

## Substance Exposures During Pregnancy, Waterloo Region and Ontario, 2013 to 2016

Table 1. Number and proportion of women who gave birth, by type of substance exposure during pregnancy, Waterloo Region and Ontario, 2013 to 2016

Place of residence	Year	Alcohol		Smoking		Drug and Substances	
		Number	Per cent	Number	Per cent	Number	Per cent
Waterloo Region	2013	95	1.7	523	9.1	94	1.7
	2014	168	2.8	492	8.3	95	1.6
	2015	159	2.7	475	8.1	87	1.5
	2016	154	2.6	429	7.3	104	1.8
Ontario	2013	1,957	1.5	10,929	8.1	2,439	1.9
	2014	2,778	2.2	10,622	8.4	2,516	1.9
	2015	3,300	2.5	10,183	8.0	2,705	2.1
	2016	3,249	2.4	9,704	7.4	2,886	2.2

### Definitions:

Proportion of women who gave birth within a given year who were exposed to alcohol during their pregnancy.

Proportion of women who gave birth within a given year who smoked at the time of infant's birth.

Proportion of women who gave birth within a given year who were exposed to drugs or substances during their pregnancy.

## Limitations and Notes:

All alcohol, smoking, drug and substance exposures during pregnancy data are self-reported.

'Other' frequency of alcohol consumption includes those women who confirmed consuming alcohol while pregnant, but the frequency of consumption was unknown, or those who consumed alcohol before their pregnancy was confirmed. 'One or more drinks per week' includes binge drinking, meaning four or more drinks were consumed on one occasion.

Alcohol is a known teratogen (a factor causing malformation of an embryo or fetus). Prenatal exposure to alcohol can lead to a wide range of cognitive, behavioural, neurodevelopmental, physiological and physical impairments collectively referred to as Fetal Alcohol Spectrum Disorder (FASD).

While the risk from light consumption during pregnancy appears very low, there is no threshold of alcohol use in pregnancy that has been definitively proven to be safe. Even a small amount of alcohol during pregnancy has a negative impact on the developing fetal brain. Canada's low-risk alcohol drinking guidelines acknowledge that the safest choice is to drink no alcohol at all if a woman is pregnant or planning to become pregnant.

**Table 2. Proportion of women who gave birth exposed to alcohol during pregnancy, by maternal age and frequency of exposure, Waterloo Region, 2013 to 2016**

	Measure	Per cent
<b>Maternal age group</b>	<b>19 years or younger</b>	0.2
	<b>20 to 24 years</b>	0.5
	<b>25 to 29 years</b>	0.6
	<b>30 to 34 years</b>	0.8
	<b>40 years or older</b>	0.4
<b>Frequency of Alcohol Exposure</b>	<b>One or more drinks per week</b>	0.2
	<b>One or more drinks per month</b>	0.3
	<b>Less than one drink per month</b>	0.8
	<b>Other</b>	1.2

**Table 3. Proportion of women who gave birth who smoked at time of infant's birth, by maternal age and frequency of smoking per day, Waterloo Region, 2013 to 2016**

	Measure	Per cent
<b>Maternal age group</b>	<b>19 years or younger</b>	0.7
	<b>20 to 24 years</b>	2.3
	<b>25 to 29 years</b>	2.6
	<b>30 to 34 years</b>	1.7
	<b>40 years or older</b>	1.0
<b>Frequency of Smoking</b>	<b>Greater than 20 cigarettes per day</b>	0.4
	<b>10 to 20 cigarettes per day</b>	2.8
	<b>less than 10 cigarettes per day</b>	4.8
	<b>Amount unknown</b>	0.1

### Limitations and Notes (continued):

'Other' smoking frequency includes pregnant women who confirmed they smoked at time of birth, but the amount of smoking was unknown.

Cigarette smoking during pregnancy has been associated with increased risks of complications in pregnancy and to cause serious adverse fetal outcomes including low birth weight, still births, spontaneous abortions, decreased fetal growth, premature births, placental abruption, and sudden infant death syndrome (SIDS).

## Limitations and Notes (continued):

'Other' drug or substance type includes, but is not limited to, hallucinogens and crystal meth.

Occurrences of different types of drug and substance exposures during pregnancy are not mutually exclusive; therefore, the total number of drug and substance exposures may be greater than the total number of women with one or more drug or substance exposures.

As the data are self-reported, this information does not determine the number of women who were tested for exposure and which exposure was detected. This information also excludes appropriate use of prescription and non-prescription drugs during pregnancy.

Use of illicit substances, like cannabis and cocaine/crack, as well as some legal addictive drugs, such as opioids, during pregnancy is associated with a broad range of health issues from negative birth outcomes such as birth defects, restricted fetal growth, and premature birth, to neonatal health issues including substance withdrawal symptoms, to measurable neurodevelopmental and behavioural issues lasting into adolescence.

**Table 4. Proportion of women who gave birth exposed to any drugs or substances during pregnancy, by maternal age and type of drug or substance, Waterloo Region, 2013 to 2016**

	Measure	Per cent
<b>Maternal age group</b>	<b>19 years or younger</b>	0.3
	<b>20 to 24 years</b>	0.6
	<b>25 to 29 years</b>	0.5
	<b>30 to 34 years</b>	0.3
	<b>40 years or older</b>	0.2
<b>Type of Drug/Substance</b>	<b>Cocaine</b>	0.2
	<b>Marijuana</b>	1.1
	<b>Opioids</b>	0.3
	<b>Other</b>	0.4

## Limitations and Notes (continued):

For Waterloo Region, approximately 99.5% of hospitals and 100% of Midwifery Practice Groups have acknowledged that their monthly data entry has been verified and is complete for calendar year 2016. Information on pregnancies and births can be added or updated to the BORN Information System at any time. The information summarized in this report represents what was available in the BORN Information System at the date of extraction. These data are provisional and subject to change.

Alcohol, drug and substance exposure data elements from BORN are self-reported and thus subject to under-reporting and social desirability bias. Normally missing values greater than 5% are excluded from the denominator. However since missing values were all less than 5% for Waterloo Region, all missing values for Ontario were excluded to be consistent with reporting even though some Ontario missing values were greater than 5%.

## Source:

BORN Ontario. BORN Information System (2013 to 2016), Extracted: February 1, 2018.

## Contact Information:

### Region of Waterloo Public Health and Emergency Services

Epidemiology and Health Analytics Team  
99 Regina Street South, Third Floor  
Waterloo, Ontario N2J 4V3  
Canada

Phone: 519-575-4400

Fax: 519-883-2241

TTY: 519-575-4608

Website: <http://chd.region.waterloo.on.ca/>

Email: [eha@regionofwaterloo.ca](mailto:eha@regionofwaterloo.ca)

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