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Canada's Low-Risk Drinking Guidelines: Lessons Learned for the Gambling Guidelines

Gambling Harm Conference 2018

Dr. Catherine Paradis, CCSA

August 14, 2018



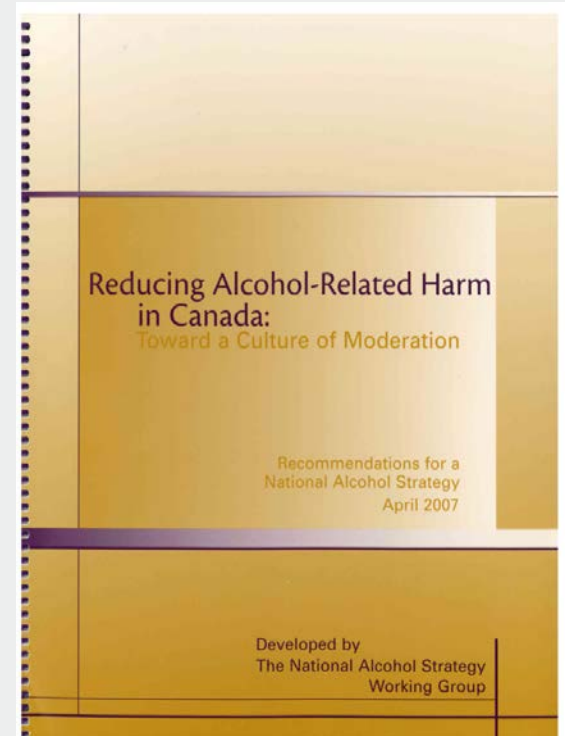
About CCSA

- **Vision: A healthier Canadian society where evidence transforms approaches to substance use**
- **Mission: To address issues of substance use in Canada by providing national leadership and harnessing the power of evidence to generate coordinated action**
- **National non-profit organization**
- **Pan-Canadian and international role**



National Alcohol Strategy

- Developed through consensus by the National Alcohol Strategy (NAS) Working Group, including 25 representatives from federal, provincial and territorial governments, non-governmental organizations, researchers and alcohol industry
- The 41 NAS recommendations collectively impact policies and behaviour to address alcohol harms





Why LRDGs?

These national guidelines were developed:

- To provide consistent advice to all Canadians to reduce long- and short-term health risks
- To increase awareness of safer drinking levels and to educate about standard drink sizes
- To reflect the latest scientific literature that identifies both significant risks and some possible benefits from low levels of alcohol consumption

History of LRDGs in Canada

Source	Limits for Men	Limits for Women
aLPHa, CAMH, OPHA (1997)	2 per day 14 per week	2 per day 9 per week
CARBC (2007)	4 on single day 20 per week	3 on single day 10 per week
CFPC (1994)	4 per day 12 per week	3 per day 12 per week
Educ'alcool (2007)	5 on single occasion 14 per week	4 on single occasion 9 per week



Evidence-informed Guidance: Expert Advisors

Expert Advisory Panel

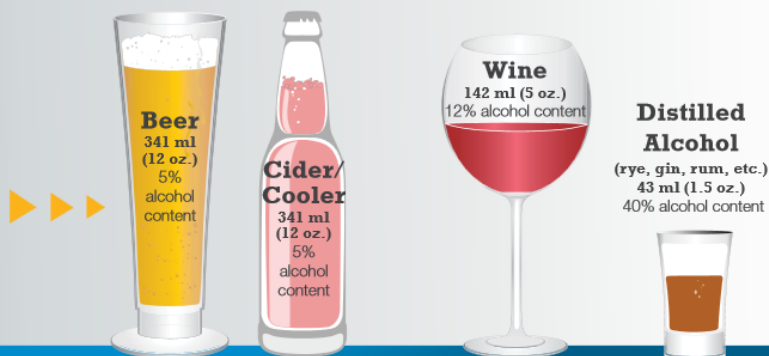
- **Chaired by Dr. Peter Butt, College of Family Physicians of Canada**
- **Researchers from**
 - **CCSA,**
 - **Centre on Addiction and Mental Health (CAMH),**
 - **Centre for Addictions Research of BC (CARBC),**
 - **College of Family Physicians of Canada (CFPC)**
 - **Educ'alcool**

Peer Review: International experts and NASAC members



LRDGs

For these
guidelines,
“a drink”
means:



Your limits

Reduce your long-term health risks by drinking no more than:



- 10 drinks a week for women, with no more than 2 drinks a day most days
- 15 drinks a week for men, with no more than 3 drinks a day most days

Plan non-drinking days every week to avoid developing a habit.

Special occasions

Reduce your risk of injury and harm by drinking no more than 3 drinks (for women) or 4 drinks (for men) on any single occasion.

Plan to drink in a safe environment. Stay within the weekly limits outlined above in **Your limits**.

When zero's the limit

Do not drink when you are:

- driving a vehicle or using machinery and tools
- taking medicine or other drugs that interact with alcohol
- doing any kind of dangerous physical activity
- living with mental or physical health problems
- living with alcohol dependence
- pregnant or planning to be pregnant
- responsible for the safety of others
- making important decisions

Pregnant? Zero is safest

If you are pregnant or planning to become pregnant, or about to breastfeed, the safest choice is to drink no alcohol at all.



Delay your drinking

Alcohol can harm the way the body and brain develop. Teens should speak with their parents about drinking. If they choose to drink, they should do so under parental guidance; never more than 1–2 drinks at a time, and never more than 1–2 times per week. They should plan ahead, follow local alcohol laws and consider the **Safer drinking tips** listed in this brochure.

Youth in their late teens to age 24 years should never exceed the daily and weekly limits outlined in **Your limits**.

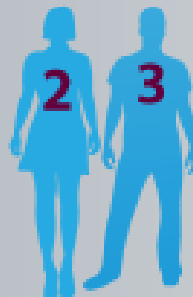


LRDGs – Long-term health

1

Your limits

Reduce your long-term health risks by drinking no more than:



- 10 drinks a week for women, with no more than 2 drinks a day most days
- 15 drinks a week for men, with no more than 3 drinks a day most days

Plan non-drinking days every week to avoid developing a habit.

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Special occasions



LRDGs – Injury and harm

2

Special occasions

Reduce your risk of injury and harm by drinking no more than 3 drinks (for women) or 4 drinks (for men) on any single occasion.

Plan to drink in a safe environment. Stay within the weekly limits outlined above in ***Your limits***.



LRDGs – Specific contexts

3

When zero's the limit

Do not drink when you are:

- driving a vehicle or using machinery and tools
- taking medicine or other drugs that interact with alcohol
- doing any kind of dangerous physical activity
- living with mental or physical health problems
- living with alcohol dependence
- pregnant or planning to be pregnant
- responsible for the safety of others
- making important decisions



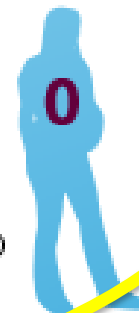
LRDGs – Pregnancy

4



Pregnant? Zero is safest

If you are pregnant or planning to become pregnant, or about to breastfeed, the safest choice is to drink no alcohol at all.



Delay your drinking



LRDGs – Youth

5

DRINK NO alcohol at all.

Delay your drinking

Alcohol can harm the way the body and brain develop. Teens should speak with their parents about drinking. If they choose to drink, they should do so under parental guidance; never more than 1–2 drinks at a time, and never more than 1–2 times per week. They should plan ahead, follow local alcohol laws and consider the **Safer drinking tips** listed in this brochure.

Youth in their late teens to age 24 years should never exceed the daily and weekly limits outlined in **Your limits**.



LRDGs – Drinking Tips

- **Set limits for yourself and stick to them**
- **Drink slowly, no more than 2 drinks in any 3 hours**
- **For every drink of alcohol, have one non-alcoholic drink**
- **Eat before and while you are drinking**
- **Always consider your age, body weight and health problems that might suggest lower limits**
- **While drinking may provide health benefits for certain groups of people, do not start to drink or increase your drinking for health benefits**



Why Do Limits Differ for Men and Women?

- On average, women weigh less and so reach higher blood alcohol levels compared to men.
- Women have more adipose tissue (fat), causing alcohol to be absorbed more slowly and the effects of alcohol to take longer to wear off.
- Women have less water in their bodies to dilute alcohol
- Women have lower levels of the enzymes that break down alcohol.



Why Do Limits Differ for Adults and Youth?

- Last to mature is the frontal lobe, which is involved in planning, strategizing, organisation, concentration and attention
- The adolescent brain has more neurons than the adult brain. This gives it enormous plasticity and young people sometimes have better memory functions and cognitive skills than adults.



Evidence-informed Guidance: Long-term health

- **Long-term health**
 - **All-cause mortality studies used to find balance point between risks and benefits**
 - **Relative risk preferred to absolute risk**



Risk of Premature Death (females)

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% Over +200%				
		1 Drink	2 Drinks	3–4 Drinks	5–6 Drinks	+ 6 Drinks
Breast cancer	1 in 45	+13	+27	+52	+93	+193
Hemorrhagic stroke (morbidity)	-	-29	0	0	+78	+249
Hemorrhagic stroke (mortality)	1 in 20	+22	+49	+101	+199	+502
Ischemic stroke (morbidity)	-	-18	-13	0	+31	+121
Ischemic stroke (mortality)	1 in 65	-34	-25	0	+86	+497
Diabetes mellitus	1 in 30	-36	-40	0	+739	+1560
Hypertension	1 in 85	0	+48	+161	+417	+1414
Liver cirrhosis (morbidity)*	-	+21	+70	+125	+182	+260
Liver cirrhosis (mortality)	1 in 160	+139	+242	+408	+666	+1251



Risk of Premature Death (males)

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% Over +200%				
		1 Drink	2 Drinks	3–4 Drinks	5–6 Drinks	+ 6 Drinks
Hemorrhagic stroke (morbidity)	-	+11	+23	+44	+78	+156
Hemorrhagic stroke (mortality)	1 in 30	+10	+21	+39	+68	+133
Ischemic stroke (morbidity)	-	-13	0	0	+25	+63
Ischemic stroke (mortality)	1 in 80	-13	0	+8	+29	+70
Diabetes mellitus	1 in 30	-12	0	0	0	+72
Hypertension	1 in 150	+13	+28	+54	+97	+203
Liver cirrhosis (morbidity)*	-	0*	0*	+33	+109	+242
Liver cirrhosis (mortality)	1 in 90	+26	+59	+124	+254	+691



Evidence-informed Guidance: Short-term health

- **Short-term health**
 - **Systematic reviews and meta-analyses on impact of alcohol on disease and injury (17 found) & Emergency department research**



Resources to Promote LRDGs

For these
guidelines,
“a drink”
means:

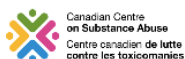


**Distilled
Alcohol**
(rye, gin, rum, etc.)
43 ml (1.5 oz.)
40% alcohol content



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Resources to Promote LRDGs



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Winter 2014

LRDG Summary

Women and Alcohol

The Low-Risk Alcohol Drinking Guidelines (LRDGs) are based on research and were created to provide Canadian women and men with recommendations for alcohol consumption that could limit their health and safety risks. People might believe that alcohol affects men and women in the same way. However, women often drink differently than men and for different reasons. Women need to know the research that tells us the female body is more sensitive to alcohol.

Why Are the Guidelines Different for Women and Men?

Women are generally more vulnerable to the effects of alcohol because:

- On average, women weigh less and people who weigh less reach higher blood alcohol levels compared to people who weigh more.
- Women have more adipose tissue (fat), causing alcohol to be absorbed more slowly and the effects of alcohol to take longer to wear off.
- Women have less water in their bodies to dilute alcohol. If a woman and a man of the same weight drink an equal amount of alcohol, a woman's blood alcohol concentration will be higher.
- Women have lower levels of the enzymes that break down alcohol. This lower level of enzymes means that alcohol remains in a woman's system longer.

74% of Canadian women aged 15 and older reported drinking in 2012:

- 16% of these women exceeded the long-term health risk guidelines
- 10% of these women exceeded the acute risk guidelines

Low-Risk Drinking Guidelines for Men and Women

To reduce long-term health risks, the LRDGs recommend:

- Women consume no more than 10 drinks a week and no more than two drinks a day most days; and
- Men consume no more than 15 drinks a week and no more than three drinks a day most days.

To reduce the risk of injury and harm, the LRDGs also recommend that:

- Women consume no more than three drinks on any single occasion and stay within weekly limits; and
- Men consume no more than four drinks on any single occasion and stay within weekly limits.

Remember, these numbers are upper limits for low-risk drinking, not goals.



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LRDG Summary

Youth and Alcohol

The Low-Risk Alcohol Drinking Guidelines (LRDGs) are based on research and were created to provide Canadians with recommendations for alcohol consumption that could limit their health and safety risks. Some might suggest that since people younger than 19 (or 18 in Alberta, Manitoba and Quebec) cannot legally buy alcohol, the only guideline for them should be, "Don't drink."

The reality is that many youth do drink alcohol. There is evidence that drinking alcohol can harm physical and mental development, particularly in adolescence and early adulthood, although certain patterns of use are riskier than others. For this reason, the LRDGs recommend that youth delay drinking alcohol for as long as possible, at least until the legal drinking age. If youth do decide to drink, they should follow the more specific drinking guidelines provided below.

What Are the Low-Risk Alcohol Drinking Guidelines for Youth?

Canada's LRDGs recommend that youth up to the legal drinking age:

- Speak to their parents about drinking;
- Never have more than one to two drinks per occasion; and
- Never drink more than one or two times per week.

Canada's LRDGs recommend that from the legal drinking age to 24 years:

- Females never have more than two drinks a day and never more than 10 drinks a week
 - Males never have more than three drinks a day and never more than 15 drinks a week
- The maximums for youth above the legal drinking age differ from the general LRDGs as these limits apply even on special occasions.

The Reason for Drinking Guidelines for Youth

Just like the body, the human brain is still developing throughout adolescence and early adulthood, until about 24 years of age. The frontal lobe is the last part of the brain to mature and is involved in planning, strategizing, organizing, impulse control, concentration and attention. Drinking alcohol while these



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LRDG Summary

Cancer and Alcohol

The Low-Risk Alcohol Drinking Guidelines (LRDGs) are based on research and were created to provide Canadians with recommendations for alcohol consumption that could limit their health and safety risks. Multiple risks were taken into account when developing these guidelines. However, individuals who want to reduce specifically their risk of developing cancer can follow more specific guidelines.

Does Drinking Alcohol Cause Cancer?

Alcohol consumption is an important known cause of cancer. Drinking as little as one drink a day on average can increase the risk for developing cancer of the breast, colon and rectum, esophagus, larynx, liver, mouth and pharynx.

Drinking Guidelines to Reduce the Risk of Developing Cancer

To reduce long-term health risks for multiple chronic illnesses, the LRDGs recommend:

- Women consume no more than 10 drinks a week and no more than two drinks a day most days; and
- Men consume no more than 15 drinks a week and no more than three drinks a day most days.

The LRDGs were determined by balancing the findings that individuals aged 45 and older can experience some health benefits for certain conditions from low levels of alcohol consumption (e.g., lower risk of ischemic heart disease, stroke and diabetes), while also increasing the risk of other health conditions (e.g., certain forms of cancer and liver cirrhosis).

However, if an individual wants to specifically reduce his or her risk of developing cancer, the daily and weekly recommendations should be lower. If one chooses to drink alcohol, the Canadian Cancer Society recommends that to reduce the risk of developing cancer, keep it to less than:

- One drink a day for women and
- Two drinks a day for men.



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Page 1



Resources to Promote LRDGs

Canada's Low-Risk Alcohol Drinking Guidelines

Frequently Asked Questions

These frequently asked questions (FAQs) were developed to assist organizations in promoting and explaining *Canada's Low-Risk Alcohol Drinking Guidelines* to clients, colleagues and networks. Although helpful to Canadians, these FAQs are not specifically targeted at the general public.

When promoting the guidelines, it is important to remember that

- these are low-risk, not no-risk guidelines
- the guidelines set limits, not targets
- the guidelines are for adults aged 25–65 who choose to drink

As we receive additional questions, we will add them and the corresponding responses to this document. If you have questions that you would like to see addressed, please contact us at alcohol@ccsa.ca.

What are Canada's Low-Risk Alcohol Drinking Guidelines?

This is Canada's first set of national low-risk alcohol drinking guidelines. The guidelines—intended for adults aged 25–65 years who choose to drink—provide information on how to reduce the risk of alcohol-related harms in both the short and long term.

Why do we need a national set of alcohol drinking guidelines?

Over the past 20 years there have been four sets of drinking guidelines in Canada—from the Centre for Addiction and Mental Health, the Centre for Addictions Research of British Columbia, Educ'Alcohol and the College of Family Physicians of Canada—resulting in Canadians receiving mixed information and guidance. A standardized set of guidelines is important to provide consistent, current information across Canada to help people make informed choices and moderate their drinking.



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Guidelines for Healthcare Providers to Promote Low-Risk Drinking Among Patients

This version of *Canada's Low-Risk Alcohol Drinking Guidelines* is for healthcare providers, and is intended to reduce alcohol-related harms through screening, brief intervention and/or referral to specialized services.

These guidelines apply to adults aged 25–65 years.

Note: Canada's Low-Risk Alcohol Drinking 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 start drinking to achieve health benefits. People of low body weight or who are not accustomed to alcohol are advised to consume below the maximum limits.

For these
guidelines,
“a drink”
means:



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Canada's Low-Risk Alcohol Drinking Guidelines Communicating Alcohol-Related Health Risks

This resource was developed to assist healthcare providers in discussing with their clients the risks of several serious illnesses associated with various levels of alcohol consumption.

Tables 1, 2 and 3 below—taken from the technical, scientific report¹ that provided the basis for Canada's Low-Risk Alcohol Drinking Guidelines—show changes in the risk for a selected number of serious alcohol-related illnesses based on how many drinks a person consumes on average per day. These estimates were based on an analysis of a comprehensive database of scientific studies commissioned as an internal document by the Centre for Addiction and Mental Health.²

Table 1 summarizes the risks for 12 serious illnesses, including seven types of cancer, which apply equally for both men and women under 70 years of age. Of note from this table:

- Drinking just one drink per day increases, by up to 42%, a person's risk of getting any one of the nine listed conditions identified in yellow. For these nine conditions, a person's risk rises as the number of drinks consumed per day increases.
- Tuberculosis was the only condition for which there was no significant change in risk until a particular “threshold” drinking level (namely, at three or more drinks per day).
- A person is 14–19% less likely to get ischemic heart disease when drinking up to 3–4 drinks per day, with zero risk at 5–6 drinks per day and increased risk with greater consumption.

Table 1. Percentage changes in risks for males and females of premature death from 12 alcohol-related illnesses according to typical daily alcohol intake

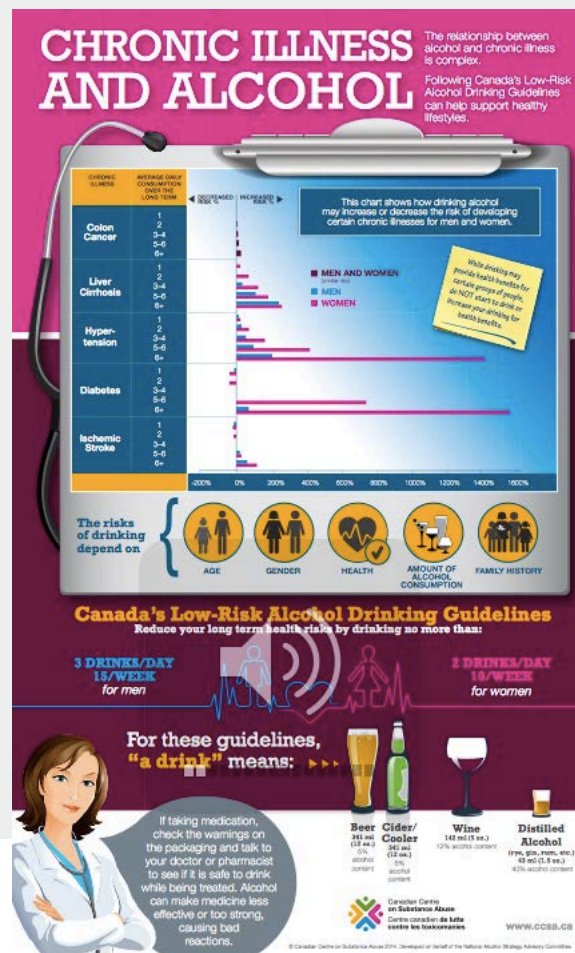
Type of Illness or Disease	Proportion of All Deaths, 2002–2006	Percentage Increase/Decrease in Risk				
		0% Increased Risk	1% to 20%	20% to 50%	50% to 100%	Over 100%
		1 Drink	2 Drinks	3–4 Drinks	5–6 Drinks	+ 6 Drinks
Tuberculosis	1 in 2,500	0	0	+28%	+36%	+38%
Oral cavity & pharynx cancer	1 in 200	+42%	+86%	+157%	+368%	+887%
Oral oesophagus cancer	1 in 190	+20%	+42%	+87%	+194%	+367%
Colon cancer	1 in 40	+5%	+5%	+9%	+15%	+26%
Rectum cancer	1 in 200	+5%	+10%	+18%	+30%	+53%
Liver cancer	1 in 700	+10%	+21%	+38%	+102%	+191%
Larynx cancer	1 in 1,000	+21%	+47%	+86%	+186%	+320%
Ischemic heart disease	1 in 13	-18%	-18%	-14%	0	+31%
Epilepsy	1 in 1,000	+19%	+41%	+81%	+157%	+363%
Dysrhythmias	1 in 250	+8%	+17%	+32%	+54%	+81%
Pancreatitis	1 in 750	+3%	+12%	+24%	+41%	+66%
Low birth weight	1 in 1,000	0	+29%	+84%	+207%	+486%



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Resources to Promote LRDGs





The SBIR Website

The screenshot shows the SBIR Website homepage. At the top, there is a navigation bar with links: Home, About Us, Contact Us, Sitemap, and français. Below this is a search bar. The main heading is "Alcohol Screening, Brief Intervention & Referral" with the subtitle "Helping patients reduce alcohol-related risks". A green navigation bar contains links: About This Resource, Screening and Assessment, Brief Intervention and Referral, Follow-up and Support, and Resources. The main content area features a section for "Screening, Brief Intervention and Referral: A Clinical Guide" with a "Download PDF" link. Below this, there are three numbered sections: 1. Screening and Assessment, 2. Brief Intervention and Referral, and 3. Follow-up and Support. Each section provides a brief description and a list of key actions. On the left side, there is a section for "Canada's Low-Risk Alcohol Drinking Guidelines" with a "Download PDF" link. The footer contains copyright information and links to Terms of Use, Privacy Policy, and Disclaimer.

Home About Us Contact Us Sitemap français

Alcohol Screening, Brief Intervention & Referral

Helping patients reduce alcohol-related risks

About This Resource Screening and Assessment Brief Intervention and Referral Follow-up and Support Resources

THE COLLEGE OF FAMILY PHYSICIANS OF CANADA LE COLLÈGE DES MÉDECINS DE FAMILLE DU CANADA

Canadian Centre on Substance Abuse

Screening, Brief Intervention and Referral

A Clinical Guide

Download PDF

- #### 1 Screening and Assessment

Identify patients who drink alcohol beyond low-risk consumption levels and further assess their at-risk status based on reported alcohol use and other relevant clinical information

 - [Screen for at risk drinking](#)
 - [Determine level of risk](#)
- #### 2 Brief Intervention and Referral

Communicate patient's risk status, help patient identify goals and readiness to change, make referrals as appropriate

 - [Conduct brief intervention](#)
 - [Assess readiness to change](#)
 - [Refer to appropriate resources](#)
- #### 3 Follow-up and Support

Follow up with patients, monitor withdrawal symptoms, and review goals and progress

 - [Assess progress towards goals](#)
 - [Monitor and manage withdrawal](#)

Canada's Low-Risk Alcohol Drinking Guidelines

for more information...

The first-ever pan-Canadian set of drinking guidelines.

Download PDF

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If Everyone Followed the LRDGs ...

If everyone in Canada followed the LRDGs and light drinkers did not increase consumption, then it is estimated that:

- Alcohol consumption would **decrease** by approximately 50%
- Alcohol-related deaths would **decrease** by approximately 4,600 per year



Evaluation of the LRDGs

Canadian Tobacco Alcohol and Drugs Survey (CTDAS) 2012

- **About a fifth of Canadians report knowing about the LRDGs.**
- **Females are more likely than males to report knowing about the LRDGs.**
- **Canadians aged under 35 are less likely to report knowing about the LRDGs.**



Evaluation of the LRDGs

The case of Educ'alcool

- Invested a total of \$7.5 million over the past five years to disseminate and promote the LRDGs.
- In 2016, the organisation, reached all its awareness objectives (over 8 out 10 Quebecers know the LRDGs)



Lessons Learned for developing Gambling Guidelines

- **Seek endorsement**
- **Knowledge transfer resources should always be in the back of your mind.**
- **Epidemiology is a science, not the “Truth”**
 - **Substantial underestimation of drinking/gambling intensity.**
 - **One measure is unlikely to provide a proxy measure of lifetime drinking/gambling**



Lessons Learned for developing Gambling Guidelines

- 1. Need to incorporate evidence beyond epidemiological risk estimates**
- 2. Expert judgment has a necessary, legitimate and important role in developing guidelines.**
- 3. Need to consider how particular definitions of low risk relate to ethical standpoints of risk, individual freedom and the particular role of the state and the health authorities.**



Contact Information

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