

BMJ Open Cannabis Use in Pregnancy and Downstream effects on maternal and infant health (CUPiD): a protocol for a birth cohort pilot study

Serine Ramlawi ¹, Malia S Q Murphy,¹ Alysha L J Dingwall-Harvey,¹ Ruth Rennicks White,¹ Laura M Gaudet,^{2,3} Amy McGee,⁴ Amanda DeGrace,¹ Christina Cantin,^{5,6} Darine El-Chaâr ^{1,7}, Mark C Walker,^{1,7} Daniel J Corsi ^{7,8}

To cite: Ramlawi S, Murphy MSQ, Dingwall-Harvey ALJ, *et al.* Cannabis Use in Pregnancy and Downstream effects on maternal and infant health (CUPiD): a protocol for a birth cohort pilot study. *BMJ Open* 2022;**12**:e066196. doi:10.1136/bmjopen-2022-066196

► Prepublication history and additional supplemental material for this paper are available online. To view these files, please visit the journal online (<http://dx.doi.org/10.1136/bmjopen-2022-066196>).

Received 29 June 2022
Accepted 05 December 2022



© Author(s) (or their employer(s)) 2022. Re-use permitted under CC BY-NC. No commercial re-use. See rights and permissions. Published by BMJ.

For numbered affiliations see end of article.

Correspondence to

Dr Daniel J Corsi;
dcorsi@ohri.ca

ABSTRACT

Introduction Cannabis use in pregnancy and post partum is increasing. Accessibility to cannabis has expanded due to the legalisation of cannabis in Canada. Therefore, there is a critical need to monitor the impact of cannabis on pregnancy outcomes and infant neurodevelopment. This pilot study will assess the feasibility of modern recruitment and data collection strategies adapted to the current cannabis environment and inform the design of a multicentre prospective birth cohort.

Methods and analysis We will establish a pregnancy and birth cohort of 50 cannabis users and 50 non-users recruited before delivery. We will follow the participants at regular visits from recruitment to 12 weeks post partum. Participants will provide demographic and socioeconomic data, report their cannabis use patterns, and provide biological samples. Biological samples include maternal and infant urine and blood, breastmilk/chestmilk, cord blood, cord tissue, placenta and meconium. All samples will be processed and stored at -80°C until analysis by immunoassay or liquid chromatography-tandem mass spectrometry to determine the presence of cannabis metabolites. In addition, partners will be invited to provide additional socioeconomic and substance use data.

Ethics and dissemination Ethics was obtained from Ottawa Health Science Network Research Ethics Board through Clinical Trials Ontario (3791). Our findings will be published in peer-reviewed journals, presented at scientific conferences and shared broadly with patients, healthcare decision-makers, and project partners online and through social media.

Trial registration number NCT05309226. Cite Now

INTRODUCTION

Cannabis is a widely used drug in developed and low/middle-income countries, with up to 1 in 10 individuals reporting past-year use in many countries.^{1,2} The prevalence of cannabis use in Canada has increased since 2011 due to increased social acceptability, accessibility and availability.³ Canada is among multiple countries that have legalised cannabis for any purpose (ie, medicinal and/or recreational

STRENGTHS AND LIMITATIONS OF THIS STUDY

- ⇒ Cannabis Use in Pregnancy and Downstream effects on maternal and infant health is a pilot cohort to inform the development of a more extensive, multicentre prospective birth cohort of mothers and infants conceived in the cannabis postlegalisation environment.
- ⇒ We will combine in-depth data collection with biological sample analyses to generate a detailed dataset of self-reported and objectively measured cannabis exposure.
- ⇒ Participants using controlled or illegal substances at enrolment will be excluded.
- ⇒ We will recruit pregnant participants before delivery and follow them for up to three visits in pregnancy, at admission for labour and delivery, and at 6–12 weeks post partum.
- ⇒ Secondary analyses will relate cannabis use in pregnancy to perinatal and neonatal outcomes.

purposes). In 2020, it was reported that approximately 20% of Canadians older than 15 years of age consumed cannabis, increasing from a prevalence of 14% in 2018 before legalisation.⁴ Notably, the prevalence of cannabis use in pregnancy has increased, and it is the second most commonly used substance in pregnancy, behind tobacco.^{5–9} Legalising cannabis and its increased use in many populations, including pregnant individuals, may contribute to a decreased perception of its harm.^{2 10}

However, findings from retrospective cohort studies suggest that fetal cannabis exposure is associated with adverse neonatal outcomes, including stillbirth, small for gestational age, low birth weight, preterm birth and admission to neonatal intensive care units (NICU).^{6 11–18} Lasting neurodevelopmental effects in offspring have also been suggested.^{12 15 19} Although findings from



prospective cohorts vary, evidence suggests that fetal cannabis exposure may predispose children to have cognitive, behavioural and emotional challenges. Chemicals in cannabis, that is, tetrahydrocannabinol (THC), cannabidiol (CBD), cannabinol and their metabolites, readily cross the placenta and enter the fetal bloodstream. The lipophilic nature and low molecular weight of cannabinoid compounds contribute to their ability to accumulate in fetal tissues including the brain. Notably, cannabinoids can also be transferred to neonates via breastmilk/chestmilk when nursing. Although data on breastmilk/chestmilk are limited, cannabinoids have been detected in the breastmilk/chestmilk of cannabis users and also in the faeces and urine of exposed infants.^{20–22} Challenges in determining the long-term effects of cannabis exposure on fetal and child development include the difficulty of disentangling the influence of socioeconomic status, polysubstance use, frequency, dose, contaminants, mode of consumption, under-reporting of cannabis use and postpartum exposures.^{23–26}

Given the limitations of prior studies and the evolving cannabis environment, new prospective cohorts are needed to collect granular data on cannabis use in the obstetrical population and associations with perinatal and infant outcomes. Cannabis use behaviours are changing rapidly in postlegalisation settings. There are many cannabis products on the market, with varying THC and CBD contents, wide-ranging potency, and various use formats. In addition to user-reported data, it is essential to collect biological samples from which objective measures of cannabis exposures can be derived. Indeed, biosample analysis can alleviate challenges in interpreting self-reported data and unmeasured secondhand or coexposure.^{27–29} collection in recreational users.

In contrast, the detection window for chronic users may last for weeks.^{30–32} Other matrices such as meconium, cord blood, cord tissue and placental biopsies can also provide valuable information on exposure in utero.³³ Meconium, the first faecal matter passed by the newborn, has emerged as the gold standard for assessing long-term gestational exposure. Meconium begins to form from 12 to 16 weeks gestation and accumulates until birth.^{27 29 34} To address the need for contemporary Canadian cohorts to collect robust data on maternal and infant cannabis exposures, we report here the methodology for a pilot study assessing the feasibility of developing a more extensive prospective pregnancy and birth cohort on gestational and postnatal cannabis use.

METHODS AND ANALYSIS

Study design and setting

The Cannabis Use in Pregnancy and Downstream effects on maternal and infant health (CUPiD) study is a multicentre, prospective, observational cohort pilot study of pregnant individuals and their infants. Participants will be followed throughout pregnancy and into the postpartum period up to 12 weeks after delivery. In addition,

participants may invite their partners to participate in a one-time survey.

Recruitment will be in Ottawa and Kingston, Canada, at The Ottawa Hospital (TOH), Ottawa Birth and Wellness Centre and Kingston Health Sciences Centre. Ottawa is the second largest city in Ontario and fourth largest in Canada with 1.4 million population in the Ottawa-Gatineau area.³⁵ TOH has approximately 7500 births per year. Kingston General Hospital (KGH), located at Kingston Health Sciences Centre, has a smaller population (approximately 172 500)³⁵; however, KGH has an extensive catchment area of more than 20 000 km² with about 2300 births per year. TOH and KGH are level 3 maternity care hospitals with on-site neonatal and adult intensive care services.³⁶

Exposure

The exposure of interest is consuming any cannabis-related product in pregnancy. For this study, ‘cannabis’ refers to all forms of cannabis (eg, dry flower, edibles, extracts, concentrates) that may possess any naturally occurring or synthetic cannabinoids such as THC or CBD.

Outcomes

The primary outcome is the feasibility of establishing a more extensive multicentre prospective pregnancy cohort in this population. We will consider the primary outcome achieved if our recruitment rate is about 8–10 participants per month and we complete the recruitment of 100 patients within 12 months. We anticipate lower recruitment during study initiation in the first 2 months and that the recruitment rate will increase after we broadly distribute the study materials. We will also examine the enrolment rate, level of engagement, protocol compliance, appropriateness of eligibility criteria, sample size and time frame to achieve target recruitment. The level of engagement will be assessed by calculating the completeness of each study activity (questionnaire data and biological samples). Protocol compliance will be assessed by determining the proportion of participants who complete all study activities and the attrition rate (lost to follow-up or withdrawal of consent). The level of engagement and protocol compliance will help us understand the burden from each study activity and help us tailor data collection activities based on participant level of comfort. The enrolment rate will be the final number of participants enrolled in the cohort after any exclusions due to, for example, other substance use or abuse or pregnancy loss compared with those who agree to participate. We will aim to continue recruitment until 100 participants can be successfully enrolled. Appropriateness of sample size and time frame will be achieved if the target sample size is attained within 12 months.

The secondary outcomes will include perinatal and neonatal outcomes including gestational age at birth, birth weight and size at birth, fetal and neonatal morbidity, pregnancy complications, Apgar score, infant growth

Table 1 List of inclusion and exclusion criteria for participants and partners

	Participant	Partner
Inclusion criteria	<ul style="list-style-type: none"> ▶ Capacity to provide informed consent and comprehend and comply with the study requirements ▶ Planning to deliver at one of the participating sites ▶ ≥16 years of age at enrolment ▶ A viable pregnancy 	<ul style="list-style-type: none"> ▶ Capacity to provide informed consent and comprehend and comply with the study requirements ▶ Pregnant partner is enrolled in the CUPiD Study ▶ ≥16 years of age at enrolment
Exclusion criteria	<ul style="list-style-type: none"> ▶ Self-report non-prescription use of controlled and/or illegal drugs, and/or prescription use of opioid medications in their current pregnancy or 3 months prior to pregnancy ▶ Surrogate or planning to give up their infant for adoption 	<ul style="list-style-type: none"> ▶ There are no exclusion criteria for the partners

CUPiD, Cannabis Use in Pregnancy and Downstream effects on maternal and infant health.

(weight and height for age) and admission to NICU for greater than 24 hours.

Eligibility criteria

Participants and partners must all be able to provide informed consent, comprehend and comply with the study requirements and be 16 years or older at the time of enrolment. The eligibility criteria for this study are summarised in [table 1](#) and [figure 1](#).

Participants

Participants will include individuals planning to deliver at a participating site and have a viable pregnancy at the time of enrolment. Participants will be enrolled in one of the two following groups:

1. Group A: Pregnant individuals who report using any cannabis-related product(s) in pregnancy at in the enrolment trimester or within 30 days prior to enrolment, or have used cannabis-related products in the current pregnancy for any reason.
2. Group B: Pregnant individuals who report no use of cannabis-related products at the time of enrolment

and who have not used any cannabis-related products for at least 3 months before pregnancy.

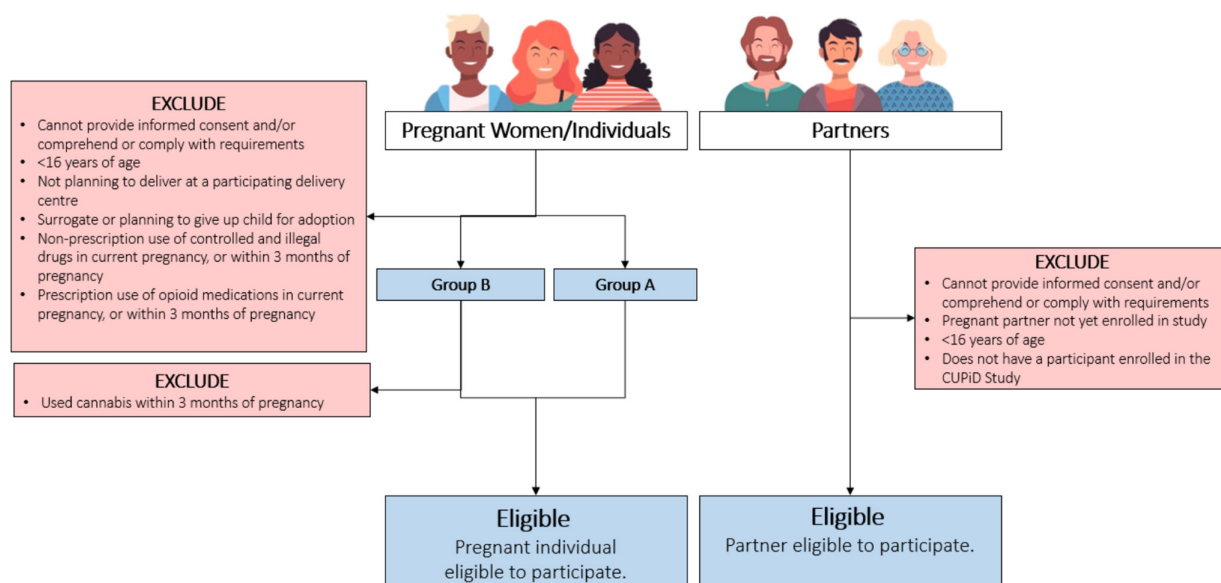
Individuals who self-report non-prescription use of controlled and/or illegal drugs,³⁷ and/or prescription use of opioid medications in their current pregnancy or 3 months before pregnancy will be excluded. We will also exclude individuals who are surrogates or planning to give up their infant for adoption.

Partners

Partners of enrolled participants will be eligible to participate in a one-time survey. The term ‘partner’ will broadly include an individual identified as such by the participant (any sex or gender, any status—marital, common-law or otherwise).

Recruitment and consent

Eligible individuals will be identified through a review of medical charts and recruited from antenatal clinics or via telephone. Individuals who have granted permission to be contacted for research purposes through their local hospitals will be contacted directly by a research


Figure 1 Eligibility criteria for participants and their partners.

team member. Individuals who did not indicate that they are willing to be contacted for research will otherwise be approached by a member of their circle of care. Eligible individuals may also self-identify themselves to the research team by responding to recruitment material. Recruitment material such as posters and brochures will be distributed around antenatal clinics, obstetricians and family physicians' offices, midwifery clinics and birth centres, and other establishments within the study catchment area. In addition, we will advertise the study through the professional and personal social media accounts of participating study team members and participating sites. Partners will only be invited to participate if the enrolled pregnant participant chooses to involve them in the study.

Participants will provide informed consent for themselves and on behalf of their infant(s) after they are born. Participants may provide permission for their and their infant(s) data and samples to be used for other future pregnancy and child health-related research. Partners will provide informed consent for themselves. All participants will be made aware of the study procedures, any related risks associated with participation, the potential for secondary use of data and samples, and informed that they have the right to withdraw from the study at any time.

Study visits and procedures

The study will consist of up to five visits starting in early pregnancy and ending at 6–12 weeks post partum. The total number of visits will vary based on the time of enrolment, and the visit schedule will be adjusted accordingly, maintaining 4 weeks between visits. For patients recruited before 13 weeks, visits 1, 2 and 3 will be in the first, second and third trimesters, respectively. Visit 4 will coincide with the participant's admission to the hospital or birthing centre for labour and delivery. Visit 5 will be scheduled between 6 and 12 weeks post partum. Data and biological samples will be collected from participants at each visit. Infant involvement will commence at the time of delivery and will also include biological samples and data collection. Partners will complete a one-time survey at any time during the study.

Data collection

Data will be collected directly from participants and their medical charts (table 2).

All surveys, including the baseline surveys, partner survey, cannabis intake diary and case report form, are included in online supplemental appendix A.

Biophysical measurements

Anthropometry will be collected throughout the study and include maternal height, weight and waist circumference. Maternal height will be documented at the beginning of the study, and weight and waist circumference will be documented throughout. We will collect maternal blood pressure from participants' medical charts, where available. After delivery and at each subsequent study visit, infant weight, length, and abdominal and head circumference will be measured.

Baseline survey

This survey will be administered at enrolment to collect maternal/birthing parent sociodemographic characteristics, details about the household environment such as nature and size of dwelling, nature and number of household members, medical and obstetrical histories, including mental health conditions, previous substance use (any substance use) and current substance use. We will ask about anticipated changes to substance use during pregnancy or after delivery (if any). Among group A, we will ask about the reasons for cannabis use (eg, nausea/vomiting, stress/anxiety, recreational, medical condition), frequency and mode of consumption (eg, smoked, vaped, consumed). Where possible, cannabinoid content and/or brand will be collected. In addition, indoor secondhand exposure to cannabis and tobacco will be documented. We will also include questions to ascertain the nature of counselling participants have received on cannabis use/exposure in pregnancy from their health-care provider(s) and the extent of information the participant has sought or received about cannabis use (from healthcare providers, independent research or through family/friends/acquaintances).

Table 2 Schedule of data collection

Visit 1 ≤12 ^{6/7} weeks	Visit 2 13 to 26 ^{6/7} weeks and ≥4 weeks after visit 1	Visit 3 ≥27 weeks and ≥4 weeks after visit 2	Visit 4 Admission for labour and delivery	Visit 5 6–12 weeks post partum
Baseline survey*	Follow-up survey	Follow-up survey	Follow-up survey	Follow-up survey
Biophysical measurements	Biophysical measurements	Biophysical measurements	Biophysical measurements	Infant health survey Biophysical measurements
Cannabis intake diary (throughout study)				
Partner survey (whenever the partner enrolls)				
Case report form (throughout study)				
*Baseline survey will be administered at enrolment and may replace the follow-up survey.				

Follow-up surveys

Following enrolment, these surveys will be administered to mothers/birthing parents in each subsequent study visit. These surveys will capture participants' cannabis use and cannabis use counselling or information received since the last study visit. In addition, secondhand exposure to cannabis and tobacco in different environmental settings will be documented. These surveys will also collect information related to significant changes in health or well-being (eg, life-changing diagnoses, hospitalisation, emergency health visits).

Infant health survey

Participants will complete this survey on behalf of their infants. It will capture data related to child feeding status (eg, breastmilk/chestmilk, formula or other supplementation, combination) and document significant changes in child health or well-being (eg, life-changing diagnoses, hospitalisation, emergency health visits) reported by the mother/birthing parent. The survey will not be administered if an infant has died before the study visit.

Cannabis intake diary

Participants will be asked to record their cannabis use in a diary. The Cannabis Intake Diary will prompt participants to record details such as date of use, the product format/type, how the product was used/ingested, the amount consumed and the THC and/or CBD content if known.

Partner survey

This survey will be administered to partners and may be completed at any time during the study period. The survey will include questions related to their past and current lifestyle habits (eg, cannabis, tobacco, alcohol use and other substances), and anticipated changes to substance use during their partner's pregnancy or after delivery (if any). In addition, we will ask partners about their reasons for cannabis use, frequency and mode of consumption, and cannabinoid content and/or brand will be collected. Finally, to inform the design of future prospective cohort studies, we will query partner receptivity to increasing participation, for example, by providing biological samples.

Medical chart review

Chart reviews will be completed to ascertain additional information on participants' obstetrical and medical histories (eg, gravidity, pre-existing conditions, complications from previous pregnancies), mental health conditions (eg, anxiety, depression), pregnancy complications (eg, hypertensive disorders of pregnancy, diabetes in pregnancy), delivery outcomes (eg, type and mode of delivery, type of labour, live/stillbirth outcome) and newborn outcomes (eg, gestational age at birth, birth weight, Apgar scores, NICU admission, need for resuscitation, intravenous antibiotics and other medications, feeding method from birth to hospital discharge). Medical chart reviews will also be used to supplement missing or unclear data collected from participants and their infants.

Sample collection

Biological samples will be collected from participants throughout the study and their infant(s) after delivery (table 3). No biological samples will be collected from the partners.

Maternal sample collection will include peripheral blood, urine and breastmilk/chestmilk. Peripheral blood will be drawn via venipuncture and serum and plasma will be isolated. Maternal urine and blood samples will be fasting or non-fasting. Breastmilk/chestmilk collection will take place following milk let-down. Although participants will be instructed to collect hindmilk, colostrum and foremilk samples will be accepted. All maternal samples will be stored in aliquots at -80°C until sample analysis.

Fetal/infant sample collection after delivery will include cord blood, umbilical cord tissue, placenta biopsies, meconium and infant urine. Infant sample collection at 6–12 weeks post partum will include urine and dried blood spot samples. The cord blood will be collected immediately after delivery, and serum and plasma will be isolated. Umbilical cords will be flushed and rinsed with saline to remove the blood and patted dry. Umbilical cord segments will be flash-frozen in liquid nitrogen. Chorionic villous tissue biopsies will be collected from evenly spaced locations around the umbilical cord insertion site,

Table 3 Schedule of biosample collection

Visit 1 ≤12 ^{6/7} weeks	Visit 2 13 to 26 ^{6/7} weeks and ≥4 weeks after visit 1	Visit 3 ≥27 weeks and ≥4 weeks after visit 2	Visit 4 Admission for labour and delivery	Visit 5 6–12 weeks post partum
Pregnancy samples Peripheral blood Urine	Pregnancy samples Peripheral blood Urine	Pregnancy samples Peripheral blood Urine	Pregnancy samples Peripheral blood Urine Breastmilk/chestmilk Fetal/Infant samples Cord blood Cord Tissue Placenta Meconium Urine	Postpartum samples Peripheral blood Urine Breastmilk/chestmilk Infant samples Infant blood Urine



and flash-frozen in liquid nitrogen. Placental tissue will be collected within 30 min of delivery, and we will follow established methods for placenta sample collection.³⁸ Placenta biopsies will also be blocked in paraffin wax for later histological evaluation. Meconium will be collected onto diaper liners, and infant urine will be collected into infant urine collection bags. Infant blood at visit 5 will be drawn by heel-prick using a sterile lancet, and blood drops will be collected onto protein saver cards, dried and stored with a desiccant in a sealed bag. All fetal/infant samples will be stored as aliquots where possible and kept at -80°C until sample analysis.

Biological sample analysis

Biological samples from all participants (including group A, group B and infants) will be analysed. Data derived from sample analysis will be linkable to the data file generated from data collected from surveys, medical charts and cannabis intake diaries.

The presence or absence of target metabolites may first be identified by immunoassay screening. Presumptive positive samples will be sent for analysis by liquid chromatography-tandem mass spectrometry to confirm and quantify significant interest metabolites using validated methodologies.^{39–42} The extent of analysis will vary depending on the study group (group A vs group B) and/or participant reported substance use at each study time point.

- ▶ Samples derived from users of cannabis will be analysed for targeted cannabinoid metabolites including: 11-nor-D9-THC-9-carboxylic acid; THC-COOH; 11-hydroxy-THC; cannabinal; cannabidiol.
- ▶ Samples from participants reporting tobacco use or exposure will be analysed for relevant metabolites including but not limited to: cotinine, hydroxycotinine, nicotine to add to our understanding of the potential impact of tobacco exposure on cannabinoid metabolism and the study health outcomes of interest.

Compensation

Participants will be compensated for parking expenses or transportation fare related to all study visits excluding visits to hospitals or birthing centres for labour and delivery (visit 4). A breastmilk/chestmilk hand pump will be given to pregnant participants to support breastmilk/chestmilk collection.

To acknowledge their contributions to the study, participants will also be provided with gift cards at each study visit and an additional gift card at the end of the study if they completed all of the study surveys. Partners who complete the partner survey will be provided with a gift card.

Data management plan

Participants will be assigned a unique study ID, which will be used to link data and sample information. Data collected from participants, their infants and their partners (if applicable) will be linked. A masterlist linking

identifiable information with study IDs will be stored in a password-protected encrypted file. Data from study visits, surveys, and medical chart reviews will be collected into the Research Electronic Data Capture (REDCap) system hosted by participating sites and managed by the Ottawa Hospital Research Institute. REDCap uses 128-bit data encryption and provides modifiable role-based security to protect personal information or personal health information. Members of the research team from the Ottawa Hospital Research Institute will monitor the data to ensure data accuracy and completeness. An audit trail will be maintained for all data entries and modifications. Data generated from the analysis of biological samples will be managed separately in a password-protected encrypted file until it is merged with REDCap data for analysis.

The Ottawa Hospital Research Institute will manage all data and samples and archive them for up to 25 years after study termination. After the retention period, the research data and remaining samples will be securely destroyed per standard institutional procedures.

Sample size

We will recruit a maximum of 100 participants (50 participants with cannabis use and 50 without use) over 12 months.

Statistical analysis

Our results will be reported using the Strengthening the Reporting of Observational Studies in Epidemiology (STROBE) reporting guidelines.⁴³

Descriptive statistics

We will report descriptive summary statistics for the study cohort and across groups according to cannabis use at enrolment. Data will be summarised using frequency distributions for categorical variables and means and medians for continuous variables. We will use toxicological findings and reported use to classify cannabinoid exposure overall and by trimester. We will compare the distribution of sociodemographic characteristics by non-exposure and tertiles of exposure using the following levels: trace exposure/low use versus moderate versus heavy exposures, with final cannabis-use tertiles to be determined during analysis. Sociodemographic covariates will include the age of the maternal/birthing parent and partner, education level, income and race/ethnicity. We will also examine clinical and obstetrical histories according to the study group.

Analysis of primary outcomes

Participant recruitment rates, reasons for exclusion, enrolment rates (based on final enrolment following any exclusions), level of engagement (contributing data and biological samples) and rates and reasons for withdrawal from the study will be assessed and summarised descriptively. The recruitment rate will be calculated in monthly intervals with the number of consented participants compared with approached participants. In addition, we examine rates of passive (eg, participants

self-identify based on flyers and social media) or active recruitment (eg, invited patients through electronic records searching). An interim analysis at 6 months will be completed to evaluate the primary outcomes. The recruitment strategy will be revised if the recruitment rate is less than our target.

Analysis of secondary outcomes

Perinatal outcomes will be compared between groups based on reported cannabis use and metabolite detection in biological samples and not explicitly according to the group at recruitment. This approach will allow us to analyse group B participants who initiated cannabis use during the study as part of group A. Although we will have a limited sample size, we will conduct exploratory analyses to estimate differences in the risk of perinatal outcomes between the frequency of cannabis use, mode of cannabis consumption, and the timing and duration of use in pregnancy and post partum. We will assess the relative and joint contribution of cannabis use across trimesters on outcomes using mixed/hierarchical models with autoregressive covariance structures.

Interactions between child sex and each indicator of cannabis exposure will be tested to explore sex differences in associations. Potential confounders will be considered a priori. We will control for age, socioeconomic status and maternal/birthing parent tobacco use using self-reported and toxicological data (cotinine).

Considerations for the main study

Analyses of the pilot study will inform the design of the main CUPiD in several critical ways. First, we will ideally recruit participants within the first trimester, before 13 weeks' gestation. Recruitment in the first trimester will allow an optimal fetal risk assessment due to cannabis exposure in early pregnancy, and the subsequent study visits will align with each trimester. Because we anticipate some challenges to first-trimester recruitment in the pilot phase, that is, we may only identify patients at the 18–20 weeks fetal ultrasound, we allow recruitment for up to labour and delivery to maximise participation. After assessing the number of patients successfully recruited within the first trimester, we will optimise our recruitment strategy if it is feasible to sufficiently recruit the required number of patients before 13 weeks. Second, we may introduce additional exclusion criteria following analyses of the pilot study. For example, we will consider adding additional exclusion criteria for factors that may complicate the cannabis–outcome associations, including fetal anomalies or the use of tobacco and alcohol in pregnancy. We will document all anomalies identified on ultrasound or at birth for the pilot study. These patients may be excluded from analyses to examine the impact on cannabis–outcome associations.

Similarly, because cigarette smoking and alcohol may co-occur with cannabis use, we will not explicitly exclude patients using tobacco or alcohol during the pilot phase. We will analyse the use rates of these substances and

attempt to control for possible confounding using statistical adjustment or subgroup analyses on cannabis-only users.¹² We will consider alcohol and tobacco use for later modification of the exclusion criteria for the main study. Third, the cut-offs to define low, moderate and heavy cannabis use will be determined after analysis of reported cannabis use and intake diaries. This analysis will inform the tertiles to be used in the main study.

Patient and public involvement

In recognition that individuals with lived experience (in this case, cannabis use in pregnancy) can have an active and valuable role in research, we have invited patient partners to contribute their perspectives on the design and implementation of this research study. To date, one patient partner has provided feedback on the study design, data collection tools and recruitment materials. We will continue to involve patient partners throughout the study, including reviewing recruitment strategies and study progress, interpreting the results and sharing project findings with the broader public community.

Ethics and dissemination

Ethics

Research ethics approval for this study was obtained through Clinical Trials Ontario (CTO 3791) with the Ottawa Health Sciences Network Research Ethics Board as the board of record. The research team at The Ottawa Hospital Research Institute will be responsible for maintaining provincial-level ethics approval and each participating site will be responsible for obtaining and maintaining site-specific ethics approvals throughout the study.

Dissemination

The results from this pilot study will be disseminated to researchers and clinicians in the form of abstracts and presentations, and manuscripts for publication in peer-reviewed journals. Following publication of the main analyses, deidentified data from this cohort will be made available on request from the corresponding author and with approval from an accredited research ethics board. These results will also be shared with healthcare decision-makers in the form of summaries and technical papers. In addition, the findings will be more broadly disseminated to the academic and clinical community through platforms such as clinicaltrials.gov and the Open Science Framework and to Canadian families through press releases, social media posts and the sharing of lay summaries tailored to each target audience. Overall, our findings will be used to inform the development of a more extensive multicentre pregnancy and birth cohort investigating patterns of maternal cannabis use in pregnancy and the impact of cannabis use and fetal exposure in pregnancy on perinatal outcomes.

Author affiliations

¹Clinical Epidemiology Program, Ottawa Hospital Research Institute, Ottawa, Ontario, Canada

²Department of Obstetrics and Gynecology, Queen's University, Kingston, Ontario, Canada
³Department of Obstetrics and Gynecology, Kingston Health Sciences Centre, Kingston, Ontario, Canada
⁴Division of Midwifery, Ottawa Hospital, Ottawa, Ontario, Canada
⁵Faculty of Health Sciences, Queen's University, Kingston, Ontario, Canada
⁶Champlain Maternal Newborn Regional Program, Ottawa, Ontario, Canada
⁷Faculty of Medicine, University of Ottawa, Ottawa, Ontario, Canada
⁸Children's Hospital of Eastern Ontario Research Institute, Ottawa, Ontario, Canada

Contributors SR, MSQM, RRRW, AH, MW and DJC created the study protocol with input from LMG, AM, AD, CC and DE-C. SR wrote the first draft of the manuscript; all authors provided feedback and approved the submitted manuscript. DJC provided overall supervision for the protocol and manuscript.

Funding This work was supported by a Canadian Institutes of Health Research Team Grant awarded to DJC (CA3-170126).

Competing interests None declared.

Patient and public involvement Patients and/or the public were involved in the design, or conduct, or reporting, or dissemination plans of this research. Refer to the Methods section for further details.

Patient consent for publication Not applicable.

Provenance and peer review Not commissioned; externally peer reviewed.

Supplemental material This content has been supplied by the author(s). It has not been vetted by BMJ Publishing Group Limited (BMJ) and may not have been peer-reviewed. Any opinions or recommendations discussed are solely those of the author(s) and are not endorsed by BMJ. BMJ disclaims all liability and responsibility arising from any reliance placed on the content. Where the content includes any translated material, BMJ does not warrant the accuracy and reliability of the translations (including but not limited to local regulations, clinical guidelines, terminology, drug names and drug dosages), and is not responsible for any error and/or omissions arising from translation and adaptation or otherwise.

Open access This is an open access article distributed in accordance with the Creative Commons Attribution Non Commercial (CC BY-NC 4.0) license, which permits others to distribute, remix, adapt, build upon this work non-commercially, and license their derivative works on different terms, provided the original work is properly cited, appropriate credit is given, any changes made indicated, and the use is non-commercial. See: <http://creativecommons.org/licenses/by-nc/4.0/>.

ORCID iDs

Serine Ramlawi <http://orcid.org/0000-0003-4356-9726>

Darine El-Chaâr <http://orcid.org/0000-0002-8266-0242>

Daniel J Corsi <http://orcid.org/0000-0001-7063-3354>

REFERENCES

- Degenhardt L, Ferrari AJ, Calabria B, *et al*. The global epidemiology and contribution of cannabis use and dependence to the global burden of disease: results from the GBD 2010 study. *PLoS One* 2013;8:e76635.
- Gabrhelik R, Mahic M, Lund IO, *et al*. Cannabis use during pregnancy and risk of adverse birth outcomes: a longitudinal cohort study. *Eur Addict Res* 2021;27:131–41.
- Lowry DE, Corsi DJ. Trends and correlates of cannabis use in Canada: a repeated cross-sectional analysis of national surveys from 2004 to 2017. *CMAJ Open* 2020;8:E487–95.
- Rotterman M. Looking back from 2020, how cannabis use and related behaviours changed in Canada Statistics Canada; 2021.
- Corsi DJ, Hsu H, Weiss D, *et al*. Trends and correlates of cannabis use in pregnancy: a population-based study in Ontario, Canada from 2012 to 2017. *Can J Public Health* 2019;110:76–84.
- Luke S, Hutcheon J, Kendall T. Cannabis use in pregnancy in British Columbia and selected birth outcomes. *J Obstet Gynaecol Can* 2019;41:1311–7.
- Schauberg CW, Newbury EJ, Colburn JM, *et al*. Prevalence of illicit drug use in pregnant women in a Wisconsin private practice setting. *Am J Obstet Gynecol* 2014;211:255.e1–255.e4.
- Volkow ND, Han B, Compton WM, *et al*. Self-reported medical and nonmedical cannabis use among pregnant women in the United States. *JAMA* 2019;322:167–9.
- Young-Wolff KC, Tucker L-Y, Alexeeff S, *et al*. Trends in self-reported and biochemically tested marijuana use among pregnant females in California from 2009–2016. *JAMA* 2017;318:2490–1.
- Imtiaz S, Wells S, Rehm J, *et al*. Cannabis use during the COVID-19 pandemic in Canada: a repeated cross-sectional study. *J Addict Med* 2021;15:484–90.
- Bonello MR, Xu F, Li Z, *et al*. Mental and behavioral disorders due to substance abuse and perinatal outcomes: a study based on linked population data in New South Wales, Australia. *Int J Environ Res Public Health* 2014;11:4991–5005.
- Corsi DJ, Walsh L, Weiss D, *et al*. Association between self-reported prenatal cannabis use and maternal, perinatal, and neonatal outcomes. *JAMA* 2019;322:145–52.
- El Marroun H, Tiemeier H, Steegers EAP, *et al*. Intrauterine cannabis exposure affects fetal growth trajectories: the generation R study. *J Am Acad Child Adolesc Psychiatry* 2009;48:1173–81.
- Saleh Gargari S, Fallahian M, Haghghi L, *et al*. Maternal and neonatal complications of substance abuse in Iranian pregnant women. *Acta Med Iran* 2012;50:411–6.
- Gunn JKL, Rosales CB, Center KE, *et al*. Prenatal exposure to cannabis and maternal and child health outcomes: a systematic review and meta-analysis. *BMJ Open* 2016;6:e009986.
- Hayatbakhsh MR, Flenady VJ, Gibbons KS, *et al*. Birth outcomes associated with cannabis use before and during pregnancy. *Pediatr Res* 2012;71:215–9.
- Singh S, Filion KB, Abenhaim HA, *et al*. Prevalence and outcomes of prenatal recreational cannabis use in high-income countries: a scoping review. *BJOG* 2020;127:8–16.
- Varner MW, Silver RM, Rowland Hogue CJ, *et al*. Association between stillbirth and illicit drug use and smoking during pregnancy. *Obstet Gynecol* 2014;123:113–25.
- Roncero C, Valriberas-Herrero I, Mezzatesta-Gava M, *et al*. Cannabis use during pregnancy and its relationship with fetal developmental outcomes and psychiatric disorders. A systematic review. *Reprod Health* 2020;17:25.
- Perez-Reyes M, Wall ME. Presence of delta9-tetrahydrocannabinol in human milk. *N Engl J Med* 1982;307:819–20.
- Boa-Amponsem O, Zhang C, Mukhopadhyay S, *et al*. Ethanol and cannabinoids interact to alter behavior in a zebrafish fetal alcohol spectrum disorder model. *Birth Defects Res* 2019;111:775–88.
- Breit KR, Zamudio B, Thomas JD. The effects of alcohol and cannabinoid exposure during the brain growth spurt on behavioral development in rats. *Birth Defects Res* 2019;111:760–74.
- van Gelder MMHJ, Reefhuis J, Caton AR, *et al*. Maternal periconceptional illicit drug use and the risk of congenital malformations. *Epidemiology* 2009;20:60–6.
- McLemore GL, Richardson KA. Data from three prospective longitudinal human cohorts of prenatal marijuana exposure and offspring outcomes from the fetal period through young adulthood. *Data Brief* 2016;9:753–7.
- Fine JD, Moreau AL, Karcher NR, *et al*. Association of prenatal cannabis exposure with psychosis proneness among children in the adolescent brain cognitive development (ABCD) study. *JAMA Psychiatry* 2019;76:762–4.
- Seltenrich N. Cannabis contaminants: regulating solvents, microbes, and metals in legal weed. *Environ Health Perspect* 2019;127:082001.
- Lozano J, Garcia-Algar O, Vall O, *et al*. Biological matrices for the evaluation of in utero exposure to drugs of abuse. *Ther Drug Monit* 2007;29:711–34.
- Gray T, Huestis M. Bioanalytical procedures for monitoring in utero drug exposure. *Anal Bioanal Chem* 2007;388:1455–65.
- Silva JP, Yonamine M. Bioanalytical and methodological challenges in the evaluation of fetal cannabis exposure. *Bioanalysis* 2018;10:713–6.
- Battista N, Sergi M, Montesano C, *et al*. Analytical approaches for the determination of phytocannabinoids and endocannabinoids in human matrices. *Drug Test Anal* 2014;6:7–16.
- Bertrand KA, Hanan NJ, Honerkamp-Smith G, *et al*. Marijuana use by breastfeeding mothers and cannabinoid concentrations in breast milk. *Pediatrics* 2018;142.
- Ross MG, Desai M. Transfer of inhaled cannabis into human breast milk. *Obstet Gynecol* 2018;132:780–1.
- Kim J, de Castro A, Lendoiro E, *et al*. Detection of in utero cannabis exposure by umbilical cord analysis. *Drug Test Anal* 2018;10:636–43.
- Moore C, Negrusz N. Drugs of abuse in meconium. *Forensic Sci Rev* 1995;7:103–18.
- Statistics Canada. Census profile, 2021 census of population Government of Canada; 2022. <https://www12.statcan.gc.ca/census-recensement/2021/dp-pd/prof/index.cfm> [Accessed May 12, 2022].
- Provincial Council for Maternal and Child Health. Levels of Maternal-Newborn care; 2022. <https://www.pcmch.on.ca/levels-of-maternal-newborn-care/> [Accessed May 13, 2022].

- 37 Government of Canada. Controlled and illegal drugs; 2022. <https://www.canada.ca/en/health-canada/services/substance-use/controlled-illegal-drugs.html> [Accessed May 11, 2022].
- 38 Roberts VH, Gaffney JE, Lewandowski KS, *et al.* A standardized method for collection of human placenta samples in the age of functional magnetic resonance imaging. *Biotechniques* 2019;67:45–9.
- 39 Shin Y, Kim JY, Cheong JC, *et al.* Liquid chromatography-high resolution mass spectrometry for the determination of three cannabinoids, two (-)-trans- Δ^9 -tetrahydrocannabinol metabolites, and six amphetamine-type stimulants in human hair. *J Chromatogr B Analyt Technol Biomed Life Sci* 2020;1149:122157.
- 40 McRae G, Melanson JE. Quantitative determination and validation of 17 cannabinoids in cannabis and hemp using liquid chromatography-tandem mass spectrometry. *Anal Bioanal Chem* 2020;412:7381–93.
- 41 Sobolesky PM, Smith BE, Hubbard JA, *et al.* Validation of a liquid chromatography-tandem mass spectrometry method for analyzing cannabinoids in oral fluid. *Clin Chim Acta* 2019;491:30–8.
- 42 Hubbard JA, Smith BE, Sobolesky PM, *et al.* Validation of a liquid chromatography tandem mass spectrometry (LC-MS/MS) method to detect cannabinoids in whole blood and breath. *Clin Chem Lab Med* 2020;58:673–81.
- 43 Vandenbroucke JP, Von Elm E, Altman DG, *et al.* [Strengthening the reporting of observational studies in epidemiology (STROBE): explanation and elaboration]. *Gac Sanit* 2009;23:158.

Baseline Survey

Part A: Demographics

1. How old are you today? * *Numerical free text response*
2. Do you identify as Indigenous; that is First Nation (North American Indian), Métis, or Inuk (Inuit)? *
 - Yes
 - No
 - I prefer not to answer
3. *If yes to “Do you identify as Indigenous”*: Please select the option(s) that best describe(s) you now: *
 - First Nations
 - Métis
 - Inuk (Inuit)
 - I prefer not to answer
4. Do you identify as a member of a visible minority? * *Note: Visible minority includes persons who are non-Caucasian in race or non-white in colour and who do not report being Indigenous. Black, Chinese, Filipino, Japanese, Korean, Non-White Latin American (including: indigenous persons from Central and South America, etc.), Non-White West Asian, North African or Arab (including: Egyptian; Libyan; Lebanese; Iranian; etc.), South Asian/East Indian (including: Indian from India; Bangladeshi; Pakistani; East Indian from Guyana, Trinidad, East Africa; etc.), Southeast Asian (including: Burmese; Cambodian; Laotian; Thai; Vietnamese; etc.), Other Visible Minority Groups, Person of Mixed Origin (with one parent in one of the visible minority groups)*
 - Yes
 - No
 - I prefer not to answer
5. Please select the population group(s) with which you identify. * Please select all that apply.
 - Arab
 - Black
 - Chinese
 - Filipino
 - Japanese
 - Korean
 - Latin American
 - South Asian (e.g., East Indian, Pakistani, Sri Lankan, etc.)
 - Southeast Asian (e.g., Vietnamese, Cambodian, Laotian, Thai)
 - West Asian (e.g., Iranian, Afghan)
 - White
 - I prefer not to answer

- I prefer to self-describe: *Free text response*

6. How would you describe your gender identity? Select all that apply. *

- Woman
- Man
- Gender fluid A person who does not identify with a single fixed gender or has a fluid or unfixed gender identity
- Genderqueer Used to describe someone who typically rejects notions of categories and embrace fluid gender identity
- Intersex An umbrella term used to describe bodies that fall outside of male/female categories (e.g., chromosome differences, ambiguous genitalia, internal organ differences)
- Non-binary An umbrella term referring to anyone who is not cis-gendered and is inclusive of identities such as trans-woman and trans-man
- Questioning A term used to describe people who are in the process of exploring their sexual orientation or gender identify
- Transgender An umbrella term for people whose gender identity and/or expression is different from sex assigned at birth
- Two-spirit Refers to a person who identifies as having both a masculine and a feminine spirit, and is used by some Indigenous people to describe their sexual, gender and/or spiritual identity.
- I don't know
- I prefer not to answer
- I prefer to self-describe: *Free text response*

7. How would you describe your sexual orientation? Select all that apply. *

- Asexual A person who does not experience sexual attraction
- Bisexual A person emotionally, romantically, or sexually attracted to more than one sex, gender, or gender identity though not necessarily simultaneously, in the same way or to the same degree. Sometimes used interchangeably with pansexual.
- Gay A sexual orientation towards people of the same sex/gender
- Heterosexual/straight A person whose primary sexual orientation is towards people of the opposite sex/gender
- Lesbian A woman whose primary sexual orientation is towards people of the same sex/gender
- Pansexual Potential for emotional, romantic, or sexual attraction to people of any gender though not necessarily simultaneously, in the same way or to the same degree.
- Queer An inclusive term used to express a spectrum of identities and orientations
- I don't know
- I prefer not to answer
- I prefer to self-describe: *Free text response*

8. What languages do you speak at home? *
- English
 - French
 - One of the 70+ Indigenous languages spoken in Canada
 - Other, please specify: *Free text response*
 - I prefer not to answer
9. What is your current marital status? *
- Never married
 - Married/common law
 - Separated
 - Divorced
 - Widowed
 - I prefer not to answer
 - Other, please specify: *Free text response*
10. Do you live with your current partner/significant other? *
- Yes
 - No
 - Not Applicable - I do not have a partner/significant other
 - I prefer not to answer
11. What are the first three digits of your postal code? *
- Free text response
 - I prefer not to answer
12. What is the highest level of education you have completed? *
- Less than high school diploma or equivalency (e.g., GED)
 - High school diploma or equivalency (e.g., GED)
 - Trade certificate, vocational school, or apprenticeship training
 - Non-university certificate or diploma from a community college, CEGEP, or other (excluding trades certificates or diplomas)
 - University Bachelor's degree (e.g., B.A., B.Sc., B.Ed., etc.)
 - University degree, certificate, or diploma above the Bachelor's level
 - I prefer not to answer
13. What is your occupation? If you are a student, write 'student'. If you are currently not working, please write 'not working'. *

- [Free text response](#)
- I prefer not to answer

14. Which of the following best describes your current employment status or current enrollment status as a student (if applicable)? *

- Full-time
- Part-time
- Paid or unpaid leave
- Not working
- I prefer not to answer
- Other, please specify: [Free text response](#)

15. What is your total household (between you and your partner/significant other, if applicable) income before taxes? *

- Less than \$25,000 CAD
- \$25,000 to \$49,999 CAD
- \$50,000 to \$74,999 CAD
- \$75,000 to \$99,999 CAD
- \$100,000 to \$124,999 CAD
- \$125,000 to \$149,999 CAD
- \$150,000 CAD or greater
- I prefer not to answer

Part B: Obstetric and health history

16. From which type of healthcare provider are you currently receiving your prenatal care? Select all that apply.

- Obstetrician
- Family physician
- Midwife
- Nurse/nurse practitioner
- Fertility specialist
- I don't have a healthcare provider yet for this pregnancy
- Other, please specify: [Free text response](#)

17. When did you first find out that you were pregnant?

- 1st trimester (<13 weeks gestation)
- 2nd trimester (13-27 weeks gestation)

- 3rd trimester (>27 weeks gestation)

18. To your knowledge, how many babies are you currently carrying?

- 1 (singleton)
- 2 (twins)
- 3 (triplets) or more
- I don't know yet

19. Are you currently breastfeeding/chestfeeding any children while pregnant?

- Yes
- No

20. Have you been diagnosed by a health care provider with any of the following health conditions? Select all that apply.

- Not applicable – I have not been diagnosed with any health conditions
- Allergies
- Skin conditions (e.g., psoriasis, eczema, dermatitis, etc.)
- Breathing or respiratory condition (e.g., asthma, COPD (chronic obstructive pulmonary disease))
- Cancer (current or previous diagnoses)
- Cardiovascular condition (e.g., hypertension, heart disease, etc.)
- Chronic pain (e.g., migraine, arthritis, etc.)
- Diabetes (e.g., Type 1, Type 2, gestational diabetes etc.)
- Gastrointestinal condition(s) (e.g., GERD (acid reflux), Crohn's, irritable bowel disease, etc.)
- Glaucoma
- HIV/AIDS
- Mental health condition(s) (e.g., anxiety, depression, obsessive compulsive disorder, eating disorder, post-traumatic stress disorder, etc.)
- Nausea or vomiting (e.g., hyperemesis gravidarum)
- Neurological condition(s) (e.g., Parkinson's, multiple sclerosis, epilepsy, etc.)
- Sleep disorder (e.g., insomnia)
- Other

21. *If any answer except "Not applicable" to Question "Have you been diagnosed by a physician...":* Please indicate the health condition(s).

- *Free text response*

22. Are you regularly (i.e., at least once per week) taking any prescription or over the counter medications, including natural health products (e.g., vitamins, herbs and other supplements)?

- Yes
- No

23. *If yes to Question "Are you regularly taking any of the following prescription...":* Please list the name(s) of the prescription(s), over the counter medication(s) or natural health products you are regularly taking.

- *Free text response*

24. Have you received any vaccines during your pregnancy?

- Yes
 - o If yes, please select all that apply.
 - Flu shot/Influenza vaccine
 - Please select the trimester of pregnancy that you received the vaccine:
 - o 1st (1-13 weeks)
 - o 2nd (14-27 weeks)
 - o 3rd (28-40 weeks)
 - Tdap/Pertussis/Adacel/Whooping cough vaccine
 - Please select the trimester of pregnancy that you received the vaccine:
 - o 1st (1-13 weeks)
 - o 2nd (14-27 weeks)
 - o 3rd (28-40 weeks)
 - COVID-19 vaccine
 - Please select the trimester of pregnancy that you received the vaccine:
 - o 1st (1-13 weeks)
 - o 2nd (14-27 weeks)
 - o 3rd (28-40 weeks)
 - Which dose(s) of the COVID-19 vaccine did you receive?
 - o First dose
 - o Second dose
 - o Another dose
 - Other – please specify the vaccine and the trimester:
- No
- Unsure

25. What was your pre-pregnancy weight (weight before your current pregnancy)?

- _____ pounds (lb); OR
- _____ kilograms (kg)

26. What is your height (how tall are you)?

- _____ feet (ft) and _____ inches (in); OR
- _____ centimeters (cm)

Part C: Cannabis and other substance use

In this survey, we use the term “cannabis” to describe all the different forms (e.g., dry flower, edibles, extracts, etc.) of cannabis-related products. The use of cannabis includes various methods of consuming cannabis (e.g., joint, bong, capsule, tincture, etc.). All uses of the term “THC” refer to delta-9-tetrahydrocannabinol (the main psychoactive component of cannabis). The term “CBD” refer to cannabidiol (the second major component of cannabis).

27. How many people live in your household, **excluding** yourself?

- *Numerical response*

28. How many people in your household **excluding** yourself have used/consumed cannabis products within the last 3 months?

- *Numerical response*

29. Including all household members and regular visitors, does anyone smoke cannabis inside your home regularly, **excluding** yourself?

- Yes
- No

30. During your pregnancy, have you been regularly exposed to second-hand cannabis smoke in a car or other private vehicle?

- Yes
- No

31. During your pregnancy, have you been regularly exposed to second-hand smoke at your workplace?

- Yes
- No

32. How informed do you feel about the potential benefits and harms related to cannabis use in pregnancy?

- Informed
- Somewhat informed

- Neither informed nor uninformed
 - Somewhat uninformed
 - Uninformed
33. Have you and a healthcare provider discussed the subject of cannabis use in pregnancy?
- Yes
 - No
34. *If “Yes” to Question “Have you and your healthcare provider...”*: With which type of healthcare provider(s) have you discussed cannabis use in pregnancy? Select all that apply.
- Obstetrician
 - Family physician
 - Midwife
 - Nurse/nurse practitioner
 - Other, please specify: *Free text response*
35. *If “Yes” to Question “Have you and your healthcare provider...”*: Who initiated the conversation about cannabis use in pregnancy?
- Me
 - My healthcare provider
 - I don't remember
36. *If “Yes” to Question “Have you and your healthcare provider...”*: What recommendations or suggestions did your healthcare provider(s) make about cannabis use in pregnancy?
- Directed me to resources/gave me information
 - Recommended me to increase my cannabis consumption/consumption
 - Recommended me to decrease my cannabis consumption/consumption
 - Recommended me to change my format of cannabis consumption
 - Neither recommended nor discouraged use/consumption
 - Not applicable – I am not using/consuming cannabis products
 - Other, please specify: *Free text response*
37. *If “Yes” to Question “Have you and your healthcare provider...”*: Do you feel satisfied by the discussion you had with your healthcare provider(s)'s about cannabis use in pregnancy?
- Very satisfied

- Somewhat satisfied
- Neither satisfied nor unsatisfied
- Somewhat unsatisfied
- Very unsatisfied

38. Have you sought out or received information about cannabis use in pregnancy from sources other than a healthcare provider(s)? Select all that apply.

- Government issued websites (e.g., Government of Canada, Public Health Ontario, Ottawa Public Health, World Health Organization, etc.)
- News broadcasting (e.g., television, radio, newspaper, magazines, etc.)
- Social media (e.g., Facebook, Twitter, Instagram, etc.)
- Cannabis dispensaries/sources in the cannabis industry
- Friend or family member
- Pregnancy or breastfeeding/chestfeeding professional societies (e.g., Society of Obstetrics and Gynaecologists Canada, American College of Obstetricians and Gynecologists)
- General pregnancy and childbirth/parenting websites
- Online forums (e.g., Reddit, Quora, etc.)
- Other, please specify: [Free text response](#)

39. Which of the following best describes how often you used/consumed cannabis products before your pregnancy?

- Not applicable - I have never used cannabis before my pregnancy
- A few times in my lifetime
- A few times per year
- Once or twice per month
- 1-3 times per week
- 4-6 times per week
- Daily
- Multiple times a day
- Other, please specify: [Free text response](#)

40. At what age did you first use/consume cannabis products?

- Not applicable - I have never used cannabis products
- Younger than 10 years
- 10-14 years
- 15-19 years
- 20-24 years
- 25-29 years
- 30-34 years
- 35 years or older

- Other, please specify: *Free text response*

41. When did you last use/consume cannabis products?

- Not applicable - I have never used cannabis products
- Within the past day
- Within the past week
- Within the past month
- Within the past 6 months
- Within the past year
- More than 1 year ago
- Other, please specify: *Free text response*

42. Have you ever used/consumed cannabis during a previous pregnancy?

- Yes
- No
- Not applicable - I have not had a previous pregnancy

43. Are you currently using/consuming or have you used/consumed cannabis products during your current pregnancy?

- Yes
- No

44. *If "Yes" to Question "Are you currently using or have you used/consumed cannabis during your pregnancy":* For which reason(s) are you currently using/consuming cannabis during your pregnancy? Select all that apply.

- To reduce nausea and vomiting (e.g., hyperemesis gravidarum)
- To reduce anxiety/stress
- To help with depression
- To relieve acute pain
- To relieve chronic pain
- To increase appetite
- To help with sleep
- To treat seizures
- To treat headaches/migraines
- To treat muscle spasms
- For recreational purposes/to get high
- To treat another medical condition not listed here (e.g., glaucoma) or another reason, please specify: *free text response*

45. *If Options 1-10, 12 to Question “for which reason(s) are you currently using/consuming cannabis during your pregnancy”:* Did a healthcare professional prescribe you cannabis?

- Yes
- No

46. *If “Yes” to Question “Are you currently using/consuming or have you used/consumed cannabis products during your pregnancy”:* Which of the following best describes your cannabis use/consumption during your current pregnancy?

- Once or twice in this pregnancy
- Once or twice per month in this pregnancy
- 1-3 times per week in this pregnancy
- 4-6 times per week in this pregnancy
- Daily in this pregnancy
- Multiple times a day in this pregnancy
- Other, please specify: *Free text response*

47. *If “Yes” to Question “Are you currently using/consuming or have you used/consumed cannabis products during your pregnancy”:* Did your frequency of consumption or amount used/consumed change after knowing you were pregnant?

- Yes, I use/consume cannabis less often
- Yes, I use/consume cannabis more often
- No, I use/consume the same amount of cannabis as before my pregnancy

Please use the image below to help answer the following question.



48. *If “Yes” to Question “Are you currently using/consuming or have you used/consumed cannabis products during your pregnancy”*: In which form(s) have you used/consumed cannabis products thus far **in your current pregnancy**? Select all that apply.
- Smoked dried herb/flower/leaf/bud (e.g., joint, spliff, etc.)
 - Vaporized dried herb/flower/leaf/bud (e.g., bong, dry herb vaporizer, etc.)
 - Dried herb/flower/leaf/bud mixed with or rolled in tobacco (e.g., blunt)
 - Vaporized liquid form in an e-cigarette/vape pen/cartridge
 - Hashish/hash/kief
 - Concentrates **excluding** tinctures (e.g., hash oil, butane honey oil, shatter, budder, wax, etc.)
 - Tinctures/Ingestible oils (e.g., spray, dropper, capsule, etc.)
 - Cannabis food products (e.g., chocolate, brownies, gummies, etc.)
 - Beverages
 - Topical ointments (e.g., lotions, salves, balms, cream, etc.)
 - Fresh flower/leaf (e.g., for juicing)
 - Other, please specify: *Free text response*
49. *If “Smoked dried herb/flower/leaf/bud” to Question “In which form(s) have you used/consumed cannabis products thus far in your current pregnancy? Select all that apply”*: How often do you smoke dried herb/flower/leaf/bud in this pregnancy?
- Less than once a month in this pregnancy
 - Monthly in this pregnancy
 - Weekly in this pregnancy
 - Daily in this pregnancy
 - Other, please specify: *Free text response*
 - I don't know
50. *If “Vaporized dried herb/flower/leaf/bud” to Question “In which form(s) have you used/consumed cannabis products thus far in your current pregnancy? Select all that apply”*: How often do you vaporize dried herb/flower/leaf/bud in this pregnancy?
- Less than once a month in this pregnancy
 - Monthly in this pregnancy
 - Weekly in this pregnancy
 - Daily in this pregnancy
 - Other, please specify: *Free text response*
 - I don't know
51. *If “Dried herb/flower/leaf/bud mixed with or rolled in tobacco” to Question “In which form(s) have you used/consumed cannabis products thus far in your current*

pregnancy? Select all that apply: How often do you mix or roll dried herb/flower/leaf/bud with tobacco in this pregnancy?

- Less than once a month in this pregnancy
- Monthly in this pregnancy
- Weekly in this pregnancy
- Daily in this pregnancy
- Other, please specify: *Free text response*
- I don't know

52. *If "Smoked dried herb/flower/leaf/bud, Vaporized dried herb/flower/leaf/bud, Dried herb/flower/leaf/bud mixed with or rolled in tobacco" to Question "In which form(s) have you used/consumed cannabis products thus far in your current pregnancy? Select all that apply"*: At each consumption, on average how much dried herb/flower/leaf/bud do you use/consume?

- Less than 1/8 (one eighth) gram
- 1/8 (one eighth) gram
- ¼ (one quarter) gram
- ½ (half) gram
- ¾ (three quarters) gram
- 1 gram
- 2 grams
- 3 grams
- 1/8 (one eighth) ounce
- ¼ (one quarter) ounce
- More than ¼ (one quarter) ounce
- Other, please specify: *Free text response*
- I don't know

53. *If "Smoked dried herb/flower/leaf/bud, Vaporized dried herb/flower/leaf/bud, Dried herb/flower/leaf/bud mixed with or rolled in tobacco" to Question "In which form(s) have you used/consumed cannabis products thus far in your current pregnancy? Select all that apply"*: Do you know the THC level in the dried flower/herb/leaf/bud you usually use/consume?

- Yes
- No
- Not applicable – the dried flower/herb/leaf/bud does not contain THC

54. *If "YES" to Do you know the THC level in the dried flower/herb/leaf/bud you usually use/consume*: What is the usual THC level in the dried herb/flower/leaf/bud?

- _____ mg THC **OR**
- _____ % THC

55. *If “Smoked dried herb/flower/leaf/bud, Vaporized dried herb/flower/leaf/bud, Dried herb/flower/leaf/bud mixed with or rolled in tobacco” to Question “In which form(s) have you used/consumed cannabis products thus far in your current pregnancy? Select all that apply”*: Do you know the CBD level in the dried flower/herb/leaf/bud you usually use/consume?
- Yes
 - No
 - Not applicable – the dried flower/herb/leaf/bud does not contain CBD
56. *If “YES” to Do you know the CBD level in the dried flower/herb/leaf/bud you usually use/consume*: What is the usual CBD level in the dried herb/flower/leaf/bud?
- _____ mg CBD **OR**
 - _____ % CBD
57. *If “Smoked dried herb/flower/leaf/bud, Vaporized dried herb/flower/leaf/bud, Dried herb/flower/leaf/bud mixed with or rolled in tobacco” to Question “In which form(s) have you used/consumed cannabis products thus far in your current pregnancy? Select all that apply”*: If available, please upload any images of the dried herb/flower/leaf/bud products that you have been using in pregnancy showing cannabis content (THC and CBD) details.
- Enter number of images you would like to upload (maximum of 5 images): _____
58. *If “Vaporized liquid form in e-cigarettes/pens/cartridges” to Question “In which form(s) have you used/consumed cannabis products thus far in your current pregnancy? Select all that apply”*: How often do you use/consume vaporized liquids in e-cigarettes/pens/cartridges in this pregnancy?
- Less than once a month in this pregnancy
 - Monthly in this pregnancy
 - Weekly in this pregnancy
 - Daily in this pregnancy
 - Other, please specify: *Free text response*
 - I don't know
59. *If “Vaporized liquid form in e-cigarettes/pens/cartridges” to Question “In which form(s) have you used/consumed cannabis products thus far in your current pregnancy? Select all that apply”*: At each consumption, on average how much liquid do you use/consume?
- _____ gram(s)

- _____ mL
 - _____ fl oz
 - _____ cartridge(s)
 - Other, please specify: *Free text response*
 - I don't know
60. *If "Vaporized liquid form in e-cigarettes/pens/cartridges" to Question "In which form(s) have you used/consumed cannabis products thus far in your current pregnancy? Select all that apply": Do you know the THC level in the liquid you usually use/consume in the e-cigarettes/pens/cartridges?*
- Yes
 - No
 - Not applicable – the liquid does not contain THC
61. *If "Yes" to Do you know the THC level in the liquid you usually use/consume in the e-cigarettes/pens/cartridges: What is the usual THC level in the liquid?*
- _____ mg THC **OR**
 - _____ % THC
62. *If "Vaporized liquid form in e-cigarettes/pens/cartridges" to Question "In which form(s) have you used/consumed cannabis products thus far in your current pregnancy? Select all that apply": Do you know the CBD level in the liquid you usually use/consume in the e-cigarettes/pens/cartridge?*
- Yes
 - No
 - Not applicable – the liquid does not contain CBD
63. *If "Yes" to Do you know the CBD level in the liquid you usually use/consume in the e-cigarettes/pens/cartridge: What is the usual CBD level in the liquid product?*
- _____ mg CBD **OR**
 - _____ % CBD
64. *If "Vaporized liquid form in e-cigarettes/pens/cartridges" to Question "In which form(s) have you used/consumed cannabis products thus far in your current pregnancy? Select all that apply": If available, please upload any images of the liquid products that you have been using/consuming in pregnancy showing cannabis content (THC and CBD) details.*

65. *If “Hashish/hash/kief” to Question “In which form(s) have you used/consumed cannabis products thus far in your current pregnancy? Select all that apply”*: How often do you use/consume hashish/hash/kief in this pregnancy?
- Less than once a month in this pregnancy
 - Monthly in this pregnancy
 - Weekly in this pregnancy
 - Daily in this pregnancy
 - Other, please specify: *Free text response*
 - I don't know
66. *If “Hashish/hash/kief” to Question “In which form(s) have you used/consumed cannabis products thus far in your current pregnancy? Select all that apply”*: At each consumption, on average how much hashish/hash/kief do you use/consume?
- _____ gram(s)
 - _____ hit(s)
 - _____ tokes(s)
 - Other, please specify: *Free text response*
 - I don't know
67. *If “Hashish/hash/kief” to Question “In which form(s) have you used/consumed cannabis products thus far in your current pregnancy? Select all that apply”*: Do you know the THC level in the hashish/hash/kief you usually use/consume?
- Yes
 - No
 - Not applicable – the hashish/hash/kief does not contain THC
 -
68. *If “Yes” to Do you know the THC level in the hashish/kief you usually use/consume*: What is the usual THC level in the hashish/kief?
- _____mg THC **OR**
 - _____ % THC
69. *If “Hashish/hash/kief” to Question “In which form(s) have you used/consumed cannabis products thus far in your current pregnancy? Select all that apply”*: Do you know the CBD level in the hashish/kief you usually use/consume?
- Yes
 - No
 - Not applicable – the hashish/hash/kief does not contain CBD
 -

70. *If “Yes” to Do you know the CBD level in the hashish/hash/kief:* What is the usual CBD level in the hashish/hash/kief?
- _____ mg CBD **OR**
 - _____ % CBD
71. *“hashish/hash/kief” to Question “In which form(s) have you used/consumed cannabis products thus far in your current pregnancy? Select all that apply”:* If available, please upload any images of the hashish/hash/kief products that you have been using/consuming in pregnancy showing cannabis content (THC and CBD) details.
- Enter number of images you would like to upload (maximum of 5 images): _____
72. *“Concentrate” to Question “In which form(s) have you used/consumed cannabis products thus far in your current pregnancy? Select all that apply”:* How often do you use/consume concentrate(s) in this pregnancy?
- Less than once a month in this pregnancy
 - Monthly in this pregnancy
 - Weekly in this pregnancy
 - Daily in this pregnancy
 - Other, please specify: *Free text response*
 - I don't know
73. *“Concentrate” to Question “In which form(s) have you used/consumed cannabis products thus far in your current pregnancy? Select all that apply”:* At each consumption, on average how much concentrate do you use/consume?
- _____ gram(s)
 - _____ hit(s)
 - _____ toke(s)
 - _____ dab(s)
 - Other, please specify: *Free text response*
 - I don't know
74. *“concentrate” to Question “In which form(s) have you used/consumed cannabis products thus far in your current pregnancy? Select all that apply”:* Do you know the THC level in the concentrate you usually use/consume?
- Yes
 - No
 - Not applicable – the concentrate does not contain THC

75. *If “Yes” to Do you know the THC level in the concentrate you usually use/consume:*
What is the usual THC level in the concentrate?
- _____ mg THC **OR**
 - _____ % THC
76. *If “concentrate” to Question “In which form(s) have you used/consumed cannabis products thus far in your current pregnancy? Select all that apply”:* Do you know the CBD level in the concentrate you usually use/consume?
- Yes
 - No
 - Not applicable – the concentrate does not contain CBD
77. *If “Yes” to Do you know the CBD level in the concentrate:* What is the usual CBD level in the concentrate?
- _____ mg CBD **OR**
 - _____ % CBD
78. *If “concentrate” to Question “In which form(s) have you used/consumed cannabis products thus far in your current pregnancy? Select all that apply”:* If available, please upload any images of the concentrate products that you have been using/consuming in pregnancy showing cannabis content (THC and CBD)
- Enter number of images you would like to upload (maximum of 5 images): _____
79. *If “Tinctures/ingestibles” to Question “In which form(s) have you used/consumed cannabis products thus far in your current pregnancy? Select all that apply”:* How often do you use/consume tinctures/ingestible oils in this pregnancy?
- Less than once a month in this pregnancy
 - Monthly in this pregnancy
 - Weekly in this pregnancy
 - Daily in this pregnancy
 - Other, please specify: *Free text response*
 - I don't know
80. *If “Tinctures/ingestible oils” to Question “In which form(s) have you used/consumed cannabis products thus far in your current pregnancy? Select all that apply”:* At each consumption, on average how much tinctures/ingestible oils do you use/consume?
- _____ mL
 - _____ drop(s)
 - _____ capsule(s)

- _____ gram(s)
 - Other, please specify: *Free text response*
 - I don't know
81. *If "tinctures/ingestible oils" to Question "In which form(s) have you used/consumed cannabis products thus far in your current pregnancy? Select all that apply": Do you know the THC level in the tinctures/ingestible oils you usually use/consume?*
- Yes
 - No
 - Not applicable – the tinctures/ingestible oils do not contain THC
82. *If "Yes" to Do you know the THC level in the tinctures/ingestible oils you usually use/consume: What is the usual THC level in the tinctures/ingestible oils?*
- _____ mg THC **OR**
 - _____ % THC
83. *If "tinctures/ingestible oils" to Question "In which form(s) have you used/consumed cannabis products thus far in your current pregnancy? Select all that apply": Do you know the CBD level in the tinctures/ingestible oils you usually use/consume?*
- Yes
 - No
 - Not applicable – the tinctures/ingestible oils do not contain CBD
84. *If "Yes" to Do you know the CBD level in the tinctures/ingestible oils: What is the usual CBD level in the concentrate?*
- _____ mg CBD **OR**
 - _____ % CBD
85. *If "tinctures/ingestible oils" to Question "In which form(s) have you used/consumed cannabis products thus far in your current pregnancy? Select all that apply": If available, please upload any images of the tinctures/ingestible oils products that you have been using in pregnancy showing cannabis content (THC and CBD)*
- Enter number of images you would like to upload (maximum of 5 images): _____
86. *If "Cannabis food products" to Question "In which form(s) have you used/consumed cannabis products thus far in your current pregnancy? Select all that apply": How often do you use/consume cannabis food products in this pregnancy?*
- Less than once a month in this pregnancy
 - Monthly in this pregnancy

- Weekly in this pregnancy
 - Daily in this pregnancy
 - Other, please specify: *Free text response*
 - I don't know
87. *If "Cannabis food products" to Question "In which form(s) have you used/consumed cannabis products thus far in your current pregnancy? Select all that apply":* At each consumption, on average how much cannabis food product do you consume?
- _____ # of product(s)
 - Other, please specify: *Free text response*
 - I don't know
88. *If "cannabis food product" to Question "In which form(s) have you used/consumed cannabis products thus far in your current pregnancy? Select all that apply":* Do you know how much THC is in one standard serving of the cannabis food product?
- Yes
 - No
 - Not applicable – the cannabis food product does not contain THC
89. *If "Yes" to Do you know how much THC is in one standard serving of the cannabis food product?:* What is the usual THC level in one standard serving?
- _____ mg THC **OR**
 - _____ % THC
90. *If "cannabis food product" to Question "In which form(s) have you used/consumed cannabis products thus far in your current pregnancy? Select all that apply":* Do you know how much CBD is in one standard serving of the cannabis food product?
- Yes
 - No
 - Not applicable – the cannabis food product does not contain CBD
91. *If "Yes" to Do you know how much CBD is in one standard serving of the cannabis food product?:* What is the usual CBD level in one standard serving?
- _____ mg CBD **OR**
 - _____ % CBD
92. *If "cannabis food product" to Question "In which form(s) have you used/consumed cannabis products thus far in your current pregnancy? Select all that apply":* If available, please upload any images of the cannabis food products that you have been consuming in pregnancy showing cannabis content (THC and CBD)

Enter number of images you would like to upload (maximum of 5 images): _____

93. *If “beverages” to Question “In which form(s) have you used/consumed cannabis products thus far in your current pregnancy? Select all that apply”:* How often do you consume beverages containing cannabis in this pregnancy?
- Less than once a month in this pregnancy
 - Monthly in this pregnancy
 - Weekly in this pregnancy
 - Daily in this pregnancy
 - Other, please specify: *Free text response*
 - I don't know
94. *If “beverages” to Question “In which form(s) have you used/consumed cannabis products thus far in your current pregnancy? Select all that apply”:* At each consumption, on average how many beverages containing cannabis extracts do you consume?
- _____ # of product(s)
 - Other, please specify: *Free text response*
 - I don't know
95. *If “beverages” to Question “In which form(s) have you used/consumed cannabis products thus far in your current pregnancy? Select all that apply”:* Do you know how much THC is in one standard serving of the beverage?
- Yes
 - No
 - Not applicable – the beverage does not contain THC
96. *If “Yes” to Do you know how much THC is in one standard serving of the beverage?:* What is the usual THC level in one standard serving?
- _____ mg THC **OR**
 - _____ % THC
97. *If “beverage” to Question “In which form(s) have you used/consumed cannabis products thus far in your current pregnancy? Select all that apply”:* Do you know how much CBD is in one standard serving of the beverage?
- Yes
 - No
 - Not applicable – the cannabis food product does not contain CBD

98. *If “Yes” to Do you know how much CBD is in one standard serving of the beverage?:*

What is the usual CBD level in one standard serving?

- _____ mg CBD **OR**
- _____ % CBD

99. *If “beverage” to Question “In which form(s) have you used/consumed cannabis products thus far in your current pregnancy? Select all that apply”:* If available, please upload any images of the beverage that you have been using in pregnancy showing cannabis content (THC and CBD)

Enter number of images you would like to upload (maximum of 5 images): _____

100. *If “topical ointment” to Question “In which form(s) have you used/consumed cannabis products thus far in your current pregnancy? Select all that apply”:* How often do you use/consume topical ointment(s) in this pregnancy?

- Less than once a month in this pregnancy
- Monthly in this pregnancy
- Weekly in this pregnancy
- Daily in this pregnancy
- Other, please specify: *Free text response*
- I don't know

101. *If “Topical ointment” to Question “In which form(s) have you used/consumed cannabis products thus far in your current pregnancy? Select all that apply”:* At each use, on average how much topical ointment do you use?

- _____ gram(s)
- _____ ounce(s)
- _____ mL
- _____ fingertip(s) (from the tip of your index finger to the first crease of the finger)
- Other, please specify: *Free text response*
- I don't know

102. *If “topical ointment” to Question “In which form(s) have you used/consumed cannabis products thus far in your current pregnancy? Select all that apply”:* Do you know the THC level in the topical ointment you usually use?

- Yes
- No
- Not applicable – the topical ointment does not contain THC

103. *If “Yes” to Do you know the THC level in the topical ointment you usually use?:*
What is the usual THC level?
- _____ mg THC **OR**
 - _____ % THC
104. *If “topical ointment” to Question “In which form(s) have you used/consumed cannabis products thus far in your current pregnancy? Select all that apply”:* Do you know the CBD level in the topical ointment you usually use?
- Yes
 - No
 - Not applicable – the topical ointment does not contain CBD
105. *If “Yes” to Do you know the CBD level in the topical ointment you usually use?:*
What is the usual CBD level?
- _____ mg CBD **OR**
 - _____ % CBD
106. *If “topical ointment” to Question “In which form(s) have you used/consumed cannabis products thus far in your current pregnancy? Select all that apply”:* If available, please upload any images of the topical ointment that you have been using in pregnancy showing cannabis content (THC and CBD)
- Enter number of images you would like to upload (maximum of 5 images): _____
107. *If “fresh flower/leaf” to Question “In which form(s) have you used/consumed cannabis products thus far in your current pregnancy? Select all that apply”:* How often do you use/consume fresh flower/leaf in this pregnancy?
- Less than once a month in this pregnancy
 - Monthly in this pregnancy
 - Weekly in this pregnancy
 - Daily in this pregnancy
 - Other, please specify: *Free text response*
 - I don't know
108. *If “fresh flower/leaf” to Question “In which form(s) have you used/consumed cannabis products thus far in your current pregnancy? Select all that apply”:* At each consumption, on average how much fresh flower/leaf do you use/consume?
- _____ ounce(s)
 - _____ gram(s)
 - _____ leave(s)

- Other, please specify: *Free text response*
 - I don't know
109. *If "fresh flower/leaf" to Question "In which form(s) have you used/consumed cannabis products thus far in your current pregnancy? Select all that apply": Do you know the THC level in the fresh flower/leaf you usually use/consume?*
- Yes
 - No
 - Not applicable – the fresh flower/leaf does not contain THC
110. *If "Yes" to Do you know the THC level in the fresh flower/leaf you usually use/consume?: What is the usual THC level?*
- _____ mg THC **OR**
 - _____ % THC
111. *If "fresh flower/leaf" to Question "In which form(s) have you used/consumed cannabis products thus far in your current pregnancy? Select all that apply": Do you know the CBD level in the fresh flower/leaf you usually use/consume?*
- Yes
 - No
 - Not applicable – the fresh flower/leaf does not contain CBD
112. *If "Yes" to Do you know the CBD level in the fresh flower/leaf you usually use/consume?: What is the usual CBD level?*
- _____ mg CBD **OR**
 - _____ % CBD
113. *If "fresh flower/leaf" to Question "In which form(s) have you used/consumed cannabis products thus far in your current pregnancy? Select all that apply": If available, please upload any images of the fresh flower/leaf that you have been using in pregnancy showing cannabis content (THC and CBD)*
- Enter number of images you would like to upload (maximum of 5 images): _____
114. *If "Other" to Question "In which form(s) do you use/consume cannabis?": On average, how much cannabis do you use/consume each time you use/consume a product you previously listed as "other"?*
- *Free text response*

115. *If “Yes” to Question “Are you currently using or have you used/consumed cannabis during your pregnancy”*: Where do you purchase/receive your cannabis product(s)? Select all that apply. *
- Licensed store/dispensary
 - Unlicensed store/dispensary
 - Licensed online source
 - Unlicensed online source
 - I made my own (e.g., grow cannabis at home, make my own products)
 - From a friend or family member
 - From someone else I know
 - From a dealer (in person)
 - From a dealer (mail delivery)
 - Other, please specify: *free text response*
 - I prefer not to answer
116. Have you used/consumed alcohol during your pregnancy? *
- Yes
 - No
 - I prefer not to answer
117. *If “Yes” to Question “Have you used/consumed, or are you currently drinking alcohol during your pregnancy”*: Which of the following best describes how often you currently drink alcohol during your pregnancy?
- Once or twice in total
 - Once or twice per month
 - 1-3 times per week
 - 4-6 times per week
 - Daily
 - Multiple times a day
 - Other, please specify: *Free text response*
118. *If “Yes” to Question “Have you used/consumed, or are you currently drinking alcohol during your pregnancy”*: On average when you are drinking, how many drinks do you consume? A drink refers to 1 regular sized bottle, can, or draft of beer or cooler; 1 glass of wine; 1 shot of liquor (rum, whiskey, vodka, tequila, etc.) with or without mix.
- *Numerical response*
119. Have you used tobacco/nicotine products during your pregnancy? *
- Yes
 - No
 - I prefer not to answer

120. *If “Yes” to Question “Have you used, or are you currently using tobacco during your pregnancy”:* Which of the following tobacco/nicotine products have you used in your pregnancy?
- Cigarettes
 - Cigars
 - Vaping
 - Chewing tobacco
 - Nicotine replacement (i.e., gum, patch, oral spray, lozenge, etc.)
 - Other, please specify: *Free text response*
121. *If “Yes” to Question “Have you used/consumed, or are you currently using tobacco during your pregnancy”:* Which of the following best describes how often you currently use tobacco/nicotine products during your pregnancy?
- Once or twice in total
 - Once or twice per month
 - 4-6 times per week
 - 1-3 times per week
 - Daily
 - Multiple times a day
 - Other, please specify: *Free text response*
122. Including all household members and regular visitors, does anyone smoke tobacco inside your home regularly, **excluding** yourself?
- Yes
 - No
123. *If “Yes” to Question “does anyone smoke tobacco inside your home”:* On a typical day, how many cigarettes are smoked inside your home?
- 1-10
 - 11-20
 - 21-30
 - 31-40
 - 41 or more
 - I don't know
124. During your pregnancy, have you been regularly exposed to second-hand tobacco smoke in a car or other private vehicle?
- Yes
 - No
125. During your pregnancy, have you been regularly exposed to second-hand tobacco smoke at your workplace?

- Yes
- No

Pregnancy Survey

Part A: Obstetric and health history

1. From which type of healthcare provider are you currently receiving your prenatal care?
Select all that apply.
 - Obstetrician
 - Family physician
 - Midwife
 - Nurse/nurse practitioner
 - Fertility specialist
 - I don't have a healthcare provider for this pregnancy
 - Other, please specify: *Free text response*

2. Have you been diagnosed by a physician with any of the following health conditions since completing the previous survey? Select all that apply.
 - Not applicable – I have not been diagnosed with any health conditions
 - Allergies
 - Skin conditions (e.g., psoriasis, eczema, dermatitis, etc.)
 - Breathing or respiratory condition (e.g., asthma, COPD (chronic obstructive pulmonary disease))
 - Cancer (current or previous diagnoses)
 - Cardiovascular condition (e.g., hypertension, heart disease, etc.)
 - Chronic pain (e.g., migraine, arthritis, etc.)
 - Diabetes (e.g., Type 1, Type 2, gestational diabetes etc.)
 - Gastrointestinal condition(s) (e.g., GERD (acid reflux), Crohn's, irritable bowel disease, etc.)
 - Glaucoma
 - HIV/AIDS
 - Mental health condition(s) (e.g., anxiety, depression, obsessive compulsive disorder, eating disorder, post-traumatic stress disorder, etc.)
 - Nausea or vomiting (e.g., hyperemesis gravidarum)
 - Neurological condition(s) (e.g., Parkinson's, multiple sclerosis, epilepsy, etc.)
 - Sleep disorder (e.g., insomnia)
 - Other

3. *If any condition to Question "Have you been diagnosed by a physician...":* Please indicate the health condition(s).

- *Free text response*

4. Have you received any vaccines during your pregnancy since completing the previous survey?

- Yes
 - o If yes, please select all that apply.
 - Flu shot/Influenza vaccine
 - Please select the trimester of pregnancy that you received the vaccine:
 - o 1st (1-13 weeks)
 - o 2nd (14-27 weeks)
 - o 3rd (28-40 weeks)
 - Tdap/Pertussis/Adacel/Whooping cough vaccine
 - Please select the trimester of pregnancy that you received the vaccine:
 - o 1st (1-13 weeks)
 - o 2nd (14-27 weeks)
 - o 3rd (28-40 weeks)
 - COVID-19 vaccine
 - Please select the trimester of pregnancy that you received the vaccine:
 - o 1st (1-13 weeks)
 - o 2nd (14-27 weeks)
 - o 3rd (28-40 weeks)
 - Which dose(s) of the COVID-19 vaccine did you receive?
 - o First dose
 - o Second dose
 - o Another dose
 - Other – please specify the vaccine and the trimester:
- No
- Unsure

5. Have you visited the emergency department for a health concern related to yourself since completing the previous survey?

- No
- Yes
 - How many times have you visited the emergency department since completing the previous survey? *Numerical response*
 - Please specify the reason for your emergency department visit(s): *Free text response*

- Please enter the date(s) of your emergency department visit(s): *Select date from calendar table*
6. Have you been admitted to a hospital for more than 24 hours for any reason since completing the previous survey? Please exclude any emergency department visit(s).
- No
 - Yes
 - How many times have you been hospitalized since completing the previous survey? *Numerical response*
 - Please specify the reason for your hospitalization(s): *Free text response*
 - Please enter the date(s) of admission to hospital: *Select date from calendar table*
7. Are you regularly (i.e., at least once per week) taking any prescription or over the counter medications, including natural health products (e.g., vitamins, herbs and other supplements)?
- Yes
 - No
8. *If any medication to Question "Are you regularly taking any of the following prescription...":* Please list the name(s) of the prescription(s), over the counter medication(s), or natural health products you are regularly taking.
- *Free text response*

Part B: Cannabis and other substance use

9. How many people in your household excluding yourself have used/consumed cannabis products since completing the previous survey?
- *Numerical response*
10. Since completing the previous survey, including all household members and regular visitors, does anyone smoke cannabis inside your home regularly, **excluding** yourself?
- Yes
 - No
11. Since completing the previous survey, have you been regularly exposed to second-hand cannabis smoke in a car or other private vehicle?
- Yes

- No
12. Since completing the previous survey, have you been regularly exposed to second-hand smoke at your workplace?
- Yes
 - No
13. Have you and your healthcare provider discussed the subject of cannabis use in pregnancy since completing the previous survey?
- Yes
 - No
14. *If “Yes” to Question “Have you and your healthcare provider...”*: Which healthcare provider(s) have you discussed cannabis use during pregnancy with since completing the previous survey? Select all that apply.
- Obstetrician
 - Family physician
 - Midwife
 - Nurse/nurse practitioner
 - Other, please specify: *Free text response*
15. *If “Yes” to Question “Have you and your healthcare provider...”*: Who initiated the conversation about cannabis use during pregnancy that has taken place since completing the previous survey?
- Me
 - My healthcare provider
16. *If “Yes” to Question “Have you and your healthcare provider...”*: What recommendations or suggestions did your healthcare provider(s) make about cannabis use during pregnancy since completing the previous survey?
- Not applicable – I am not using/consuming cannabis products
 - Directed me to resources/gave me information
 - Recommended me to increase my cannabis use/consumption
 - Recommended me to decrease my cannabis use/consumption
 - Recommended me to change my format of cannabis use/consumption
 - Neither recommended nor discouraged use/consumption
 - Other, please specify: *Free text response*

17. *If “Yes” to Question “Have you and your healthcare provider...”*: Do you feel satisfied by your discussion(s) with your healthcare provider(s) about cannabis use during pregnancy that has taken place since completing the previous survey?
- Very satisfied
 - Somewhat satisfied
 - Neither satisfied nor unsatisfied
 - Somewhat unsatisfied
 - Very unsatisfied
18. Have you sought out or received information about cannabis use during pregnancy from sources other than your healthcare provider(s) since completing the previous survey? Select all that apply.
- Government issued websites (e.g., Government of Canada, Public Health Ontario, Ottawa Public Health, World Health Organization, etc.)
 - News broadcasting (e.g., television, radio, newspaper, magazines, etc.)
 - Social media (e.g., Facebook, Twitter, Instagram, etc.)
 - Cannabis dispensaries/sources in the cannabis industry
 - Friend or family member
 - Pregnancy and/or breastfeeding professional societies (e.g., Society of Obstetrics and Gynaecologists Canada, American College of Obstetricians and Gynecologists)
 - General pregnancy and childbirth/parenting websites
 - Online forums (e.g., Reddit, Quora, etc.)
 - I have not sought out or received additional information
 - Other, please specify: *Free text response*
19. Since completing the previous survey, have you used/consumed any cannabis products?
- Yes
 - No
20. *If “Yes” to Question “Since completing the previous survey, have you used any cannabis products”*: Which of the following best describes how often you have used/consumed cannabis products since completing the previous survey?
- Once or twice in total
 - Once or twice per month
 - 1-3 times per week
 - 4-6 times per week
 - Daily
 - Multiple times a day

- Other, please specify: *Free text response*
21. *If “Yes” to Question “since completing the previous survey, have you used/consumed any cannabis products”*: For which reason(s) are you currently consuming cannabis during your pregnancy? Select all that apply.
- To reduce nausea and vomiting (e.g., hyperemesis gravidarum)
 - To reduce anxiety/stress
 - To help with depression
 - To relieve acute pain
 - To relieve chronic pain
 - To increase appetite
 - To help with sleep
 - To treat seizures
 - To treat headaches/migraines
 - To treat muscle spasms
 - For recreational purposes/to get high
 - To treat another medical condition not listed here (e.g., glaucoma) or another reason, please specify: *free text response*
22. *If Options 1-10, 12 to Question “for which reason(s) are you currently consuming cannabis during your pregnancy”*: Did a healthcare professional prescribe you cannabis?
- Yes
 - No
23. *If “Yes” to Question “Since completing the previous survey, have you used/consumed any cannabis products?”*: Did you complete the cannabis intake diary?
- Yes
 - No

Please use the image below to help answer the following question.



24. *If “Yes” to Question “Since completing the previous survey, have you used/consumed any cannabis products?”*: In which form(s) have you used/consumed cannabis products thus far **in your current pregnancy**? Select all that apply.

- Smoked dried herb/flower/leaf/bud (e.g., joint, spliff, etc.)
- Vaporized dried herb/flower/leaf/bud (e.g., bong, dry herb vaporizer, etc.)
- Dried herb/flower/leaf/bud mixed with or rolled in tobacco (e.g., blunt)
- Vaporized liquid form in an e-cigarette/vape pen/cartridge
- Hashish/hash/kief
- Concentrates **excluding** tinctures (e.g., hash oil, butane honey oil, shatter, budder, wax, etc.)
- Tinctures/Ingestible oils (e.g., spray, dropper, capsule, etc.)
- Cannabis food products (e.g., chocolate, brownies, gummies, etc.)
- Beverages
- Topical ointments (e.g., lotions, salves, balms, cream, etc.)
- Fresh flower/leaf (e.g., for juicing)
- Other, please specify: *Free text response*

25. *If “Smoked dried herb/flower/leaf/bud” to Question “In which form(s) have you used/consumed cannabis products thus far in your current pregnancy? Select all that apply”*: How often do you smoke dried herb/flower/leaf/bud in this pregnancy?

- Less than once a month in this pregnancy
- Monthly in this pregnancy
- Weekly in this pregnancy
- Daily in this pregnancy
- Other, please specify: *Free text response*
- I don't know

26. *If “Vaporized dried herb/flower/leaf/bud” to Question “In which form(s) have you used/consumed cannabis products thus far in your current pregnancy? Select all that apply”*: How often do you vaporize dried herb/flower/leaf/bud in this pregnancy?
- Less than once a month in this pregnancy
 - Monthly in this pregnancy
 - Weekly in this pregnancy
 - Daily in this pregnancy
 - Other, please specify: *Free text response*
 - I don't know
27. *If “Dried herb/flower/leaf/bud mixed with or rolled in tobacco” to Question “In which form(s) have you used/consumed cannabis products thus far in your current pregnancy? Select all that apply”*: How often do you mix or roll dried herb/flower/leaf/bud with tobacco in this pregnancy?
- Less than once a month in this pregnancy
 - Monthly in this pregnancy
 - Weekly in this pregnancy
 - Daily in this pregnancy
 - Other, please specify: *Free text response*
 - I don't know
28. *If “Smoked dried herb/flower/leaf/bud, Vaporized dried herb/flower/leaf/bud, Dried herb/flower/leaf/bud mixed with or rolled in tobacco” to Question “In which form(s) have you used/consumed cannabis products thus far in your current pregnancy? Select all that apply”*: At each use/consumption, on average how much dried herb/flower/leaf/bud do you consume?
- Less than 1/8 (one eighth) gram
 - 1/8 (one eighth) gram
 - ¼ (one quarter) gram
 - ½ (half) gram
 - ¾ (three quarters) gram
 - 1 gram
 - 2 grams
 - 3 grams
 - 1/8 (one eighth) ounce
 - ¼ (one quarter) ounce
 - More than ¼ (one quarter) ounce
 - Other, please specify: *Free text response*
 - I don't know

29. *If “Smoked dried herb/flower/leaf/bud, Vaporized dried herb/flower/leaf/bud, Dried herb/flower/leaf/bud mixed with or rolled in tobacco” to Question “In which form(s) have you used/consumed cannabis products thus far in your current pregnancy? Select all that apply”*: Do you know the THC level in the dried flower/herb/leaf/bud you usually consume?
- Yes
 - No
 - Not applicable – the dried flower/herb/leaf/bud does not contain THC
30. *If “YES” to Do you know the THC level in the dried flower/herb/leaf/bud you usually consume*: What is the usual THC level in the dried herb/flower/leaf/bud?
- _____ mg THC **OR**
 - _____ % THC
31. *If “Smoked dried herb/flower/leaf/bud, Vaporized dried herb/flower/leaf/bud, Dried herb/flower/leaf/bud mixed with or rolled in tobacco” to Question “In which form(s) have you used/consumed cannabis products thus far in your current pregnancy? Select all that apply”*: Do you know the CBD level in the dried flower/herb/leaf/bud you usually consume?
- Yes
 - No
 - Not applicable – the dried flower/herb/leaf/bud does not contain CBD
32. *If “YES” to Do you know the CBD level in the dried flower/herb/leaf/bud you usually consume*: What is the usual CBD level in the dried herb/flower/leaf/bud?
- _____ mg CBD **OR**
 - _____ % CBD
33. *If “Smoked dried herb/flower/leaf/bud, Vaporized dried herb/flower/leaf/bud, Dried herb/flower/leaf/bud mixed with or rolled in tobacco” to Question “In which form(s) have you used/consumed cannabis products thus far in your current pregnancy? Select all that apply”*: If available, please upload any images of the dried herb/flower/leaf/bud products that you have been using in pregnancy showing cannabis content (THC and CBD) details.
- Enter number of images you would like to upload (maximum of 5 images): _____
34. *If “Vaporized liquid form in e-cigarettes/pens/cartridges” to Question “In which form(s) have you used/consumed cannabis products thus far in your current pregnancy? Select all that apply”*: How often do you use/consume vaporized liquids in e-cigarettes/pens/cartridges in this pregnancy?

- Less than once a month in this pregnancy
 - Monthly in this pregnancy
 - Weekly in this pregnancy
 - Daily in this pregnancy
 - Other, please specify: *Free text response*
 - I don't know
35. *If "Vaporized liquid form in e-cigarettes/pens/cartridges" to Question "In which form(s) have you used/consumed cannabis products thus far in your current pregnancy? Select all that apply":* At each use/consumption, on average how much liquid do you consume?
- _____ gram(s)
 - _____ mL
 - _____ fl oz
 - _____ cartridge(s)
 - Other, please specify: *Free text response*
 - I don't know
36. *If "Vaporized liquid form in e-cigarettes/pens/cartridges" to Question "In which form(s) have you used/consumed cannabis products thus far in your current pregnancy? Select all that apply":* Do you know the THC level in the liquid you usually use/consume in the e-cigarettes/pens/cartridges?
- Yes
 - No
 - Not applicable – the liquid does not contain THC
37. *If "Yes" to Do you know the THC level in the liquid you usually use/consume in the e-cigarettes/pens/cartridges:* What is the usual THC level in the liquid?
- _____ mg THC **OR**
 - _____ % THC
38. *If "Vaporized liquid form in e-cigarettes/pens/cartridges" to Question "In which form(s) have you used/consumed cannabis products thus far in your current pregnancy? Select all that apply":* Do you know the CBD level in the liquid you usually use/consume in the e-cigarettes/pens/cartridge?
- Yes
 - No
 - Not applicable – the liquid does not contain CBD

39. *If “Yes” to Do you know the CBD level in the liquid you usually use/consume in the e-cigarettes/pens/cartridge:* What is the usual CBD level in the liquid product?
- _____ mg CBD **OR**
 - _____ % CBD

40. *If “Vaporized liquid form in e-cigarettes/pens/cartridges” to Question “In which form(s) have you used/consumed cannabis products thus far in your current pregnancy? Select all that apply”:* If available, please upload any images of the liquid products that you have been consuming in pregnancy showing cannabis content (THC and CBD) details.

Enter number of images you would like to upload (maximum of 5 images): _____

41. *If “Hashish/hash/kief” to Question “In which form(s) have you used/consumed cannabis products thus far in your current pregnancy? Select all that apply”:* How often do you use/consume hashish/hash/kief in this pregnancy?

- Less than once a month in this pregnancy
- Monthly in this pregnancy
- Weekly in this pregnancy
- Daily in this pregnancy
- Other, please specify: *Free text response*
- I don't know

42. *If “Hashish/hash/kief” to Question “In which form(s) have you used/consumed cannabis products thus far in your current pregnancy? Select all that apply”:* At each use/consumption, on average how much hashish/hash/kief do you consume?

- _____ gram(s)
- _____ hit(s)
- _____ tokes(s)
- Other, please specify: *Free text response*
- I don't know

43. *If “Hashish/hash/kief” to Question “In which form(s) have you used/consumed cannabis products thus far in your current pregnancy? Select all that apply”:* Do you know the THC level in the hashish/hash/kief you usually consume?

- Yes
- No
- Not applicable – the hashish/hash/kief does not contain THC

44. *If “Yes” to Do you know the THC level in the hashish/kief you usually consume:* What is the usual THC level in the hashish/kief?
- _____ mg THC **OR**
 - _____ % THC
45. *If “Hashish/hash/kief” to Question “In which form(s) have you used/consumed cannabis products thus far in your current pregnancy? Select all that apply”:* Do you know the CBD level in the hashish/kief you usually consume?
- Yes
 - No
 - Not applicable – the hashish/hash/kief does not contain CBD
 -
46. *If “Yes” to Do you know the CBD level in the hashish/hash/kief:* What is the usual CBD level in the hashish/hash/kief?
- _____ mg CBD **OR**
 - _____ % CBD
47. *If “hashish/hash/kief” to Question “In which form(s) have you used/consumed cannabis products thus far in your current pregnancy? Select all that apply”:* If available, please upload any images of the hashish/hash/kief products that you have been consuming in pregnancy showing cannabis content (THC and CBD) details.
- Enter number of images you would like to upload (maximum of 5 images): _____
48. *If “Concentrate” to Question “In which form(s) have you used/consumed cannabis products thus far in your current pregnancy? Select all that apply”:* How often do you use/consume concentrate(s) in this pregnancy?
- Less than once a month in this pregnancy
 - Monthly in this pregnancy
 - Weekly in this pregnancy
 - Daily in this pregnancy
 - Other, please specify: *Free text response*
 - I don't know
49. *If “Concentrate” to Question “In which form(s) have you used/consumed cannabis products thus far in your current pregnancy? Select all that apply”:* At each use/consumption, on average how much concentrate do you consume?
- _____ gram(s)
 - _____ hit(s)

- _____ toke(s)
 - _____ dab(s)
 - Other, please specify: *Free text response*
 - I don't know
50. *If “concentrate” to Question “In which form(s) have you used/consumed cannabis products thus far in your current pregnancy? Select all that apply”*: Do you know the THC level in the concentrate you usually consume?
- Yes
 - No
 - Not applicable – the concentrate does not contain THC
51. *If “Yes” to Do you know the THC level in the concentrate you usually consume*: What is the usual THC level in the concentrate?
- _____mg THC **OR**
 - _____ % THC
52. *If “concentrate” to Question “In which form(s) have you used/consumed cannabis products thus far in your current pregnancy? Select all that apply”*: Do you know the CBD level in the concentrate you usually consume?
- Yes
 - No
 - Not applicable – the concentrate does not contain CBD
53. *If “Yes” to Do you know the CBD level in the concentrate*: What is the usual CBD level in the concentrate?
- _____mg CBD **OR**
 - _____ % CBD
54. *If “concentrate” to Question “In which form(s) have you used/consumed cannabis products thus far in your current pregnancy? Select all that apply”*: If available, please upload any images of the concentrate products that you have been consuming in pregnancy showing cannabis content (THC and CBD)
- Enter number of images you would like to upload (maximum of 5 images): _____
55. *If “Tinctures/ingestibles” to Question “In which form(s) have you used/consumed cannabis products thus far in your current pregnancy? Select all that apply”*: How often do you use/consume tinctures/ingestible oils in this pregnancy?
- Less than once a month in this pregnancy
 - Monthly in this pregnancy

- Weekly in this pregnancy
 - Daily in this pregnancy
 - Other, please specify: *Free text response*
 - I don't know
56. *If "Tinctures/ingestible oils" to Question "In which form(s) have you used/consumed cannabis products thus far in your current pregnancy? Select all that apply":* At each use/consumption, on average how much tinctures/ingestible oils do you consume?
- _____ mL
 - _____ drop(s)
 - _____ capsule(s)
 - _____ gram(s)
 - Other, please specify: *Free text response*
 - I don't know
57. *If "tinctures/ingestible oils" to Question "In which form(s) have you used/consumed cannabis products thus far in your current pregnancy? Select all that apply":* Do you know the THC level in the tinctures/ingestible oils you usually consume?
- Yes
 - No
 - Not applicable – the tinctures/ingestible oils do not contain THC
58. *If "Yes" to Do you know the THC level in the tinctures/ingestible oils you usually consume:* What is the usual THC level in the tinctures/ingestible oils?
- _____ mg THC **OR**
 - _____ % THC
59. *If "tinctures/ingestible oils" to Question "In which form(s) have you used/consumed cannabis products thus far in your current pregnancy? Select all that apply":* Do you know the CBD level in the tinctures/ingestible oils you usually consume?
- Yes
 - No
 - Not applicable – the tinctures/ingestible oils do not contain CBD
60. *If "Yes" to Do you know the CBD level in the tinctures/ingestible oils:* What is the usual CBD level in the concentrate?
- _____ mg CBD **OR**
 - _____ % CBD

61. *If “tinctures/ingestible oils” to Question “In which form(s) have you used/consumed cannabis products thus far in your current pregnancy? Select all that apply”*: If available, please upload any images of the tinctures/ingestible oils products that you have been using in pregnancy showing cannabis content (THC and CBD)

Enter number of images you would like to upload (maximum of 5 images): _____

62. *If “Cannabis food products” to Question “In which form(s) have you used/consumed cannabis products thus far in your current pregnancy? Select all that apply”*: How often do you consume cannabis food products in this pregnancy?

- Less than once a month in this pregnancy
- Monthly in this pregnancy
- Weekly in this pregnancy
- Daily in this pregnancy
- Other, please specify: *Free text response*
- I don't know

63. *If “Cannabis food products” to Question “In which form(s) have you used/consumed cannabis products thus far in your current pregnancy? Select all that apply”*: At each consumption, on average how much cannabis food product do you consume?

- _____ # of product(s)
- Other, please specify: *Free text response*
- I don't know

64. *If “cannabis food product” to Question “In which form(s) have you used/consumed cannabis products thus far in your current pregnancy? Select all that apply”*: Do you know how much THC is in one standard serving of the cannabis food product?

- Yes
- No
- Not applicable – the cannabis food product does not contain THC

65. *If “Yes” to Do you know how much THC is in one standard serving of the cannabis food product?:* What is the usual THC level in one standard serving?

- _____ mg THC **OR**
- _____ % THC

66. *If “cannabis food product” to Question “In which form(s) have you used/consumed cannabis products thus far in your current pregnancy? Select all that apply”*: Do you know how much CBD is in one standard serving of the cannabis food product?

- Yes
- No
- Not applicable – the cannabis food product does not contain CBD

67. *If “Yes” to Do you know how much CBD is in one standard serving of the cannabis food product?:* What is the usual CBD level in one standard serving?

- _____ mg CBD **OR**
- _____ % CBD

68. *If “cannabis food product” to Question “In which form(s) have you used/consumed cannabis products thus far in your current pregnancy? Select all that apply”:* If available, please upload any images of the cannabis food products that you have been using in pregnancy showing cannabis content (THC and CBD)

Enter number of images you would like to upload (maximum of 5 images): _____

69. *If “beverages” to Question “In which form(s) have you used/consumed cannabis products thus far in your current pregnancy? Select all that apply”:* How often do you use/consume beverages containing cannabis in this pregnancy?

- Less than once a month in this pregnancy
- Monthly in this pregnancy
- Weekly in this pregnancy
- Daily in this pregnancy
- Other, please specify: *Free text response*
- I don't know

70. *If “beverages” to Question “In which form(s) have you used/consumed cannabis products thus far in your current pregnancy? Select all that apply”:* At each consumption, on average how many beverages containing cannabis extracts do you consume?

- _____ # of product(s)
- Other, please specify: *Free text response*
- I don't know

71. *If “beverages” to Question “In which form(s) have you used/consumed cannabis products thus far in your current pregnancy? Select all that apply”:* Do you know how much

THC is in one standard serving of the beverage?

- Yes
- No

- Not applicable – the beverage does not contain THC

72. *If “Yes” to Do you know how much THC is in one standard serving of the beverage?:*

What is the usual THC level in one standard serving?

- _____ mg THC **OR**
- _____ % THC

73. *If “beverage” to Question “In which form(s) have you used/consumed cannabis products thus far in your current pregnancy? Select all that apply”:* Do you know how much CBD is in one standard serving of the beverage?

- Yes
- No
- Not applicable – the cannabis food product does not contain CBD

74. *If “Yes” to Do you know how much CBD is in one standard serving of the beverage?:*

What is the usual CBD level in one standard serving?

- _____ mg CBD **OR**
- _____ % CBD

75. *If “beverage” to Question “In which form(s) have you used/consumed cannabis products thus far in your current pregnancy? Select all that apply”:* If available, please upload any images of the beverage that you have been consuming in pregnancy showing cannabis content (THC and CBD)

Enter number of images you would like to upload (maximum of 5 images): _____

76. *If “topical ointment” to Question “In which form(s) have you used/consumed cannabis products thus far in your current pregnancy? Select all that apply”:* How often do you use/consume topical ointment(s) in this pregnancy?

- Less than once a month in this pregnancy
- Monthly in this pregnancy
- Weekly in this pregnancy
- Daily in this pregnancy
- Other, please specify: *Free text response*
- I don't know

77. *If “Topical ointment” to Question “In which form(s) have you used/consumed cannabis products thus far in your current pregnancy? Select all that apply”:* At each use, on average how much topical ointment do you use?

- _____ gram(s)

- _____ ounce(s)
- _____ mL
- _____ fingertip(s) (from the tip of your index finger to the first crease of the finger)
- Other, please specify: *Free text response*
- I don't know

78. *If “topical ointment” to Question “In which form(s) have you used/consumed cannabis products thus far in your current pregnancy? Select all that apply”:* Do you know the THC level in the topical ointment you usually use?

- Yes
- No
- Not applicable – the topical ointment does not contain THC

79. *If “Yes” to Do you know the THC level in the topical ointment you usually use?:* What is the usual THC level?

- _____ mg THC **OR**
- _____ % THC

80. *If “topical ointment” to Question “In which form(s) have you used/consumed cannabis products thus far in your current pregnancy? Select all that apply”:* Do you know the CBD level in the topical ointment you usually use?

- Yes
- No
- Not applicable – the topical ointment does not contain CBD

81. *If “Yes” to Do you know the CBD level in the topical ointment you usually use?:* What is the usual CBD level?

- _____ mg CBD **OR**
- _____ % CBD

82. *If “topical ointment” to Question “In which form(s) have you used/consumed cannabis products thus far in your current pregnancy? Select all that apply”:* If available, please upload any images of the topical ointment that you have been using in pregnancy showing cannabis content (THC and CBD)

Enter number of images you would like to upload (maximum of 5 images): _____

83. *If “fresh flower/leaf” to Question “In which form(s) have you used/consumed cannabis products thus far in your current pregnancy? Select all that apply”*: How often do you use/consume fresh flower/leaf in this pregnancy?
- Less than once a month in this pregnancy
 - Monthly in this pregnancy
 - Weekly in this pregnancy
 - Daily in this pregnancy
 - Other, please specify: *Free text response*
 - I don't know
84. *If “fresh flower/leaf” to Question “In which form(s) have you used/consumed cannabis products thus far in your current pregnancy? Select all that apply”*: At each use/consumption, on average how much fresh flower/leaf do you consume?
- _____ ounce(s)
 - _____ gram(s)
 - _____ leave(s)
 - Other, please specify: *Free text response*
 - I don't know
85. *If “fresh flower/leaf” to Question “In which form(s) have you used/consumed cannabis products thus far in your current pregnancy? Select all that apply”*: Do you know the THC level in the fresh flower/leaf you usually consume?
- Yes
 - No
 - Not applicable – the fresh flower/leaf does not contain THC
86. *If “Yes” to Do you know the THC level in the fresh flower/leaf you usually consume?:* What is the usual THC level?
- _____ mg THC **OR**
 - _____ % THC
87. *If “fresh flower/leaf” to Question “In which form(s) have you used/consumed cannabis products thus far in your current pregnancy? Select all that apply”*: Do you know the CBD level in the fresh flower/leaf you usually consume?
- Yes
 - No
 - Not applicable – the fresh flower/leaf does not contain CBD

88. *If “Yes” to Do you know the CBD level in the fresh flower/leaf you usually consume?:*
What is the usual CBD level?
- _____ mg CBD **OR**
 - _____ % CBD
89. *If “fresh flower/leaf” to Question “In which form(s) have you used/consumed cannabis products thus far in your current pregnancy? Select all that apply”:* If available, please upload any images of the fresh flower/leaf that you have been using in pregnancy showing cannabis content (THC and CBD)
- Enter number of images you would like to upload (maximum of 5 images): _____
90. *If “Other” to Question “In which form(s) do you use/consume cannabis?”:* On average, how much cannabis do you use/consume each time you use/consume a product you previously listed as “other”?
- *Free text response*
91. *If “Yes” to Question “Are you currently using or have you used/consumed cannabis during your pregnancy”:* Where do you purchase/receive your cannabis product(s)? Select all that apply. *
- Licensed store/dispensary
 - Unlicensed store/dispensary
 - Licensed online source
 - Unlicensed online source
 - I made my own (e.g., grow cannabis at home, make my own products)
 - From a friend or family member
 - From someone else I know
 - From a dealer (in person)
 - From a dealer (mail delivery)
 - Other, please specify: *free text response*
 - I prefer not to answer
92. *If “Yes” to Question “Since completing the previous survey, have you used any cannabis products”:* Have you changed how often you are consuming cannabis during your pregnancy since completing the previous survey?
- Yes, I use/consume cannabis more often than I did when I completed the previous survey
 - Yes, I use/consume cannabis less often than I did when I completed the previous survey
 - Yes, I have stopped consuming cannabis since the previous survey

- No, I use/consume cannabis as often as I did when I completed the previous survey
 - I don't know
93. *If "Yes, more often" to Question (previous):* Why did you decide to start consuming cannabis more often during your pregnancy?
- *Free text response*
94. *If "Yes, less often" or "Yes, stopped" to Question (previous):* Why did you decide to quit cannabis or begin to use/consume cannabis less often during your pregnancy?
- *Free text response*
95. Since completing the previous survey, have you used/consumed any alcohol during your pregnancy? *
- Yes
 - No
 - I prefer not to answer
96. *If "Yes" to Question "Since completing the previous survey, have you had any alcohol during your pregnancy":* Which of the following best describes how often you have had alcohol since completing the previous survey?
- Once or twice in total
 - Once or twice per month
 - 1-3 times per week
 - 4-6 times per week
 - Daily
 - Multiple times a day
 - Other, please specify: *Free text response*
97. *If "Yes" to Question "Have you used/consumed, or are you currently drinking alcohol during your pregnancy":* Since completing the previous survey, on average when you are drinking, how many drinks do you consume? A drink refers to 1 regular sized bottle, can, or draft of beer or cooler; 1 glass of wine; 1 shot of liquor (rum, whiskey, vodka, tequila, etc.) with or without mix.
- *Numerical response*
98. Since completing the previous survey, have you used any tobacco/nicotine products? *
- Yes

- No
 - I prefer not to answer
99. *If “Yes” to Question “Since completing the previous survey, have you used, or are you currently using tobacco”:* Which of the following tobacco/nicotine products have you used since completing the previous survey?
- Cigarettes
 - Cigars
 - Vaping
 - Chewing tobacco
 - Nicotine replacement (i.e., gum, patch, oral spray, lozenge, etc.)
 - Other, please specify: *Free text response*
100. *If “Yes” to Question “Since completing the previous survey, have you used any tobacco during your pregnancy”:* Which of the following best describes how often you have used tobacco/nicotine products since completing the previous survey?
- Once or twice in total
 - Once or twice per month
 - 1-3 times per week
 - 4-6 times per week
 - Daily
 - Multiple times a day
 - Other, please specify: *Free text response*
101. Since completing the previous survey, including all household members and regular visitors, does anyone smoke tobacco inside your home regularly, **excluding** yourself?
- Yes
 - No
102. *If “Yes” to Question “does anyone smoke tobacco inside your home”:* Since completing the previous survey, on a typical day, how many cigarettes are smoke inside your home?
- 1-10
 - 11-20
 - 21-30
 - 31-40
 - 41 or more
 - I don’t know
103. Since completing the previous survey, have you been regularly exposed to second-hand tobacco smoke in a car or other private vehicle?
- Yes

- No

104. Since completing the previous survey, have you been regularly exposed to second-hand tobacco smoke at your workplace?

- Yes
- No

Postpartum Survey

Part A: Obstetric and health history

2. Have you been diagnosed by a physician with any of the following health conditions since completing the previous survey? Select all that apply.

- Not applicable – I have not been diagnosed with any health conditions
- Allergies
- Skin conditions (e.g., psoriasis, eczema, dermatitis, etc.)
- Breathing or respiratory condition (e.g., asthma, COPD (chronic obstructive pulmonary disease))
- Cancer (current or previous diagnoses)
- Cardiovascular condition (e.g., hypertension, heart disease, etc.)
- Chronic pain (e.g., migraine, arthritis, etc.)
- Diabetes (e.g., Type 1, Type 2 etc.)
- Gastrointestinal condition(s) (e.g., GERD (acid reflux), Crohn's, irritable bowel disease, etc.)
- Glaucoma
- HIV/AIDS
- Mental health condition(s) (e.g., anxiety, depression, obsessive compulsive disorder, eating disorder, post-traumatic stress disorder, etc.)
- Neurological condition(s) (e.g., Parkinson's, multiple sclerosis, epilepsy, etc.)
- Sleep disorder (e.g., insomnia)
- Other

3. *If any condition or other to Question "Have you been diagnosed by a physician...":* Please specify the health condition(s).

- *Free text response*

4. Have you received any vaccines since completing the previous survey?

- Yes
 - o If yes, please select all that apply.
 - Flu shot/Influenza vaccine
 - COVID-19 vaccine

- Which dose(s) of the COVID-19 vaccine did you receive?
 - First dose
 - Second dose
 - Another dose
 - Other – please specify the vaccine:
 - No
 - Unsure
5. Have you visited the emergency department for a health concern related to yourself since completing the previous survey?
- No
 - Yes
 - How many times have you visited the emergency department since completing the previous survey? *Numerical response*
 - Please specify the reason for your emergency department visit(s): *Free text response*
 - Please enter the date(s) of your emergency department visit(s): *Select date from calendar table*
6. Have you been admitted to hospital for more than 24 hours for any reason (other than delivery) since completing the previous survey? Please exclude any emergency department visit(s).
- No
 - Yes
 - How many times have you been hospitalized since completing the previous survey? *Numerical response*
 - Please specify the reason for your hospitalization(s): *Free text response*
 - Please enter the date(s) of admission to hospital: *Select date from calendar table*
7. Are you regularly (i.e., at least once per week) taking any of the following prescription or over the counter medications, including natural health products (e.g., vitamins, herbs or other supplements)?
- Yes
 - No
8. *If any medication to Question “Are you regularly taking any of the following prescription...”*: Please list the name(s) of the prescription(s), over the counter medication(s) or natural health products you are regularly taking.

- *Free text response*

Part B: Cannabis and other substance use

9. How many people in your household, excluding yourself, are currently consuming cannabis products?

- *Numerical response*

10. Since completing the previous survey, including all household members and regular visitors, does anyone smoke cannabis inside your home regularly, **excluding** yourself?

- Yes
- No

11. Since completing the previous survey, have you been regularly exposed to second-hand cannabis smoke in a car or other private vehicle?

- Yes
- No

12. Since completing the previous survey, have you been regularly exposed to second-hand smoke at your workplace?

- Yes
- No

13. Have you and your healthcare provider discussed the subject of cannabis use after delivery (e.g., while breastfeeding/chestfeeding)?

- Yes
- No

14. *If “Yes” to Question “Have you and your healthcare provider...”*: Which healthcare provider(s) have you discussed the subject of cannabis use after delivery with? Select all that apply.

- Obstetrician
- Family physician
- Midwife
- Nurse/nurse practitioner
- Other, please specify: *Free text response*

15. *If “Yes” to Question “Have you and your healthcare provider...”*: Who initiated the conversation about cannabis use after delivery?

- Me
- My healthcare provider

16. *If “Yes” to Question “Have you and your healthcare provider...”*: What recommendations or suggestions did your healthcare provider(s) make about cannabis use after delivery?

- Not applicable – I am not using/consuming cannabis products
- Directed me to resources/gave me information
- Recommended me to increase my cannabis consumption/consumption
- Recommended me to decrease my cannabis consumption/consumption
- Recommended me to change my format of cannabis consumption
- Neither recommended nor discouraged use/consumption
- Other, please specify: *Free text response*

17. Do you feel satisfied by your discussion with your healthcare provider(s) about cannabis use after delivery?

- Very satisfied
- Somewhat satisfied
- Neither satisfied nor unsatisfied
- Somewhat unsatisfied
- Very unsatisfied

18. Have you sought out or received information about cannabis use after delivery from sources other than your healthcare provider(s)? Select all that apply.

- Government issued websites (e.g., Government of Canada, Public Health Ontario, Ottawa Public Health, World Health Organization, etc.)
- News broadcasting (e.g., television, radio, newspaper, magazines, etc.)
- Social media (e.g., Facebook, Twitter, Instagram, etc.)
- Cannabis dispensaries/sources in the cannabis industry
- Friend or family member
- Pregnancy and/or breastfeeding professional societies (e.g., Society of Obstetrics and Gynaecologists Canada, American College of Obstetricians and Gynecologists)
- General pregnancy and childbirth/parenting websites
- Online forums (e.g., Reddit, Quora, etc.)
- I have not sought out or received additional information
- Other, please specify: *Free text response*

19. Since completing the previous survey, have you used/consumed any cannabis products?

- Yes
- No

20. *If “Yes” to Question “since completing the previous survey, have you used/consumed any cannabis products”*: For which reason(s) are you currently consuming cannabis? Select all that apply.

- To reduce nausea and vomiting
- To reduce anxiety/stress
- To help with depression
- To relieve acute pain
- To relieve chronic pain
- To increase appetite
- To help with sleep
- To treat seizures
- To treat headaches/migraines
- To treat muscle spasms
- For recreational purposes/to get high
- To treat another medical condition not listed here (e.g., glaucoma) or another reason, please specify: *free text response*

21. *If Options 1-10, 12 to Question “for which reason(s) are you currently consuming cannabis”*: Did a healthcare professional prescribe you cannabis?

- Yes
- No

22. *If “Yes” to Question “Since completing the previous survey, have you used/consumed any cannabis products?”*: Did you complete the cannabis intake diary?

- Yes
- No

23. *If “Yes” Question “Since completing the previous survey, have you used/consumed any cannabis products?”*: Which of the following best describes your cannabis use/consumption since completing the previous survey?

- Once or twice
- Once or twice per month
- 1-3 times per week

- 4-6 times per week
- Daily
- Multiple times a day
- Other, please specify: *Free text response*

Please use the image below to help answer the following question.



24. *If “Yes” to Question “Did you complete the cannabis intake diary?”*: In which form(s) have you used/consumed cannabis products since completing the previous survey? Select all that apply.

- Smoked dried herb/flower/leaf/bud (e.g., joint, spliff, etc.)
- Vaporized dried herb/flower/leaf/bud (e.g., bong, dry herb vaporizer, etc.)
- Dried herb/flower/leaf/bud mixed with or rolled in tobacco (e.g., blunt)
- Vaporized liquid form in an e-cigarette/vape pen/cartridge
- Hashish/hash/kief
- Concentrates **excluding** tinctures (e.g., hash oil, butane honey oil, shatter, budder, wax, etc.)
- Tinctures/Ingestible oils (e.g., spray, dropper, capsule, etc.)
- Cannabis food products (e.g., chocolate, brownies, gummies, etc.)
- Beverages
- Topical ointments (e.g., lotions, salves, balms, cream, etc.)
- Fresh flower/leaf (e.g., for juicing)
- Other, please specify: *Free text response*

25. *If “Smoked dried herb/flower/leaf/bud” to Question “In which form(s) have you used/consumed cannabis products since completing the previous survey? Select all that apply”*: How often do you smoke dried herb/flower/leaf/bud?

- Less than once a month

- Monthly
 - Weekly
 - Daily
 - Other, please specify: *Free text response*
 - I don't know
26. *If "Vaporized dried herb/flower/leaf/bud" to Question "In which form(s) have you used/consumed cannabis products since completing the previous survey? Select all that apply":* How often do you vaporize dried herb/flower/leaf/bud?
- Less than once a month
 - Monthly
 - Weekly
 - Daily
 - Other, please specify: *Free text response*
 - I don't know
27. *If "Dried herb/flower/leaf/bud mixed with or rolled in tobacco" to Question "In which form(s) have you used/consumed cannabis products since completing the previous survey? Select all that apply":* How often do you mix or roll dried herb/flower/leaf/bud with tobacco?
- Less than once a month
 - Monthly
 - Weekly
 - Daily
 - Other, please specify: *Free text response*
 - I don't know
28. *If "Smoked dried herb/flower/leaf/bud, Vaporized dried herb/flower/leaf/bud, Dried herb/flower/leaf/bud mixed with or rolled in tobacco" to Question "In which form(s) have you used/consumed cannabis products since completing the previous survey Select all that apply":* At each use/consumption, on average how much dried herb/flower/leaf/bud do you consume?
- Less than 1/8 (one eighth) gram
 - 1/8 (one eighth) gram
 - ¼ (one quarter) gram
 - ½ (half) gram
 - ¾ (three quarters) gram
 - 1 gram
 - 2 grams
 - 3 grams
 - 1/8 (one eighth) ounce

- ¼ (one quarter) ounce
 - More than ¼ (one quarter) ounce
 - Other, please specify: *Free text response*
 - I don't know
29. *If “Smoked dried herb/flower/leaf/bud, Vaporized dried herb/flower/leaf/bud, Dried herb/flower/leaf/bud mixed with or rolled in tobacco” to Question “In which form(s) have you used/consumed cannabis products since completing the previous survey? Select all that apply”:* Do you know the THC level in the dried flower/herb/leaf/bud you usually consume?
- Yes
 - No
 - Not applicable – the dried flower/herb/leaf/bud does not contain THC
30. *If “YES” to Do you know the THC level in the dried flower/herb/leaf/bud you usually consume:* What is the usual THC level in the dried herb/flower/leaf/bud?
- _____ mg THC **OR**
 - _____ % THC
31. *If “Smoked dried herb/flower/leaf/bud, Vaporized dried herb/flower/leaf/bud, Dried herb/flower/leaf/bud mixed with or rolled in tobacco” to Question “In which form(s) have you used/consumed cannabis products since completing the previous survey? Select all that apply”:* Do you know the CBD level in the dried flower/herb/leaf/bud you usually consume?
- Yes
 - No
 - Not applicable – the dried flower/herb/leaf/bud does not contain CBD
32. *If “YES” to Do you know the CBD level in the dried flower/herb/leaf/bud you usually consume:* What is the usual CBD level in the dried herb/flower/leaf/bud?
- _____ mg CBD **OR**
 - _____ % CBD
33. *If “Smoked dried herb/flower/leaf/bud, Vaporized dried herb/flower/leaf/bud, Dried herb/flower/leaf/bud mixed with or rolled in tobacco” to Question “In which form(s) have you used/consumed cannabis products since completing the previous survey? Select all that apply”:* If available, please upload any images of the dried herb/flower/leaf/bud products that you have been using showing cannabis content (THC and CBD) details.

Enter number of images you would like to upload (maximum of 5 images): _____

34. *If “Vaporized liquid form in e-cigarettes/pens/cartridges” to Question “In which form(s) have you used/consumed cannabis products since completing the previous survey? Select all that apply”*: How often do you use/consume vaporized liquids in e-cigarettes/pens/cartridges?
- Less than once a month
 - Monthly
 - Weekly
 - Daily
 - Other, please specify: *Free text response*
 - I don't know
35. *If “Vaporized liquid form in e-cigarettes/pens/cartridges” to Question “In which form(s) have you used/consumed cannabis products since completing the previous survey? Select all that apply”*: At each use/consumption, on average how much liquid do you consume?
- _____ gram(s)
 - _____ mL
 - _____ fl oz
 - _____ cartridge(s)
 - Other, please specify: *Free text response*
 - I don't know
36. *If “Vaporized liquid form in e-cigarettes/pens/cartridges” to Question “In which form(s) have you used/consumed cannabis products since completing the previous survey? Select all that apply”*: Do you know the THC level in the liquid you usually use/consume in the e-cigarettes/pens/cartridges?
- Yes
 - No
 - Not applicable – the liquid does not contain THC
37. *If “Yes” to Do you know the THC level in the liquid you usually use/consume in the e-cigarettes/pens/cartridges*: What is the usual THC level in the liquid?
- _____ mg THC **OR**
 - _____ % THC
38. *If “Vaporized liquid form in e-cigarettes/pens/cartridges” to Question “In which form(s) have you used/consumed cannabis products since completing the previous survey? Select all that apply”*: Do you know the CBD level in the liquid you usually use/consume in the e-cigarettes/pens/cartridge?

- Yes
- No
- Not applicable – the liquid does not contain CBD

39. *If “Yes” to Do you know the CBD level in the liquid you usually use/consume in the e-cigarettes/pens/cartridge:* What is the usual CBD level in the liquid product?

- _____ mg CBD **OR**
- _____ % CBD

40. *If “Vaporized liquid form in e-cigarettes/pens/cartridges” to Question “In which form(s) have you used/consumed cannabis products since completing the previous survey? Select all that apply”:* If available, please upload any images of the liquid products that you have been consuming showing cannabis content (THC and CBD) details.

Enter number of images you would like to upload (maximum of 5 images): _____

41. *If “Hashish/hash/kief” to Question “In which form(s) have you used/consumed cannabis products since completing the previous survey? Select all that apply”:* How often do you use/consume hashish/hash/kief?

- Less than once a month
- Monthly
- Weekly
- Daily
- Other, please specify: *Free text response*
- I don't know

42. *If “Hashish/hash/kief” to Question “In which form(s) have you used/consumed cannabis products since completing the previous survey? Select all that apply”:* At each use/consumption, on average how much hashish/hash/kief do you consume?

- _____ gram(s)
- _____ hit(s)
- _____ toke(s)
- Other, please specify: *Free text response*
- I don't know

43. *If “Hashish/hash/kief” to Question “In which form(s) have you used/consumed cannabis products since completing the previous survey? Select all that apply”:* Do you know the THC level in the hashish/hash/kief you usually consume?

- Yes
- No
- Not applicable – the hashish/hash/kief does not contain THC
-

44. *If “Yes” to Do you know the THC level in the hashish/kief you usually consume:* What is the usual THC level in the hashish/kief?

- _____ mg THC **OR**
- _____ % THC

45. *If “Hashish/hash/kief” to Question “In which form(s) have you used/consumed cannabis products since completing the previous survey? Select all that apply”:* Do you know the CBD level in the hashish/kief you usually consume?

- Yes
- No
- Not applicable – the hashish/hash/kief does not contain CBD
-

46. *If “Yes” to Do you know the CBD level in the hashish/hash/kief:* What is the usual CBD level in the hashish/hash/kief?

- _____ mg CBD **OR**
- _____ % CBD

47. *If “hashish/hash/kief” to Question “In which form(s) have you used/consumed cannabis products since completing the previous survey? Select all that apply”:* If available, please upload any images of the hashish/hash/kief products that you have been consuming showing cannabis content (THC and CBD) details.

Enter number of images you would like to upload (maximum of 5 images): _____

48. *If “Concentrate” to Question “In which form(s) have you used/consumed cannabis products since completing the previous survey? Select all that apply”:* How often do you use/consume concentrate(s)?

- Less than once a month
- Monthly
- Weekly
- Daily
- Other, please specify: *Free text response*
- I don't know

49. *If “Concentrate” to Question “In which form(s) have you used/consumed cannabis products since completing the previous survey? Select all that apply”*: At each use/consumption, on average how much concentrate do you consume?
- _____ gram(s)
 - _____ hit(s)
 - _____ toke(s)
 - _____ dab(s)
 - Other, please specify: *Free text response*
 - I don't know
50. *If “concentrate” to Question “In which form(s) have you used/consumed cannabis products since completing the previous survey? Select all that apply”*: Do you know the THC level in the concentrate you usually consume?
- Yes
 - No
 - Not applicable – the concentrate does not contain THC
51. *If “Yes” to Do you know the THC level in the concentrate you usually consume*: What is the usual THC level in the concentrate?
- _____ mg THC **OR**
 - _____ % THC
52. *If “concentrate” to Question “In which form(s) have you used/consumed cannabis products since completing the previous survey? Select all that apply”*: Do you know the CBD level in the concentrate you usually consume?
- Yes
 - No
 - Not applicable – the concentrate does not contain CBD
53. *If “Yes” to Do you know the CBD level in the concentrate*: What is the usual CBD level in the concentrate?
- _____ mg CBD **OR**
 - _____ % CBD
54. *If “concentrate” to Question “In which form(s) have you used/consumed cannabis products since completing the previous survey? Select all that apply”*: If available, please upload any images of the concentrate products that you have been consuming showing cannabis content (THC and CBD)
- Enter number of images you would like to upload (maximum of 5 images): _____

55. *If “Tinctures/ingestible oils” to Question “In which form(s) have you used/consumed cannabis products since completing the previous survey? Select all that apply”:* How often do you use/consume tinctures/ingestible oils?
- Less than once a month
 - Monthly
 - Weekly
 - Daily
 - Other, please specify: *Free text response*
 - I don't know
56. *If “Tinctures/ingestible oils” to Question “In which form(s) have you used/consumed cannabis products since completing the previous survey? Select all that apply”:* At each use/consumption, on average how much tinctures/ingestible oils do you consume?
- _____ mL
 - _____ drop(s)
 - _____ capsule(s)
 - _____ gram(s)
 - Other, please specify: *Free text response*
 - I don't know
57. *If “tinctures/ingestible oils” to Question “In which form(s) have you used/consumed cannabis products since completing the previous survey? Select all that apply”:* Do you know the THC level in the tinctures/ingestible oils you usually consume?
- Yes
 - No
 - Not applicable – the tinctures/ingestible oils do not contain THC
58. *If “Yes” to Do you know the THC level in the tinctures/ingestible oils you usually consume:* What is the usual THC level in the tinctures/ingestible oils?
- _____mg THC **OR**
 - _____ % THC
59. *If “tinctures/ingestible oils” to Question “In which form(s) have you used/consumed cannabis products since completing the previous survey? Select all that apply”:* Do you know the CBD level in the tinctures/ingestible oils you usually consume?
- Yes
 - No
 - Not applicable – the tinctures/ingestible oils do not contain CBD

60. *If “Yes” to Do you know the CBD level in the tinctures/ingestible oils:* What is the usual CBD level in the concentrate?
- _____ mg CBD **OR**
 - _____ % CBD
61. *If “tinctures/ingestible oils” to Question “In which form(s) have you used/consumed cannabis products since completing the previous survey? Select all that apply”:* If available, please upload any images of the tinctures/ingestible oils products that you have been using showing cannabis content (THC and CBD)
- Enter number of images you would like to upload (maximum of 5 images): _____
62. *If “Cannabis food products” to Question “In which form(s) have you used/consumed cannabis products since completing the previous survey? Select all that apply”:* How often do you consume cannabis food products?
- Less than once a month
 - Monthly
 - Weekly
 - Daily
 - Other, please specify: *Free text response*
 - I don't know
63. *If “Cannabis food products” to Question “In which form(s) have you used/consumed cannabis products since completing the previous survey? Select all that apply”:* At each consumption, on average how much cannabis food product do you consume?
- _____ # of product(s)
 - Other, please specify: *Free text response*
 - I don't know
64. *If “cannabis food product” to Question “In which form(s) have you used/consumed cannabis products since completing the previous survey? Select all that apply”:* Do you know how much THC is in one standard serving of the cannabis food product?
- Yes
 - No
 - Not applicable – the cannabis food product does not contain THC
65. *If “Yes” to Do you know how much THC is in one standard serving of the cannabis food product?:* What is the usual THC level in one standard serving?
- _____ mg THC **OR**
 - _____ % THC

66. *If “cannabis food product” to Question “In which form(s) have you used/consumed cannabis products since completing the previous survey? Select all that apply”*: Do you know how much CBD is in one standard serving of the cannabis food product?

- Yes
- No
- Not applicable – the cannabis food product does not contain CBD

67. *If “Yes” to Do you know how much CBD is in one standard serving of the cannabis food product?:* What is the usual CBD level in one standard serving?

- _____ mg CBD **OR**
- _____ % CBD

68. *If “cannabis food product” to Question “In which form(s) have you used/consumed cannabis products since completing the previous survey? Select all that apply”*: If available, please upload any images of the cannabis food products that you have been using showing cannabis content (THC and CBD)

Enter number of images you would like to upload (maximum of 5 images): _____

69. *If “beverages” to Question “In which form(s) have you used/consumed cannabis products since completing the previous survey? Select all that apply”*: How often do you use/consume beverages containing cannabis?

- Less than once a month
- Monthly
- Weekly
- Daily
- Other, please specify: *Free text response*
- I don't know

70. *If “beverages” to Question “In which form(s) have you used/consumed cannabis products since completing the previous survey? Select all that apply”*: At each consumption, on average how many beverages containing cannabis extracts do you consume?

- _____ # of product(s)
- Other, please specify: *Free text response*
- I don't know

71. *If “beverages” to Question “In which form(s) have you used/consumed cannabis products since completing the previous survey? Select all that apply”*: Do you know how much THC is in one standard serving of the beverage?

- Yes
- No
- Not applicable – the beverage does not contain THC

72. *If “Yes” to Do you know how much THC is in one standard serving of the beverage?:*

What is the usual THC level in one standard serving?

- _____ mg THC **OR**
- _____ % THC

73. *If “beverage” to Question “In which form(s) have you used/consumed cannabis products since completing the previous survey? Select all that apply”:* Do you know how much CBD is in one standard serving of the beverage?

- Yes
- No
- Not applicable – the cannabis food product does not contain CBD

74. *If “Yes” to Do you know how much CBD is in one standard serving of the beverage?:*

What is the usual CBD level in one standard serving?

- _____ mg CBD **OR**
- _____ % CBD

75. *If “beverage” to Question “In which form(s) have you used/consumed cannabis products since completing the previous survey? Select all that apply”:* If available, please upload any images of the beverage that you have been consuming showing cannabis content (THC and CBD)

Enter number of images you would like to upload (maximum of 5 images): _____

76. *If “topical ointment” to Question “In which form(s) have you used/consumed cannabis products since completing the previous survey? Select all that apply”:* How often do you use/consume topical ointment(s)?

- Less than once a month
- Monthly
- Weekly
- Daily
- Other, please specify: *Free text response*
- I don't know

77. *If “Topical ointment” to Question “In which form(s) have you used/consumed cannabis products since completing the previous survey? Select all that apply”:* At each use, on average how much topical ointment do you use?

- _____ gram(s)
- _____ ounce(s)
- _____ mL
- _____ fingertip(s) (from the tip of your index finger to the first crease of the finger)
- Other, please specify: *Free text response*
- I don't know

78. *If “topical ointment” to Question “In which form(s) have you used/consumed cannabis products since completing the previous survey? Select all that apply”:* Do you know the THC level in the topical ointment you usually use?

- Yes
- No
- Not applicable – the topical ointment does not contain THC

79. *If “Yes” to Do you know the THC level in the topical ointment you usually use?:* What is the usual THC level?

- _____ mg THC **OR**
- _____ % THC

80. *If “topical ointment” to Question “In which form(s) have you used/consumed cannabis products since completing the previous survey? Select all that apply”:* Do you know the CBD level in the topical ointment you usually use?

- Yes
- No
- Not applicable – the topical ointment does not contain CBD

81. *If “Yes” to Do you know the CBD level in the topical ointment you usually use?:* What is the usual CBD level?

- _____ mg CBD **OR**
- _____ % CBD

82. *If “topical ointment” to Question “In which form(s) have you used/consumed cannabis products since completing the previous survey? Select all that apply”:* If available, please upload any images of the topical ointment that you have been using showing cannabis content (THC and CBD)

Enter number of images you would like to upload (maximum of 5 images): _____

83. *If “fresh flower/leaf” to Question “In which form(s) have you used/consumed cannabis products since completing the previous survey? Select all that apply”:* How often do you use/consume fresh flower/leaf?

- Less than once a month
- Monthly
- Weekly
- Daily
- Other, please specify: *Free text response*
- I don't know

84. *If “fresh flower/leaf” to Question “In which form(s) have you used/consumed cannabis products since completing the previous survey? Select all that apply”:* At each use/consumption, on average how much fresh flower/leaf do you consume?

- _____ ounce(s)
- _____ gram(s)
- _____ leave(s)
- Other, please specify: *Free text response*
- I don't know

85. *If “fresh flower/leaf” to Question “In which form(s) have you used/consumed cannabis products since completing the previous survey? Select all that apply”:* Do you know the THC level in the fresh flower/leaf you usually consume?

- Yes
- No
- Not applicable – the fresh flower/leaf does not contain THC

86. *If “Yes” to Do you know the THC level in the fresh flower/leaf you usually consume?:* What is the usual THC level?

- _____ mg THC **OR**
- _____ % THC

87. *If “fresh flower/leaf” to Question “In which form(s) have you used/consumed cannabis products since completing the previous survey? Select all that apply”:* Do you know the CBD level in the fresh flower/leaf you usually consume?

- Yes

- No
- Not applicable – the fresh flower/leaf does not contain CBD

88. *If “Yes” to Do you know the CBD level in the fresh flower/leaf you usually consume?:*

What is the usual CBD level?

- _____ mg CBD **OR**
- _____ % CBD

89. *If “fresh flower/leaf” to Question “In which form(s) have you used/consumed cannabis products since completing the previous survey? Select all that apply”:* If available, please upload any images of the fresh flower/leaf that you have been using showing cannabis content (THC and CBD)

Enter number of images you would like to upload (maximum of 5 images): _____

90. *If “Other” to Question “In which form(s) do you use/consume cannabis?”:* On average, how much cannabis do you use/consume each time you use/consume a product you previously listed as “other”?

- *Free text response*

91. *If “Yes” to Question “Are you currently using or have you used/consumed cannabis during your pregnancy”:* Where do you purchase/receive your cannabis product(s)? Select all that apply. *

- Licensed store/dispensary
- Unlicensed store/dispensary
- Licensed online source
- Unlicensed online source
- I made my own (e.g., grow cannabis at home, make my own products)
- From a friend or family member
- From someone else I know
- From a dealer (in person)
- From a dealer (mail delivery)
- Other, please specify: *free text response*
- I prefer not to answer

92. *If “Yes” to Question “Since completing the previous survey, have you consumed any cannabis products”:* Have you changed how often you are using/consuming cannabis since completing the previous survey?

- Yes, I use/consume cannabis more often than I did when I completed the previous survey

- Yes, I use/consume cannabis less often than I did when I completed the previous survey
 - Yes, I have stopped using/consuming cannabis since the previous survey
 - No, I use/consume cannabis as often as I did when I completed the previous survey
 - I don't know
93. *If "Yes, more often" to Question (previous):* Why did you decide to start using/consuming cannabis more often?
- *Free text response*
94. *If "Yes, less often" or "Yes, stopped" to Question (previous):* Why did you decide to quit cannabis or begin to use/consume cannabis less often?
- *Free text response*
95. Since completing the previous survey, have you consumed any alcohol? *
- Yes
 - No
 - I prefer not to answer
96. *If "Yes" to Question "Since completing the previous survey, have you consumed any alcohol":* Which of the following best describes how often you have consumed alcohol since completing the previous survey?
- Once or twice in total
 - Once or twice per month
 - 1-3 times per week
 - 4-6 times per week
 - Daily
 - Multiple times a day
 - Other, please specify: *Free text response*
97. *If "Yes" to Question "Have you used/consumed, or are you currently drinking alcohol during your pregnancy":* Since completing the previous survey, on average when you are drinking, how many drinks do you consume? A drink refers to 1 regular sized bottle, can, or draft of beer; 1 bottle or can of cooler; 1 glass of wine; 1 shot of liquor (rum, whiskey, vodka, tequila, etc.); or 1 mixed drink (1 shot of liquor with pop, juice, energy drink, etc.).
- *Numerical response*
98. Since completing the previous survey, have you used any tobacco/nicotine products? *

- Yes
 - No
 - I prefer not to answer
99. *If “Yes” to Question “Since completing the previous survey, have you used any tobacco/nicotine products?”* Which of the following tobacco/nicotine products have you used since completing the previous survey?
- Cigarettes
 - Cigars
 - Vaping
 - Chewing tobacco
 - Nicotine replacement (i.e., gum, patch, oral spray, lozenge, etc.)
 - Other, please specify: *Free text response*
100. *If “Yes” to Question “Since completing the previous survey, have you used any tobacco”:* Which of the following best describes how often you have used tobacco/nicotine products since completing the previous survey?
- Once or twice in total
 - Once or twice per month
 - 1-3 times per week
 - 4-6 times per week
 - Daily
 - Multiple times a day
 - Other, please specify: *Free text response*
101. Since completing the previous survey, including all household members and regular visitors, does anyone smoke tobacco inside your home regularly, **excluding** yourself?
- Yes
 - No
102. *If “Yes” to Question “does anyone smoke tobacco inside your home”:* Since completing the previous survey, on a typical day, how many cigarettes are smoked inside your home?
- 1-10
 - 11-20
 - 21-30
 - 31-40
 - 41 or more
 - I don't know

103. Since completing the previous survey, have you been regularly exposed to second-hand tobacco smoke in a car or other private vehicle?
- Yes
 - No
104. Since completing the previous survey, have you been regularly exposed to second-hand tobacco smoke at your workplace?
- Yes
 - No

Part D: Gender-inclusivity

We would like to collect feedback on our use of gender-inclusive terms in this survey and following study documents. Please answer the following questions.

105. How did you feel about the use of gender-inclusive terms (i.e., “breastfeeding/chestfeeding”, “women/individuals”) you have seen in the study materials so far?
- Very comfortable
 - Comfortable
 - Neither comfortable nor uncomfortable
 - Uncomfortable
 - Very uncomfortable
 - Prefer not to answer
106. Which of the following terms would you use to describe feeding your infant your own milk?
- Breastfeeding and breastmilk
 - Chestfeeding and chestmilk
 - I use both
 - Prefer not to answer
 - Other (e.g., nursing) Please specify: *Free text response*
107. Please share any feedback you might have about our use of gender-inclusive terms.
- *Free text response*

Part E: Study participation feedback

108. How comfortable did you feel participating in this study overall?

- Very comfortable
 - Comfortable
 - Uncomfortable
 - Very uncomfortable
109. Which aspects of this study made you feel comfortable participating?
- *Free text response*
110. Which aspects of this study made you feel uncomfortable participating?
- *Free text response*
111. Below is a list of feelings people may have about sharing information about their cannabis use with researchers. Did you experience any of the following feelings during this study? Select all that apply.
- Not applicable - I did not have any strong feelings about sharing information about my cannabis use
 - Being judged
 - Feeling embarrassed
 - Feeling guilty
 - My privacy (i.e., that researchers would tell others)
 - Changes to the healthcare I receive
 - Other, please specify: *Free text response*
112. What motivated you to participate in this study?
- Contributing to research and health information
 - Learning more about cannabis and pregnancy
 - Helping future patients
 - None of the above
 - Other, please specify: *Free text response*
113. Were you comfortable giving biological samples (i.e., blood, breastmilk/chestmilk, etc.) at each study visit?
- Yes
 - No
 - Other – please specify: *Free text response*
114. Was it easy for you to schedule and attend your study visits?

- Yes
 - No
 - If it was not easy to schedule or attend your study visits, please explain and state what you would prefer: *Free text response*
 - Other— please specify: *Free text response*
115. Was it convenient for you to complete the surveys online or in-person during your study visit?
- Yes
 - No
 - If it was not convenient to complete the surveys online or in-person during your study visit, please explain and state which method you would prefer: *Free text response*
 - Other – please specify: *Free text response*
116. Was it convenient for you to complete the cannabis intake diary?
- Yes
 - No
 - If it was not convenient to complete the cannabis intake diary, please explain and state which method you would prefer or if there may be any improvements that could be made: *Free text response*
 - Not applicable – I did not use the cannabis intake diary
 - Other – please specify: *Free text response*
117. Thank you for being a part of this study! Please share any other feedback you might have about any part of the study.
- *Free text response*

Your baby(ies)'s health history

1. What are you feeding your singleton or first-born baby? Select all that apply.
 - My own breastmilk/chestmilk
 - Donor breastmilk/chestmilk
 - Formula or other supplements
 - Solid food
 - Other, please specify: *Free text response*

2. *Only applicable for twins+*: What are you feeding your second-born baby? Select all that apply.
 - My own breastmilk/chestmilk
 - Donor breastmilk/chestmilk
 - Formula or other supplements
 - Solid food
 - Other, please specify: *Free text response*

3. *If “My own breastmilk/chestmilk” in question 1 or 2*: Do you make any changes to your cannabis use to accommodate your breastfeeding/chestfeeding schedule, or vice versa? If so, please describe below.
 - *Free text response*
 - Not applicable – I am not using/consuming cannabis products

4. Since birth, has your singleton or first-born baby been diagnosed by a physician with any health conditions?
 - Yes
 - Please specify any of the health conditions:
 - *Free text response*
 - No

5. *Only applicable for twins+*: Since birth, has your second-born baby been diagnosed by a physician with any health conditions?
 - Yes
 - Please specify any of the health conditions:
 - *Free text response*
 - No

6. Has your singleton or first-born baby been prescribed any medications since discharged from hospital after birth?
 - Yes

- Please specify any of the prescribed medications:
 - [Free text response](#)
 - No
7. **Only applicable for twins+:** Has your second-born baby been prescribed any medications since discharged from hospital after birth?
- Yes
 - Please specify any of the prescribed medications:
 - [Free text response](#)
 - No
8. Have you taken your singleton or first-born baby to the emergency department for any reason since discharged from hospital after birth?
- No
 - Yes
 - How many times have you taken your baby to the emergency department since completing the previous survey? [Numerical response](#)
 - Please specify the reason for your baby's emergency department visit(s): [Free text response](#)
 - Please enter the date(s) of your baby's emergency department visit(s): [Select date from calendar table](#)
9. **Only applicable for twins+:** Have you taken your second-born baby to the emergency department for any reason since discharged from hospital after birth?
- No
 - Yes
 - How many times have you taken your baby to the emergency department since completing the previous survey? [Numerical response](#)
 - Please specify the reason for your baby's emergency department visit(s): [Free text response](#)
 - Please enter the date(s) of your baby's emergency department visit(s): [Select date from calendar table](#)
10. Has your singleton or first-born baby been admitted to hospital for any reason since discharged from hospital after birth? Please exclude any emergency department visit(s).

- No
- Yes
 - How many times has your baby been hospitalized? *Numerical response*
 - Please specify the reason for your baby's hospitalization(s): *Free text response*
 - Please enter the date(s) of your baby's admission to hospital: *Select date from calendar table*

11. *Only applicable for twins+:* Has your second-born baby been admitted to for any reason since discharged from hospital after birth? Please exclude any emergency department visit(s).

- No
- Yes
 - How many times has your baby been hospitalized? *Numerical response*
 - Please specify the reason for your baby's hospitalization(s): *Free text response*
 - Please enter the date(s) of your baby's admission to hospital: *Select date from calendar table*

Cannabis Intake Diary

Product Type	Amount acquired (e.g., g, mg, mL, number of edible food/beverage items)	THC content (specify %, mg/g, mg/unit)	CBD content (specify %, mg/g, mg/unit)
Description of use/consumption			
<ul style="list-style-type: none"> - Date you started using the product: - Date you finished using the product: - How you used the product (e.g., smoked a joint, vaped, used in baking/cooking): - Pattern/frequency of use (e.g., how many times a day/week/month): 			
Additional Comments			

Case Report Form

Pregnancy Summary						
1. Detailed pregnancy history						
<input type="checkbox"/> <input type="checkbox"/> Gravida	<input type="checkbox"/> <input type="checkbox"/> Preterm	<input type="checkbox"/> <input type="checkbox"/> Term	<input type="checkbox"/> <input type="checkbox"/> Abortus	<input type="checkbox"/> <input type="checkbox"/> Stillbirths	<input type="checkbox"/> <input type="checkbox"/> Living Children	<input type="checkbox"/> <input type="checkbox"/> Neonatal/ Child Death
<p>Gravida: Total number of prior plus present pregnancies regardless of gestational age, type, time or method of termination/outcome. A pregnancy with twins/multiples is counted as one pregnancy.</p> <p>Preterm: Total number of previous pregnancies with birth occurring between 20 + 0 and 36+7 completed weeks.</p> <p>Term: Total number of previous pregnancies with birth occurring at greater than or equal to 37 completed weeks.</p> <p>Abortus: Total number of spontaneous or therapeutic abortions occurring prior to 20+0 weeks. Spontaneous abortions include miscarriage, ectopic pregnancy, missed abortion, and molar pregnancy.</p> <p>Living: Total number of children the pregnant person has given birth to that are presently living.</p> <p>Stillbirths: Total number of previous pregnancies resulting in a stillbirth. A stillbirth is defined as a product of conception weighing 500 grams or more or of 20 or more weeks' gestation, which after being completely delivered shows no sign of life. Intentional terminations of pregnancy that meet either criterion are also classified as stillbirths in Ontario</p> <p>Neonatal/Child Death: Total number of deaths of an infant or child any time after live birth.</p>						
2. Planned Pregnancy?			<input type="checkbox"/> Yes	<input type="checkbox"/> No		
3. Type of Conception			<input type="checkbox"/> Spontaneous	<input type="checkbox"/> Assisted	<input type="checkbox"/> Unknown	
4. Estimated date of Birth (EDB). Complete all subsections.						
EDB			<i>Select date from calendar table (dd-mmm-yyyy)</i>			
Dating Method for EDB, specify dating method			<input type="checkbox"/> First trimester ultrasound <input type="checkbox"/> Intrauterine insemination (IUI) or Embryo transfer <input type="checkbox"/> LMP <input type="checkbox"/> Other. Please Specify: <i>Free text response</i> <input type="checkbox"/> Unknown			

Maternal Medical History			
5. Mental Health. Select all that apply			
<input type="checkbox"/> Anxiety	<input type="checkbox"/> Past	<input type="checkbox"/> Present	<input type="checkbox"/> Unknown
<input type="checkbox"/> Depression	<input type="checkbox"/> Past	<input type="checkbox"/> Present	<input type="checkbox"/> Unknown
<input type="checkbox"/> Eating Disorder	<input type="checkbox"/> Past	<input type="checkbox"/> Present	<input type="checkbox"/> Unknown
<input type="checkbox"/> Bipolar			
<input type="checkbox"/> Schizophrenia			
<input type="checkbox"/> Other (e.g., PTSD, ADD, personality disorders), Please Specify: <i>Free text response</i>			
<input type="checkbox"/> None noted			
6. Substance Use. Select all that apply			
<input type="checkbox"/> None noted			
<input type="checkbox"/> Alcohol	Comments/details noted in chart: <i>Free text response</i>		
<input type="checkbox"/> Cannabis/Marijuana	Comments/details noted in chart: <i>Free text response</i>		
<input type="checkbox"/> Cigarette smoking	Comments/details noted in chart: <i>Free text response</i>		
<input type="checkbox"/> Non-prescribed substances/drugs	Please specify: <i>Free text response</i>		
	Comments/details noted in chart: <i>Free text response</i>		
7. Maternal Health Conditions prior to pregnancy. Select all that apply. Medication management for conditions indicated below should be noted in response to Q9 Maternal health conditions arising in pregnancy should be noted in response to Q15-onwards			
<input type="checkbox"/> None Noted			
<input type="checkbox"/> Hypertension			
<input type="checkbox"/> Diabetes. Specify Type: <i>Drop down: Type 1, Type 2</i>			
<input type="checkbox"/> Cardiac/Pulmonary. Please Specify: <i>Free text response</i>			
<input type="checkbox"/> Endocrine. Please Specify: <i>Free text response</i>			
<input type="checkbox"/> Gastrointestinal/Liver. Please Specify: <i>Free text response</i>			
<input type="checkbox"/> Breast (including surgery). Please Specify: <i>Free text response</i>			
<input type="checkbox"/> Gynecological (including surgery). Please Specify: <i>Free text response</i>			
<input type="checkbox"/> Musculoskeletal/Rheumatology. Please Specify: <i>Free text response</i>			
<input type="checkbox"/> Hematological. Please Specify: <i>Free text response</i>			
<input type="checkbox"/> Thromboembolic/coagulation. Please Specify: <i>Free text response</i>			
<input type="checkbox"/> Blood transfusion. Please specify condition requiring transfusion: <i>Free text response</i>			
<input type="checkbox"/> Neurological. Please Specify: <i>Free text response</i>			
<input type="checkbox"/> Other (e.g., genetic disorder). Please Specify: <i>Free text response</i>			
8. Infectious Disease. Select all that apply. Medication management for infections should be noted in response to Q9.			
<input type="checkbox"/> None noted	<input type="checkbox"/> Parvovirus		
<input type="checkbox"/> Varicella disease	<input type="checkbox"/> Toxoplasmosis		
<input type="checkbox"/> Human Immunodeficiency Virus (HIV)	<input type="checkbox"/> COVID-19		
<input type="checkbox"/> Herpes Simplex Virus (HSV)	<input type="checkbox"/> Before pregnancy		
<input type="checkbox"/> Sexually transmitted Infections (STIs)	<input type="checkbox"/> During pregnancy. Specify trimester: <i>Drop down: 1st, 2nd, 3rd, unknown</i>		
<input type="checkbox"/> Hepatitis C	<input type="checkbox"/> Other. Please specify: <i>Free text response</i>		
<input type="checkbox"/> Tuberculosis			
9. Medications Exposure in Pregnancy Include all prescription, over-the-counter, complementary/alternative medications and vitamins. Include dosage where known. If health conditions or infectious diseases are noted in Q7 & Q8, please note medications here.			
<i>Enter text.</i>			
10. Maternal date of birth		<i>Select date from calendar table (mmm-yyyy)</i>	
11. Last documented maternal blood pressure prior to delivery		<input type="checkbox"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> mm Hg	<input type="checkbox"/> Not recorded

	Date: <i>Select date from calendar table (dd-mmm-yyyy)</i>	
12. Pre-pregnancy weight	<input type="text"/> . <input type="text"/> kg	<input type="text"/> . <input type="text"/> lb
13. First documented weight in pregnancy	<input type="text"/> . <input type="text"/> kg	<input type="text"/> . <input type="text"/> lb
Specify date recorded	<i>Select date from calendar table (dd-mmm-yyyy)</i>	<input type="checkbox"/> Unknown
14. Last documented weight prior to delivery	<input type="text"/> . <input type="text"/> kg	<input type="text"/> . <input type="text"/> lb
Specify date recorded	<i>Select date from calendar table (dd-mmm-yyyy)</i>	<input type="checkbox"/> Unknown

Pregnancy Complications	
15. Prenatal Genetic Investigations. Indicate the screening completed, and result, if applicable. Indicate results for all fetuses tested in the text box provided.	
<input type="checkbox"/> First trimester screen (FTS) Between 11w and 13w+6d	Results: <i>Free text response</i>
<input type="checkbox"/> Integrated Prenatal Screening (IPS) Part 1 Between 11w and 13w+6d	Results: <i>Free text response</i>
<input type="checkbox"/> IPS Part 2 Between 15w and 20w+6d	Results: <i>Free text response</i>
<input type="checkbox"/> Maternal Serum Screen (MSS) Between 15w and 20w+6d	Results: <i>Free text response</i>
<input type="checkbox"/> Alpha-fetoprotein (AFP) screen Between 15w and 20w+6d	Results: <i>Free text response</i>
<input type="checkbox"/> Cell free fetal DNA (Non-invasive prenatal testing, NIPT)	Results: <i>Free text response</i>
<input type="checkbox"/> Chorionic villus samples (CVS)/Amniocentesis	Results: <i>Free text response</i>
<input type="checkbox"/> Abnormal Placental Markers	Results: <i>Free text response</i>
<input type="checkbox"/> Other genetic testing. Please specify: <i>Free text response</i>	Results: <i>Free text response</i>
16. Maternal Complications of pregnancy. Select all that apply.	
<input type="checkbox"/> None	
<input type="checkbox"/> Antepartum bleeding (persistent, unexplained)	Specify date first recorded: <i>date from calendar table</i>
<input type="checkbox"/> Gestational hypertension.	Specify date first recorded: <i>date from calendar table</i>
<input type="checkbox"/> Pre-existing hypertension with superimposed pre-eclampsia.	Specify date first recorded: <i>date from calendar table</i>
<input type="checkbox"/> Pre-eclampsia.	Specify date first recorded: <i>date from calendar table</i>
<input type="checkbox"/> Eclampsia	Specify date first recorded: <i>date from calendar table</i>
<input type="checkbox"/> HELLP	Specify date first recorded: <i>date from calendar table</i>
<input type="checkbox"/> Gestational Diabetes	Specify date first recorded: <i>date from calendar table</i>
<input type="checkbox"/> Preterm prelabour rupture of membranes (PPROM)	Specify date first recorded: <i>date from calendar table</i>
<input type="checkbox"/> Premature rupture of membranes (PROM).	Specify date first recorded: <i>date from calendar table</i>
<input type="checkbox"/> Preterm labour prior to delivery admission	Specify date first recorded: <i>date from calendar table</i>
<input type="checkbox"/> Other maternal complication	Please Specify: <i>Free text response</i>
17. Placental Pathologies. Select all that Apply	
<input type="checkbox"/> None	<input type="checkbox"/> Placenta increta

<input type="checkbox"/> Placenta previa	<input type="checkbox"/> Placenta percreta
<input type="checkbox"/> Placenta accreta	<input type="checkbox"/> Other. Please specify: <i>Free text response</i>
18. Fetal Complications of pregnancy. Select all that apply	
<input type="checkbox"/> None	<input type="checkbox"/> Isoimmunization/alloimmunization
<input type="checkbox"/> Oligohydramnios	<input type="checkbox"/> Intrauterine growth restriction (IUGR)
<input type="checkbox"/> Polyhydramnios	<input type="checkbox"/> Other complications. Please specify: <i>Free text response</i>
19. Hospitalizations during pregnancy	
How many hospital admissions were recorded (Including the admission for labour and delivery)?	<i>Numerical response</i>
Specify date and reasons for admission:	<i>Select date from calendar table (dd-mmm-yyyy)</i> Reason: <i>Free text response</i>
Specify date and reasons for admission:	<i>Select date from calendar table (dd-mmm-yyyy)</i> Reason: <i>Free text response</i>
<i>Add additional entries as needed</i>	

Maternal Admission & Discharge Details			
20. Date of admission for labour and delivery	<i>Select date from calendar table (dd-mmm-yyyy)</i>	<input type="checkbox"/> Unknown	
21. Type of Labour. Select one.			
<input type="checkbox"/> No Labour	<input type="checkbox"/> Spontaneous	<input type="checkbox"/> Induced	<input type="checkbox"/> Unknown
22. Pain Management. Indicate use of pharmacological methods for the management of labour pain. Select all that apply.			
<input type="checkbox"/> None	<input type="checkbox"/> Spinal-epidural combination		
<input type="checkbox"/> Nitrous Oxide	<input type="checkbox"/> Pudendal		
<input type="checkbox"/> Opioids	<input type="checkbox"/> Unknown		
<input type="checkbox"/> Epidural	<input type="checkbox"/> Other. please specify: <i>Free text response</i>		
23. Intrapartum complications during this labour and birth. Select all that apply			
<input type="checkbox"/> None	<input type="checkbox"/> Meconium		
<input type="checkbox"/> Fever >38.5°C	<input type="checkbox"/> Cord prolapse		
<input type="checkbox"/> Nonprogressive first stage labour	<input type="checkbox"/> Placental abruption		
<input type="checkbox"/> Nonprogressive second stage labour	<input type="checkbox"/> Retained Placenta		
<input type="checkbox"/> Atypical or abnormal fetal surveillance	<input type="checkbox"/> Shoulder Dystocia		
<input type="checkbox"/> Uterine Rupture	<input type="checkbox"/> Other. Please specify:		
<input type="checkbox"/> Hysterectomy	Specify Date:	<i>Select date from calendar table (dd-mmm-yyyy)</i>	<input type="checkbox"/> Unknown
	Specify Reason:	<i>Free text response</i>	
<input type="checkbox"/> Postpartum hemorrhage	Specify Date:	<i>Select date from calendar table (dd-mmm-yyyy)</i>	<input type="checkbox"/> Unknown
	Blood transfusion required?	<input type="checkbox"/> Yes	<input type="checkbox"/> No
24. Perineal lacerations			
<input type="checkbox"/> None	<input type="checkbox"/> 4 th degree		
<input type="checkbox"/> 1 st degree	<input type="checkbox"/> Cervical tear		
<input type="checkbox"/> 2 nd degree	<input type="checkbox"/> Other		
<input type="checkbox"/> 3 rd degree	<input type="checkbox"/> Unknown		
25. Pain medication used postpartum			
		Dosing in hospital: <i>Free text response</i>	

<input type="checkbox"/> NSAIDs	Prescription at discharge: <i>Free text response</i>		
<input type="checkbox"/> Acetaminophen	Dosing in hospital: <i>Free text response</i>		
	Prescription at discharge: <i>Free text response</i>		
<input type="checkbox"/> Opioids	Dosing in hospital: <i>Free text response</i>		
	Prescription at discharge: <i>Free text response</i>		
<input type="checkbox"/> Gabapentin	Dosing in hospital: <i>Free text response</i>		
	Prescription at discharge: <i>Free text response</i>		
<input type="checkbox"/> Other, please specify:	Specify pain medications: <i>Free text response</i>		
	Dosing in hospital: <i>Free text response</i>		
	Prescription at discharge: <i>Free text response</i>		
26. Level of care required postpartum			
<input type="checkbox"/> Transfer to routine postpartum care floor	Transfer Date:	<i>Select date from calendar table (dd-mmm-yyyy)</i>	<input type="checkbox"/> Unknown
<input type="checkbox"/> Transfer to Intensive care unit (ICU) or critical care unit (CCU)	Transfer Date:	<i>Select date from calendar table (dd-mmm-yyyy)</i>	<input type="checkbox"/> Unknown
	Reason for transfer:	<i>Free text response</i>	<input type="checkbox"/> Unknown
<input type="checkbox"/> Transfer to other organization	Transfer Date:	<i>Select date from calendar table (dd-mmm-yyyy)</i>	<input type="checkbox"/> Unknown
	Specify organization:	<i>Free text response</i>	<input type="checkbox"/> Unknown
	Reason for transfer:	<i>Free text response</i>	<input type="checkbox"/> Unknown
27. Maternal outcome during admission for delivery			
<input type="checkbox"/> Discharged home	Discharge Date:	<i>Select date from calendar table (dd-mmm-yyyy)</i>	<input type="checkbox"/> Unknown
<input type="checkbox"/> Maternal death	Death Date:	<i>Select date from calendar table (dd-mmm-yyyy)</i>	<input type="checkbox"/> Unknown
	Cause of Death	<i>Free text response</i>	<input type="checkbox"/> Unknown
<input type="checkbox"/> Other	Date:	<i>Select date from calendar table (dd-mmm-yyyy)</i>	<input type="checkbox"/> Unknown
	Specify other:	<i>Free text response</i>	<input type="checkbox"/> Unknown

Pregnancy Chorionicity			
28. Number of fetuses in current pregnancy. Select one.			
<input type="checkbox"/> Singleton <input type="checkbox"/> Twins. Specify chorionicity <i>Dropdown: monochorionic, dichorionic</i> <input type="checkbox"/> Higher number of fetuses. Specify number: <i>Numerical response</i> Specify chorionicity: <i>free text response</i>			
Newborn Outcomes – Singleton or first born multiple			
29. Pregnancy outcome. Select one.			
<input type="checkbox"/> Live Birth			
<input type="checkbox"/> Spontaneous abortion Occurring prior to 20+0 weeks. Spontaneous abortions include miscarriage, ectopic pregnancy, missed abortion, and molar pregnancy.	Specify date:	<i>Select date from calendar table (dd-mmm-yyyy)</i>	<input type="checkbox"/> Unknown
<input type="checkbox"/> Spontaneous stillbirth Occurring after 20+0 weeks.	Specify timing:	<input type="checkbox"/> Antepartum	<input type="checkbox"/> Intrapartum
	Specify date:	<i>Select date from calendar table (dd-mmm-yyyy)</i>	<input type="checkbox"/> Unknown
	Autopsy performed?	<input type="checkbox"/> Yes	<input type="checkbox"/> No
	Cause of stillbirth As noted in autopsy report or elsewhere if autopsy not performed	<i>free text response</i>	
<input type="checkbox"/> Elective termination	Specify:	<input type="checkbox"/> Congenital anomaly, Please specify: <i>Free text response</i> <input type="checkbox"/> Selective reduction of multiple pregnancy <input type="checkbox"/> Maternal reasons, please specify: <i>Free text response</i> <input type="checkbox"/> Other, please specify: <i>Free text response</i> <input type="checkbox"/> Unknown	
	Specify date:	<i>Select date from calendar table (dd-mmm-yyyy)</i>	<input type="checkbox"/> Unknown
If either spontaneous miscarriage or termination <20 wk and <500g STOP HERE			
30. Date of Delivery	<i>Select date from calendar table (dd-mmm-yyyy)</i>	<input type="checkbox"/> Unknown	
31. Birth order	<input type="checkbox"/> <input type="checkbox"/> (if singleton, indicate 1)	<input type="checkbox"/> Unknown	
32. Type of Birth. Select one.			
<input type="checkbox"/> Vaginal	Please specify:	<input type="checkbox"/> Spontaneous	<input type="checkbox"/> Assisted/Operative (forceps, vacuum)

<input type="checkbox"/> Cesarean section	Please specify:	<input type="checkbox"/> Planned as scheduled	<input type="checkbox"/> Planned not as scheduled	<input type="checkbox"/> Unplanned
Please specify indications: Select all that apply				
<input type="checkbox"/> Fetal anomaly(ies) <input type="checkbox"/> Abnormal or atypical fetal surveillance <input type="checkbox"/> Cord prolapse <input type="checkbox"/> Intrauterine Growth Restriction <input type="checkbox"/> Fetal malpresentation/malposition <input type="checkbox"/> Fetal macrosomia <input type="checkbox"/> Failed induction <input type="checkbox"/> Failed forceps/ vacuum <input type="checkbox"/> HIV <input type="checkbox"/> Herpes Simplex Virus (HSV) <input type="checkbox"/> Hypertensive disorders of pregnancy <input type="checkbox"/> Multiple gestation <input type="checkbox"/> Nonprogressive first stage of labour <input type="checkbox"/> Nonprogressive second stage of labour <input type="checkbox"/> Obesity <input type="checkbox"/> Placenta previa <input type="checkbox"/> Placental abruption <input type="checkbox"/> Prelabour rupture of membranes (PROM) with planned C-section <input type="checkbox"/> Preterm prelabour rupture of membranes (PPROM) with planned C-section <input type="checkbox"/> Previous uterine rupture <input type="checkbox"/> Suspected chorioamnionitis <input type="checkbox"/> Uterine rupture <input type="checkbox"/> VBAC – declined VBAC <input type="checkbox"/> VBAC – failed attempt <input type="checkbox"/> VBAC – Not eligible <input type="checkbox"/> Accommodates care provider/organization <input type="checkbox"/> Maternal Request <input type="checkbox"/> Unknown <input type="checkbox"/> Other Maternal complications/ conditions, please specify: <i>Free text response</i> <input type="checkbox"/> Other fetal complications/ conditions, please specify: <i>Free text response</i>				
33. Neonatal birth complications and/or conditions. Select all that apply				
<input type="checkbox"/> None	<input type="checkbox"/> Facial nerve injury			
<input type="checkbox"/> Brachial plexus injury	<input type="checkbox"/> Unspecified birth injury			
<input type="checkbox"/> Caput succedaneum	<input type="checkbox"/> Other. please specify: <i>Free text response</i>			
<input type="checkbox"/> Cephalohematoma	<input type="checkbox"/> Unknown.			
<input type="checkbox"/> Clavicular fracture				
34. Baby's sex	<input type="checkbox"/> Male	<input type="checkbox"/> Female		
	<input type="checkbox"/> Ambiguous genitalia	<input type="checkbox"/> Unknown		
35. Birthweight	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> g OR	<input type="checkbox"/> <input type="checkbox"/> lbs <input type="checkbox"/> <input type="checkbox"/> ounces		
If Stillbirth				
STOP HERE				

36. Apgar Score			
At 1 minute:	<input type="checkbox"/> <input type="checkbox"/>	<input type="checkbox"/> Not Done	
At 5 minute:	<input type="checkbox"/> <input type="checkbox"/>	<input type="checkbox"/> Not Done	
At 10 minute:	<input type="checkbox"/> <input type="checkbox"/>	<input type="checkbox"/> Not Done	
37. Were cord blood gases obtained at delivery?			
	<input type="checkbox"/> Yes	<input type="checkbox"/> No	
If yes, source:	<input type="checkbox"/> Arterial	<input type="checkbox"/> Venous	
If yes, pH:	<input type="checkbox"/> <input type="checkbox"/> . <input type="checkbox"/>	<input type="checkbox"/> Not Done	
If yes, base excess	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> . <input type="checkbox"/> mmol/L	<input type="checkbox"/> Not Done	
38. Were congenital anomalies confirmed after delivery?			
	<input type="checkbox"/> Yes	<input type="checkbox"/> None noted	
If yes, please specify:	<i>Free text response</i>		
39. Were any neonatal health conditions diagnosed during the delivery admission?			
<input type="checkbox"/> None noted <input type="checkbox"/> Arrhythmia <input type="checkbox"/> Hyperbilirubinemia <input type="checkbox"/> Hypoglycemia <input type="checkbox"/> Hypothermia <input type="checkbox"/> Hypoxic ischemic encephalopathy (HIE) <input type="checkbox"/> Meconium aspiration syndrome <input type="checkbox"/> Necrotizing enterocolitis (NEC)		<input type="checkbox"/> Neonatal abstinence syndrome (NAS) <input type="checkbox"/> Pneumonia <input type="checkbox"/> Respiratory distress <input type="checkbox"/> Seizures <input type="checkbox"/> Sepsis. Confirmed by: <input type="checkbox"/> positive BLOOD culture <input type="checkbox"/> positive cerebrospinal fluid (CSF) culture <input type="checkbox"/> unknown <input type="checkbox"/> Other, please specify: <i>Free text response</i>	
40. If NAS, was the infant treated with morphine?		<input type="checkbox"/> Yes <input type="checkbox"/> Not noted	
If yes, specify age and dose		<input type="checkbox"/> Age (hours): <i>Numerical response</i>	<input type="checkbox"/> Dose: <i>Free text response</i>
41. Did the infant require resuscitation while in hospital care? (First 30 minutes of life only)		<input type="checkbox"/> Not noted <input type="checkbox"/> FF02 <input type="checkbox"/> CPAP + Air <input type="checkbox"/> CPAP + O2 <input type="checkbox"/> PPV + Air <input type="checkbox"/> PPV+ O2 <input type="checkbox"/> Laryngeal mask airway (LMA) <input type="checkbox"/> Intubation for PPV	<input type="checkbox"/> Intubation for tracheal suction <input type="checkbox"/> Chest compression <input type="checkbox"/> Epinephrine <input type="checkbox"/> Narcan/naloxone <input type="checkbox"/> Volume expander <input type="checkbox"/> Unknown
42. Did the infant require respiratory support while in hospital care?		<input type="checkbox"/> Yes, less than 24 hours	<input type="checkbox"/> Yes, more than 24 hours <input type="checkbox"/> Not noted
If yes, specify type:		<input type="checkbox"/> Intubation <input type="checkbox"/> CPAP <input type="checkbox"/> Other. Please specify:	
43. Did the infant get transferred to a special care nursery (SCN) or neonatal intensive care unit (NICU) in the same hospital?		<input type="checkbox"/> Yes <input type="checkbox"/> No	

If yes, please specify Unit	<input type="checkbox"/> Special care nursery (SCN)	<input type="checkbox"/> Neonatal intensive care unit (NICU)
If yes, please specify reason for transfer	<input type="checkbox"/> Acute care <input type="checkbox"/> Border <input type="checkbox"/> Hypoglycemia <input type="checkbox"/> Observation <input type="checkbox"/> Palliative care <input type="checkbox"/> Prematurity	<input type="checkbox"/> Neonatal abstinence syndrome <input type="checkbox"/> Other, please specify: <i>Free text response</i> <input type="checkbox"/> Unknown
If yes, please date of FIRST ADMISSION	<i>Select date from calendar table (dd-mmm-yyyy)</i>	<input type="checkbox"/> Unknown
If yes, please date of FINAL DISCHARGE	<i>Select date from calendar table (dd-mmm-yyyy)</i>	<input type="checkbox"/> Unknown
44. Did the infant receive any medications while in hospital, NICU or SCN care?	<input type="checkbox"/> Yes	<input type="checkbox"/> Not noted
If yes, specify medications:	<i>Free text response</i>	
45. Did the infant receive any surgical interventions while in hospital, NICU or SCN care?	<input type="checkbox"/> Yes	<input type="checkbox"/> Not noted
If yes, specify date:	<i>Select date from calendar table (dd-mmm-yyyy)</i>	<input type="checkbox"/> Unknown
If yes, specify surgery:	<i>Free text response</i>	
46. Did the infant die while in hospital care?	<input type="checkbox"/> Yes	<input type="checkbox"/> No
If yes, specify date:	<i>Select date from calendar table (dd-mmm-yyyy)</i>	<input type="checkbox"/> Unknown
If yes, specify primary cause of death:	<i>Free text response</i>	
If yes, was the primary cause of death confirmed by autopsy?	<input type="checkbox"/> Yes	<input type="checkbox"/> No
If yes, please specify cause of death indicated on the autopsy report	<i>Free text response</i>	
If infant died while in hospital care STOP HERE		
47. Where was the infant discharged/transferred to?		
<input type="checkbox"/> Discharged home directly from an observation/ mother baby unit	Specify date:	<i>Select date from calendar table (dd-mmm-yyyy)</i>
<input type="checkbox"/> Transferred to another facility	Specify date:	<i>Select date from calendar table (dd-mmm-yyyy)</i>
	Specify reason for transfer	<i>Free text response</i>
48. Did the infant participate in a rooming in or kangaroo care program for prevention of NAS?	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Not eligible	
If infant transferred to another facility		

STOP HERE		
49. Newborn feeding from birth to discharge/transfer from hospital or birth centre. Select one		
<input type="checkbox"/> Breastmilk only		
<input type="checkbox"/> Combination of breastmilk and breastmilk substitute. Please specify substitute: <i>Free text response</i>		
<input type="checkbox"/> Breastmilk substitute. Please specify substitute: <i>Free text response</i>		
<input type="checkbox"/> None		
<input type="checkbox"/> Unknown		
50. Intention to breastfeed after discharge		
<input type="checkbox"/> Yes, intends to breastfeed	<input type="checkbox"/> No, does not intend to breastfeed	<input type="checkbox"/> Unknown
If singleton infant		
STOP HERE		

Newborn Outcomes – Singleton or first born multiple			
51. Pregnancy outcome. Select one.			
<input type="checkbox"/> Live Birth			
<input type="checkbox"/> Spontaneous abortion Occurring prior to 20+0 weeks. Spontaneous abortions include miscarriage, ectopic pregnancy, missed abortion, and molar pregnancy.	Specify date:	<i>Select date from calendar table (dd-mmm-yyyy)</i>	<input type="checkbox"/> Unknown
<input type="checkbox"/> Spontaneous stillbirth Occurring after 20+0 weeks.	Specify timing:	<input type="checkbox"/> Antepartum	<input type="checkbox"/> Intrapartum
	Specify date:	<i>Select date from calendar table (dd-mmm-yyyy)</i>	<input type="checkbox"/> Unknown
	Autopsy performed?	<input type="checkbox"/> Yes	<input type="checkbox"/> No
	Cause of stillbirth As noted in autopsy report or elsewhere if autopsy not performed	<i>free text response</i>	
<input type="checkbox"/> Elective termination	Specify:	<input type="checkbox"/> Congenital anomaly, Please specify: <i>Free text response</i> <input type="checkbox"/> Selective reduction of multiple pregnancy <input type="checkbox"/> Maternal reasons, please specify: <i>Free text response</i> <input type="checkbox"/> Other, please specify: <i>Free text response</i> <input type="checkbox"/> Unknown	
	Specify date:	<i>Select date from calendar table (dd-mmm-yyyy)</i>	<input type="checkbox"/> Unknown

<p>If either spontaneous miscarriage or termination <20 wk and <500g</p> <p>STOP HERE</p>				
52. Date of Delivery	<i>Select date from calendar table (dd-mmm-yyyy)</i>	<input type="checkbox"/> Unknown		
53. Birth order	<input type="checkbox"/> <input type="checkbox"/> (if singleton, indicate 1)	<input type="checkbox"/> Unknown		
54. Type of Birth. Select one.				
<input type="checkbox"/> Vaginal	Please specify:	<input type="checkbox"/> Spontaneous	<input type="checkbox"/> Assisted/Operative (forceps, vacuum)	
<input type="checkbox"/> Cesarean section	Please specify:	<input type="checkbox"/> Planned (as scheduled)	<input type="checkbox"/> Planned (not as scheduled)	<input type="checkbox"/> Unplanned
Please specify indications: Select all that apply <ul style="list-style-type: none"> <input type="checkbox"/> Fetal anomaly(ies) <input type="checkbox"/> Abnormal or atypical fetal surveillance <input type="checkbox"/> Cord prolapse <input type="checkbox"/> Intrauterine Growth Restriction <input type="checkbox"/> Fetal malpresentation/malposition <input type="checkbox"/> Fetal macrosomia <input type="checkbox"/> Failed induction <input type="checkbox"/> Failed forceps/ vacuum <input type="checkbox"/> HIV <input type="checkbox"/> Herpes Simplex Virus (HSV) <input type="checkbox"/> Hypertensive disorders of pregnancy <input type="checkbox"/> Maternal health condition(s) <input type="checkbox"/> Multiple gestation <input type="checkbox"/> Nonprogressive first stage of labour <input type="checkbox"/> Nonprogressive second stage of labour <input type="checkbox"/> Obesity <input type="checkbox"/> Other obstetrical complication <input type="checkbox"/> Placenta previa <input type="checkbox"/> Placental abruption <input type="checkbox"/> Prelabour rupture of membranes (PROM) with planned C-section <input type="checkbox"/> Preterm prelabour rupture of membranes (PPROM) with planned C-section <input type="checkbox"/> Previous uterine rupture <input type="checkbox"/> Suspected chorioamnionitis <input type="checkbox"/> Uterine rupture <input type="checkbox"/> VBAC – declined VBAC <input type="checkbox"/> VBAC – failed attempt <input type="checkbox"/> VBAC – Not eligible <input type="checkbox"/> Accommodates care provider/organization <input type="checkbox"/> Maternal Request <input type="checkbox"/> Unknown <input type="checkbox"/> Other Maternal complications/ conditions, please specify: <i>Free text response</i> <input type="checkbox"/> Other fetal complications/ conditions, please specify: <i>Free text response</i> 				
55. Neonatal birth complications and/or conditions. Select all that apply				

<input type="checkbox"/> None	<input type="checkbox"/> Facial nerve injury		
<input type="checkbox"/> Brachial plexus injury	<input type="checkbox"/> Unspecified birth injury		
<input type="checkbox"/> Caput succedaneum	<input type="checkbox"/> Other, please specify: <i>Free text response</i>		
<input type="checkbox"/> Cephalohematoma	<input type="checkbox"/> Unknown.		
<input type="checkbox"/> Clavicular fracture			
56. Baby's sex	<input type="checkbox"/> Male	<input type="checkbox"/> Female	
	<input type="checkbox"/> Ambiguous genitalia	<input type="checkbox"/> Unknown	
57. Birthweight	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> g OR	<input type="checkbox"/> <input type="checkbox"/> lbs <input type="checkbox"/> <input type="checkbox"/> ounces	
If Stillbirth STOP HERE			
58. Apgar Score			
At 1 minute:	<input type="checkbox"/> <input type="checkbox"/>	<input type="checkbox"/> Not Done	
At 5 minute:	<input type="checkbox"/> <input type="checkbox"/>	<input type="checkbox"/> Not Done	
At 10 minute:	<input type="checkbox"/> <input type="checkbox"/>	<input type="checkbox"/> Not Done	
59. Were cord blood gases obtained at delivery?	<input type="checkbox"/> Yes	<input type="checkbox"/> No	
If yes, source:	<input type="checkbox"/> Arterial	<input type="checkbox"/> Venous	
If yes, pH:	<input type="checkbox"/> <input type="checkbox"/> . <input type="checkbox"/>	<input type="checkbox"/> Not Done	
If yes, base excess	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> . <input type="checkbox"/> mmol/L	<input type="checkbox"/> Not Done	
60. Were congenital anomalies confirmed after delivery?	<input type="checkbox"/> Yes	<input type="checkbox"/> None noted	
If yes, please specify:	<i>Free text response</i>		
61. Were any neonatal health conditions diagnosed during the delivery admission?			
<input type="checkbox"/> None noted	<input type="checkbox"/> Neonatal abstinence syndrome (NAS)		
<input type="checkbox"/> Arrhythmia	<input type="checkbox"/> Pneumonia		
<input type="checkbox"/> Hyperbilirubinemia	<input type="checkbox"/> Respiratory distress		
<input type="checkbox"/> Hypoglycemia	<input type="checkbox"/> Seizures		
<input type="checkbox"/> Hypothermia	<input type="checkbox"/> Sepsis. Confirmed by:		
<input type="checkbox"/> Hypoxic ischemic encephalopathy (HIE)	<input type="checkbox"/> positive BLOOD culture		
<input type="checkbox"/> Meconium aspiration syndrome	<input type="checkbox"/> positive cerebrospinal fluid (CSF) culture		
<input type="checkbox"/> Necrotizing enterocolitis (NEC)	<input type="checkbox"/> unknown		
	<input type="checkbox"/> Other, please specify: <i>Free text response</i>		
62. If NAS, was the infant treated with morphine?	<input type="checkbox"/> Yes	<input type="checkbox"/> Not noted	
If yes, specify age and dose	<input type="checkbox"/> Age (hours): <i>Numerical response</i>	<input type="checkbox"/> Dose: <i>Free text response</i>	
63. Did the infant require resuscitation while in hospital care?	<input type="checkbox"/> Yes, less than 24 hours	<input type="checkbox"/> Yes, more than 24 hours	<input type="checkbox"/> Not noted
64. Did the infant require respiratory support while in hospital care?	<input type="checkbox"/> Yes, less than 24 hours	<input type="checkbox"/> Yes, more than 24 hours	<input type="checkbox"/> Not noted

If yes, specify type:	<input type="checkbox"/> Intubation	<input type="checkbox"/> CPAP
	<input type="checkbox"/> Other. Please specify:	
65. Did the infant get transferred to a special care nursery (SCN) or neonatal intensive care unit (NICU) in the same hospital?	<input type="checkbox"/> Yes	<input type="checkbox"/> No
If yes, please specify Unit	<input type="checkbox"/> Special care nursery (SCN)	<input type="checkbox"/> Neonatal intensive care unit (NICU)
If yes, please specify reason for transfer	<input type="checkbox"/> Acute care <input type="checkbox"/> Border <input type="checkbox"/> Hypoglycemia <input type="checkbox"/> Observation <input type="checkbox"/> Palliative care <input type="checkbox"/> Prematurity	<input type="checkbox"/> Neonatal abstinence syndrome <input type="checkbox"/> Other, please specify: <i>Free text response</i> <input type="checkbox"/> Unknown
If yes, please date of FIRST ADMISSION	<i>Select date from calendar table (dd-mmm-yyyy)</i>	<input type="checkbox"/> Unknown
If yes, please date of FINAL DISCHARGE	<i>Select date from calendar table (dd-mmm-yyyy)</i>	<input type="checkbox"/> Unknown
66. Did the infant receive any medications while in hospital, NICU or SCN care?	<input type="checkbox"/> Yes	<input type="checkbox"/> Not noted
If yes, specify medications:	<i>Free text response</i>	
67. Did the infant receive any surgical interventions while in hospital, NICU or SCN care?	<input type="checkbox"/> Yes	<input type="checkbox"/> Not noted
If yes, specify date:	<i>Select date from calendar table (dd-mmm-yyyy)</i>	<input type="checkbox"/> Unknown
If yes, specify surgery:	<i>Free text response</i>	
68. Did the infant die while in hospital care?	<input type="checkbox"/> Yes	<input type="checkbox"/> No
If yes, specify date:	<i>Select date from calendar table (dd-mmm-yyyy)</i>	<input type="checkbox"/> Unknown
If yes, specify primary cause of death:	<i>Free text response</i>	
If yes, was the primary cause of death confirmed by autopsy?	<input type="checkbox"/> Yes	<input type="checkbox"/> No
		<input type="checkbox"/> Autopsy not done
If yes, please specify cause of death indicated on the autopsy report	<i>Free text response</i>	
If infant died while in hospital care STOP HERE		
69. Where was the infant discharged/transferred to?		
<input type="checkbox"/> Discharged home directly from an observation/ mother baby unit	Specify date:	<i>Select date from calendar table (dd-mmm-yyyy)</i>
		<input type="checkbox"/> Unknown
<input type="checkbox"/> Transferred to another facility	Specify date:	<i>Select date from calendar table (dd-mmm-yyyy)</i>
	Specify reason for transfer	<i>Free text response</i>
		<input type="checkbox"/> Unknown

70. Did the patient participate in a rooming in or kangaroo care program for prevention of NAS?		<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Not eligible
<p style="color: red;">If infant transferred to another facility</p> <p style="color: red;">STOP HERE</p>		
71. Newborn feeding from birth to discharge/transfer from hospital or birth centre. Select one		
<input type="checkbox"/> Breastmilk only		
<input type="checkbox"/> Combination of breastmilk and breastmilk substitute. Please specify substitute: <i>Free text response</i>		
<input type="checkbox"/> Breastmilk substitute. Please specify substitute: <i>Free text response</i>		
<input type="checkbox"/> None		
<input type="checkbox"/> Unknown		
72. Intention to breastfeed after discharge		
<input type="checkbox"/> Yes, intends to breastfeed	<input type="checkbox"/> No, does not intend to breastfeed	<input type="checkbox"/> Unknown
<p style="color: red;">If singleton infant</p> <p style="color: red;">STOP HERE</p>		