

# RETHINK INJURY : Rethink Alcohol

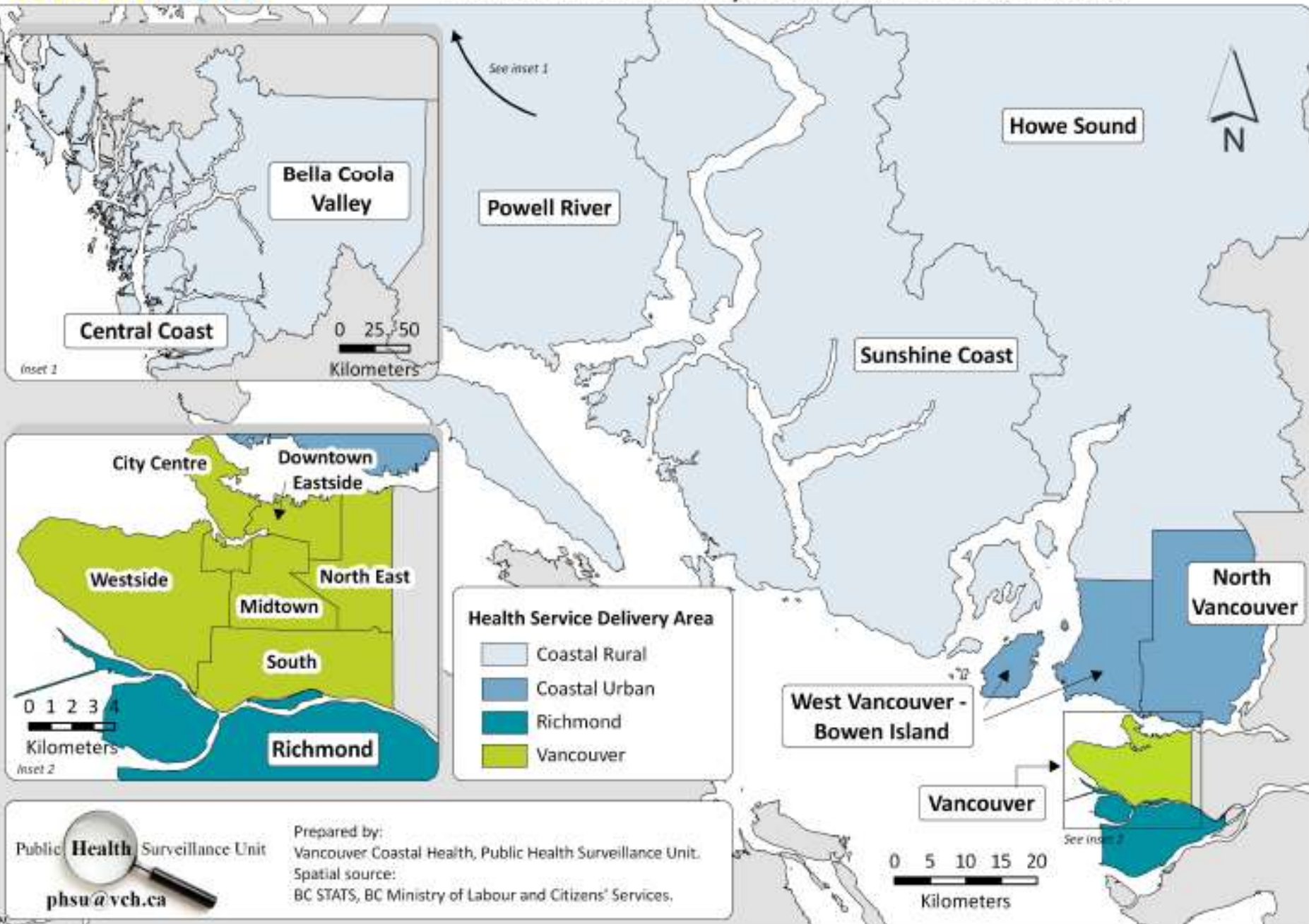
ZAHRA HUSSEIN, MPH, Injury Prevention Program Lead Trauma Services, VGH

MEGAN OAKEY, MPH, School Age and Adult Prevention Public Health, VCH

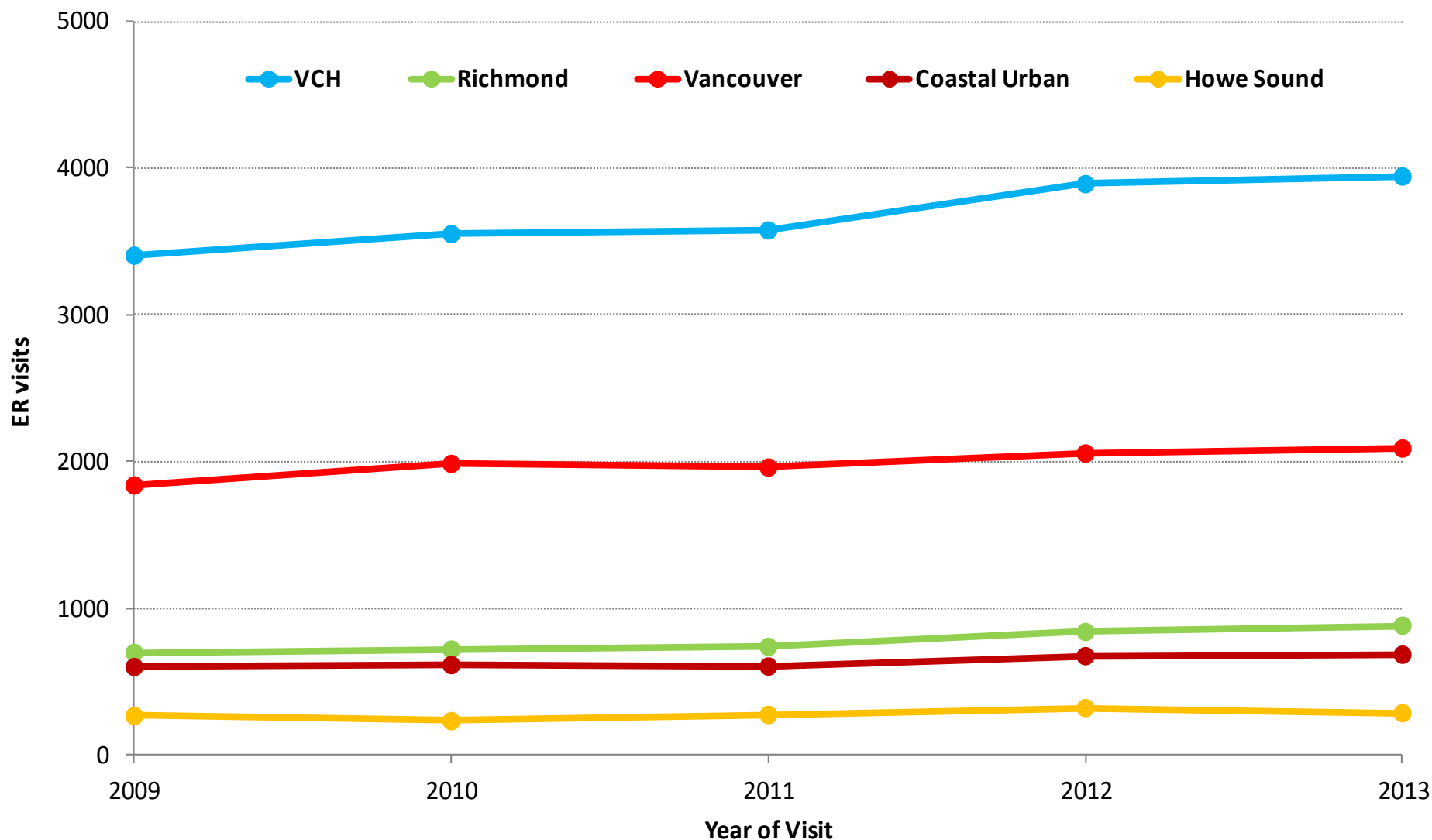
National Road Safety Conference June 2014, Vancouver BC

*Let's take a  
moment ...*





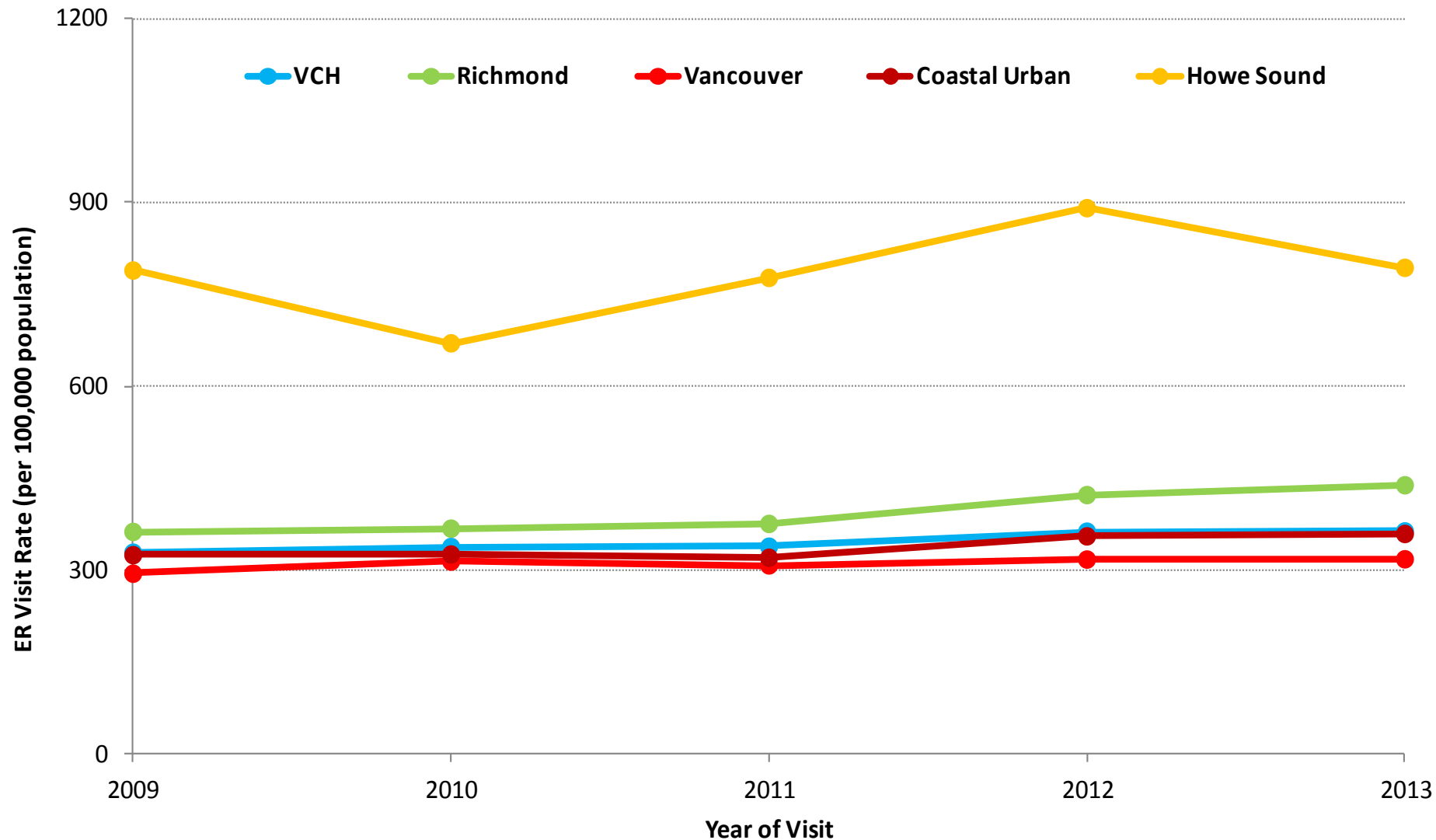
## Number of ER visits due to motor vehicle collisions by HSDAs and Howe Sound LHA, Vancouver Coastal Health Authority, 2009-2013



\*Motor vehicle collision-related visits are captured through ICD-9 codes E810-E819, E958.5, E968.5, E988.5 and a key word search through the following data fields: *presenting complaint, nature of injury, mechanism of injury and activity at time of injury*.

Source: ER visits data include data reported for nine of 13 acute care facilities in VCH and are collected through three different information systems. These systems are: 1 – CareCast (Richmond Hospital, UBC Hospital and Vancouver General Hospital); 2 – Eclipsys (Mount Saint Joseph Hospital and St. Paul's Hospital) and; 3 – McKesson (Lions Gate Hospital, Pemberton Health Centre, Squamish General Hospital and Whistler Health Care Centre). ER data is current as of January 2014.

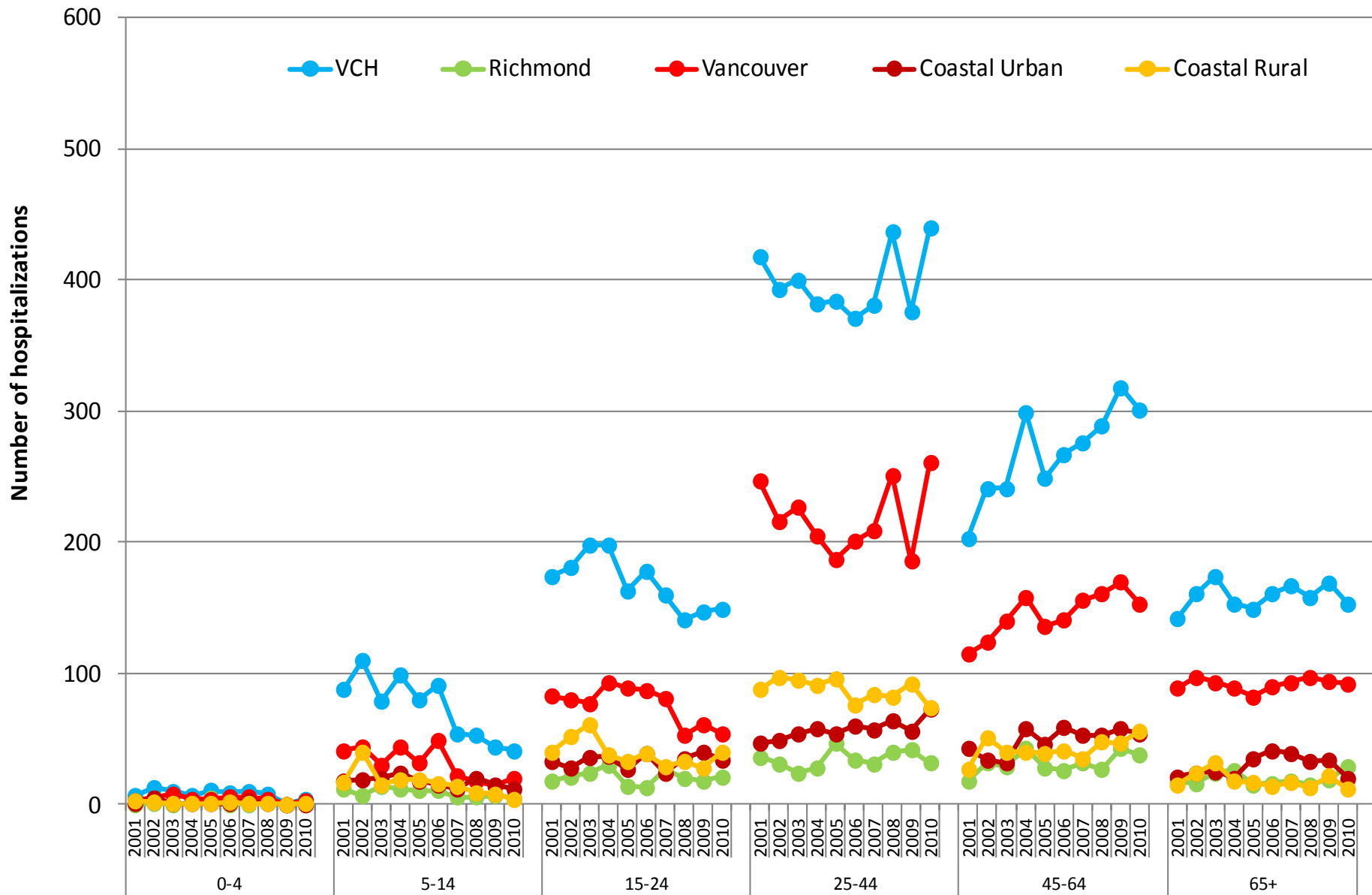
# Number of ER visits due to motor vehicle collisions per 100,000 population by HSDAs and Howe Sound LHA, Vancouver Coastal Health Authority, 2009-2013



\*Motor vehicle collision-related visits are captured through ICD-9 codes E810-E819, E958.5, E968.5, E988.5 and a key word search through the following data fields: *presenting complaint, nature of injury, mechanism of injury and activity at time of injury.*

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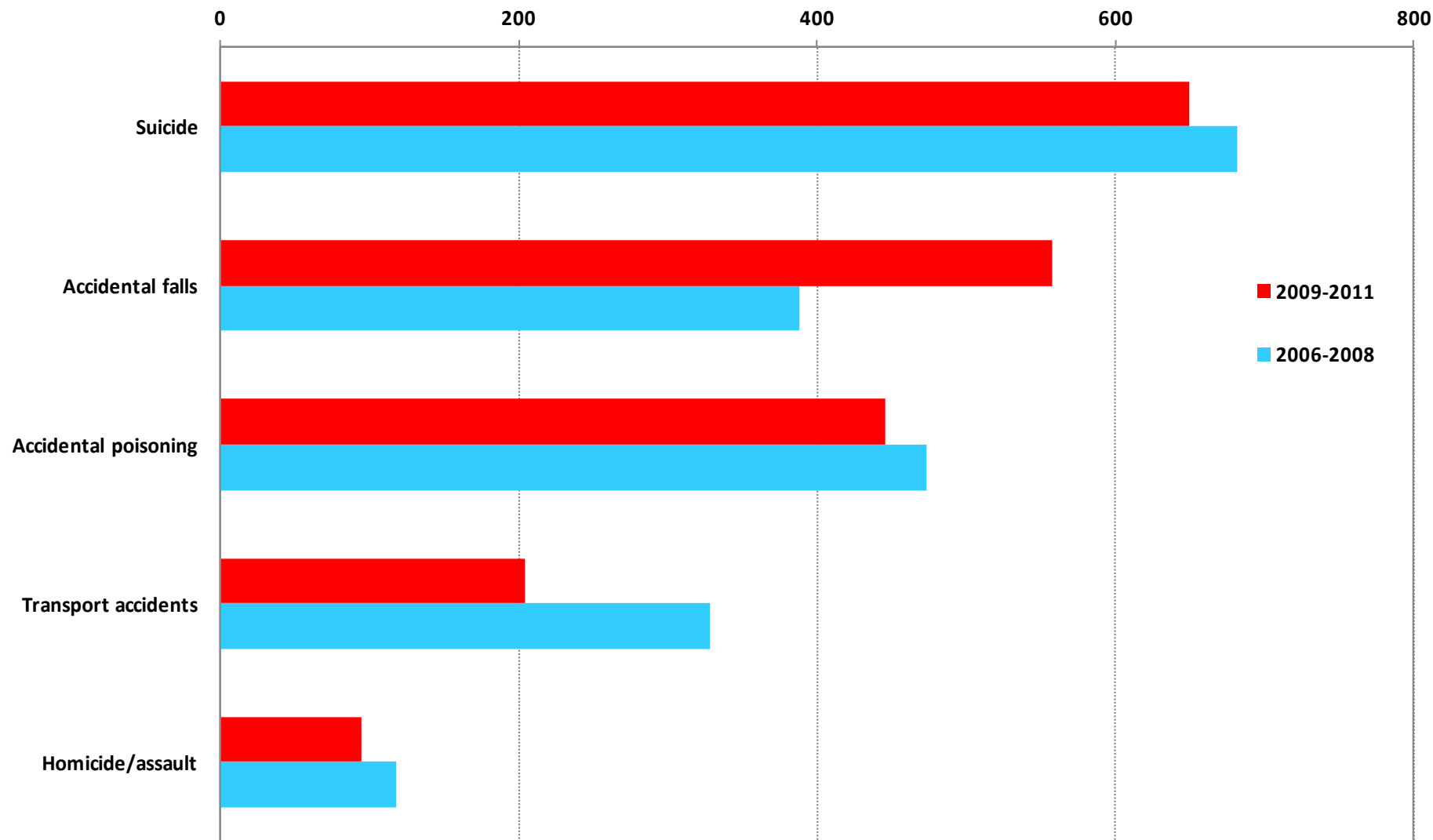
# Number of hospitalizations due to transport-related injuries by HSDAs and age group, Vancouver Coastal Health Authority, 2001-2010



\*Transport related hospitalization are captured by ICD 10 code V01-V99.

Source: Discharge Abstract Database (DAD), Ministry of Health, BCIRPU, 2013

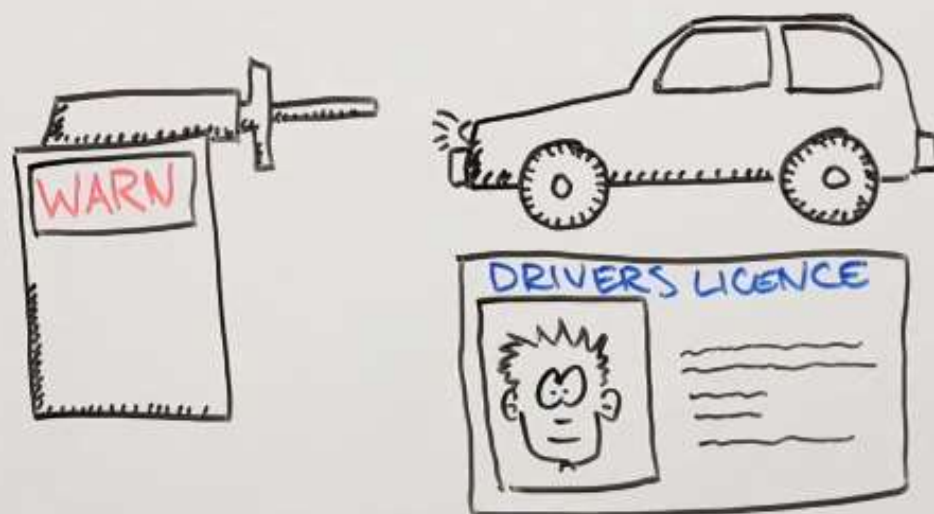
### Top five injury-related deaths among VCH residents



ICD 10 codes were used to identify the injury-related death. Each above injury was defined as suicide (X60-X84, Y870), accidental falls (W00-W19), accidental poisoning (X40-X49), transport accidents (V010-V99, Y850, Y859) and homicide/assault (X85-Y09, Y871).

Source: Vista Web Application, BC Vital Statistics Agency.





1:49



1:26 / 2:39



HD



## Improvements to Immediate Roadside Prohibition program



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The Office of the Superintendent of Motor Vehicles



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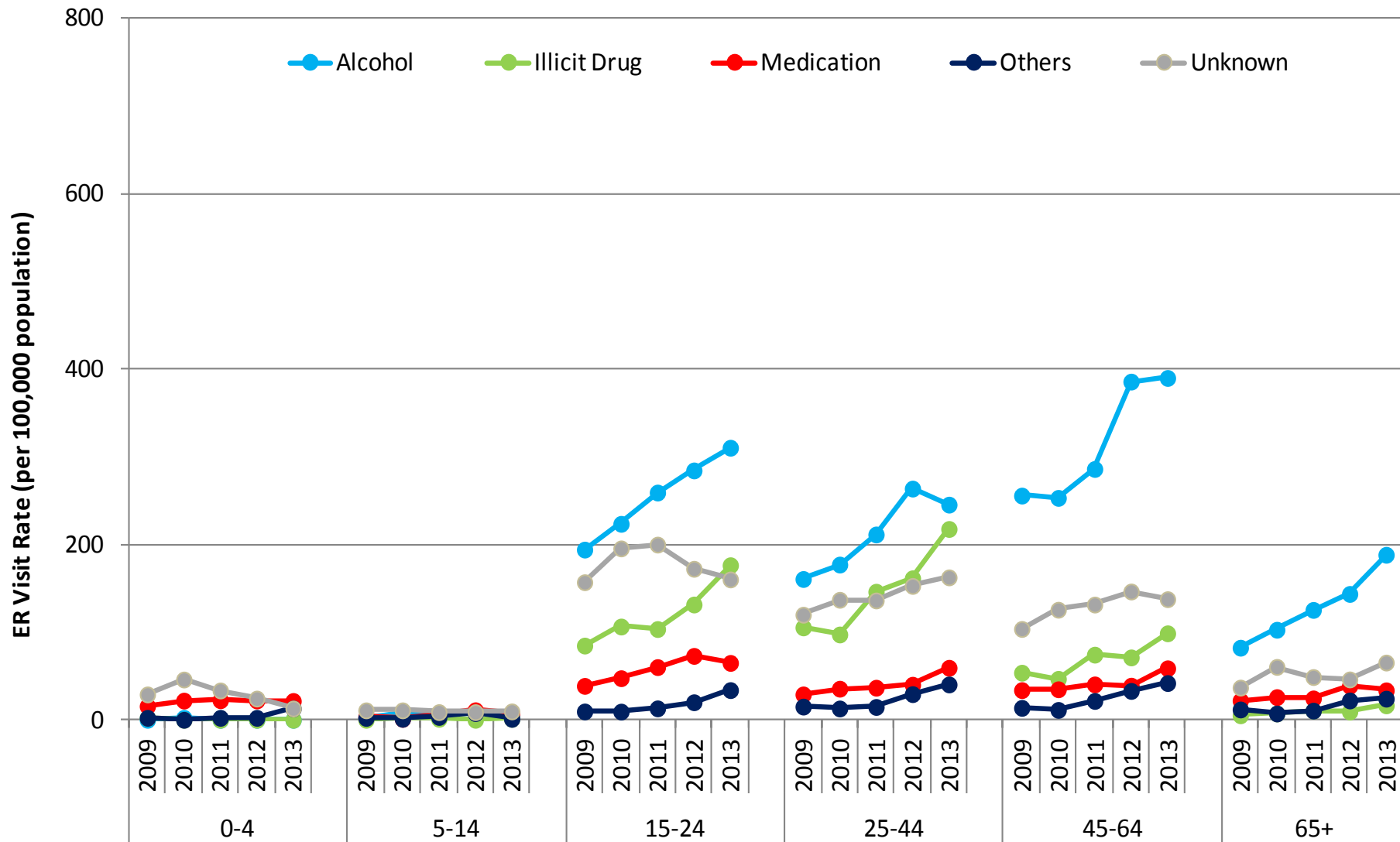
28,810 views

5:46



Will Ferrell

# **Number of ER visits due to poisoning per 100,000 population by age group and substances, Vancouver Coastal Health Authority, 2009-2013**

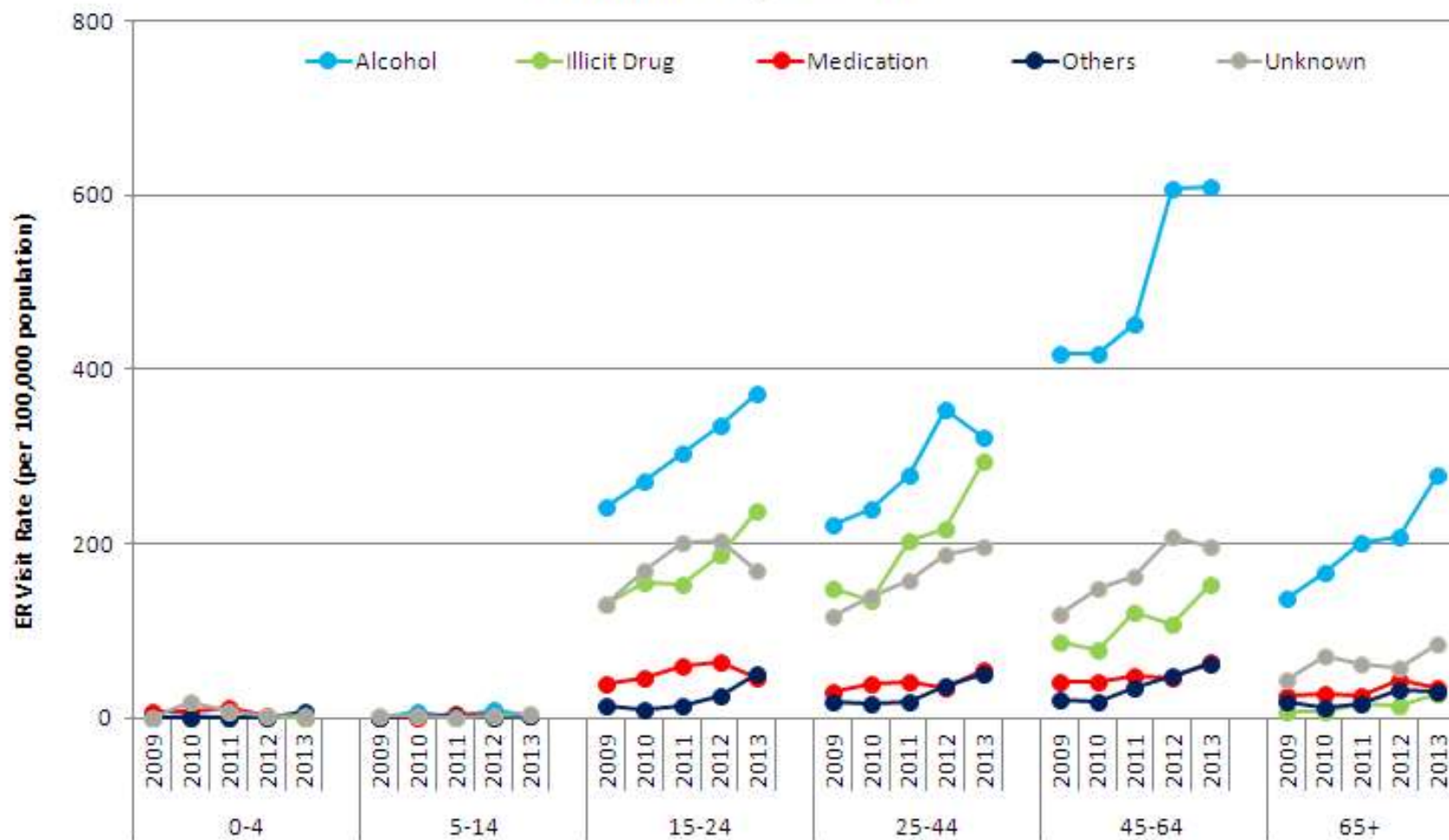


\*Poisoning related visits are captured through ICD-9 codes 960-979, 980-988, 989, E850-E858, E860-E869, E935 and ICD 10 codes T36-T39, T41-T65 and a key word search through the following data fields: *presenting complaint, nature of injury, mechanism of injury* and *activity at time of injury*.

Source: ER visits data include data reported for nine of 13 acute care facilities in VCH and are collected through three different information systems. These systems are: 1 – CareCast (Richmond Hospital, UBC Hospital and Vancouver General Hospital); 2 – Eclipsys (Mount Saint Joseph Hospital and St. Paul's Hospital) and; 3 – McKesson (Lions Gate Hospital, Pemberton Health Centre, Squamish General Hospital and Whistler Health Care Centre). ER data is current as of January 2014.







**Number of ER visits due to poisoning per 100,000 population by age group and substances**  
**Vancouver HSDA, 2009-2013**



\*Poisoning related visits are captured through ICD-9 codes 960-979, 980-988, 989, E850-E858, E860-E869, E935 and ICD 10 codes T36-T39, T41-T65 and a key word search through the following data fields: *presenting complaint, nature of injury, mechanism of injury and activity at time of injury.*

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# A Data Snapshot

-  **ED** volume and rate of **MVC**-related injuries in VCH
-  **hospitalization** rates for **transport**-related injuries in VCH among 45-64 age group
-  Decreasing **transport** accident **mortality** → Road Side/Hands Free Prohibition?
-  Increasing **ED** rate of **alcohol**-related injuries in VCH; particularly, Vancouver

**Now what?!?**



A blue rectangular sign with white text and a logo. The sign is positioned in the foreground, partially obscured by pink and white flowers at the bottom. In the background, there is a paved walkway, a large tree, and a multi-story hospital building with many windows.

Vancouver General Hospital

**Main Entrance**

855 West 12th Avenue

Vancouver  
CoastalHealth





## A Unique Perspective





“Naturally occurring health events thought to motivate individuals to spontaneously adopt risk-reducing health behaviors ... (during) office visits, notification of abnormal test results, **pregnancy, hospitalization and disease diagnosis.**”







# Are you too busy to improve?



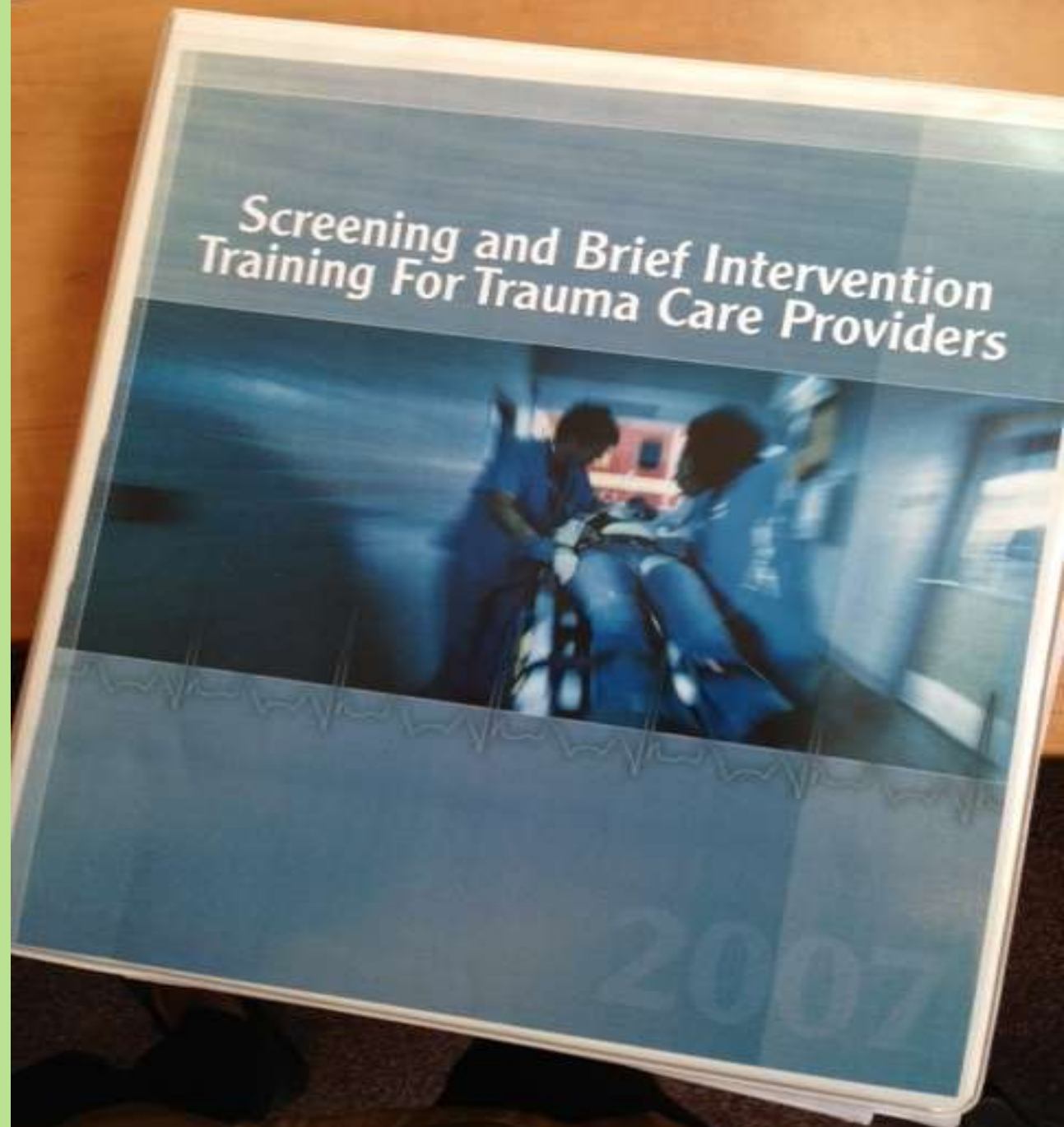
**Marie Steinthaler** @marmarlade · Mar 17

Are you too busy to improve? (via @ChristophBauer) [pic.twitter.com/HKDElqGFgj](https://pic.twitter.com/HKDElqGFgj)

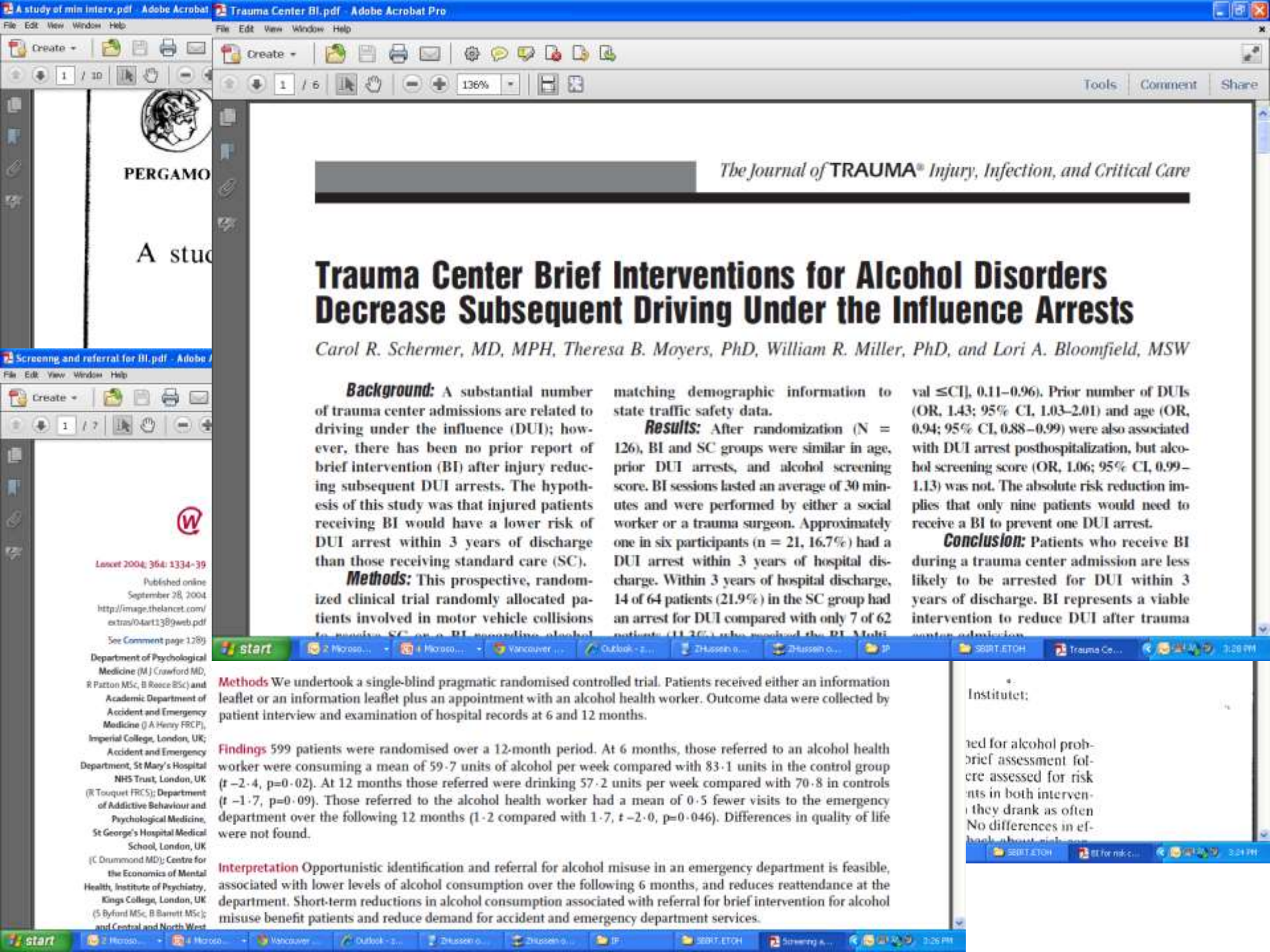
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- **S**creening,
- **B**rief
- **I**ntervention and
- **R**eferral to
- **T**reatment







# Trauma Center Brief Interventions for Alcohol Disorders Decrease Subsequent Driving Under the Influence Arrests

Carol R. Schermer, MD, MPH, Theresa B. Moyers, PhD, William R. Miller, PhD, and Lori A. Bloomfield, MSW

**Background:** A substantial number of trauma center admissions are related to driving under the influence (DUI); however, there has been no prior report of brief intervention (BI) after injury reducing subsequent DUI arrests. The hypothesis of this study was that injured patients receiving BI would have a lower risk of DUI arrest within 3 years of discharge than those receiving standard care (SC).

**Methods:** This prospective, randomized clinical trial randomly allocated patients involved in motor vehicle collisions to receive SC or a BI regarding alcohol

matching demographic information to state traffic safety data.

**Results:** After randomization (N = 126), BI and SC groups were similar in age, prior DUI arrests, and alcohol screening score. BI sessions lasted an average of 30 minutes and were performed by either a social worker or a trauma surgeon. Approximately one in six participants (n = 21, 16.7%) had a DUI arrest within 3 years of hospital discharge. Within 3 years of hospital discharge, 14 of 64 patients (21.9%) in the SC group had an arrest for DUI compared with only 7 of 62 patients (11.3%) who received the BI. Multi-

val  $\leq$  CI], 0.11–0.96). Prior number of DUIs (OR, 1.43; 95% CI, 1.03–2.01) and age (OR, 0.94; 95% CI, 0.88–0.99) were also associated with DUI arrest posthospitalization, but alcohol screening score (OR, 1.06; 95% CI, 0.99–1.13) was not. The absolute risk reduction implies that only nine patients would need to receive a BI to prevent one DUI arrest.

**Conclusion:** Patients who receive BI during a trauma center admission are less likely to be arrested for DUI within 3 years of discharge. BI represents a viable intervention to reduce DUI after trauma center admission.

**Methods** We undertook a single-blind pragmatic randomised controlled trial. Patients received either an information leaflet or an information leaflet plus an appointment with an alcohol health worker. Outcome data were collected by patient interview and examination of hospital records at 6 and 12 months.

**Findings** 599 patients were randomised over a 12-month period. At 6 months, those referred to an alcohol health worker were consuming a mean of 59.7 units of alcohol per week compared with 83.1 units in the control group ( $t = -2.4$ ,  $p = 0.02$ ). At 12 months those referred were drinking 57.2 units per week compared with 70.8 in controls ( $t = -1.7$ ,  $p = 0.09$ ). Those referred to the alcohol health worker had a mean of 0.5 fewer visits to the emergency department over the following 12 months (1.2 compared with 1.7,  $t = -2.0$ ,  $p = 0.046$ ). Differences in quality of life were not found.

**Interpretation** Opportunistic identification and referral for alcohol misuse in an emergency department is feasible, associated with lower levels of alcohol consumption over the following 6 months, and reduces reattendance at the department. Short-term reductions in alcohol consumption associated with referral for brief intervention for alcohol misuse benefit patients and reduce demand for accident and emergency department services.

Institutet;

ned for alcohol prob-  
brief assessment fol-  
core assessed for risk  
nts in both interven-  
they drank as often  
No differences in ef-  
back about risk

# AUDIT -C

Questions	Scoring System					Your Score
	0	1	2	3	4	
How often do you have a drink containing beer, wine or other alcoholic beverages?	Never	Monthly or less	2-4 times per month	2-3 times per week	4+ times per week	
How many units of alcohol do you drink on a typical day when you are drinking?	1-2	3-4	5-6	7-9	10+	
How often have you had 4 or more units (if female) or 5 or more (if male), on a single occasion in the last year?	Never	Less than monthly	Monthly	Weekly	Daily or almost daily	
<b>Scoring:</b> A total of 5+ indicates increasing or higher risk drinking. An overall total score of 5 or above is AUDIT-C positive.					<b>TOTAL SCORE:</b>	



## Steps of the Brief Intervention

### Raise the subject

- "If it's okay with you, let's take a minute to talk about the alcohol screening form you've filled out today."

### Provide feedback

Feedback is provided on screening results, BAC/toxicology screen, the link between drinking and injury, guidelines for consumption, and methods for reducing or stopping drinking.

### Enhance motivation

- "On a scale of 0-10, how ready are you to cut back?"
- If >0: "Why that number and not a \_\_\_\_ (lower one)?"
- If 0: "Have you ever done anything while drinking (using drugs) that you later regretted?"

### Negotiate plan

- "What steps can you take to cut back your use?"
- "How would your drinking (drug use) have to impact your life in order for you to start thinking about cutting back?"

Referral:

**Canada's Low Risk Drinking Guidelines and Addiction Services: Community Supports, BC211, AA**



Drinking

While alcohol can be a pleasure, it's important to understand the risks of drinking. The Canadian Council on Alcohol and Drug Issues (CCADI) has developed the following guidelines to help you understand the risks of drinking and how to stay safe.

## Canada's Low-Risk Alcohol Drinking Guidelines

Visit our website for more information:  
[www.ccadi.ca](http://www.ccadi.ca)

Drinking is a personal choice. If you choose to drink, these guidelines can help you decide when, where, why and how.



Canadian Council on Alcohol and Drug Issues  
1000 University Avenue, Suite 1000  
Vancouver, BC V6C 1B8  
Tel: 604-681-2222  
Fax: 604-681-2223  
Email: [info@ccadi.ca](mailto:info@ccadi.ca)  
Website: [www.ccadi.ca](http://www.ccadi.ca)



Vancouver Coastal Health  
Addiction Services  
1000 University Avenue, Suite 1000  
Vancouver, BC V6C 1B8  
Tel: 604-681-2222  
Fax: 604-681-2223  
Email: [info@vch.ca](mailto:info@vch.ca)  
Website: [www.vch.ca](http://www.vch.ca)

bc211 we can help  
any problem you have

The Alcohol & Drug Information and Referral



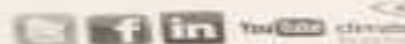
Alcohol is the leading cause of death and disability in Canada. It is also a leading cause of family violence and child abuse. If you are drinking too much, you may be putting your health and the health of others at risk.

- Support services for people with alcohol problems
- Drug and alcohol counselling and treatment
- Legal services for people with alcohol problems
- Health services for people with alcohol problems
- Social services for people with alcohol problems
- Family violence services
- Child abuse services
- Mental health services
- Substance abuse services

Vancouver

Alcohol & Drug Information and Referral

Alcohol & Drug Information and Referral



## ALCOHOLICS ANONYMOUS

Alcoholics Anonymous is a fellowship of men and women who share their experience, strength and hope with each other that they may solve their common problem and help others to recover from alcoholism. The only requirement is a desire to stop drinking.

### Vancouver General Hospital

**Mondays, 7:00-8:00pm**  
Gym 2<sup>nd</sup> Floor, Health Centre

**Wednesdays, 7:00-8:00pm**  
JP Pavilion - 14<sup>th</sup> Floor  
Education Rm #14010

**Sundays, 2:00-3:00pm**  
JP Pavilion - 12B  
Conference Rm #12170

help  
is  
available

vancouver

**ADDICTION  
SERVICES**

Vancouver  
Coastal Health





# **IP Goal = Reduce the number and severity of injuries presenting in our community**

Screen all (a) trauma activations, (b) trauma consults and (c) trauma admits  $\geq 15$  years unless patient too sick to respond.

**Staff training and education:** September 2014

**Implementation date: Tuesday, October 7, 2014**

# Road Safety Advocacy Strategy





A huge thank you to the  
VCH Public Health  
Surveillance Unit for the  
data and particularly to **Jat  
Sandhu and Tim Chu** for  
preparing the graphs and  
helping us to interpret their  
findings.



## Public Health Surveillance Unit



# Questions/Comments/Feedback?

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