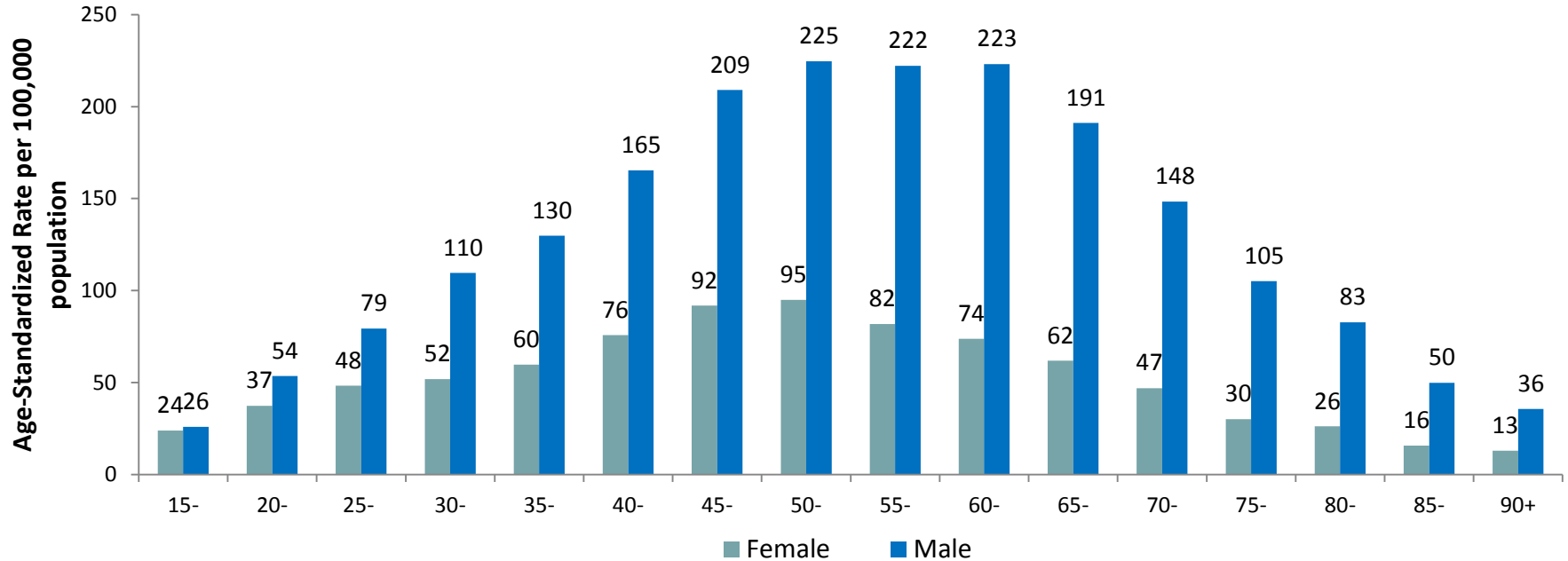
- By expanding definition to include hospitalizations that have an alcohol diagnosis identified as a significant comorbidity, the rate of AAH doubles and equals hospitalizations for heart attacks
- Note: indicators use different methods and inclusion/exclusion criteria (e.g. age cutoff)

What kind of conditions are contributing to AAH?



• Over 67% of AAH are due to mental/behavioral disorders

Rates of AAH show a wide sex gap and a steep increase until midlife followed by a decrease



- Males have a tenfold increase from 15-19 age group to 50-54 age group
- For females, the magnitude of increase is less dramatic (about fourfold)
- Youth rate (15-19 years), almost on par for males and females, representing ~ 600 hospitalizations

Rates of AAH vary across Canada



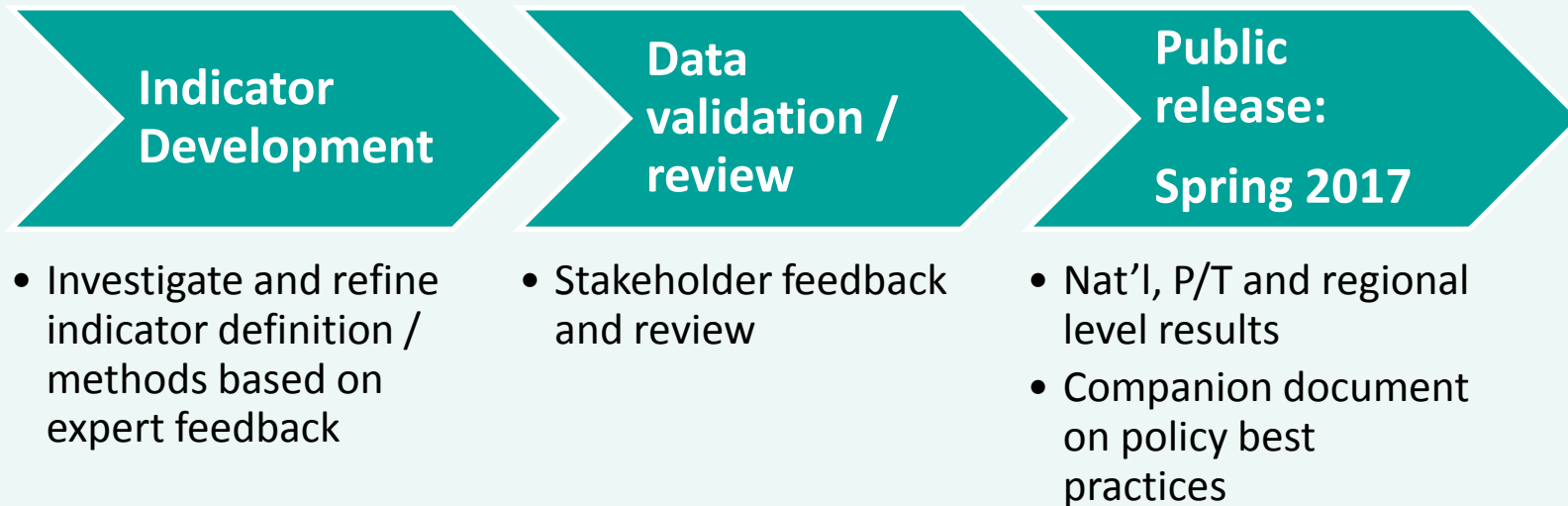
- Provincial rates vary from around **70** to over **170** hospitalizations per 100,000
- Territorial rates vary from around **140** to over **700** hospitalizations per 100,000
- Even greater variation when looking at results at the regional level
- Variations may reflect:
 - opportunities for improvement and learning across the country
 - differences in service delivery or local strategies

Summary and Considerations



- **Definition:** Age- standardized rate of alcohol-attributable hospitalizations per 100,000 aged 15 years and older
 - Numerator = hospitalizations for 100% attributable alcohol conditions
 - Denominator = Canadian population aged 15 years and older
- **Tip of the iceberg...**but provides a basis for national comparison and attention to an important health issue to drive action
- **Interpretation caveats**
 - inconsistencies in physician documentation and coding (e.g. accurate capture of condition as being due to alcohol, stigmatization)

Next Steps





Discussion Questions:

1. Feedback on working indicator definition?
2. Feedback on variation in results?
3. Thoughts on relevant contextual factors and drivers?



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Appendix

AAH ICD-10-CA Codes

ICD-10-CA code	Description
F10	Mental and behavioural disorders due to use of alcohol
G31.2	Degeneration of nervous system due to alcohol
G62.1	Alcoholic polyneuropathy
G72.1	Alcoholic myopathy
I42.6	Alcoholic cardiomyopathy
K29.2	Alcoholic gastritis
K70	Alcoholic liver disease
K85.2	Alcohol-induced acute pancreatitis
K86.0	Alcohol-induced chronic pancreatitis
Q86.0	Fetal alcohol syndrome (dysmorphic)

DSM-IV-TR AAH Codes

DSM-IV-TR Code	Description
291.0	Alcohol Intoxication Delirium/Withdrawal Delirium
291.1	Alcohol Persisting Amnestic Disorders
291.2	Alcohol Persisting Dementia
291.3	Alcohol-Induced Psychotic Disorder, with Hallucinations
291.5	Alcohol-Induced Psychotic Disorder, with Delusions
291.81	Alcohol Withdrawal
291.82	Alcohol-Induced Sleep Disorder
291.89	Alcohol-Induced Mood Disorder/Anxiety Disorder/Sexual Dysfunction
291.9	Alcohol-Related Disorders Not Otherwise Specified
303.00	Alcohol Intoxication
303.90	Alcohol Dependence
305.00	Alcohol Abuse