Attitudes Towards Mothers (breastfeeding in public and drinking during pregnancy)
Analyzed Feb 2012

Monitor Introduction

This RRFSS Monitor illustrates what Waterloo Region adults, aged 18 and older think about the use of alcohol during pregnancy, and about breastfeeding in public. The purpose of the Attitudes Towards Mothers Module is to monitor public awareness about the risks of consuming alcohol during pregnancy as well as the perceptions around breastfeeding in public spaces. There were 1174 adults included in the module in 2006, 1201 adults in 2008, and 807 adults in 2010. Questions were asked from Jan-06 to Dec-06, Jan-08 to Dec-08, and again from Jan-10 to Aug-10 (Waves 61 to 72, Waves 85 to 96, and Cycles 4 to 5).

This Monitor only presents in depth results for 2010, as the most recent year of data, but overall 2006 and 2008 estimates are also given for each indicator to examine possible time trends. Estimates are presented with 95% confidence intervals (CI) and appear in the following format: (CI: XX.X-XX.X). Results from 2006 can be seen in the previous Attitudes Towards Mothers RRFSS Monitor released in 2008.

Majority of adults are aware of the dangers of drinking alcohol during pregnancy

Over the three time periods, 2006, 2008 and 2010, the majority (82.7% (CI: 80.4-85.1), 81.6% (CI: 79.1-84.0), and 79.6% (CI: 76.6-82.5)) of Waterloo Region adults, aged 18 years and older, indicated that ‘no alcohol’ consumption was the safe level of alcohol consumption during pregnancy. There was no significant difference over the three years.

Awareness of the dangers of alcohol use during pregnancy differed by age but not sex

In 2010, there was a significant difference between age groups in the responses of adults who identified the safe level of alcohol consumption during pregnancy as “no alcohol” (Table 1). There was no significant difference between males and females.
Table 1: Per cent of adults 18 years and older correctly identifying the safe level of alcohol consumption during pregnancy, by age group, Waterloo Region, 2010

<table>
<thead>
<tr>
<th>Age Group</th>
<th>Per cent (95% CI)</th>
</tr>
</thead>
<tbody>
<tr>
<td>18-24 years</td>
<td>92.9% (86.8-99.1)</td>
</tr>
<tr>
<td>25-44 years</td>
<td>79.6% (74.8-84.5)</td>
</tr>
<tr>
<td>45-64 years</td>
<td>81.0% (75.9-86.1)</td>
</tr>
<tr>
<td>65+ years</td>
<td>70.0% (62.2-77.8)</td>
</tr>
</tbody>
</table>

x,y,z ... Represent statistically significant differences between two proportions (%) with a p-value of less than 0.05, e.g. two proportions with an “x” next to them are statistically different from each other.

**Significant differences in attitudes existed by the presence of children under the age of 18**

A statistically greater proportion of adults with children under the age of 18 in the home (83.5% CI: 79.2-87.9) identified the safe level of alcohol consumption during pregnancy as “no alcohol” as compared to adults without children under the age of 18 in the home (77.0% CI: 73.0-81.0), in 2010 (Figure 1).

**Figure 1: Per cent of adults 18 and older who identified the safe level of alcohol consumption during pregnancy, by presence of children in the home, Waterloo Region, 2010**

No significant differences existed by household income or educational attainment in the responses of adults who identified the safe level of alcohol consumption during pregnancy as “no alcohol”.

**Proportion of adults who believe there is no limit to the level of alcohol that can be consumed during pregnancy increased**

Of those who felt that women could consume alcohol during pregnancy, a follow-up question was asked whether it was ever okay for a pregnant woman to have two or more drinks in one sitting. From 2006 to 2008, the proportion of all adults who identified that it was “never ok” for a pregnant woman to have two or more alcoholic drinks on one occasion has significantly decreased, but the proportion was not significantly different between 2008 and 2010 (97.4% CI: 96.5-98.4), 93.1% CI: 91.6-94.6, 92.6% CI: 90.7-94.5).
Significant differences in attitudes existed by sex but not by age

In 2010, a significantly greater proportion of females (96.4% (CI: 94.5-98.2)) compared to males (88.1% (CI: 84.6-91.7)) identified that it was “never ok” for a pregnant woman to have two or more alcoholic drinks on one occasion.

No significant difference existed by age in the proportion of adults who identified that it was “never ok” for a pregnant woman to have two or more alcoholic drinks on one occasion.

Awareness of the dangers of alcohol use during pregnancy differed by household income but not by education

In Waterloo Region in 2010, a significantly greater proportion of adults in households with an income of $100,000 or greater (98.1% (CI: 95.8-100)) compared to adults who did not disclose their income (88.7% (CI: 84.5-93.0)) identified that it was “never ok” for a pregnant woman to have two or more alcoholic drinks on one occasion (Table 2).

Table 2: Per cent of adults 18 and older who correctly identifying that it was “never ok” for a pregnant woman to have two or more alcoholic drinks on one occasion, by household income, Waterloo Region, 2010

<table>
<thead>
<tr>
<th>Income not stated</th>
<th>&lt;$30,000</th>
<th>$30,000-$69,999</th>
<th>$70,000-$99,999</th>
<th>≥ $100,000</th>
</tr>
</thead>
<tbody>
<tr>
<td>88.7% (CI: 84.5-93.0)</td>
<td>96.7% (CI: 93.3-100)</td>
<td>92.3% (CI: 88.3-96.2)</td>
<td>89.8% (CI: 83.6-95.9)</td>
<td>98.1% (CI: 95.8-100)</td>
</tr>
</tbody>
</table>

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The proportion of adults in Waterloo Region who identified that it was “never ok” for a pregnant woman to have two or more alcoholic drinks on one occasion did not differ significantly by education level. As well, the proportion did not differ significantly by the presence of children under 18 years of age in the household.

Almost two-thirds of adults in Waterloo Region think it is acceptable to breastfeed in restaurants

Over the three time periods, 2006, 2008, and 2010, there were no significant differences between the proportions of adults who thought it was acceptable for a mother to breastfeed in restaurants (66.9% (CI: 64.0-69.8), 66.9% (CI: 63.9-69.8), 65.1% (CI: 61.5-68.7)).

Acceptance of breastfeeding in restaurants varied by age but not sex

In 2010, significantly fewer adults aged 18 to 24 years and 65 years or older (43.8% (CI: 30.3-57.3), 54.4% (CI: 46.3-62.6)) compared to adults aged 25 to 44 and 45 to 64 (72.9% (CI: 67.4-78.3), 69.7% (CI: 63.9-75.6)) thought it was acceptable for a mother to breastfeed in restaurants in Waterloo Region. Adults aged 25 to 44 were most likely to report that they thought it was acceptable for a mother to breastfeed in restaurants.
No significant differences existed by sex in the proportions of adults who thought it was acceptable for a mother to breastfeed in a restaurant in most age groups.

**Table 3: Per cent of adults 18 and older who thought it was acceptable for a mother to breastfeed in a restaurant, by age group and sex, Waterloo Region, 2010**

<table>
<thead>
<tr>
<th>Sex</th>
<th>Age Group</th>
<th>18-24 years</th>
<th>25-44 years</th>
<th>45-64 years</th>
<th>65+ years</th>
</tr>
</thead>
<tbody>
<tr>
<td>All Adults</td>
<td></td>
<td>43.8% (CI: 30.3-57.3)</td>
<td>72.9% (CI: 67.4-78.3)</td>
<td>69.7% (CI: 63.9-75.6)</td>
<td>54.4% (CI: 46.3-62.6)</td>
</tr>
<tr>
<td>Male</td>
<td></td>
<td>30.8% (CI: 15.1-46.6)</td>
<td>74.9% (CI: 66.6-83.2)</td>
<td>74.7% (CI: 65.8-83.6)</td>
<td>59.8% (CI: 47.1-72.6)</td>
</tr>
<tr>
<td>Female</td>
<td></td>
<td>71.3% (CI: 64.1-78.5)</td>
<td>66.3% (CI: 58.5-74.0)</td>
<td>50.0% (CI: 39.5-60.5)</td>
<td></td>
</tr>
</tbody>
</table>

x,y,z ...Represent statistically significant differences between two proportions (%) with a p-value of less than 0.05, e.g. two proportions with an "x" next to them are statistically different from each other.

The superscript "E" denotes high sampling variability, and estimates must be interpreted with caution.

**Acceptance of breastfeeding in restaurants varied by household income and educational attainment**

In Waterloo Region in 2010, a significantly higher proportion of adults in households with an income of $100,000 or greater thought that it was acceptable for a mother to breastfeed in a restaurant compared to adults in households with income less than $30,000 (Table 4). As well, a significant difference existed between adults who did not provide their income and adults with income $100,000 or greater. Adults with a reported household income of $100,000 or greater were most likely to report that they thought it was acceptable for a mother to breastfeed in restaurants.

**Table 4: Per cent of adults 18 and older who thought it was acceptable for a mother to breastfeed her baby in a restaurant, by household income, Waterloo Region, 2010**

<table>
<thead>
<tr>
<th>Income not stated</th>
<th>&lt;$30,000</th>
<th>$30,000-$69,999</th>
<th>$70,000-$99,999</th>
<th>≥ $100,000</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>54.8% (CI: 47.6-62.0)</td>
<td>55.4% (CI: 43.9-66.9)</td>
<td>66.7% (CI: 59.9-73.4)</td>
<td>70.1% (CI: 61.1-79.2)</td>
</tr>
<tr>
<td></td>
<td>76.5% (CI: 69.8-84.0)</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

x,y,z ...Represent statistically significant differences between two proportions (%) with a p-value of less than 0.05, e.g. two proportions with an "x" next to them are statistically different from each other.

In 2010, a significantly greater proportion of adults who had a college/university diploma/degree thought it was acceptable for a mother to breastfeed in a restaurant than adults who did not graduate from high school (Table 5).
Table 5: Per cent of adults 18 and older who thought it was acceptable for a mother to breastfeed her baby in a restaurant, by educational attainment, Waterloo Region, 2010

<table>
<thead>
<tr>
<th>Educational Attainment</th>
<th>Per cent (95% CI)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Did not graduate from high school</td>
<td>50.0% (38.4-61.6)</td>
</tr>
<tr>
<td>Graduated from high school</td>
<td>59.9% (55.2-67.3)</td>
</tr>
<tr>
<td>Some post-secondary</td>
<td>62.0% (48.5-75.5)</td>
</tr>
<tr>
<td>College/University diploma/degree</td>
<td>71.2% (66.6-75.9)</td>
</tr>
</tbody>
</table>

x,y,z...Represent statistically significant differences between two proportions (%) with a p-value of less than 0.05, e.g. two proportions with an “x” next to them are statistically different from each other.

Presence of children in home affects acceptance of breastfeeding in restaurants

In Waterloo Region in 2010, adults with children under the age of 18 in the home were more likely to think it is acceptable for a mother to breastfeed in restaurants than adults without children under the age of 18 in the home (72.3% (CI: 66.8-77.7), 60.5% (CI: 55.8-65.3)).

Figure 2: Per cent adults 18 and older who thought it was acceptable for a mother to breastfeed in a restaurant, by presence of children under the age of 18 in home, Waterloo Region, 2010

Two-thirds of adults in Waterloo Region think it is acceptable to breastfeed in shopping malls

Over the three time periods, 2006, 2008, and 2010, there were no significant differences between the proportions of adults who thought it was acceptable for a mother to breastfeed in shopping malls (68.8% (CI: 65.9-71.8), 68.1% (CI: 65.2-71.0), 66.3% (CI: 62.7-69.8)).

Acceptance of breastfeeding in malls varied by age but not sex

In 2010, adults aged 65 and older were significantly less likely to be accepting of a mother breastfeeding in malls, than adults aged 25 to 64. As well, adults aged 18 to 24 were significantly less
likely to be accepting of a mother breastfeeding in a mall than adults aged 25 to 44. Adults aged 25 to 44 were most likely to be accepting of a mother breastfeeding in malls.

No significant differences existed by sex for the proportion of adults who thought it was acceptable for a mother to breastfeed in a shopping mall in most age groups (Table 6).

Table 6: Per cent of adults 18 and older who thought it was acceptable for a mother to breastfeed her baby in a shopping mall, by age group and sex, Waterloo Region, 2010

<table>
<thead>
<tr>
<th>Sex</th>
<th>18-24 years</th>
<th>25-44 years</th>
<th>45-64 years</th>
<th>65+ years</th>
</tr>
</thead>
<tbody>
<tr>
<td>All Adults</td>
<td>50.0% (CI: 36.0-64.0)</td>
<td>76.3% (CI: 71.1-81.5)</td>
<td>70.6% (CI: 64.8-76.4)</td>
<td>46.8% (CI: 38.7-55.0)</td>
</tr>
<tr>
<td>Male</td>
<td>42.3% (CI: 24.4-60.2)</td>
<td>77.3% (CI: 69.3-85.2)</td>
<td>74.5% (CI: 65.7-83.3)</td>
<td>53.4% (CI: 40.4-66.4)</td>
</tr>
<tr>
<td>Female</td>
<td>75.5% (CI: 68.6-82.5)</td>
<td>67.8% (CI: 60.1-75.5)</td>
<td>41.7% (CI: 31.6-51.9)</td>
<td></td>
</tr>
</tbody>
</table>

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The superscript “E” denotes high sampling variability, and estimates must be interpreted with caution.

Adults in highest income households are most accepting of breastfeeding in malls

In Waterloo Region in 2010, a significantly greater proportion of adults in households with income $100,000 or greater thought it was acceptable for a mother to breastfeed in a mall than adults in households with income less than $70,000. As well, adults in households with income $100,000 and greater were significantly more likely to be accepting of a mother breastfeeding in a mall than adults who refused to disclose their income (Table 7).

Table 7: Per cent of adults 18 and older who thought it was acceptable for a mother to breastfeed in a shopping mall, by household income, Waterloo Region, 2010

<table>
<thead>
<tr>
<th>Income not stated</th>
<th>&lt;$30,000</th>
<th>$30,000-$69,999</th>
<th>$70,000-$99,999</th>
<th>≥ $100,000</th>
</tr>
</thead>
<tbody>
<tr>
<td>56.4% (CI: 49.2-63.6)</td>
<td>52.0% (CI: 40.4-63.5)</td>
<td>64.6% (CI: 57.8-71.4)</td>
<td>70.5% (CI: 61.5-79.5)</td>
<td>83.1% (CI: 76.4-89.4)</td>
</tr>
</tbody>
</table>

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Educational attainment is influential on acceptance of breastfeeding in shopping malls

In 2010, a significantly greater proportion of adults who had a college or university diploma/degree thought it was acceptable for mothers to breastfeed in a shopping mall when compared to adults who did not graduate from high school (Figure 3).
Figure 3: Per cent of adults 18 and older who thought it was acceptable for a mother to breastfeed her baby in a shopping mall, by educational attainment, Waterloo Region, 2010

<table>
<thead>
<tr>
<th>Educational attainment</th>
<th>Per cent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Did not graduate from high school</td>
<td>48.0</td>
</tr>
<tr>
<td>Graduated from high school</td>
<td>61.7</td>
</tr>
<tr>
<td>Some post-secondary</td>
<td>67.9</td>
</tr>
<tr>
<td>College/University diploma/degree</td>
<td>72.0</td>
</tr>
</tbody>
</table>

Adults in households with children under the age of 18 are more likely to think it is acceptable to breastfeed in malls

In Waterloo Region in 2010, a significantly greater proportion of adults with children under the age of 18 in the home (75.7% (CI: 70.4-80.9)) thought that it was acceptable for mothers to breastfeed in shopping malls, as compared to adults without children under the age of 18 in the home (60.1% (CI: 55.4-64.9)).

About the RRFSS survey

Information here is presented from the Rapid Risk Factor Surveillance System (RRFSS). RRFSS is an on-going telephone survey occurring in participating public health units across Ontario. On a monthly basis, a random sample of approximately 100 adults aged 18 and older are interviewed regarding risk behaviours of importance to public health. The survey is conducted by the Institute for Social Research (ISR) at York University, on behalf of Region of Waterloo Public Health. For more information, please visit [www.rrfss.on.ca](http://www.rrfss.on.ca)

Analyzed Questions (Total Weighted Sample = 1201 (2008), 807 (2010))

- Which of the following do you think is a safe level of alcohol to drink during pregnancy: would you say none at all, 1-2 drinks over the course of a month, or 1 drink per day? (weighted n=1152, 774)
- Do you think it is ever okay for a pregnant woman to have two or more drinks on one occasion? (weighted n=1200, 806)
- Do you think it is acceptable for a mother to breastfeed her baby while in a restaurant? (weighted n=1182, 790)
- What about in a shopping mall, do you think it is acceptable for a mother to breastfeed her baby there? (weighted n=1184, 794)
**Analyzed Indicators**

- Per cent of adults (18+) who think there is no safe level of alcohol for women to drink during pregnancy
- Per cent of adults (18+) who think there is no limit to the level of alcohol drank during pregnancy
- Per cent of adults (18+) who think it is acceptable to breastfeed while in a restaurant
- Per cent of adults (18+) who think it is acceptable to breastfeed in a shopping mall

**Important definitions and cautions:**

- All data were analyzed according to the RRFSS Manual of Operations. The superscript “E” denotes high sampling variability, and estimates must be interpreted with caution. The superscript “F” denotes unacceptable sampling variability, and estimates or conclusions based on these data will be unreliable and most likely invalid. The sample was weighted to reflect the number of adults in a household.
- A "module" in RRFSS is generally a self-contained group of questions on a specific public health topic. Generally, modules may be added or taken off the RRFSS every four month period (cycle) of the on-going survey system.
- Confidence intervals and coefficient of variation were calculated using unweighted sample sizes and weighted estimates.
- Tests of significance were performed and statistically significant differences were determined by p-values less than 0.05.
- The survey was only administered in English, using a random digit dialing methodology and represents the behaviours, attitudes, and beliefs of adults in Waterloo Region.
- Responses which include “don’t know” and “refused” are generally removed from analysis when they represent less than 5% of the sample.

**Region of Waterloo Public Health**

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