Maternal and Reproductive Health

An analysis of data concerning the health and wellbeing of new mothers and their children in the Southwestern Public Health region

Community Health Status Report
Southwestern Public Health
December 2024

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How to cite this document:

Croteau S. Maternal and reproductive health: an analysis of data concerning the health and wellbeing of new mothers and their children in the Southwestern Public Health region. Woodstock, ON: Southwestern Public Health; 2024.

Contents

Summary

- The local live birth rate has been consistently higher than the provincial rate
- Maternal age at first birth has been gradually increasing over time, both locally and provincially
- Since 2019, the fertility rate in the SWPH region has declined among those aged 15-24
- The ratio of pharmacological to surgical therapeutic abortions has changed over time, with pharmacological abortions becoming more common
- Mental health concerns among pregnant women have been increasing, both locally and provincially, with 1 in 3 pregnant women locally experiencing mental health concerns in 2022
- Anxiety is the most common mental health concern during pregnancy, followed by depression
- Mental health concerns during pregnancy occur most frequently among those aged 24 and under
- Smoking tobacco during pregnancy has been decreasing over time, both locally and provincially; however, women aged 24 and under are most likely to report smoking during pregnancy
- Cannabis use during pregnancy is highest among women aged 24 and under and increased between 2020 and 2022

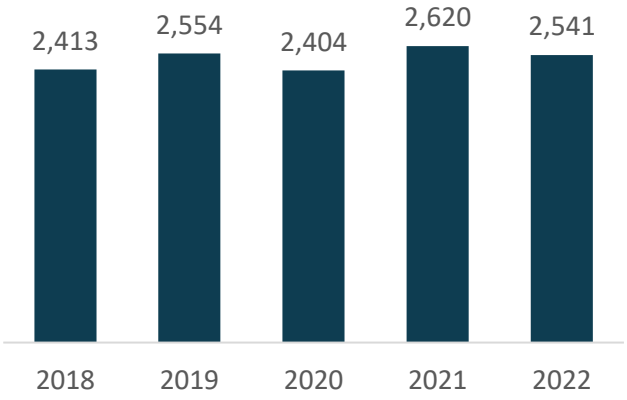
Reproductive Health

Births

Between 2018 and 2022, there were an average of 2,506 live births per year in the Southwestern Public Health (SWPH) region. Live births peaked in 2021, with 2,620 babies born that year (Figure 1).

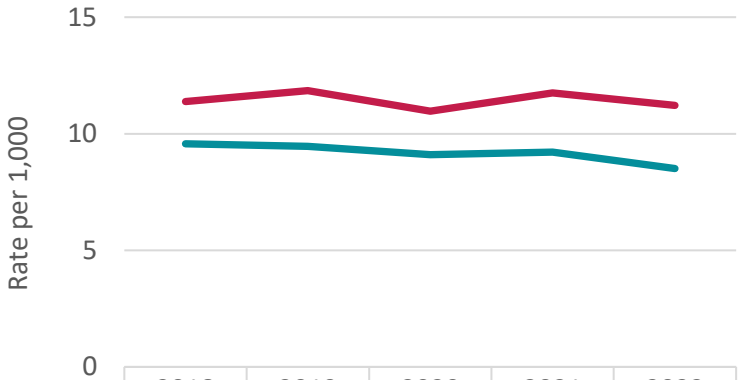
Data Source:
Birth data is from the BORN Information System

Figure 1. Live Births, SWPH Region, 2018-2022



The local birth rate was consistently higher than the provincial birth rate and did not fluctuate much over time (Figure 2). The provincial birth rate declined between 2018 and 2022.

Figure 2. Live Birth Rate, SWPH Region and Ontario, 2018-2022



	2018	2019	2020	2021	2022
SWPH	11.4	11.8	11.0	11.8	11.2
ONT	9.6	9.5	9.1	9.2	8.5

Therapeutic Abortions

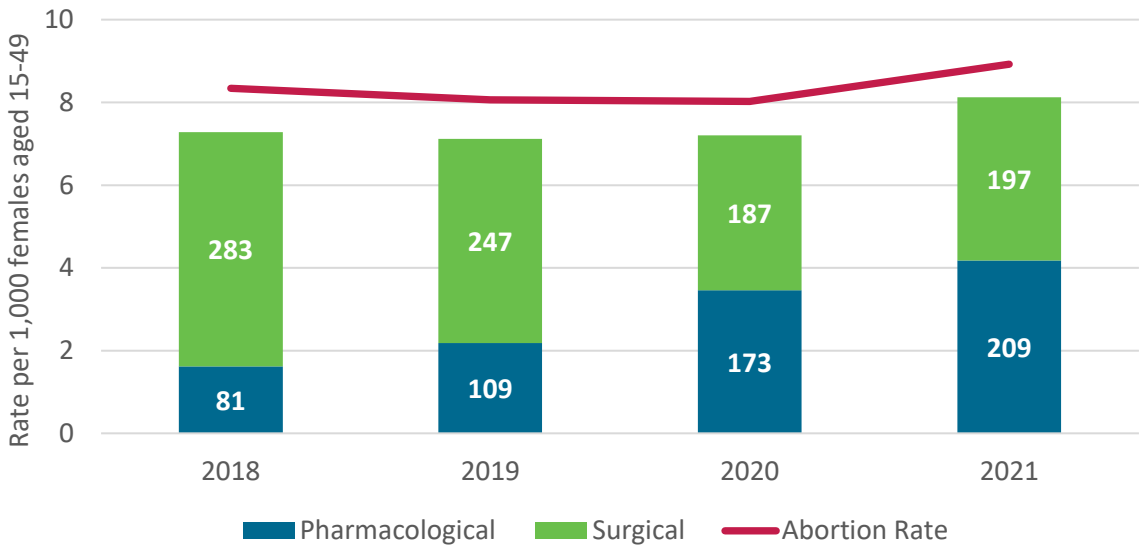
Data Source: Surgical abortion data is from the Therapeutic Abortion Cube accessed via IntelliHEALTH. Pharmacological abortion data is from an ICES data request.

A therapeutic abortion is defined as an intentional termination of a pregnancy (also known as an induced abortion). It may be an indicator of an unwanted or unplanned pregnancy. It may also be performed to discontinue pregnancies that pose a health risk to the mother or to terminate pregnancies with major abnormalities.

A therapeutic abortion can be performed using a surgical procedure or a medication (pharmacological abortion).[1] In Canada, the medication used to perform pharmacological abortions is called Mifegymiso. While this medication was approved in Canada in 2015, it didn't become available to the public until 2017.[2] It's important to note that the emergency contraception pill and the abortion medication are not the same thing. The emergency contraception pill prevents a pregnancy from occurring while the abortion medication ends a pregnancy that has already begun.[3] The emergency contraception pill is taken up to 5 days after unprotected sex or contraceptive failure, while the abortion medication can be prescribed up to 9 weeks of pregnancy.[2,4]

The local therapeutic abortion rate remained steady between 2018 and 2020 and increased slightly in 2021 (Figure 3). The ratio of pharmacological to surgical therapeutic abortions has changed over time. Locally, in 2018, 1 in 5 therapeutic abortions occurred using the abortion medication, which increased to 1 in 2 in 2021 (Figure 3).

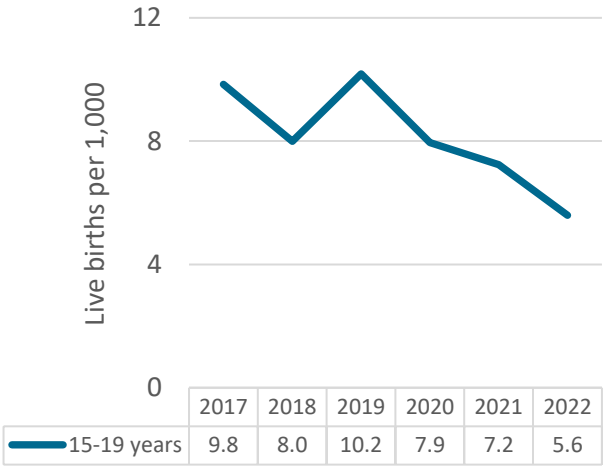
Figure 3. Number of Pharmacological & Surgical Abortions and Overall Abortion Rate, SWPH Region, 2018-2021



Fertility Rates

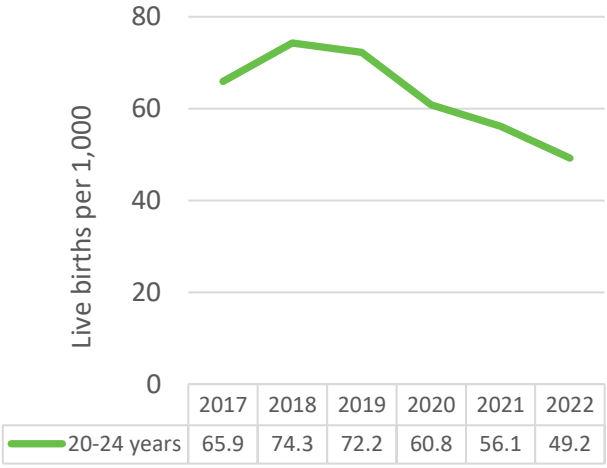
Fertility rates refer to the number of live births per 1,000 females in a given age group. Locally, fertility rates were highest among women aged 25-29 years, followed by those aged 30-34 years. Fertility rates among both 15-19 year olds and 20-24 year olds have declined in recent years (Figure 4 and Figure 5).

Figure 4. Fertility Rates Among Women Aged 15-19, SWPH Region, 2017-2022



	2017	2018	2019	2020	2021	2022
15-19 years	9.8	8.0	10.2	7.9	7.2	5.6

Figure 5. Fertility Rates Among Women Aged 20-24, SWPH Region, 2017-2022

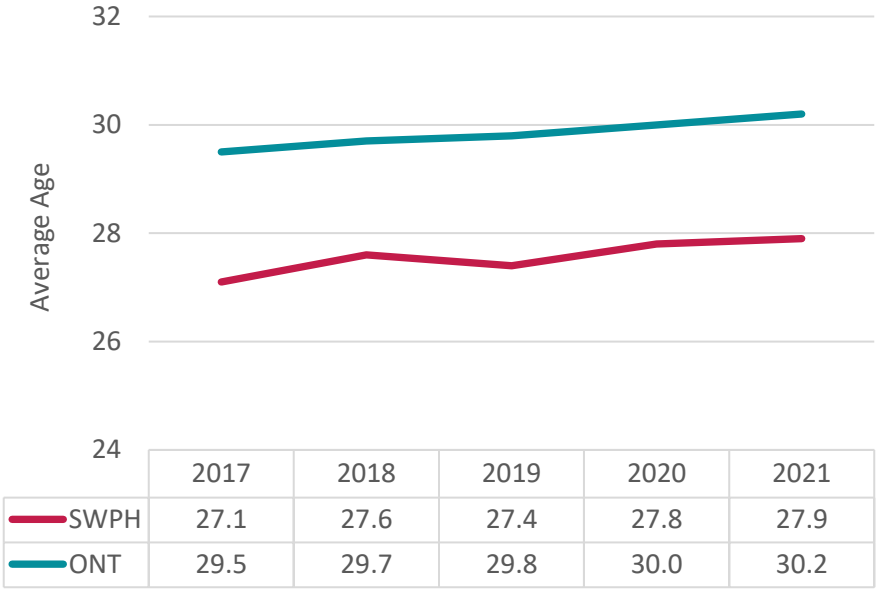


	2017	2018	2019	2020	2021	2022
20-24 years	65.9	74.3	72.2	60.8	56.1	49.2

Maternal Age

Between 2017 and 2021, there was a slight increase in the average maternal age at first birth, both locally and provincially. The average age at first birth remains lower locally compared to the province. The average age rose from 27.1 to 27.9 years locally, while the provincial average age rose from 29.5 to 30.2 years (Figure 6).

Figure 6. Average Maternal Age at First Birth, SWPH Region and Ontario, 2017-2021



	2017	2018	2019	2020	2021
SWPH	27.1	27.6	27.4	27.8	27.9
ONT	29.5	29.7	29.8	30.0	30.2

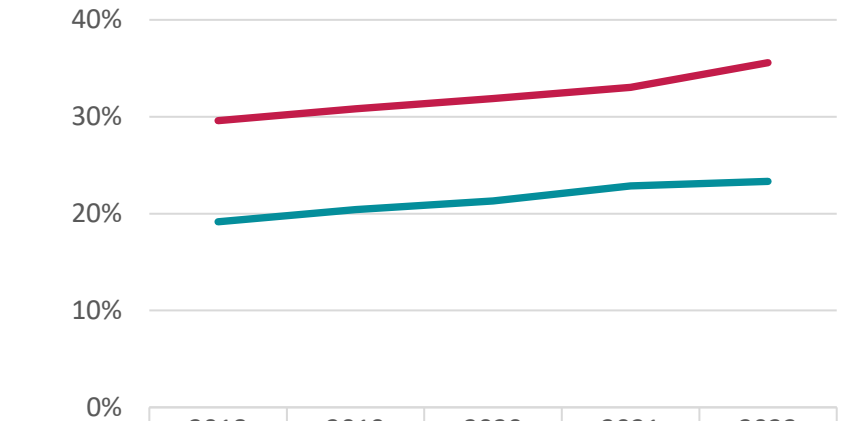
Maternal Mental Health

Mental Health Concerns

Mental health concerns during pregnancy (both formally diagnosed and self-reported) have been on the rise, locally and provincially. Over 1 in 3 women (35.6%) who live in the SWPH region experienced mental health issues during pregnancy in 2022 (Figure 7). Mental health concerns during pregnancy are higher locally compared to the province.

Data Source:
Maternal mental health data is from the BORN Information System

Figure 7. Mental Health Concerns During Pregnancy, SWPH Region and Ontario, 2018-2022

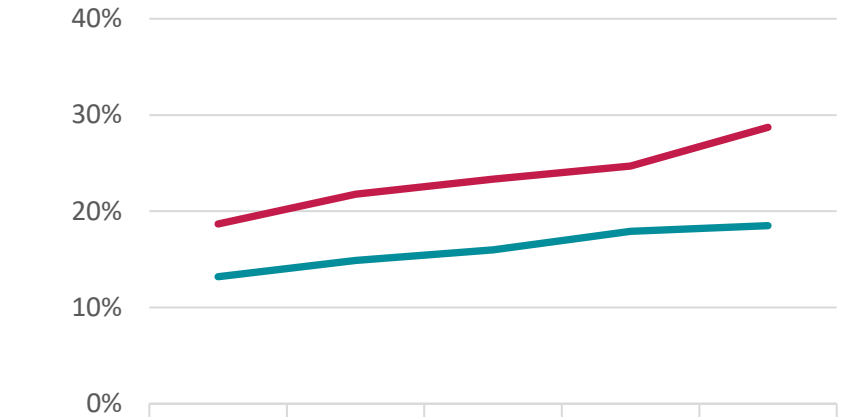


	2018	2019	2020	2021	2022
SWPH	29.6%	30.8%	31.9%	33.0%	35.6%
ONT	19.2%	20.4%	21.3%	22.9%	23.3%

Anxiety

Anxiety during pregnancy in the Southwestern Public Health region increased by 10% between 2018 and 2022 and was higher compared to the province (Figure 8). In 2022, 28.7% of local women experienced anxiety during pregnancy compared to 18.5% provincially.

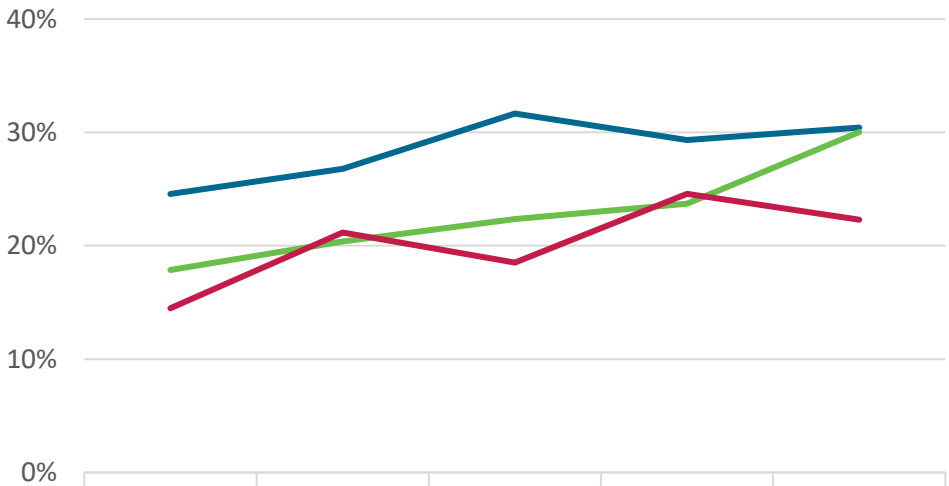
Figure 8. Anxiety During Pregnancy, SWPH Region and Ontario, 2018-2022



	2018	2019	2020	2021	2022
SWPH	18.7%	21.8%	23.3%	24.7%	28.7%
ONT	13.2%	14.9%	16.0%	17.9%	18.5%

Anxiety in pregnant women increased among all age groups between 2018 and 2022 (Figure 9). While anxiety was highest among women 24 and under from 2018 to 2021, in 2022, anxiety among the 25-34 age group rose to meet the proportions seen in the younger age group.

Figure 9. Anxiety During Pregnancy by Age Group, SWPH Region, 2018-2022

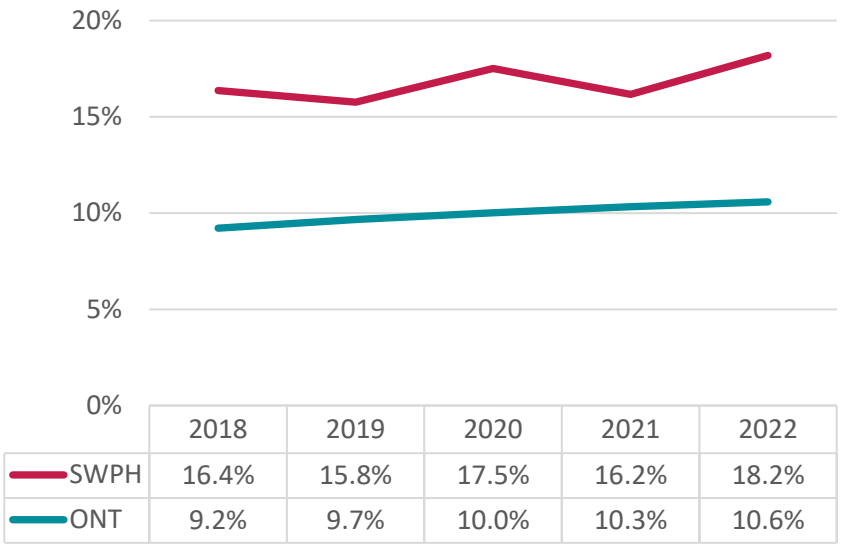


	2018	2019	2020	2021	2022
24 and under	24.6%	26.8%	31.7%	29.3%	30.4%
25-34	17.9%	20.4%	22.3%	23.7%	30.0%
35+	14.5%	21.2%	18.5%	24.6%	22.3%

Depression

While depression was the 2nd largest contributor to mental health concerns during pregnancy, there was only a slight increase in the proportion of pregnant women with depression from 2018 to 2022 (Figure 10). Depression during pregnancy was higher locally compared to the province.

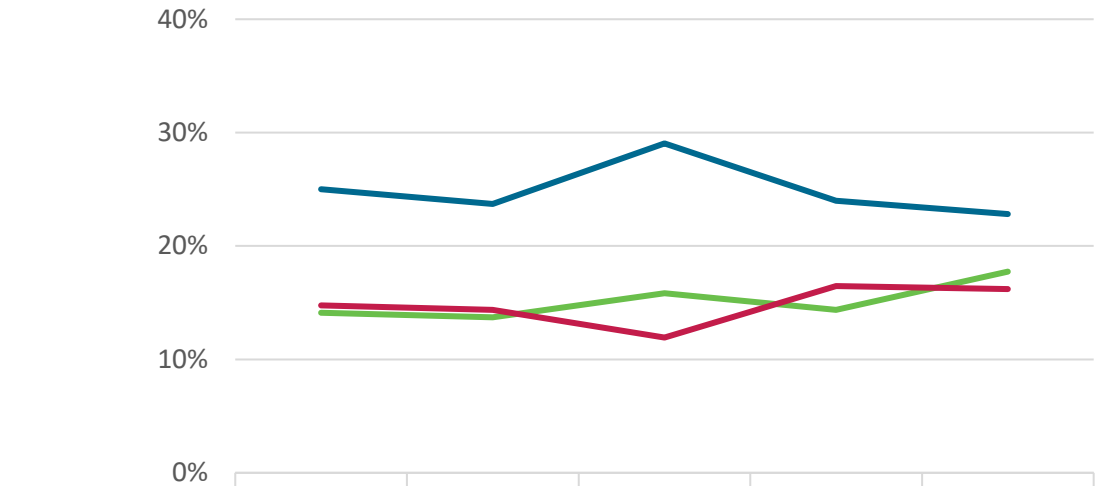
Figure 10. Depression During Pregnancy, SWPH Region and Ontario, 2018-2022



	2018	2019	2020	2021	2022
SWPH	16.4%	15.8%	17.5%	16.2%	18.2%
ONT	9.2%	9.7%	10.0%	10.3%	10.6%

Depression during pregnancy occurred most often in women aged 24 years and younger (Figure 11). In this age group, depression peaked in 2020, coinciding with the beginning of the COVID-19 pandemic.

Figure 11. Depression During Pregnancy by Age Group, SWPH Region, 2018-2022

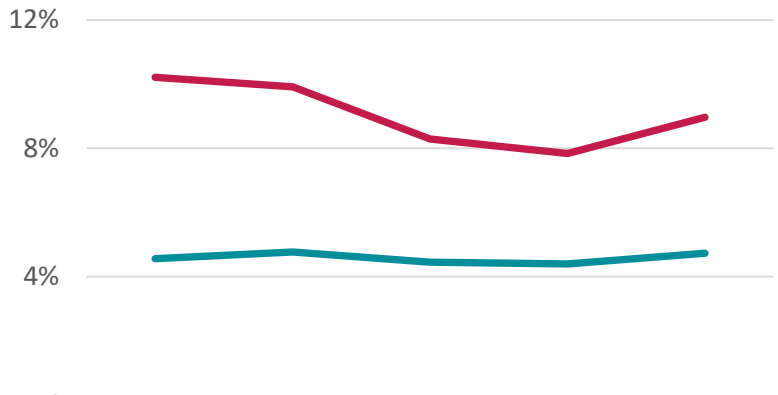


	2018	2019	2020	2021	2022
24 and under	25.0%	23.7%	29.0%	24.0%	22.8%
25-34	14.1%	13.7%	15.8%	14.4%	17.7%
35+	14.8%	14.4%	11.9%	16.5%	16.2%

Post-partum Depression

In 2022, about 1 in 10 (9.0%) pregnant women in the Southwestern Public Health region, who had given birth at least once before, had a history of post-partum depression (Figure 12). Post-partum depression is, on average, twice as common locally compared to the province.

Figure 12. History of Post-Partum Depression, SWPH Region and Ontario, 2018-2022



	2018	2019	2020	2021	2022
SWPH	10.2%	9.9%	8.3%	7.8%	9.0%
ONT	4.6%	4.8%	4.4%	4.4%	4.7%

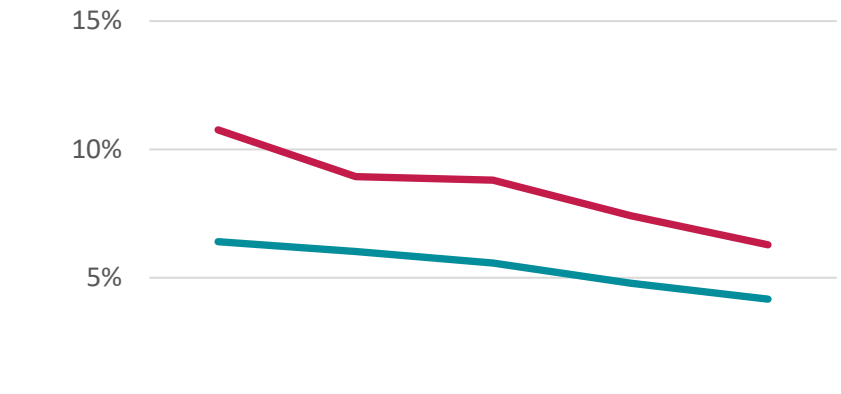
Maternal Substance Use

Tobacco

Locally and provincially, the proportion of pregnant women who reported smoking at the time of labour (admission for birth) decreased between 2018 and 2022. In 2018, about 1 in 10 (10.8%) pregnant women in the Southwestern Public Health region reported smoking, compared to 1 in 16 (6.3%) in 2022 (Figure 13). While there was a steeper decline locally, proportions for SWPH remained higher than the province in 2022.

Data Source:
Maternal substance use data is from the BORN Information System

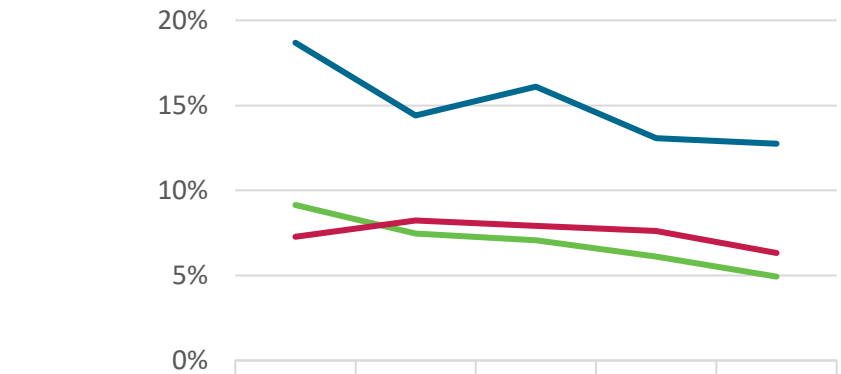
Figure 13. Smoking at Admission for Birth, SWPH Region and Ontario, 2018-2022



	2018	2019	2020	2021	2022
SWPH	10.8%	8.9%	8.8%	7.4%	6.3%
ONT	6.4%	6.0%	5.6%	4.8%	4.2%

Smoking at admission for birth was highest among women aged 24 years and under (Figure 14). Women in this age group also had the largest decline between 2018 and 2022, with 18.7% reporting smoking at admission for birth in 2018 compared to 12.7% in 2022.

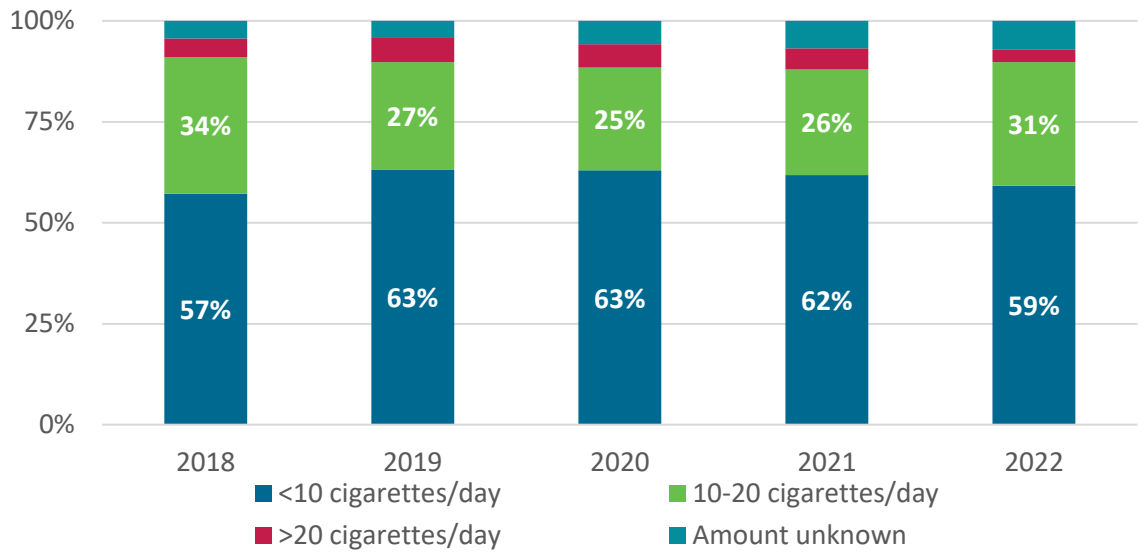
Figure 14. Smoking at Admission for Birth by Age Group, SWPH Region, 2018-2022



	2018	2019	2020	2021	2022
24 and under	18.7%	14.4%	16.1%	13.1%	12.7%
25-34	9.1%	7.5%	7.1%	6.1%	4.9%
35+	7.3%	8.2%	7.9%	7.6%	6.3%

Among pregnant women who smoke, most reported smoking less than 10 cigarettes per day, followed by 10-20 cigarettes per day (Figure 15).

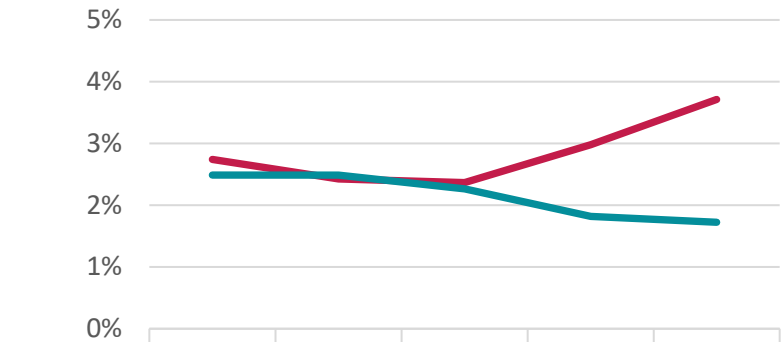
Figure 15. Cigarettes Smoked per Day Among Pregnant Smokers, SWPH Region, 2018-2022



Alcohol

The proportion of women who reported consuming alcohol during their pregnancy increased in the SWPH region between 2020 and 2022 and was about twice as high compared to the province in 2022 (Figure 16). About two-thirds (2/3) of women who reported drinking alcohol while pregnant drank prior to their pregnancy being confirmed.

Figure 16. Consumed Alcohol During Pregnancy, SWPH Region and Ontario, 2018-2022

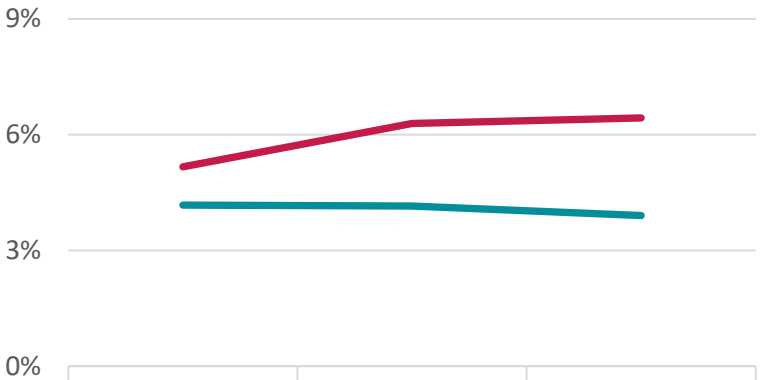


	2018	2019	2020	2021	2022
SWPH	2.7%	2.4%	2.4%	3.0%	3.7%
ONT	2.5%	2.5%	2.3%	1.8%	1.7%

Cannabis

The proportion of women who reported using cannabis at any point during their pregnancy increased locally from 5.2% in 2020 to 6.4% in 2022, while the provincial proportion remained steady during the same time period at around 4% (Figure 17).

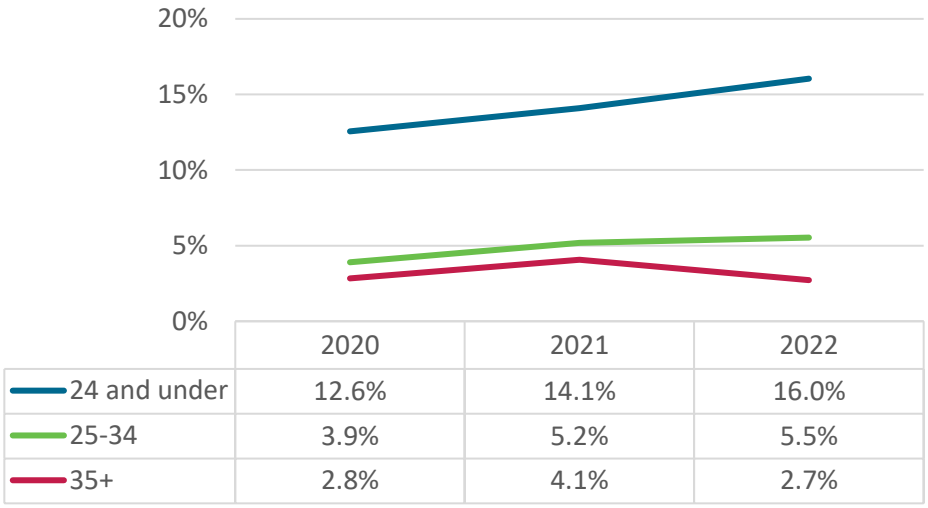
Figure 17. Cannabis Use During Pregnancy, SWPH Region and Ontario, 2020-2022



	2020	2021	2022
SWPH	5.2%	6.3%	6.4%
ONT	4.2%	4.2%	3.9%

Women aged 24 and under were most likely to report using cannabis during pregnancy in the SWPH region (Figure 18). Cannabis use among pregnant women in this age group increased from 12.6% in 2020 to 16.0% in 2022.

Figure 18. Cannabis Use During Pregnancy by Age Group, SWPH Region, 2020-2022

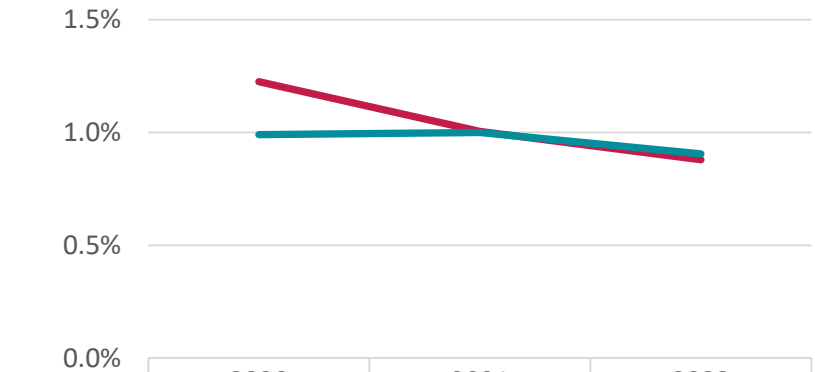


	2020	2021	2022
24 and under	12.6%	14.1%	16.0%
25-34	3.9%	5.2%	5.5%
35+	2.8%	4.1%	2.7%

Illegal Substances

A very small proportion of women reported using illegal drugs or substances (not including alcohol or cannabis) during their pregnancy and this decreased from 1.2% in 2020 to 0.9% in 2022 in the SWPH region (Figure 19).

Figure 19. Illegal Substance Use During Pregnancy, SWPH Region and Ontario, 2020-2022



	2020	2021	2022
SWPH	1.2%	1.0%	0.9%
ONT	1.0%	1.0%	0.9%

Infant Feeding

Exclusive breastfeeding refers to feeding a baby solely with breastmilk, which can include expressed milk or donor milk.[5] This means the baby has not received formula, other liquids or solid foods. Other liquids include water, sugar water, or juice, but do not include vitamins or medications.[5] The Public Health Agency of Canada, Health Canada and the World Health Organization recommend that babies be fed only breastmilk from birth to 6 months of age and that breastfeeding continue for up to two years or more after introducing age appropriate foods beginning at 6 months of age.[6] In addition to providing all the nutrients that a baby needs for healthy growth and development, breastfeeding also provides protection against several health conditions, including ear and chest infections, stomach upset causing diarrhea and some childhood cancers, as well as reducing the risk of sudden infant death syndrome (SIDS).[7] Breastfeeding also benefits mothers by reducing the risk of postpartum bleeding and type 2 diabetes, as well as breast and ovarian cancer.[7] It is important to recognize, however, that individual circumstances are unique and not all mothers may choose to or be able to offer breastmilk.

Southwestern Public Health endeavours to increase the proportion of women who feed their baby breastmilk. To help understand infant feeding choices, data is collected from pregnant women and new mothers. Across the province, data regarding the intention to exclusively breastfeed is collected from women during pregnancy or at the time of birth. Feeding practices are also collected after birth, upon discharge from the hospital or midwifery practice. In addition, local surveys were administered to new moms between 2015 and 2020 to collect detailed infant feeding information up to 12 months of age.

Breastfeeding

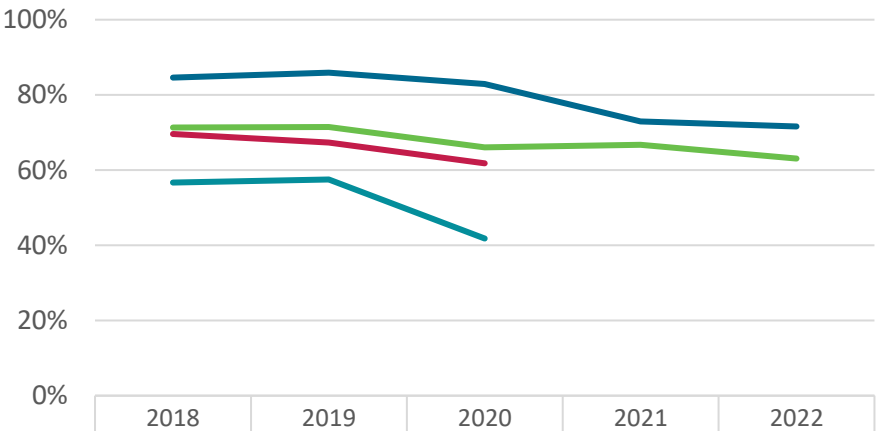
Data on the 'Intention to exclusively breastfeed' is collected from women during pregnancy or at the time of birth and has been decreasing over time locally. In 2018, 84.6% of women intended to exclusively breastfeed their baby compared to only 71.6% in 2022 (Figure 20).

Data Source: Infant feeding data is from the BORN Information System and SWPH's local infant feeding survey.

Data regarding ‘Feeding at the hospital or midwifery practice group (MPG)’, sometimes called ‘feeding at entry to PHU service’, is collected at discharge and is also decreasing over time. In 2018, 71.3% of babies were fed breastmilk-only at discharge, compared to 63.1% in 2022 (Figure 20).

New mothers in the SWPH region were surveyed when their babies were two months old. The number of babies that were fed breastmilk only during the past week decreased from 70% in 2018 to 62% in 2020 (Figure 20). The number of babies that were fed breastmilk exclusively since birth also decreased from 57% in 2018 to 42% in 2020 (Figure 20).

Figure 20. Exclusively Fed Breastmilk, SWPH Region, 2018-2022



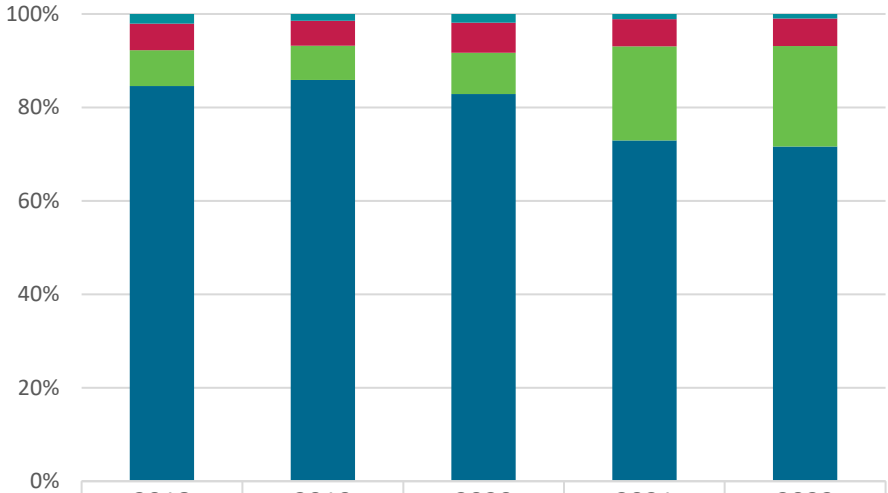
	2018	2019	2020	2021	2022
Intends to exclusively breastfeed (BORN)	84.6%	85.9%	82.9%	72.9%	71.6%
Feeding at hospital or MPG, breastmilk only (BORN)	71.3%	71.5%	66.0%	66.7%	63.1%
Exclusively fed breastmilk past week (IFS 2-month survey)	70%	67%	62%		
Exclusively fed breastmilk since birth (IFS 2-month survey)	57%	58%	42%		

Note: Data regarding infant feeding at 2 months of age was not collected in 2021 or 2022.

Intention to Breastfeed

Similar to the province, while the local proportion of pregnant women who intended to exclusively breastfeed is decreasing, the proportion who intended to combination feed (using breastmilk and a breastmilk substitute) is increasing (Figure 21). The proportion who intended to exclusively formula feed has remained consistent over time.

Figure 21. Intention to Breastfeed, SWPH Region, 2018-2022

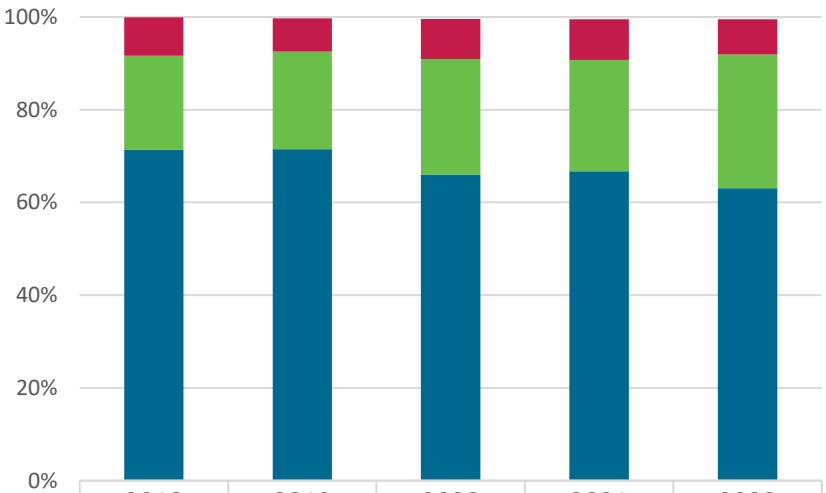


	2018	2019	2020	2021	2022
Mother unsure	2.0%	1.5%	1.8%	1.1%	1.0%
Does not intend to breastfeed	5.7%	5.3%	6.5%	5.8%	5.9%
Intends to combination feed (use breastmilk and breastmilk substitute)	7.7%	7.3%	8.8%	20.1%	21.5%
Intends to exclusively breastfeed	84.6%	85.9%	82.9%	72.9%	71.6%

Feeding at Discharge from the Hospital or Midwifery Practice Group

The proportion of local babies who have been exclusively breastfed upon discharge from the hospital or Midwifery practice is decreasing, while the proportion that are combination fed is increasing, similar to the province (Figure 22).

Figure 22. Feeding at Discharge, SWPH Region, 2018-2022

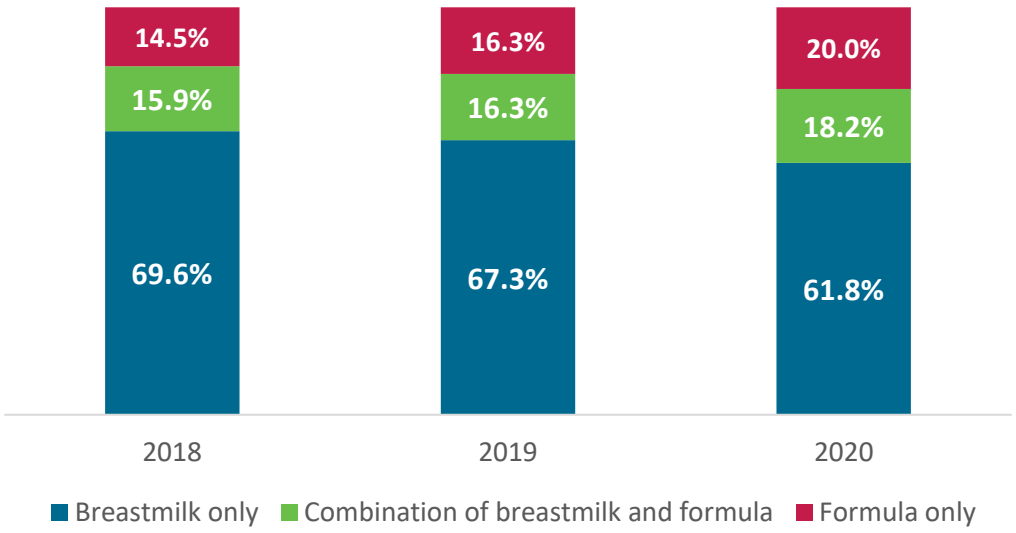


	2018	2019	2020	2021	2022
Formula only	8.3%	7.2%	8.6%	8.7%	7.6%
Combination of breastmilk and formula	20.3%	21.1%	24.9%	24.0%	28.9%
Breastmilk only	71.3%	71.5%	66.0%	66.7%	63.1%

Feeding at 2 Months Old

Mothers were surveyed when their babies were 2 months old. The proportion of survey respondents who fed their baby breastmilk only in the past week decreased from 2018 to 2020, while the proportion who fed babies formula only increased (Figure 23).

Figure 23. Infant Feeding During the Past Week at 2 Months Old, SWPH Region, 2018-2020

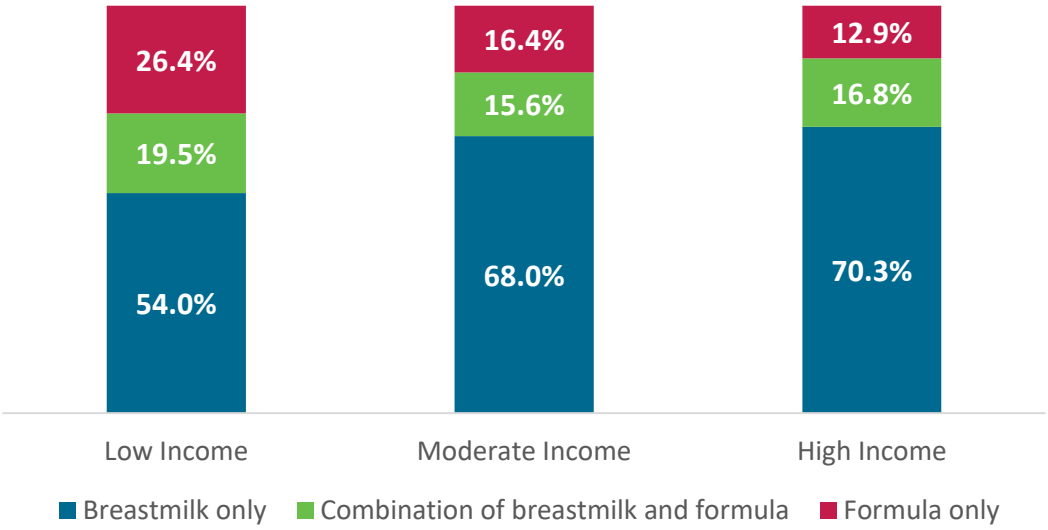


Household income, along with the number of individuals supported by this income, was collected from each participant in the SWPH Infant Feeding Survey. For analysis, participants were grouped into three income categories that align with previous survey reporting:

- Low income: household income is less than $30,000, regardless of the number of people supported by it or is between $30,000 and $59,999 and supports three or more people.
- Moderate income: household income is between $30,000 and $59,999 and supports two people, or is between $60,000 and $89,999 and supports three or more people.
- High income: household income is between $60,000 and $89,999 and supports two people, or $90,000 or higher, regardless of the number of people supported by it.

Mothers from low income households were less likely to have fed breastmilk only to their babies in the past week compared to mothers from moderate and high income households (Figure 24).

Figure 24. Infant Feeding During the Past Week at 2 Months Old by Household Income, SWPH Region, 2018-2020



Formula Feeding

Results from the two-month survey showed that more than two-thirds of babies who had received at least some formula since birth *first* received formula at less than two weeks of age. Almost all participants had attempted to breastfeed or provide breastmilk to their baby at least once. This suggests that mothers need to be connected to breastfeeding support as early as possible in order to keep breastfeeding.

Among mothers whose babies had first received formula at less than 2 weeks of age, approximately half reported that a health care professional recommended that they give their baby formula. This health care professional was most often a doctor or nurse in the hospital. First-time moms were more likely to be recommended formula compared to moms with more than 1 child (59.2% vs. 40.5%, respectively).

Common reasons reported as to why a baby was first given formula included:

- Mother was not producing enough milk
- Baby had difficulty latching or was not breastfeeding well

- Baby seemed hungry, fussy or colicky

More detailed information regarding infant feeding can be found in the 2023 report titled *Infant Feeding in the Southwestern Public Health Region*, located on the SWPH website.[8]

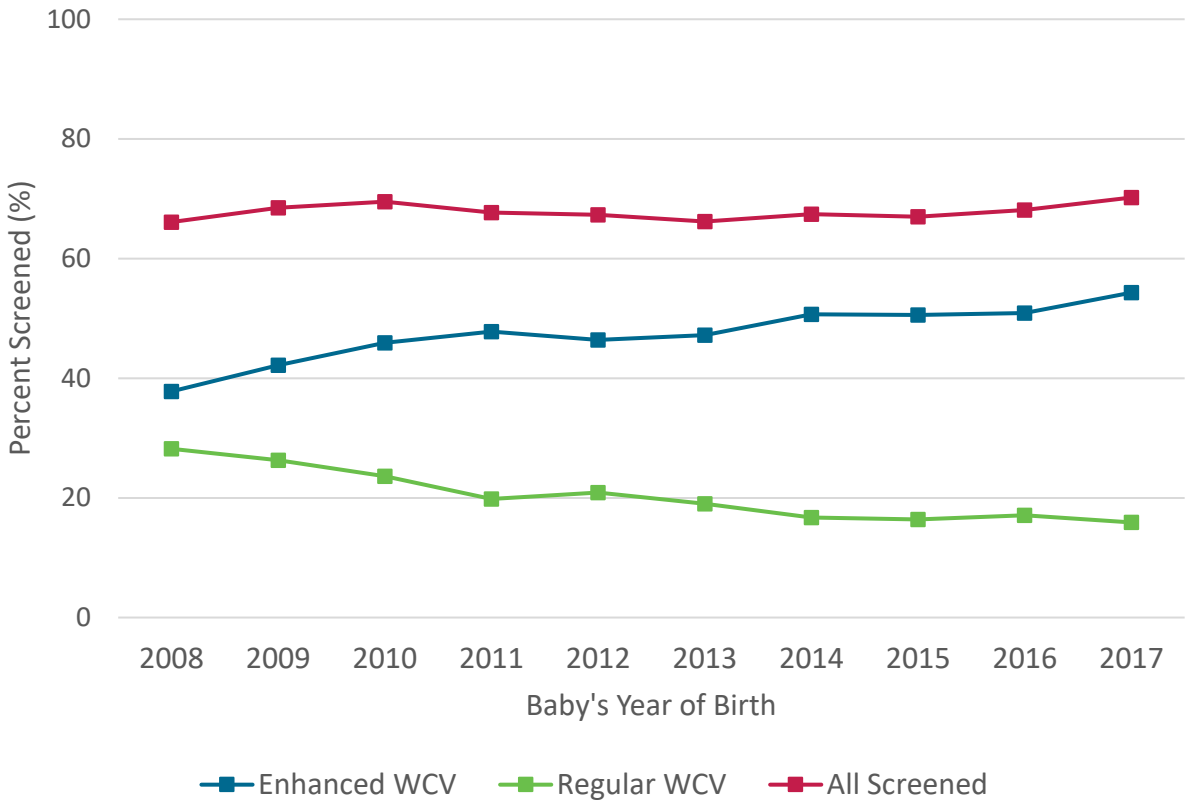
Well-Child Visits

Ideally, all children in Ontario would receive an enhanced 18-month well-child visit (WCV), which is more comprehensive than a regular WCV. During an enhanced WCV, a healthcare professional will go through a checklist of 18-month developmental milestones, such as the Looksee Checklist.[9] The enhanced visit allows for more time compared to a regular visit to discuss the child's development, address concerns and determine what kind of support a child may need. The 18-month visit is also an important time for babies to receive immunizations in accordance with the Ontario vaccination schedule. This visit is often the last routine check-up before a child starts school.[9]

Data Source:
Well-child visit data is from an ICES data request.

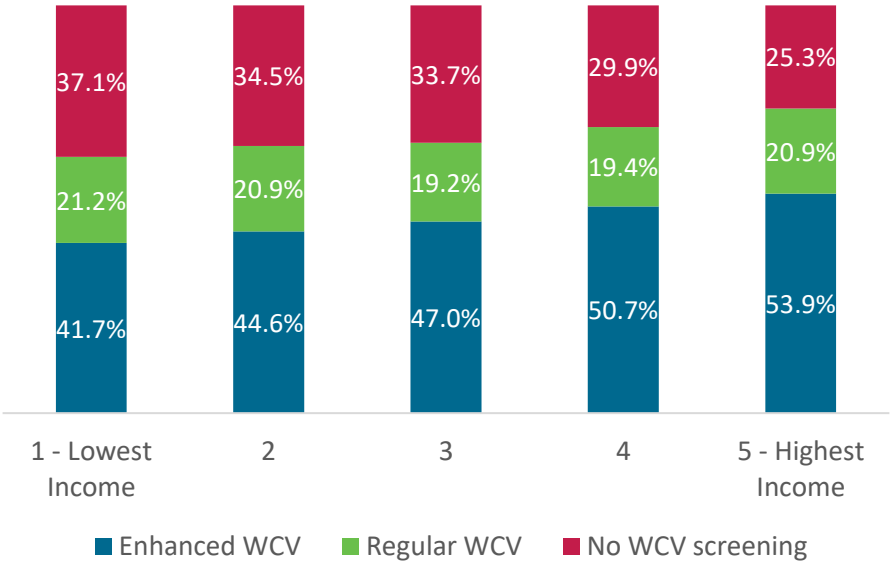
Between 2008 and 2017, almost 7 in 10 children in the SWPH region received some type of WCV at 18 months old and this changed very little over time (Figure 25). The proportion of children receiving an enhanced WCV at 18 months old increased, while the proportion receiving a regular WCV decreased.

Figure 25. Well-Child Visits, SWPH Region, 2008-2017



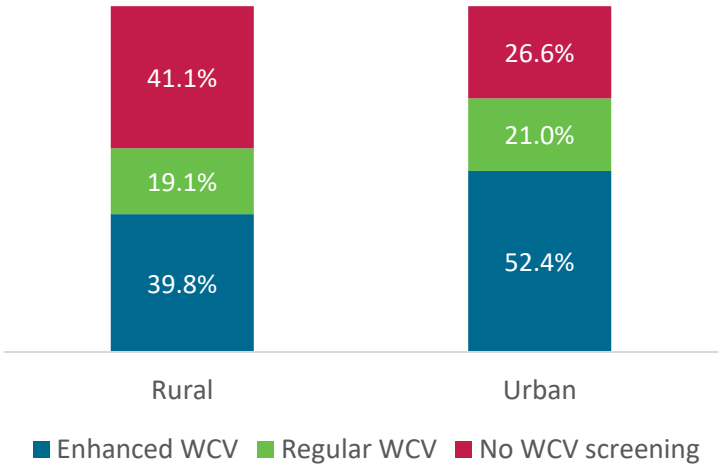
Using census data, neighbourhoods were separated into 5 groups by income level, with group 1 including the lowest income neighbourhoods and group 5 including the highest income neighbourhoods. Children who lived in higher income neighbourhoods were more likely to receive screening at 18 months compared to children who lived in lower income neighbourhoods (Figure 26).

Figure 26. Well-Child Visits by Neighbourhood Income Level, SWPH Region, 2008-2017



Children who lived in urban areas were more likely to receive screening at 18 months compared to children who lived in rural areas (Figure 27).

Figure 27. Well-Child Visits by Rural vs. Urban Residence, SWPH Region, 2008-2017



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