

Canada's National Low Risk Drinking Guidelines



**THE SCIENCE, KNOWLEDGE TRANSLATION
AND MOBILIZATION**

Conflict of Interest

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- **Chair, National Low Risk Drinking Guidelines (LRDG) Expert Advisory Panel.**
- **CCSA Contract on LRDG, LRDG KE and Alcohol SBIR.**
- **No industry funding.**

Outline

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- **Context**
- **Scientific evidence behind the LRDG's**
- **Canada's new national LRDG's**
- **Opportunities and challenges for translation and mobilization**

Context

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**A STANDARD DRINK, ALCOHOL
CONSUMPTION, RISKY DRINKING, THE
NATIONAL ALCOHOL STRATEGY AND
PREVIOUS CANADIAN GUIDELINES**

A “Standard Drink”

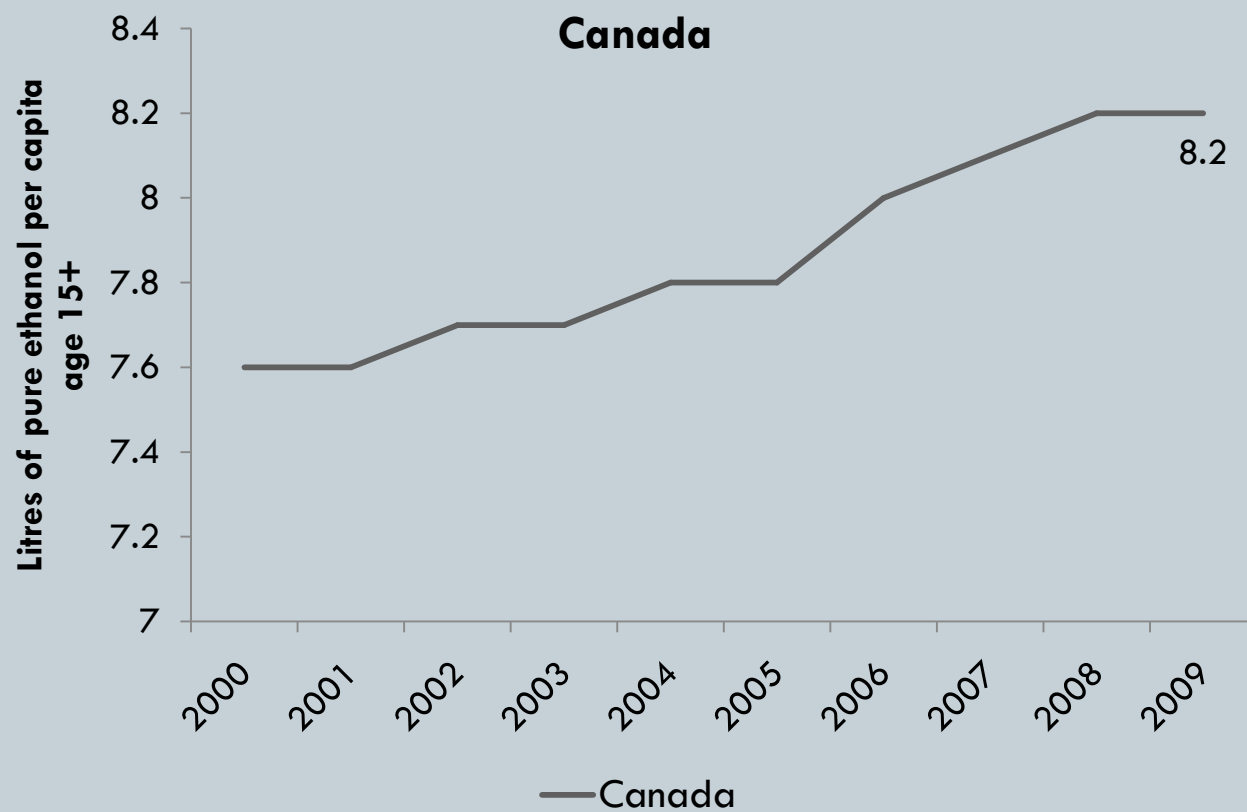
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- *Contains 17.05 ml. or 13.45 gm. of ethanol:*
- *341 (12 oz.) of 5% alcohol beer, cider or cooler*
- *142 (5 oz.) glass of 12% alcohol wine*
- *43 ml. (1.5 oz.) serving of 40% distilled alcohol (rye, gin, rum, etc.)*



Context: Consumption is increasing

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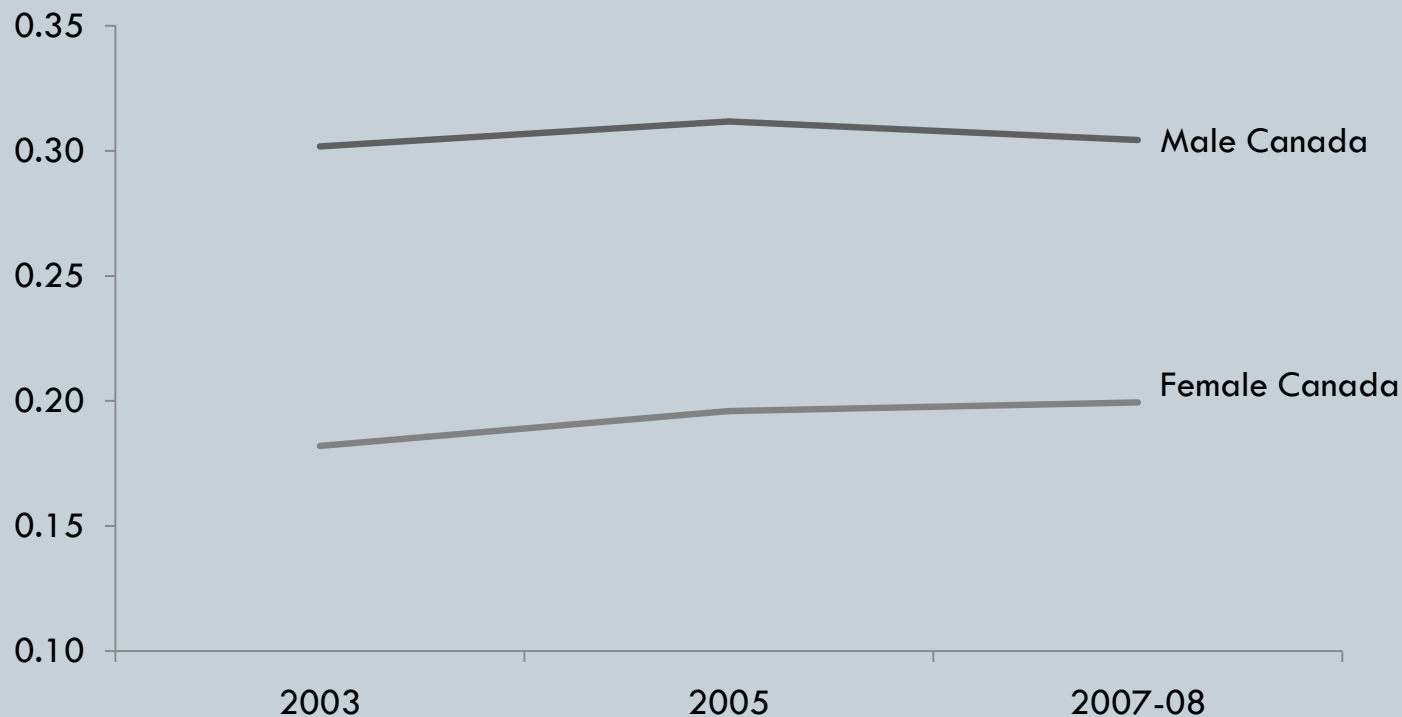
Note: 8.6 litres of ethanol = 505 standard drinks per person per year.

Source: Statistics Canada.

Risky drinking is common (CCHS)

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Proportion of general population age 15+ reporting risky drinking (5+ for men, 4+ for women) once a month or more, Canada.

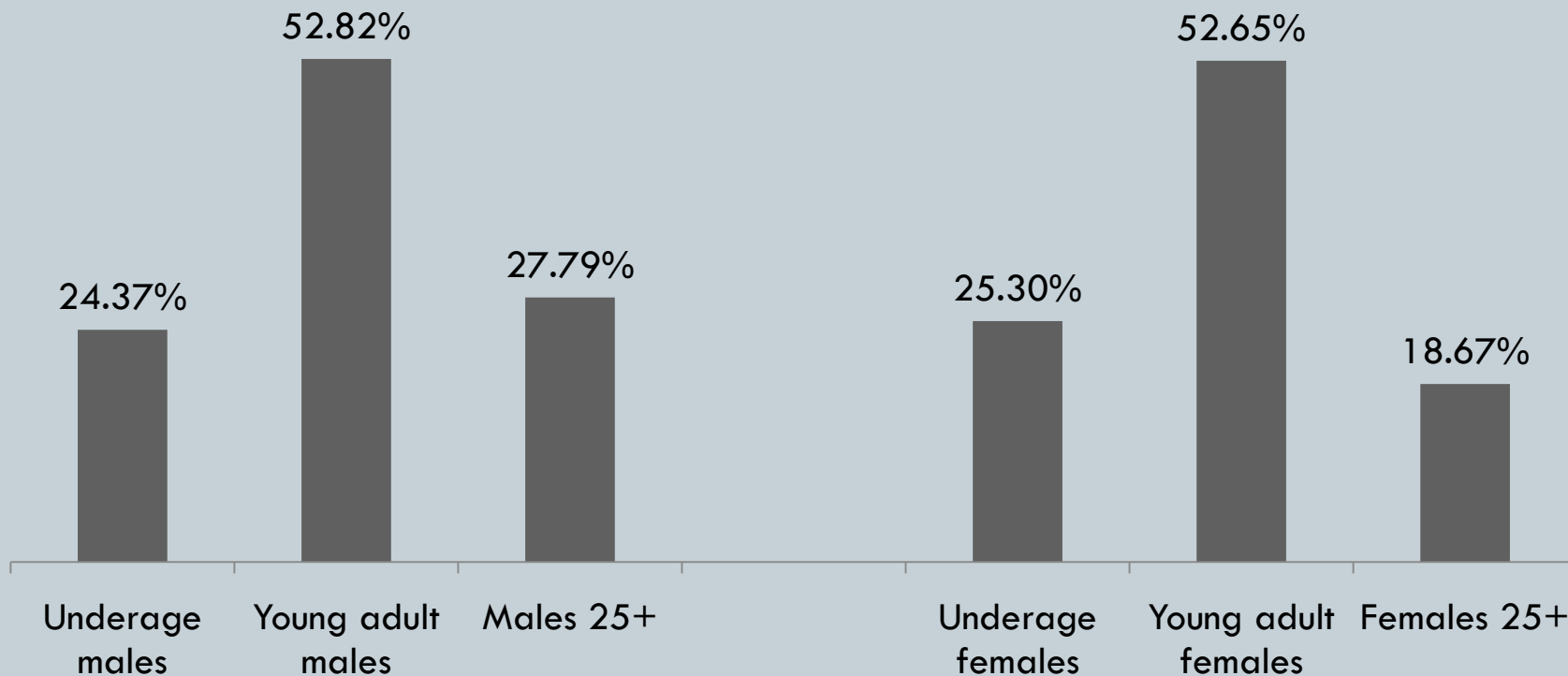


Source: Canadian Community Health Survey.

Risky drinking (cont.)

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Proportion of general population age 15+ reporting risky drinking once a month or more (5+ drinks for men, 4+ for women), Canada, 2007-08



Risky Drinking Summary

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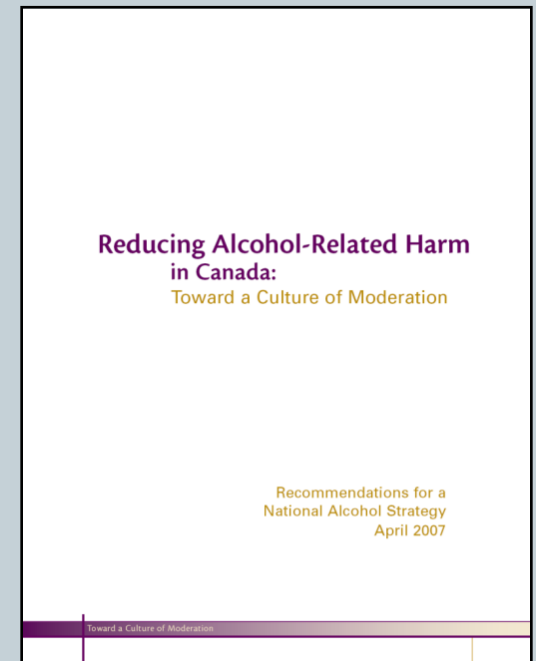
- At least 50% of all alcohol is consumed in excess of the new LRDG's.
- The top 10% of drinkers consume over 50% of alcohol (by self report).
- A significant proportion of drinkers at least occasionally drink in ways that increase the risk of short term harm.



National Alcohol Strategy (CCSA 2007)

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1. Develop and promote national alcohol drinking guidelines to encourage a culture of moderation, and aim for consistency and clarity of alcohol-related health and safety messages (*Health Canada, all governments*).
2. Develop a comprehensive, sustained and coordinated social marketing campaign with multi-sectoral partners to promote the national alcohol drinking guidelines (*all governments, NGOs, alcohol and hospitality industries*).



Context: No previous national consensus

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Source	Men	Women
CAMH	Max 2 standard drinks/day Max 14 standard drinks/week	Max 2 standard drinks/day Max 9 standard drinks/week
CARBC (2007)	Max 4 standard drinks/day; Max 20 standard drinks/week	Max 3 standard drinks/day Max 10 standard drinks/week
Educ'alcool (2007)	Max 3 standard drinks/day Max 14 standard drinks/week Max 5 standard drinks on a single occasion NO alcohol at least 1 day/week	Max 2 standard drinks/day Max 9 standard drinks/week Max 4 standard drinks on a single occasion NO alcohol at least 1 day/week
CFPC (ARAI 1994)	Max 4 standard drinks/day Max 12 standard drinks/week	Max 3 standard drinks/day Max 12 standard drinks/week

Source: CCSA

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ISSUES AND RISKS

Issues and Risks Addressed in LRDG's

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- *Hazardous circumstances* (e.g., when pregnant or considering pregnancy, when driving or operating machinery) where abstinence or very light consumption is recommended.
- *Long-term risk* of serious diseases caused by consumption over a number of years (e.g., liver disease, some cancers).
- *Short-term risk* of injury or acute illness due to intoxication.
- Youth: delayed onset and harm reduction.



Criteria for “low-risk” drinking

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- The complexity of risk and presence of health benefits complicate the analysis of risk.
- The new national LRDG's identify daily limits based on the point where the overall ***net risk of premature death (mortality) is equal to that of lifetime abstainers.***
- This is the point where potential health risks and health benefits exactly cancel each other out.



Good evidence base for some risks but not others

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- In general, alcohol's contribution to chronic harm is better understood than its contribution to acute harm, and its contribution to mortality (death) is better understood than its contribution to morbidity (illness and disease).
- Situational factors greatly impact occurrence of acute harms highlighting the importance of the drinking context.



Canada's Low Risk Drinking Guidelines

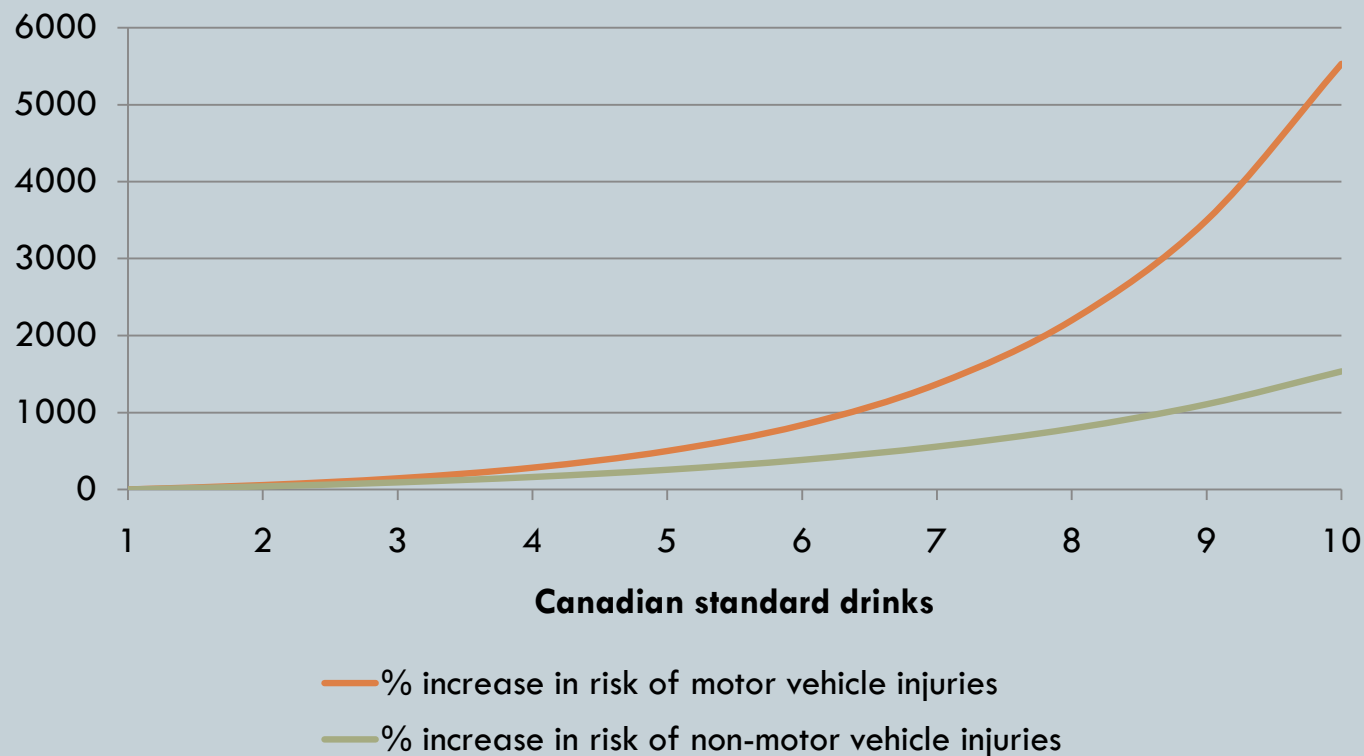
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THE SCIENCE

Acute risk

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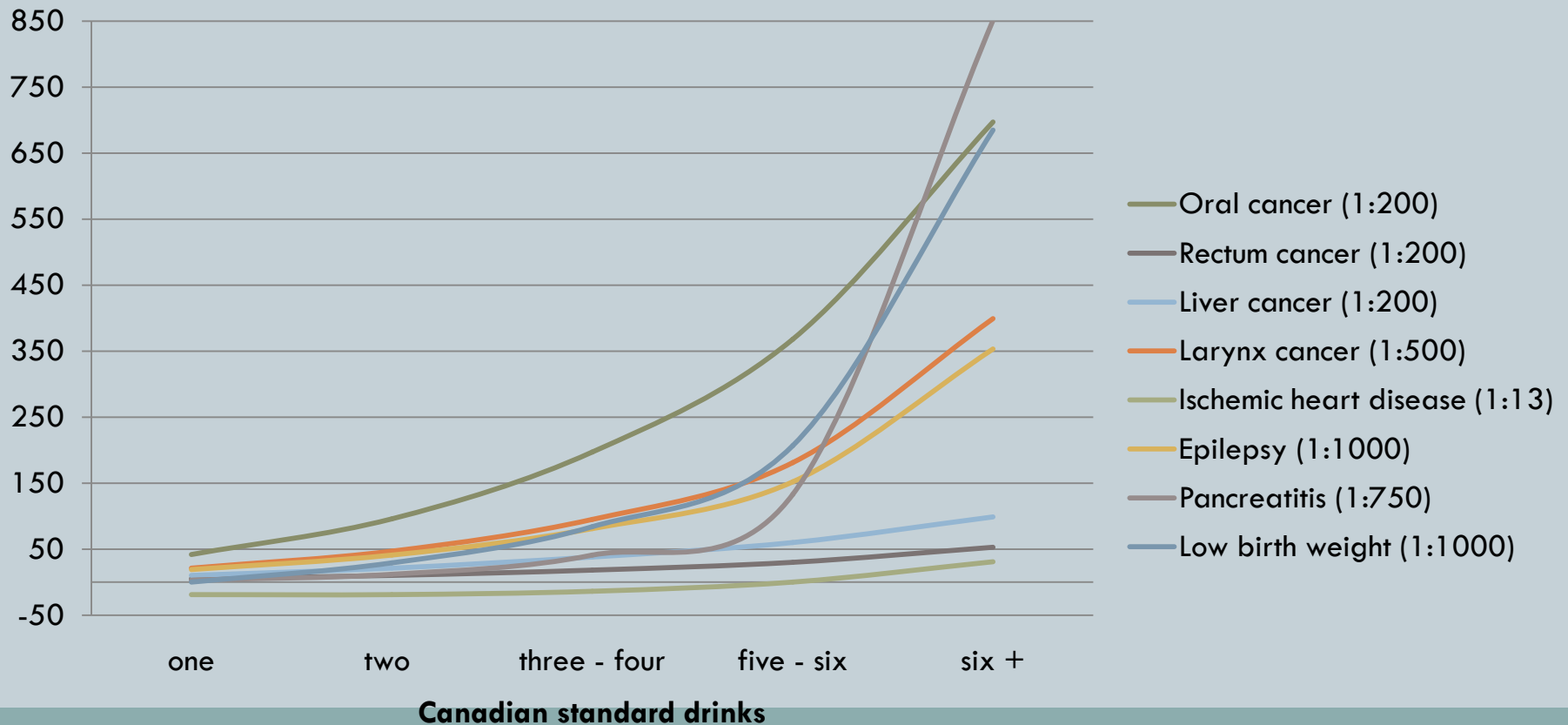
Relative risks by number of Canadian standard drinks consumed three hours before an injury



Risk curves for select chronic conditions

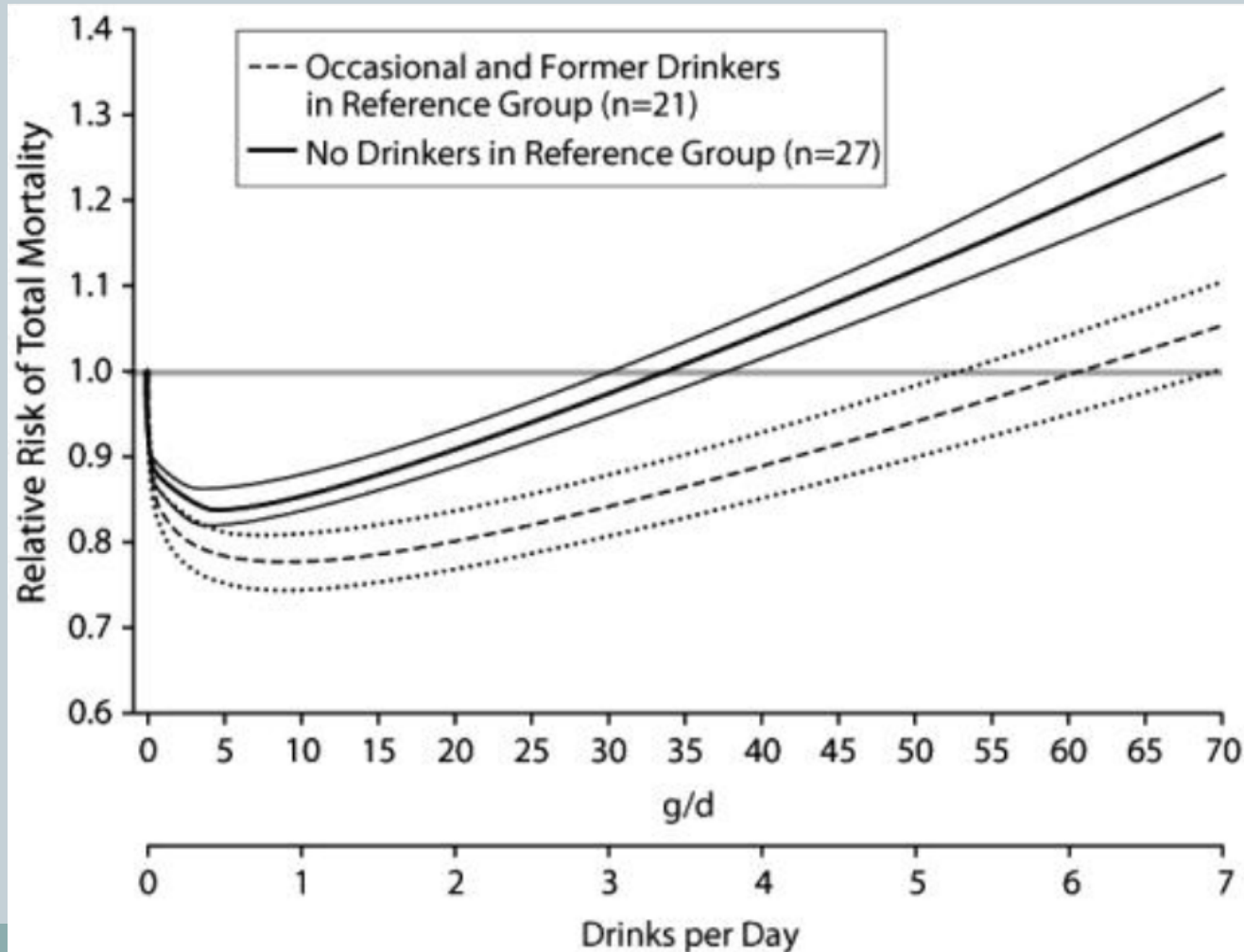
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Percentage change in long-term relative risk by average standard drinks per day, males and females less than 70 years of age



Alcohol and all cause mortality

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The Beer Cross! Industry and the Media

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Brewers Association of Canada

Risks of Chronic Harms

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Table 1. Percentage change in long-term relative risk by average standard drinks per day for 12 illnesses that are similar for men and women aged below 70 years.

Type of Illness or Disease	Proportion of All Deaths, 2002–2005	Percentage Increase/Decrease in Risk				
		Zero or Decreased Risk				
		0%		-1 to -24%		-25% to -50%
		Increased Risk				
		Up to +49%		+50 to 99%		+100 to 199%
		1 Drink	2 Drinks	3–4 Drinks	5–6 Drinks	+ 6 Drinks
Tuberculosis	1 in 2,500	0	0	+194	+194	+194
Oral cavity & pharynx cancer	1 in 200	+42	+96	+197	+368	+697
Oral esophagus cancer	1 in 150	+20	+43	+87	+164	+367
Colon cancer	1 in 40	+3	+5	+9	+15	+26
Rectum cancer	1 in 200	+5	+10	+18	+30	+53
Liver cancer	1 in 200	+10	+21	+38	+60	+99
Larynx cancer	1 in 500	+21	+47	+95	+181	+399
Ischemic heart disease	1 in 13	-19	-19	-14	0	+31
Epilepsy	1 in 1,000	+19	+41	+81	+152	+353
Dysrhythmias	1 in 250	+8	+17	+32	+54	+102
Pancreatitis	1 in 750	+3	+12	+41	+133	+851
Low birth weight	1 in 1,000	0	+29	+84	+207	+685

Alcohol and Health in Canada. CCSA. Nov. 2011.

Comparison of RR for All-Cause Mortality

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Table 4. Risk thresholds in Canadian standard drinks estimated for men and women compared with lifetime abstainers.

All-Cause Mortality Analysis	Number of Studies Included	Number of Standard Drinks for Benefit/Risk Threshold					
		Women			Men		
		Maximum Benefits	Zero Net Risk	Increased Risk	Maximum Benefits	Zero Net Risk	Increased Risk
English et al, 1995	16	0.5	1.5	2	1	2	3
Rehm et al, 2001	37	1	1.5	3	1	2.5	4
Bagnardi et al, 2004	29	0.5	2.5	[4]*	0.5	3	[5]*
Di Castelnuovo et al, 2006	34	0.5	2	[3]*	0.5	3	[4]*

* Estimated from risk curves presented in original papers but not statistically evaluated.

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**OPPORTUNITIES, DISCLAIMER, BY THE
NUMBERS AND CHALLENGES**

Canada's new national LRDG's

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Alcohol and Health in Canada:

A Summary of Evidence and Guidelines for Low-Risk Drinking

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Recommended Guidelines for Low-Risk Drinking

Note: These Guidelines are not intended to encourage people who choose to abstain for cultural, spiritual or other reasons to drink, nor are they intended to encourage people to commence drinking to achieve health benefits. People of low bodyweight or who are not accustomed to alcohol are advised to consume below these maximum limits.

Guideline 1 Do not drink in these situations:	When operating any kind of vehicle, tools or machinery; using medications or other drugs that interact with alcohol; engaging in sports or other potentially dangerous physical activities; working; making important decisions; if pregnant or planning to be pregnant; before breastfeeding; while responsible for the care or supervision of others; if suffering from serious physical illness, mental illness or alcohol dependence.	
Guideline 2 If you drink, reduce long-term health risks by staying within these average levels:	Women 0–2 standard drinks* per day No more than 10 standard drinks per week Always have some non-drinking days per week to minimize tolerance and habit formation. Do not increase drinking to the upper limits as health benefits are greatest at up to one drink per day. Do not exceed the daily limits specified in Guideline 3.	Men 0–3 standard drinks* per day No more than 15 standard drinks per week Always have some non-drinking days per week to minimize tolerance and habit formation. Do not increase drinking to the upper limits as health benefits are greatest at up to one drink per day. Do not exceed the daily limits specified in Guideline 3.
Guideline 3 If you drink, reduce short-term risks by choosing safe situations and restricting your alcohol intake:	Risk of injury increases with each additional drink in many situations. For both health and safety reasons, it is important not to drink more than: <ul style="list-style-type: none"> • Three standard drinks* in one day for a woman • Four standard drinks* in one day for a man Drinking at these upper levels should only happen occasionally and always be consistent with the weekly limits specified in Guideline 2. It is especially important on these occasions to drink with meals and not on an empty stomach; to have no more than two standard drinks in any three-hour period; to alternate with caffeine-free, non-alcoholic drinks; and to avoid risky situations and activities. Individuals with reduced tolerance, whether due to low bodyweight, being under the age of 25 or over 65 years old, are advised to never exceed Guideline 2 upper levels.	
Guideline 4 When pregnant or planning to be pregnant:	The safest option during pregnancy or when planning to become pregnant is to not drink alcohol at all. Alcohol in the mother's bloodstream can harm the developing fetus. While the risk from light consumption during pregnancy appears very low, there is no threshold of alcohol use in pregnancy that has been definitively proven to be safe.	
Guideline 5 Alcohol and young people:	Alcohol can harm healthy physical and mental development of children and adolescents. Uptake of drinking by youth should be delayed at least until the late teens and be consistent with local legal drinking age laws. Once a decision to start drinking is made, drinking should occur in a safe environment, under parental guidance and at low levels (i.e., one or two standard drinks* once or twice per week). From legal drinking age to 24 years, it is recommended women never exceed two drinks per day and men never exceed three drinks in one day.	

* A "standard drink" is equal to a 341 ml (12 oz.) bottle of 5% strength beer, cider or cooler; a 142 ml (5 oz.) glass of 12% strength wine; or a 43 ml (1.5 oz.) shot of 40% strength spirits (NB: 1

Opportunities

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- **First ever national consensus on LRDG's**
- **All major stakeholders on board:**
 - Liquor authorities
 - Public health and safety advocates
 - FPT governments (health, safety, finance?)
 - Alcohol Industry

LRDG Disclaimer

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- These Guidelines are not intended to encourage people who choose to abstain for cultural, spiritual or other reasons to drink, nor are they intended to encourage people to commence drinking to achieve health benefits.
- People of low bodyweight or who are not accustomed to alcohol are advised to consume below these maximum limits.
- The numbers represent LIMITS, not TARGETS!

By the Numbers: 0

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- Do not drink when operating any kind of vehicle, tools or machinery; using medications or other drugs that interact with alcohol; working; making important decisions; if pregnant or planning to be planning; before breastfeeding; while responsible for the care or supervision of others; if suffering from serious physical illness, mental illness or alcohol dependence.

By the Numbers: 2-3, 10-15

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- If you drink, reduce long-term health risks by staying within these average levels:
- Women: 0-2 standard drinks per day, no more than 10 per week.
- Men: 0-3 standard drinks per day, no more than 15 per week.
- Always have some non-drinking days per week to minimize tolerance and habit formation.
- Do not increase drinking to upper limits as health benefits are greatest at up to 1 drink per day.

By the Numbers: 3-4 for Special Occasions

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- If you drink, reduce short-term risks by choosing safe situations and restricting your alcohol intake.
- Risk of injury increases with each additional drink in many situations.
- For health and safety reasons do not drink more than:
Women – 3 drinks per day & Men - 4 per day.
- Drinking at these upper levels should only happen OCCASIONALLY and always be consistent with the WEEKLY limits .

How to Drink

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- Drink with meals & not on an empty stomach.
- No more than 2 drinks in any 3 hours.
- Alternate with caffeine free, non-alcoholic drinks.
- Avoid risky situations and activities.
- Individuals with reduced tolerance (low body weight, under age 25 or over age 65) are advised never to exceed the 2-3 upper limits.

Pregnancy

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- When pregnant or planning to be pregnant the safest option is to not drink alcohol at all.
- Alcohol in the mother's bloodstream can harm the developing fetus. While the risk of light consumption during pregnancy appears very low, there is no threshold of alcohol use in pregnancy that has been definitively proven to be safe.

Alcohol and Young People

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- Alcohol can harm healthy physical and mental development of children and adolescents.
- Uptake of drinking by youth should be delayed at least until the late teens and be consistent with local legal drinking age laws.
- Once a decision to start drinking is made, it should occur in a safe environment, under parental guidance and at low levels: 1-2 drinks once or twice per week.
- From legal drinking age to 24, it is recommended that women never exceed 2 drinks per day and men 3.

Challenges

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- National Low Risk Drinking Guidelines, no matter how well endorsed, accomplish absolutely nothing without a persistent, consistent campaign of knowledge translation.
- ***Culture eats strategy. If we want a “Culture of Moderation” our KT must be comprehensive and address the culture of use: policy, environment and personal.***

FASD Prevention

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- Primary prevention requires broad, societal support to avoid binge drinking.
- Alcohol use screening needs to occur pre-pregnancy.
- Intervention must be integrated into Primary Care.
- More intensive intervention and support is required for women at high risk or with demonstrated alcohol dependency.
- Delaying intervention until pregnancy is too little, too late.

Knowledge Translation Issues

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- “Standard Drink” beverage labeling.
- Youth demographic: post-secondary , secondary school and parents.
- General population and developing a “Culture of Moderation”.
- Alcohol Screening, Brief Intervention & Referral in Primary Care (www.sbir-diba.ca)
- Older Adults and those with chronic disease.

Questions?

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THANK YOU!