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Community Opinions on Alcohol in Wellington, Dufferin, and Guelph

Results from the 2014 Wellington, Dufferin, Guelph
Alcohol Survey



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Executive Summary

Alcohol is a leading risk factor for death, disease and disability in high income nations such as Canada.^{1,2} A recent report on alcohol in Wellington County, Dufferin County, and the City of Guelph (WDG) highlighted that 81% of WDG residents reported consuming alcohol in the last 12 months, and about half reported exceeding the low-risk alcohol drinking guidelines.³ If unhealthy alcohol consumption was eliminated in Ontario, 12.8% of all deaths would be prevented.⁴ Consequently, Public Health Units across Ontario are taking steps to reduce harmful alcohol use, rates of impaired driving, and damages associated with alcohol.

This report outlines a survey by Wellington-Dufferin-Guelph Public Health to explore residents' knowledge and opinions about alcohol related issues and policies in their communities. The telephone survey took place during fall 2014 and included both quantitative and qualitative components. Six hundred and five residents from the WDG area completed the survey.

Key findings from this survey include:

- Most participants (85%) were unaware of Canada's Low-Risk Alcohol Drinking Guidelines.
- Most participants demonstrated some knowledge about the health effects of alcohol.
- There was a low-level of knowledge among participants about alcohol's effect on breast cancer, stroke, and heart disease.
- Drinking during pregnancy was not socially accepted among most participants, and the large majority were aware of the harms of drinking during pregnancy and breastfeeding.
- The most commonly reported alcohol-related community issues reported by participants were drinking and driving; alcohol-related violence; and over-serving at bars, pubs and restaurants. Public drunkenness was also a top issue for Guelph respondents.
- The majority of respondents supported these policy options:
 - Banning the sale of energy drinks that are premixed with alcohol (71%)
 - Making bars pay for city clean-up costs associated with the late-night bar scene (69%)
 - Requiring alcohol to be sold with a warning label, like cigarettes (55%)
 - Increasing the minimum price of alcohol yearly to be consistent with inflation (58%)
 - Pricing alcoholic drinks based on alcohol content so that drinks with lower alcohol content are cheaper and drinks with higher alcohol content are more expensive (51%)
- Over half of residents also (56%) disagreed with the policy option of allowing alcohol to be sold in convenience stores.

In the comments section, respondents were most concerned about the level of awareness about the dangers of alcohol consumption. Several respondents raised concerns about the high rates of impaired driving and mentioned the need for stricter laws around this. Instituting additional alcohol-related policies and procedures in university towns was also listed as an important issue to be

addressed among Guelph residents in particular. Other concerns were underage drinking, adverse effects of drinking (family abuse, violence against women and sexual assault), property damage and disruption near residential neighborhoods.

Informed by this survey, Wellington-Dufferin-Guelph Public Health intends to support programs and healthy public policies that eliminate alcohol-related harm in its communities. There is much work to be done, and community partnerships will be important to increase awareness, change social norms, and create environments that support low-risk alcohol consumption.

Introduction

Alcohol consumption is increasingly recognized as a serious, worldwide public health concern. There is a growing body of literature that recognizes the importance of instituting public health strategies to reduce consumption levels. In recent years, there has been an increasing interest in identifying ways to monitor and regulate alcohol consumption, while still paying homage to consumer freedom and choice. Current Canadian statistics highlight the need to intervene at both the individual level and the population level. Data from the Canadian Community Health Survey (CCHS) indicates that in 2013, 72% of Ontario residents reported drinking alcohol in the past year.³ A statistically significantly higher proportion (81%) of WDG residents reported drinking alcohol in the same year.³

Research indicates that heavy drinking and excessive alcohol consumption can have serious health and social consequences.⁵ Many are aware of the damage alcohol causes to one's liver; however, research indicates that prolonged heavy drinking may also result in brain damage, cancer and heart disease.^{6,2}

Recently, the Canadian Centre on Substance Abuse released Canada's Low Risk Alcohol Drinking Guidelines, which educate Canadians of the risks of alcohol and a low-risk level of consumption (a summary of the guidelines can be found in **Appendix A**).⁷ In WDG in 2013, 49% of people reported drinking in excess of at least one of Canada's Low Risk Alcohol Drinking Guidelines compared to Ontario residents (41%).³

Wellington-Dufferin-Guelph Public Health is mandated under the Ontario Public Health Standards to:

- Increase the capacity of community organizations to address alcohol use,
- Work with municipalities on policies that address alcohol use,
- Educate the public about the importance of reduced alcohol use, and
- Monitor trends and surveillance data around alcohol in the community.⁸

This report details the results from a community survey on a variety of alcohol-related topics. The objectives of the survey were to:

1. Determine the public's level of knowledge about the Canada's Low Risk Alcohol Drinking Guidelines and certain alcohol-related health issues.
2. Describe the public's attitudes, perceptions, and beliefs about alcohol.
3. Describe the public's perceptions of how alcohol impacts their communities.
4. Determine the level of public support for certain alcohol-related policies.

Methods

In September of 2014, Wellington-Dufferin-Guelph Public Health contracted CCI Research to conduct a random digit dialing survey of Wellington, Dufferin, and City of Guelph residents 19 years of age and older. Wellington-Dufferin-Guelph Public Health worked with CCI Research to develop a survey tool, drawing on survey tools from other jurisdictions and experience from different local stakeholders to ensure that the survey questions were relevant. CCI Research further refined the survey tool to optimize it for telephone delivery and pilot tested the tool with residents to ensure it was properly understood. The survey questions are available in **Appendix B**.

CCI Research dialed cellular and residential telephone numbers in Wellington, Dufferin, and Guelph. CCI Research also used proportional sampling to fill age, gender, and geography quotas, ensuring that the sample was as representative of the age and gender structure of Wellington, Dufferin, and Guelph as possible. To do this, CCI Research monitored the number of complete surveys by region, age, and gender as they progressed through data collection and then adjusted the qualifying questions to ensure that the necessary categories were filled. In total, trained surveyors collected 605 survey responses: 205 from Guelph, 200 from Wellington, and 200 from Dufferin.

The quantitative data collected through the survey was analyzed using Microsoft Excel and PowerPivot. The qualitative data was gathered through an open-ended question at the end of the survey that allowed people to submit additional comments about alcohol in the community. NVivo10 software was used to help code the data according to analytical themes related to alcohol use.

Results

Demographics

In total, 605 residents from the WDG community completed the survey. More specifically, 200 (33%) respondents from Wellington County, 200 (33%) respondents from Dufferin County, and 205 (33%) respondents from the City of Guelph participated. Respondents ranged in age from 19 years to 91 years, with the majority of participants being between the ages of 40 and 91 (69%). There was a fairly even gender divide among the respondents, with 51% female and 49% male.

Table 1 displays the drinking behaviours of survey respondents. Overall, 38% of respondents reported drinking alcoholic beverages at least once a week. The most commonly reported reason drinkers gave for choosing to drink was to be social (47%). Forty nine percent of drinkers participated in binge drinking (consuming five or more drinks on one occasion) in the past 12 months, which exceeds Canada’s Low Risk Alcohol Drinking Guidelines.⁷ Eleven percent of drinkers participated in binge drinking once a week or more. Among respondents that reported at least one episode of binge drinking in the past year, 71% reported that a house or private residence was the most common location where they engaged in binge drinking.

Table 1: Past 12 month drinking behaviours of survey respondents

	Drinking (total sample, total n=605)	Binge drinking (only drinkers, total n=490)
Never	19% (115)	51% (248)
Less than once/month	20% (121)	24% (119)
Once/month	10% (61)	9% (42)
Once every couple of weeks	13% (80)	6% (28)
Once a week	12% (70)	5% (26)
2-3 Times/week	14% (85)	4% (18)
4-6 Times/week	7% (45)	1% (6)
Every day	5% (28)	1% (3)

* Consuming five or more drinks on one occasion

Quantitative Results

Overall Knowledge of the Health Effects of Alcohol Use

Survey respondents were asked whether they thought particular statements about the health effects of alcohol were true or false (see Figure 1). The questions assessed participants’ knowledge of the effects of alcohol on chronic diseases and pregnancy. Respondents were asked to assess 8 questions, 5 of which were associated with pregnancy while the remaining 3 were geared towards chronic diseases. **Figure 1** displays the percentage of survey participants that answered each knowledge question correctly.

Figure 1: Percentage of participants that answered each knowledge question correctly

Q1 – Drinking one to four alcoholic drinks per days decreases your risk of an early death from stroke and heart disease. (**True** or False)

Q2 – Drinking one or more alcoholic drinks per day increases your risk of an early death from oral, liver, and colorectal cancers. (**True** or False)

Q3 – Drinking one or more alcoholic drinks per day increases a woman’s risk of an early death from breast cancer. (**True** or False)

Q4 – If there’s any chance that a woman could become pregnant, she should not drink alcohol. (**True** or False)

Q5 – There is no known safe amount of alcohol to drink during pregnancy. (**True** or False)

Q6 – There is no known safe time during a pregnancy to drink alcohol. (**True** or False)

Q7 – Drinking alcohol during pregnancy can result in complications in a baby before and after birth. (**True** or False)

Q8 – Drinking alcohol during pregnancy can lead to lifelong disabilities in a child. (**True** or False)

Note: the correct answer for each question has been **bolded**

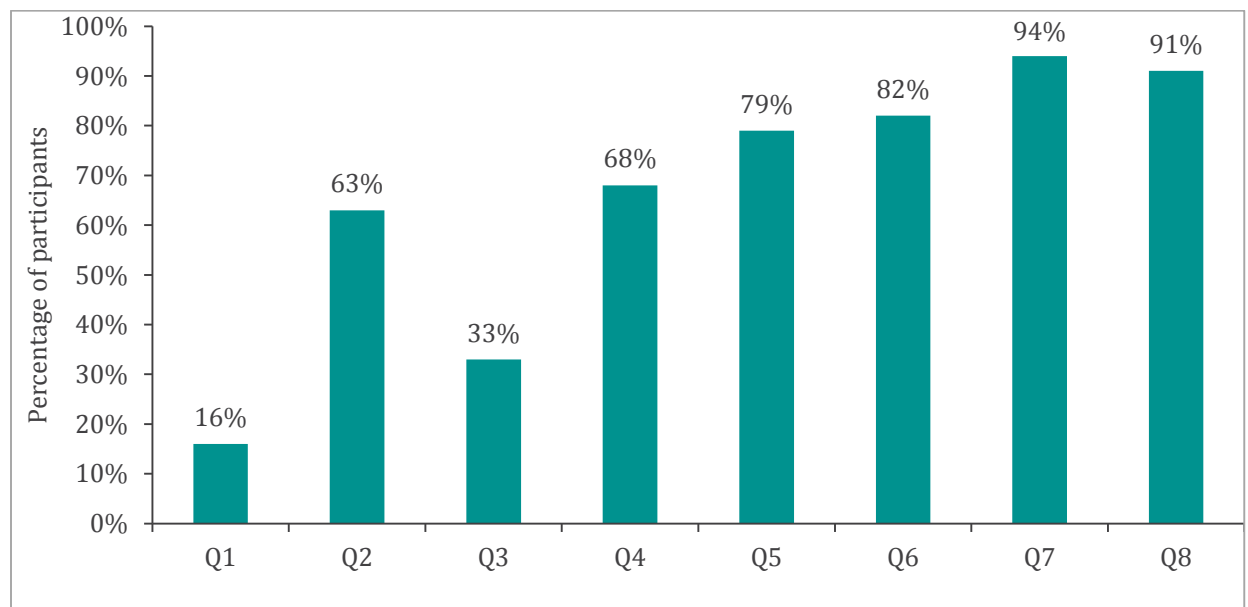


Figure 2 displays the number of questions participants answered correctly. It shows that only 3% of participants answered all 8 knowledge questions correctly, 27% of participants answered 6 questions correctly, and 25% of participants answered 5 questions correctly. Over a quarter of participants (27%) answered 4 or less questions correctly.

When analyzed by gender, a higher proportion of females (55%) answered 6 or more questions correctly compared to males (43%). When analyzed by age, a higher proportion of people aged 19-29 (57%) and 30-39 (59%) answered 6 or more questions correctly compared to people aged 40-49 (53%), 50-59 (45%), and 60+ (41%). As such, knowledge seems to decrease as age brackets increase. There was no real difference across geographies for answering 6 or more questions correctly.

Figure 2: Percentage of respondents who correctly answered a certain number of knowledge questions



Alcohol & Chronic Disease

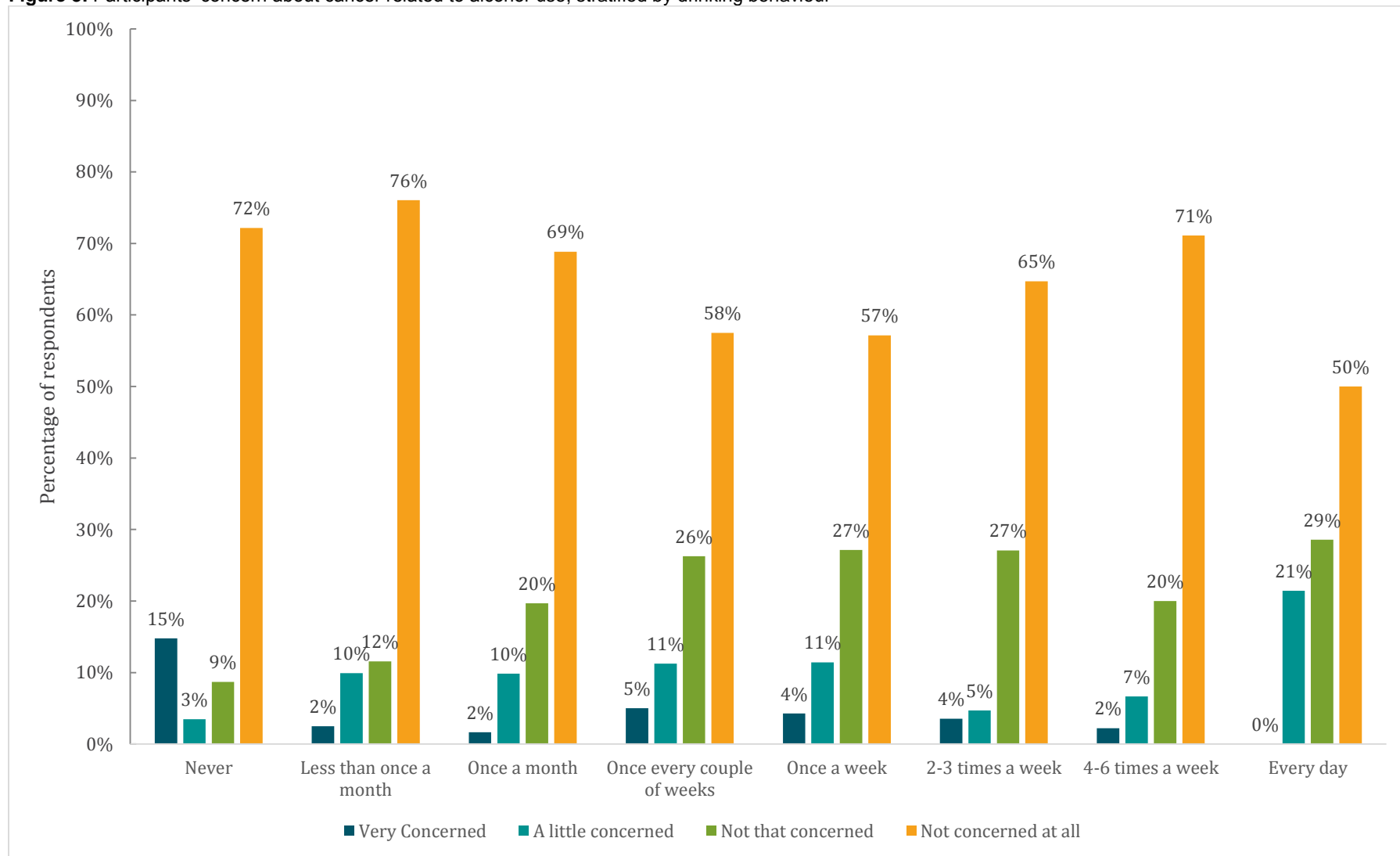
This section explores responses to survey questions that are related to alcohol and chronic disease.

Knowledge

Knowledge questions 1-3 specifically related to chronic disease topics including stroke and heart disease, oral, liver, colorectal, and breast cancer. Only 5% of survey respondents answered all three chronic disease knowledge questions correctly. Overall, respondents seemed to be more knowledgeable on the effects of alcohol on one's risk of an early death from oral, liver and colorectal cancer (63%) than on the effects on a woman's chance of early death from breast cancer (33%) or one's decreased risk of an early death from stroke and heart disease (16%). Over a quarter of people (27%) answered none of the chronic disease questions correctly, 40% answered 1 question correctly, and 29% answered 2 questions correctly.

The results show that there was no difference between males and females for the number of chronic disease questions answered correctly. When analyzed by age, the 19-29 (7%) and 40 to 49 (6%) year old age groups had the highest proportion of individuals that answered all three questions correctly. The 50 to 59 year old age group had the lowest proportion of participants who answered all three questions correctly (2%) and the highest proportion of participants who did not answer any questions correctly (32%). When analyzed by geography, Wellington County (7%) had the highest proportion of participants that answered all three chronic disease questions correctly compared to Dufferin County (3%) and Guelph (5%). Guelph (30%) and Dufferin (29%) also had higher proportions of people who answered zero questions correctly compared to Wellington.

Figure 3: Participants' concern about cancer related to alcohol-use, stratified by drinking behaviour



Perceived Cancer Risk

Participants were also asked about their level of concern regarding alcohol-related cancer risk. The majority of respondents (86%) indicated that they were not concerned about being at risk for cancer based on their drinking behaviour. Only 9% of participants reported being “a little concerned” and 5% of participants reported being very concerned. **Figure 3** on the previous page displays participants’ level of concern about cancer risk stratified by drinking behavior.

Figure 3 highlights that despite frequency of alcohol consumption, participants were generally not concerned about their risk of cancer. Of those who reported drinking every day, not one person identified as being very concerned about their risk of cancer due to drinking. On the other hand, 15% of people who never drink were very concerned about their risk of cancer from drinking. Furthermore, among people who participated in binge drinking in the past year, only 3% reported being very concerned about their risk of cancer due to drinking and 11% reported being a little concerned.

Alcohol & Pregnancy

This section explores the responses to survey questions that are related to alcohol and pregnancy.

Knowledge

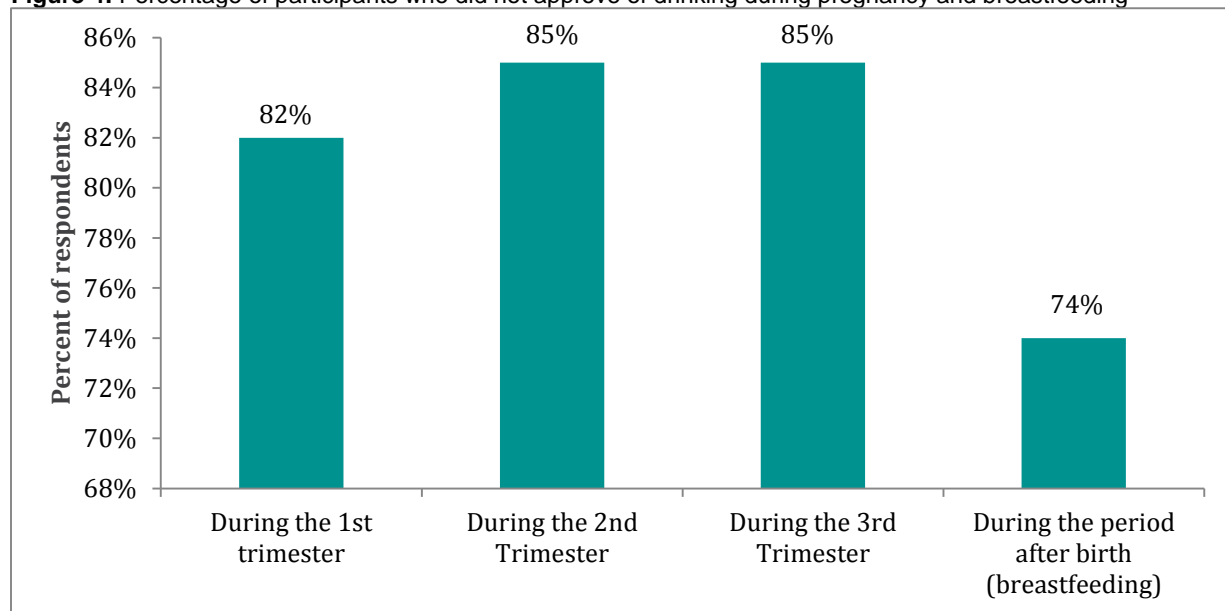
Knowledge questions 4-8 (**Figure 1**) specifically relate to alcohol drinking and pregnancy. Overall, participants displayed a high level of knowledge of alcohol-related pregnancy issues. Fifty-one percent of respondents answered all 5 pregnancy questions correctly. A higher percentage of females (58%) answered all of the pregnancy questions correctly compared to males (43%). When analyzed by age, all of the age groups had a similar proportion of people who answered all 5 questions correctly (51-56%), except for the 60+ age group which had only 45% of respondents answer all 5 questions correctly and also had the highest proportion of respondents who answered none of the questions correctly (3%).

Respondents seemed to be most aware of the alcohol-related complications before and after childbirth and the lifelong disabilities associated with drinking during pregnancy. Ninety-four and 91% of the respondents answered those questions correctly, in comparison to 68% of the respondents being aware of the overall risks associated with drinking during pregnancy. Overall, the majority of respondents seemed to be quite knowledgeable on the risks and negative health effects of alcohol consumption during pregnancy.

Opinions about Alcohol Use during Pregnancy and Breastfeeding

Participants were asked about their opinions on the appropriateness of drinking alcohol during pregnancy and while breastfeeding. **Figure 4** below highlights participants’ level of disapproval of drinking during the 1st, 2nd and 3rd trimester as well as during the period after birth.

Figure 4: Percentage of participants who did not approve of drinking during pregnancy and breastfeeding



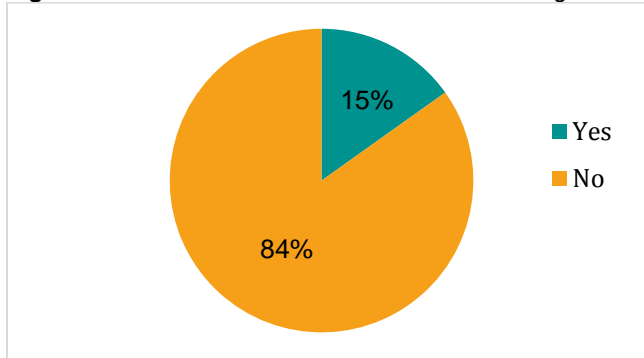
The majority of survey respondents had negative opinions about the consumption of alcohol during the pregnancy and breastfeeding period.

Knowledge of Canada’s Low Risk Alcohol Drinking Guidelines

Participants were asked about their knowledge of Canada’s Low-Risk Alcohol Drinking Guidelines, which were created and released in 2011 to give people who drink information on how to drink in a low-risk way. For more information about the guidelines, including the daily and weekly drinking limits for both genders, see **Appendix A**.

Participants were asked whether they had ever seen or heard about Canada’s Low-Risk Alcohol Drinking Guidelines; and if they had heard of them, whether or not they made any changes to the amount of alcohol they consumed after hearing about them. **Figure 5** below shows that the majority of participants (85%) never heard of the guidelines. Of the 15% of participants that were aware of the guidelines, most (93%) made no change to their drinking behaviour after hearing about the guidelines. Of the 93% that reported making no change to their drinking behaviour after hearing about the guidelines, 44% reported binge drinking at least once in the last year. Among the 49% of total participants who participated in binge drinking in the past 12 months, only 18% were aware of Canada’s Low-Risk Alcohol Drinking Guidelines.

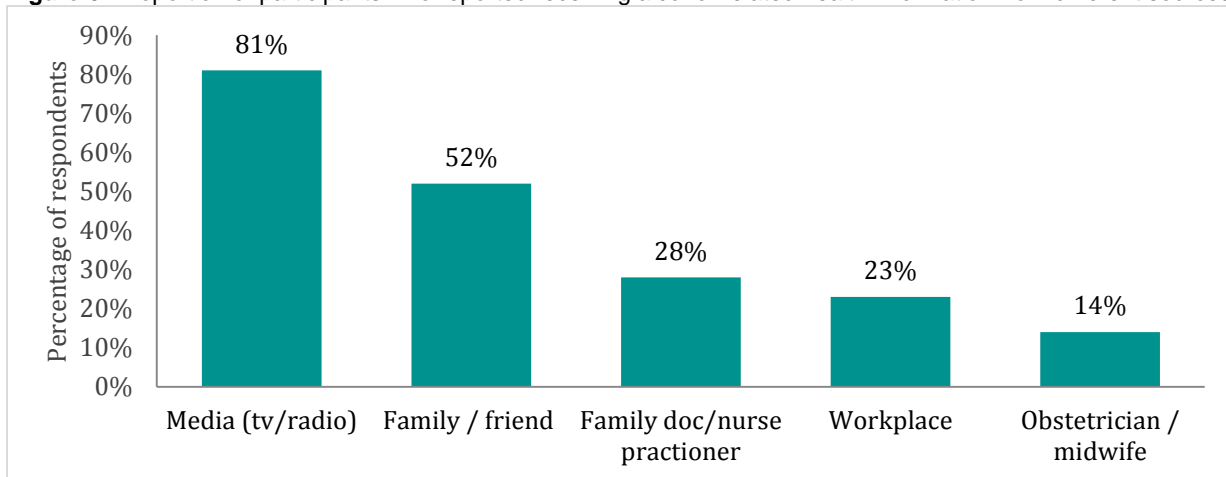
Figure 5: Awareness of Canada's Low Risk Drinking Guidelines among survey respondents



Sources of Information on Alcohol-Related Health Risks

Respondents were asked about where they had received information about the health risks associated with alcohol. **Figure 6** below indicates that the majority of respondents (81%) were informed about alcohol risks from the media (TV/radio). The second most popular source identified was family or friend, followed by one's family doctor or nurse practitioner.

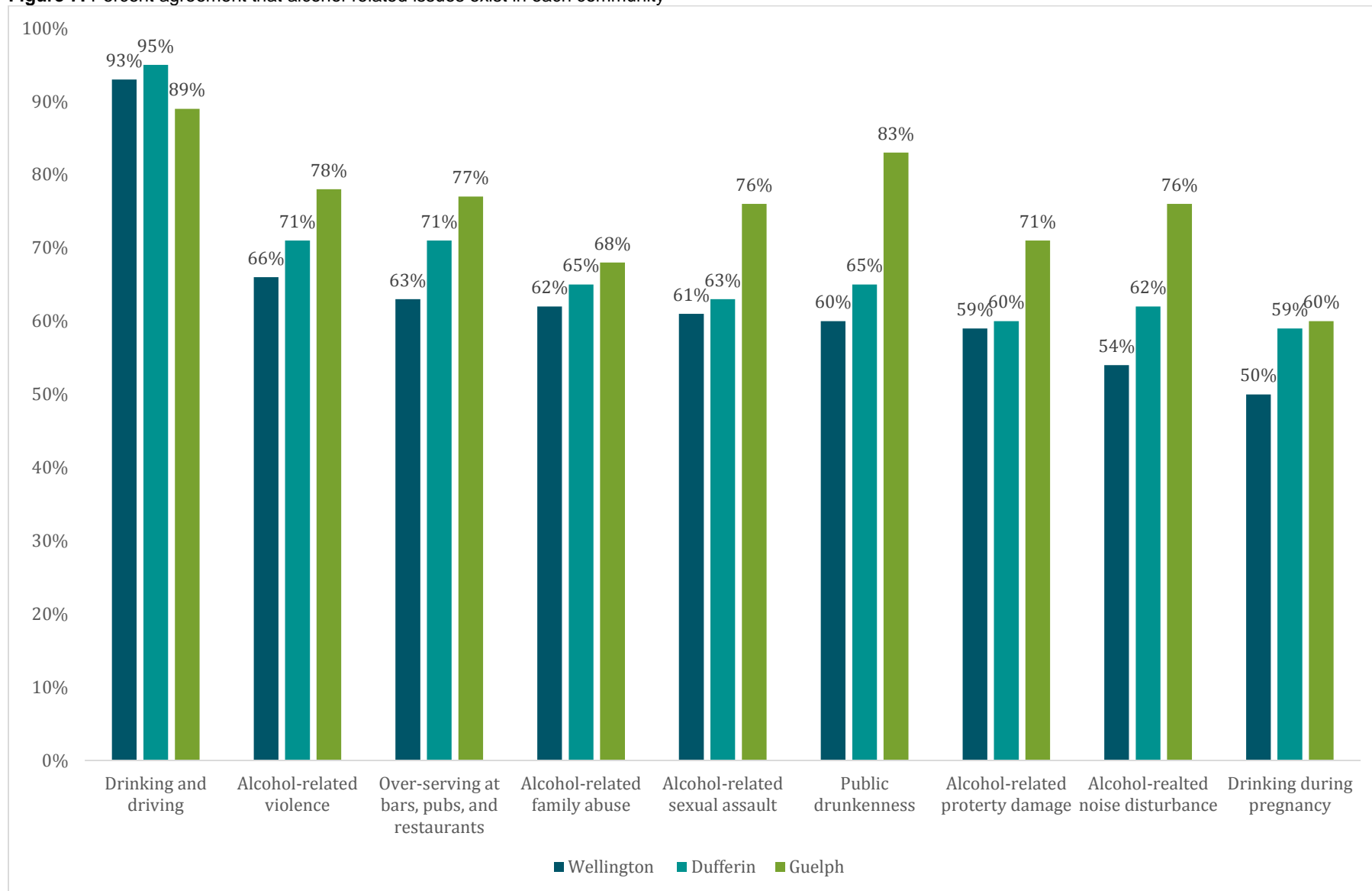
Figure 6: Proportion of participants who reported receiving alcohol-related health information from different sources



Perceptions of Alcohol-Related Issues in WDG

Participants were asked about their perceptions of whether particular alcohol-related concerns were an issue in their community. **Figure 7** below shows the proportion of participants in each geographical area that agreed that each issue was problematic. It highlights that drinking and driving is perceived as the number one alcohol-related issue in the WDG area.

Figure 7: Percent agreement that alcohol-related issues exist in each community



Alcohol-related violence and over-serving in bars, pubs and restaurants were also perceived by participants to be top issues in their communities. The table highlights that more residents from Guelph (78%), when compared to Wellington (66%) and Dufferin (63%), agreed that alcohol-related violence is an issue in their community. Similarly, more Guelph residents (77%) agreed that over-serving at bars, pubs and restaurants was an issue in their community compared to residents from Wellington (63%) and Dufferin (71%). In most cases, a higher proportion of Guelph residents perceived each alcohol-related issue as existent in their community compared to Wellington and Dufferin residents.

Support for Alcohol-Related Policies

Survey respondents were asked whether they agree, disagree or are undecided about nine potential alcohol-related policies. Responses are summarized in **Table 2**.

Table 2: Percent agreement with enforcing the following alcohol-related policies

Actual or Potential Policies	Percent Agreement
Municipal Policies	
Making bars pay for city clean-up costs associated with the late night bar scene	69%
Limiting the number of LCBOs, beer stores, and bars in a community	46%
Reducing the hours of alcohol service at bars and restaurants	36%
Provincial Policies	
Banning the sale of energy drinks that are premixed with alcohol	71%
Increasing the minimum price of alcohol yearly to be consistent with inflation	58%
Requiring alcohol to be sold with a warning label, like cigarettes	55%
Pricing alcohol based on alcohol content so that drinks with lower alcohol content are cheaper, and drinks with higher alcohol content are more expensive	51%
Increasing taxation on alcohol products to help pay for health care and prevention costs	50%
Allowing the sale of alcohol in convenience stores	41%

Table 2 highlights that banning the sale of energy drinks that are premixed with alcohol, making bars pay for city clean-up costs associated with the late night bar scene, and increasing the minimum price of alcohol yearly to be consistent with inflation are the policies with the highest level of support from respondents. Policies with the lowest support were reducing the hours of alcohol service at bars and restaurants; allowing the sale of alcohol in convenience stores, and limiting the number of LCBOs, beer stores and bars in a community. Interestingly, only 41% of survey respondents agreed with allowing the sale of alcohol in convenience stores. As such, over half of respondents (56%) disagreed with that policy option. Overall, support of alcohol policies was not influenced by levels of knowledge of alcohol-related harm.

Qualitative Results

At the end of the survey, participants were asked if they had any comments about alcohol in relation to their community. Of the 605 survey participants, 197 responded to this question.

The main themes identified in participants' responses were the need for more regulation over alcohol sales and the need for more alcohol-related health resources in the WDG communities. Respondents raised concerns about alcohol sales and use in bars, especially as it relates to over-serving and heavy alcohol use among university students. One respondent in particular said that the amount of alcohol consumed by university students is a cause for concern:

“The amount that the university students drink bothers me a lot. I see this in restaurants and I read it in local newspapers. They drink to excess.”

Similarly, another respondent commented:

“I think that the downtown university students are causing destruction by breaking windows; and urinating in public is a problem in my community. It costs the taxpayers more for extra police services and it can easily be solved by charging a per stool tax on the bars, the bars that sell the alcohol.”

While voicing their concerns about student drinkers, several respondents also included ways to address the excess drinking. Incorporating a barstool tax was posed as a viable solution, as was closing bars earlier than normal. For example, another resident said:

“I think that there is not enough enforcement to deal with the drunk students. I also think that the bars should be closed at 12.”

Several comments were centered on requesting action from the government, bars or the university to help address alcohol-related issues in the community.

Respondents also addressed the need for alcohol-related resources in the area. For example, one resident said:

“I think that selling alcohol in bars etc. should have limitations as to how much one can drink in an evening. Astounds me how many people lose their licenses and come in smelling of alcohol to renew licenses. It freaks me out. Support the ride programs even at 3 pm. I think it's a good thing. I just saw a key chain that is a breathalyzer in Costco- this would help a lot of people and it should be promoted if it actually works.”

Another participant highlighted the need for more transparent resources:

“There should be more resources for teens where there is alcohol abuse in family or friends – should be more resources at school from an educational perspective – the resources should be as obvious as the beer and liquor stores are – should be like a walk in clinic as resources for people”.

On a similar note, another respondent highlighted the need for transparency with alcohol resources and the need for them to be further publicized by saying:

“I think it's a serious problem. Especially in the rural community. There isn't always the support that's needed. If there is support, where or how can that information get out to businesses especially in the wellington region where there are programs that are available for individuals that can't afford the counseling and they don't know where to turn and it has to be more transparent? That info has to be out there.”

Additionally, several respondents addressed the need for government intervention as it relates to education and public awareness of alcohol use and misuse. In particular, some respondents spoke about the need for education on a more general level, for example:

“I think education is key and getting the message to the kids as young as possible ... education, education, education. In the same way as we make it more accessible for kids to stay in shelters and having town hall talks for teens when they don't feel comfortable talking with their parents”.

Others spoke specifically about the need for pregnancy related education, for example:

“Need more education about drinking and pregnancy” and

“I think there should be more teaching in the community about pregnancy and drinking...Should be a compulsory lesson”.

While these were highlighted as major issues within the WDG communities, several respondents felt that restricting alcohol could also cause problems. For example, one respondent said:

“I come from another country; having all these alcohol retail so restrictive can actually create more problems. Educating people of the risks, showing what is good and what is bad – government shouldn't regulate the sale of alcohol. The harder it is to access, the more people want to have it”.

One respondent in particular, spoke about the need for fewer restrictions on public drinking:

“It should be ok to hold a can of beer and drink in public and it should not be look at as a bad thing. The person that is drinking should act with respect and responsibility”.

Some respondents noted that their communities were small or rural communities and thus had very few issues related to drinking and driving or public drunkenness. For example, one respondent said:

“Our community is pretty responsible with alcohol use. Our community has a low population”.

On a similar note, another respondent added:

“In my community I don't think alcohol is as much of a problem as in a large community, because there are fewer places to get alcohol as in a large community because it's more spread about”

This qualitative analysis indicates that WDG residents perceive alcohol-related problems to exist in their communities. While some respondents favoured less restrictions on access to alcohol, others favoured more restrictions.

Discussion

Knowledge about Canada's Low Risk Alcohol Drinking Guidelines and alcohol-related health issues

Alcohol researchers have noted a general decline in overall support for alcohol control and speculate that alcohol marketing has contributed to the normalization of drinking and has also led to a reduction in the level of concern about risks.⁹ This study found that the majority of WDG residents who drink were unaware of Canada's Low-Risk Alcohol Drinking Guidelines and that among those who reported binge drinking, 86% were not concerned about their cancer risk due to drinking. The majority of respondents also had low levels of knowledge about alcohol's role in cancer and heart disease. Canada's Low-Risk Alcohol Drinking Guidelines were released in 2011 and have since been communicated through various channels including through Public Health Units, workplaces, and the Liquor Control Board of Ontario. While there is no literature to support the effectiveness of publicizing low-risk alcohol drinking guidelines on alcohol consumption in a community, the results from this survey show that there may be work to be done in increasing public awareness of these guidelines and the risks associated with alcohol in a useful, actionable way.

The majority of the participants disapproved of drinking during any stage of the pregnancy period as well as the period after birth (breastfeeding).¹⁰ This was expected due to the widespread implementation of Sandy's Law in 2004 which requires alcohol retail premises to prominently post signs warning women that drinking alcohol during pregnancy can cause Fetal Alcohol Spectrum Disorder. Overall, most participants were aware that there is no period during pregnancy that is considered safe for women to consume alcoholic beverages. It appears that education about abstaining from alcohol during pregnancy and during breastfeeding could be improved, but it is not a major concern at this time.

While studies report that education and awareness-raising strategies on their own are ineffective to change health behaviours, their effectiveness in increasing knowledge and altering social norms are widely recognized.¹¹ Geisbrecht recommends that education and persuasion techniques be used to increase awareness of population-level harms and damages of alcohol and the necessary steps to curtail them.¹² When it comes to raising awareness of Canada's Low-Risk Alcohol Drinking Guidelines, such education and persuasion techniques may be important contributors to an effective alcohol harm prevention strategy.

Furthermore, studies show that internet-based or face-to-face educational interventions can be effective in decreasing alcohol misuse. An evaluation of the internet-based Check Your Drinking program showed that problem drinkers were able to reduce their drinking by 30% after the program.¹³ A systematic review of the literature found that e-interventions providing brief feedback on alcohol consumption can reduce drinking among college students and adults without alcohol use disorders by approximately one drink per week for up to six months.¹⁴ Given the large student population in Guelph, and the large proportion of young adults that exceed the low-risk alcohol drinking guidelines,³ universal application of web or face-to-face educational interventions among this target population may be an important part of a larger strategy.

Primary care providers are in an excellent position for alcohol education and intervention. Brief alcohol interventions at primary-care facilities have been shown to reduce alcohol consumption in patients by about four drinks per week at 6 and 12 month follow-up.¹⁵ Although only 28% of the participants in this WDG study reported ever receiving information on alcohol-related risks from their doctors or nurse practitioners, strengthening opportunities for education through healthcare providers in WDG could be explored further.

Alcohol's impact on the WDG community

Alcohol misuse is strongly related to motor-vehicle accidents, unintentional injuries, liver cirrhosis, cancer, and violence.¹¹

Drinking and driving was perceived by 75% of participants in this survey as a moderate or major issue in their communities. Local police data shows that charges for impaired driving by Ontario Provincial Police forces in Wellington and Dufferin have decreased slightly for each police force over the last 5 years.³ According to the Guelph Police Annual Report from 2013, impaired driving related occurrences decreased by 24.1% from 2012 to 2014.¹⁶ It is important to note that police data may be an underestimate as it does not include incidents where charges were not laid or crimes that were not caught. Data from the Canadian Community Health Survey, however, corroborates the idea that drinking and driving may not be as prevalent as was once thought. The survey shows that, in 2010, 89% of drivers in WDG who drink reported not driving after consuming two or more drinks in the hour before driving within the past 12 months; this value was 88% in 2009.³ Nonetheless, the perception of impaired driving in WDG communities as a moderate to major issue matches well with reality: police driving-related occurrences exist, and local newspapers recently report instances of people injured and killed by impaired drivers who are residents of WDG.

In terms of alcohol-related injuries, between 2011 and 2013, WDG had a rate of 22 alcohol-related injury hospitalizations per 10,000 people per year.¹⁷ That produced 552 hospitalizations for injuries caused by alcohol over this time period.¹⁷

Unfortunately, no reliable local data exists on the prevalence of the other alcohol-related issues perceived by participants including violence; over-serving at bars, pubs, and restaurants; family abuse; and sexual assault.

Support for alcohol-related policies

Healthy public policy plays an important role in alcohol misuse prevention. The three policies that received the highest level of support from WDG participants in this study were banning the sale of energy drinks that are premixed with alcohol (71%), making bars pay for city clean-up costs associated with the late night bar scene (69%) and increasing the minimum price of alcohol yearly to be consistent with inflation (58%).

While there seems to be a little less public support in WDG for policies that are geared toward controlling alcohol availability, other studies have noted the importance of addressing availability in a community. In general, when restrictions are placed on alcohol availability in a community, alcohol use and associated problems decrease. Studies have found significant relationships between alcohol

outlet density, that is, the number of alcohol outlets in a given radius, and increased violence rates over time.¹⁰ Other studies have found significant relationships between alcohol outlet density and drinking and driving, other motor vehicle accidents, and pedestrian injuries.¹¹ Another study also found that increased alcohol outlet density around university campuses was significantly positively associated with students' heavy drinking.¹⁸

An interesting finding of this survey is that for respondents who reported binge drinking in the past year, a house or private residence was the most common location where the binge drinking occurred. This means that efforts to prevent alcohol misuse must not focus solely on bars and nightclubs but also consider off-premises sales and drinking norms in homes and private residences.

Strengths and Limitations

One strength of this survey is the large number of randomly-selected participants, the participants being representative of the WDG population by age and gender, and both landline and cellphones being called, which should have decreased the amount of bias in the results. Another strength of the survey was its elucidation of local residents' knowledge about alcohol-related harms, alcohol drinking guidelines, alcohol issues in the community, and extent of support for various alcohol-related policies.

A limitation of the survey is that it may not have included people who do not typically have access to telephones. Another limitation is that it did not inquire about participants' support for all policies that may be informative to policy-makers, such a policy that prevents large volumes of alcohol (e.g. kegs) from being easily consumed by youth. Although reported binge drinking qualified as drinking above Canada's Low-Risk Alcohol Drinking Guidelines, explicitly identifying whether participants drank at or below these guidelines would have been more useful for understanding participants' level of concern about cancer and whether learning about these guidelines changed their drinking behavior.

Conclusion

While alcohol can be consumed in a low-risk way, about half of the participants in this survey reported binge drinking in the past year, the majority of drinkers were unaware of Canada's Low-Risk Alcohol Drinking Guidelines, and there was low to moderate knowledge of alcohol's health effects. Overall, drinking and driving and alcohol-related violence were perceived to be the greatest alcohol-related issues in WDG, with many other issues following close behind. Support for related policies varied, with some in favour of more restrictions on alcohol access and other not.

This survey identifies a need for improved public awareness of Canada's Low-Risk Alcohol Drinking Guidelines and alcohol's link to cancer and other chronic diseases. To work towards its vision of individuals achieving their highest level of health, Wellington-Dufferin-Guelph Public Health will explore avenues to improve such awareness and will also work to support policies and physical environments that reduce the harms associated with alcohol.

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Appendix A – Low Risk Drinking Guidelines

Canada's Low-Risk Alcohol Drinking Guidelines (Butt et al., 2011) give Canadians who choose to drink information on how to drink in a low-risk way.

The newest version of the guidelines recommends the following:

- Guideline #1: Daily and weekly limits
 - Women should limit themselves to 2 drinks a day and 10 drinks a week with no more than 3 drinks on any given day.
 - Men should limit themselves to 3 drinks a day and 15 drinks a week with no more than 4 drinks on any given day
- Guideline #2: Special occasion limits
 - Women should have no more than 3 drinks on a special occasion
 - Men should have no more than 4 drinks on a special occasion
- Guideline #3: Zero is the limit when:
 - Driving, using machinery or tools
 - Taking medication or other drugs
 - Doing dangerous physical activity
 - Living with mental or physical health problems
 - Alcohol dependent
 - Pregnant or planning to be
 - Responsible for the safety of others
 - Making important decisions
- Guideline #4: Zero is safest if:
 - you are pregnant or planning to become pregnant, or are about to breastfeed
- Guideline #5: Delay drinking
 - Youth should try to delay their drinking and should never exceed 1-2 drinks per occasion if they choose to drink

The Low-Risk Alcohol Drinking Guidelines also provide people with advice on how to drink safely, including messages around (Butt et al., 2011):

- Setting drink limits and sticking to them
- Drinking slowly, no more than 2 drinks in any 3 hours.
- Alternating alcoholic and non-alcoholic drinks
- Eating before and while drinking.
- Considering factors like age, body weight and health problems that might suggest lower limits'
- Not starting to drink or increasing drinking due to some health benefits

The Low-Risk Alcohol Drinking Guidelines can be used to classify people as high-risk or low-risk drinkers. People who exceed the guidelines are considered to be at higher-risk of dying prematurely from alcohol-related diseases, such as liver cirrhosis and oral cancer than people who comply with the guidelines.

Appendix B – Survey Questions

Before we begin the survey, could you please confirm your area of residence?

That is, do you live in the City of Guelph, or outside the City of Guelph in Wellington County or Dufferin County?

[Interviewer note:

Wellington County includes the Town of Erin, Town of Minto, Township of Wellington North, Township of Mapleton, Township of Centre Wellington, Township of Guelph/Eramosa and the Township of Puslinch.

Dufferin County includes the Townships of Amaranth, East Garafraxa, Melancthon, Mulmur and the Towns of Grand Valley, Mono, Orangeville and Shelburne]

- | | | |
|----|--------------------------|--|
| 1. | City of Guelph | Go to I-5 |
| 2. | Wellington County | Go to I-5 |
| 3. | Dufferin County | Go to I-5 |
| 4. | None of the above | Thank you, but at this time we are looking to speak to residents of Guelph, Wellington County, and Dufferin County. Goodbye. [Code as Not Eligible] |
| 5. | Don't know | Thank you, but at this time we are looking to speak to residents of Guelph, Wellington County, and Dufferin County. Goodbye. [Code as Not Eligible] |
| 6. | Refused | Thank you, but at this time we are looking to speak to residents of Guelph, Wellington County, and Dufferin County. Goodbye. [Code as Refused] |

I-5A Gender (by observation)

- | | |
|----|---------------|
| 1. | Male |
| 2. | Female |

I-5B And could you please tell me your age?

[Interviewer prompt if necessary: As part of the study we are looking to record people's age. Could you please tell me your exact age?]

- | | | |
|----|---|---------------------|
| 1. | Enter number from drop-down (19-99+) | |
| 2. | Refused | [Go to I-5c] |

I-5C Okay, would you be willing to specify your broad age range? Are you . . .

- | | | |
|----|--------------------------|--|
| 1. | 19-29 | I-5age - Calculated field |
| 2. | 30-39 | I-5age - Calculated field |
| 3. | 40-49 | I-5age - Calculated field |
| 4. | 50-59 | I-5age - Calculated field |
| 5. | 60 years of age + | I-5age - Calculated field |
| 6. | Refused | Okay, we are looking for an age-representative sample to complete our survey about alcohol use. Thank you for your time. Goodbye. |

The first few questions will be about your alcohol consumption. Please remember that your responses are confidential and in no way will ever be linked to your name or residence.

Q1 During the past 12 months, on average, how often did you drink alcoholic beverages? Would you say you drank alcohol . . .

[Interviewer prompt if needed: On average, over the past 12 months did you drink alcohol . . .]

[Interviewer prompt if asked: One drink means a 12-ounce serving of beer, cider, or cooler, OR a 5-ounce glass of wine, OR 1 ½ ounces of distilled alcohol such as rye, gin, rum.]

Every day

4-6 times a week

2-3 times a week

Once a week

Once every couple of weeks

Once a month

Less than once a month

Never

Don't know

Refused

Q2. SKIP LOGIC only ask if answered anything other than "never" to Q1

How often in the past 12 months have you had 5 or more drinks on one occasion? Would you say . . .

[Interviewer prompt if needed: This is asking for an average over the past year – how often during the past year have you had 5 or more drinks on one occasion? Would you say . . .]

[Interviewer prompt if asked: One drink means a 12-ounce serving of beer, cider, or cooler, OR a 5-ounce glass of wine, OR 1 ½ ounces of distilled alcohol such as rye, gin, rum.]

Every day

4-6 times a week

2-3 times a week

Once a week

Once every couple of weeks

Once a month

Less than once a month

Never

Don't know

Refused

Q3. SKIP LOGIC only ask if answered anything other than "never" "don't know" or "refused" to Q2

Within the past 12 months, typically where were you most often when you consumed 5 or more drinks on one occasion ? Were you...

[Read list. Select ONE.]

[Interviewer prompt if asked: One drink means a 12-ounce serving of beer, cider, or cooler, OR a 5-ounce glass of wine, OR 1 ½ ounces of distilled alcohol such as rye, gin, rum.]

At a house or private residence

At a bar or restaurant

At a special event such as a sporting event, concert, or wedding

Or some "Other" location (please specify)

Don't know

Refused

Q4. SKIP LOGIC, only ask if answered anything other than “never” to Q1.

Thinking back to times when you’ve chosen to drink alcohol, what is your most common reason for choosing to drink?

[Do not read list. Select ONE.]

To have fun/to party

To relieve stress/to relax

To be social

To boost my self-confidence

Because my friends/others were doing it

Because it’s the weekend

Because of a special occasion (wedding, birthday, a specific party)

Because of an event (sports, concerts)

Drink with meals

Because I like it/just felt like it

Habit/always do it/have done it

Other, specify _____

Don’t know

Refused

The next few questions ask for your opinions about alcohol use during pregnancy and breastfeeding, even if this does not relate to you, directly.

Q5. In your opinion, do you think it’s ok for a woman to drink MODERATELY, meaning 1-2 DRINKS PER WEEK ...

[Interviewer prompt if needed: This is asking your opinion and is applicable to all respondents.]

[Interviewer note: Do not read “Depends”, “Don’t know”, or “Refused”.]

	Yes	No	Depends	Don’t know	Refused
During the 1st trimester of her pregnancy (which is weeks 1-12)					
During the 2nd trimester of her pregnancy (which is weeks 13-27)					
During the 3rd trimester of her pregnancy (which is week 28 to birth)					
During the period after birth when she is breastfeeding					

Q6. EXCLUDING information about drinking and driving, have you ever received any type of information about the health risks associated with alcohol from any of the following sources?

[Interviewer prompt if needed: Have you ever received any type of information about the health risks associated with alcohol from _____?]

For a, b, and c (media, family/friend, and family doctor/nurse practitioner):

[Interviewer note: Read options “Yes” and “No” only]

For d and e (obstetrician/midwife and workplace):

[interviewer note: Read options “Yes,” “No,” and “Not Applicable”]

[Interviewer prompt if needed: This excludes information about drinking and driving.]

	Yes	No	Not applicable	Don't know	Refused
a. Media, like television or radio					
b. A family member or friend					
e. Your family doctor or nurse practitioner					
d. An obstetrician or midwife					
c. Your workplace					

Q7. How concerned are you about your risk of cancer from drinking alcohol? Are you . . .

Very concerned

A little concerned

Not that concerned

Not concerned at all

Don't know

Refused

Q8. Have you ever seen or heard about Canada's Low Risk Alcohol Drinking Guidelines?

[Interviewer prompt if asked about the guidelines: Canada's Low Risk Alcohol Drinking Guidelines were developed by the Canadian Centre on Substance Abuse in 2011 to provide consistent messaging to adults about alcohol choices and responsible use. They set daily and weekly limits on consumption so people who choose to drink can do so in a low-risk way.]

Yes

No

Don't know

Refused

Q9. SKIP LOGIC, only ask if answered “yes” to question 8.

As a result of hearing about the guidelines, did you start to drink more, start to drink less, or make no change to the amount you drink?

More

Less

No change

Don't know

Refused

Q10. I will now read a list of issues or problems that are alcohol related. For each one, please tell me how much of an issue you feel it is IN YOUR COMMUNITY by indicating whether you think it is not an issue, a small issue, a moderate issue, or a major issue IN YOUR COMMUNITY.

[Interviewer prompt, if necessary: Would you say this is not at all an issue, a small issue, a moderate issue, or a major issue IN YOUR COMMUNITY?]

	Not an issue	A small issue	A moderate issue	A major issue	Don't know	Refused
Public drunkenness						
Drinking during pregnancy						
Over-serving at bars, pubs, and restaurants						
Drinking and driving						
Alcohol-related noise disturbances						
Alcohol-related property damage						
Alcohol-related family abuse						
Alcohol-related violence						
Alcohol-related sexual assault						

Q11. Next I am going to read a list of actual or potential policies related to alcohol. For each policy I read, please tell me whether you agree or disagree with the policy.

[Interviewer note: Do not read “Depends”, “Don’t know”, or “Refused”.]

[Interviewer prompt for each item: Do you agree or disagree with _____]

[Interviewer prompt if asked if this policy already is in place: We are asking whether you agree or disagree with actual or potential public policies related to alcohol use.]

	Agree	Disagree	Depends	Don't know	Refused
Allowing the sale of alcohol in convenience stores					
Limiting the number of LCBOs, beer stores, and bars in a community					
Banning the sale of energy drinks that are premixed with alcohol					
Making bars pay for city clean-up costs associated with the late night bar scene					
Reducing the hours of alcohol service at bars and restaurants					
Requiring alcohol to be sold with a warning label, like cigarettes					
Increasing taxation on alcohol products to help pay for health care and prevention costs					
Increasing the minimum price of alcohol yearly to be consistent with inflation					
Pricing alcohol based on alcohol content so that drinks with lower alcohol content are cheaper, and drinks with higher alcohol content are more expensive					

Q12. Now I am going to read a list of statements about the health effects of alcohol. Please tell me whether you think each statement is true or false.

[Interviewer note: Do not read “Depends”, “Don’t know”, or “Refused”.]

[Interviewer prompt if asked about the correct answer to each statement: AFTER you provide an answer to each question to the best of your knowledge, I can let you know whether each one is true or false.]

[Interviewer note: The correct response to each question is true.]

	True	False	Depends	Don't know	Refused
Drinking one to four alcoholic drinks per day decreases your risk of an early death from stroke and heart disease					
Drinking one or more alcoholic drinks per day increases your risk of an early death from oral, liver, and colorectal cancers					
Drinking one or more alcoholic drinks per day increases a woman’s risk of an early death from breast cancer					
If there’s any chance that a woman could become pregnant, she should not drink alcohol					
There is no known safe amount of alcohol to drink during pregnancy					
There is no known safe time during a pregnancy to drink alcohol [Interviewer prompt if needed: This is referring to the duration of a pregnancy – there is no safe time during pregnancy to drink alcohol.]					
Drinking alcohol during pregnancy can result in complications in a baby before and after birth					
Drinking alcohol during pregnancy can lead to lifelong disabilities in a child					

Q 13. Okay, now as we are coming to the end of the survey, do you have any comments about alcohol in your community that you would like to share?

[Interviewer note: Ensure all comments are clear, complete, relevant to the question, and accurately capture what the respondent means to convey.]

Open ended answer _____

No comment

Don’t know

Refused

Q 14. And finally, which of the following describes your use of a phone. Do you . . .

Use a cell phone only

Use both a cell phone and a landline telephone

Use only a landline telephone

Fergus Office

474 Wellington Road #18, Suite 100

Guelph Offices

160 Chancellor's Way

Mount Forest Office

311 Foster St.

Orangeville Office

180 Broadway

Shelburne Office (Mel Lloyd Centre)

167 Centre St.