BORN ONTARIO COVID-19 CASE REPORT FORM

See BORN Q & A document for additional details about data collection.

- BORN Ontario is urgently requesting data collection from Ontario hospitals and midwifery practice groups for any cases of COVID-19 during pregnancy between March 1, 2020 and March 1, 2021.

- The aim is to collect case information at individual hospitals and midwifery practice groups; this information will then be securely transferred to BORN Ontario and linked with the BORN Information System (BIS) to get information about pregnancy outcomes.

- Data should be collected for two types of cases:

  1) Any pregnant individual with **CURRENT** COVID-19 (confirmed, suspected or probable) ***regardless of gestational age***

     This includes:

     a) pregnant individuals admitted to hospital for current COVID-19-related issues (e.g., pneumonia)
     b) pregnant individuals admitted to hospital for birth or, any other pregnancy-related issues (e.g., preeclampsia, bleeding etc.), who happen to currently have COVID-19
     c) pregnant individuals cared for outside the hospital (e.g., home or birth centre) by midwives

  2) Any pregnant individual with a **PAST HISTORY** of COVID-19 during pregnancy (confirmed, suspected or probable), which is resolved

     This includes:

     a) pregnant individuals at the time of hospital birth or out-of-hospital birth, who have a history of COVID-19 during this pregnancy from which they have recovered

- There are two data collection options (both within this data collection form):

  OPTION A: CORE DATASET: variables required for record linkage to the BORN Information System (BIS) + core variables about COVID-19

  - ***These core variables are shaded in light red***
  - ***These core variables are the priority***
  - ***Please complete ALL core variables (shaded)***

  OPTION B: EXPANDED DATASET: core dataset variables + additional clinical variables about COVID-19

  - *******This dataset is preferred, if possible***
  - ***Please complete ALL core variables (shaded), as well as all other applicable variables as completely as possible***

SUBMITTING ORGANIZATION:	DATE CASE FORM COMPLETED: MM/DD/YYYY

Variable Name	Data Format	Comments
Type of case (SELECT ONE)	Pregnant individual with **CURRENT** COVID-19 (confirmed, suspected or probable) Pregnant individual with a **PAST HISTORY** of COVID-19 during pregnancy (confirmed, suspected or probable)	- *World Health Organization (WHO) definitions for confirmed, suspected or probable are provided below and in the BORN Q & A document

***World Health Organization (WHO) definitions for confirmed, suspected or probable COVID-19:**

Confirmed COVID-19:

i. person with laboratory confirmation of COVID-19 infection, irrespective of clinical signs and symptoms

Suspected COVID-19:

i. person with **acute respiratory illness** (fever and at least one sign/symptom of respiratory disease, e.g., cough, shortness of breath) **AND** a history of travel to or residence in a location reporting community transmission of COVID-19 disease during the 14 days prior to symptom onset; **OR**
ii. person with **acute respiratory illness AND** having been in contact with a confirmed or probable COVID-19 case in the last 14 days prior to symptom onset; **OR**
iii. person with **severe acute respiratory illness** (fever and at least one sign/symptom of respiratory disease, e.g., cough, shortness of breath; **AND** requiring hospitalization) **AND** in the absence of an alternative diagnosis that fully explains the clinical presentation

Probable COVID-19:

i. suspected case for whom testing for the COVID-19 virus is inconclusive; OR
ii. suspected case for whom testing could not be performed for any reason

Identifiers required for record linkage with BORN Information System (BIS)		
Mother's last/family name(s)		
Mother's first/given name(s)		
Mother's date of birth (DOB)	MM/DD/YYYY	
Mother's province of residence		- Use 'Other' for non-residents (e.g., a visitor to Canada)
Mother's health card number (e.g., OHIP; RAMQ; Public Service Health Care Plan)		- Use upper case for any letters - No spaces and no dashes between any letters or digits (e.g.,1111111111AA)

Mother's residence postal code		- No space between first three and last three characters (e.g., M5S1W7)
Mother's hospital chart number		- For out of hospital births add Midwifery Client Code
Estimated date of birth (EDB)	MM/DD/YYYY	- Leave blank if unknown - Best estimate of date of birth determined by ultrasound or mathematical calculation using Nägele's rule. Same as EDC and EDD.

Maternal SARS-CoV-2 exposure history		
Travel history to affected country		
Known contact in community		
Health care worker		
Other		- Leave blank if not applicable

Maternal SARS-CoV-2 testing (performed in pregnancy or at birth)		
CORE VARIABLES		
Was at least one SARS-CoV-2 lab test performed?		
- **IF YES**, did at least one lab test have a positive result?		
- **IF YES**, sample collection date of FIRST positive SARS-CoV-2 lab test	MM/DD/YYYY	- Date of sample collection - Leave blank if no positive test / no test performed / result pending
ADDITIONAL CLINICAL VARIABLES		
Nasopharyngeal (NP) swab 1		- RT-PCR test 1
- Sample collection date	MM/DD/YYYY	- Leave blank if no test
- Lab report date	MM/DD/YYYY	- Leave blank if no test
- Result		- Leave blank if no test

Nasopharyngeal (NP) swab 2		- RT-PCR test 2
- Sample collection date	MM/DD/YYYY	- Leave blank if no second test
- Lab report date	MM/DD/YYYY	- Leave blank if no second test
- Result		- Leave blank if no second test
Nasopharyngeal (NP) swab 3		- RT-PCR test 3
- Sample collection date	MM/DD/YYYY	- Leave blank if no third test
- Lab report date	MM/DD/YYYY	- Leave blank if no third test
- Result		- Leave blank if no third test
Throat swab		
- Sample collection date	MM/DD/YYYY	- Leave blank if no test
- Lab report date	MM/DD/YYYY	- Leave blank if no test
- Result		- Leave blank if no test
Blood		
- Sample collection date	MM/DD/YYYY	- Leave blank if no test
- Lab report date	MM/DD/YYYY	- Leave blank if no test
- Result		- Leave blank if no test
Breastmilk		
- Sample collection date	MM/DD/YYYY	- Leave blank if no test
- Lab report date	MM/DD/YYYY	- Leave blank if no test
- Result		- Leave blank if no test
Amniotic fluid		
- Sample collection date	MM/DD/YYYY	- Leave blank if no test
- Lab report date	MM/DD/YYYY	- Leave blank if no test
- Result		- Leave blank if no test

Serology - IgM		
- Sample collection date	MM/DD/YYYY	- Leave blank if no test
- Lab report date	MM/DD/YYYY	- Leave blank if no test
- Result		- Leave blank if no test
Serology - IgG		
- Sample collection date	MM/DD/YYYY	- Leave blank if no test
- Lab report date	MM/DD/YYYY	- Leave blank if no test
- Result		- Leave blank if no test
Name of other SARS-CoV-2 testing		- Leave blank if no test
- Sample collection date	MM/DD/YYYY	- Leave blank if no test
- Lab report date	MM/DD/YYYY	- Leave blank if no test
- Result		- Leave blank if no test

Were any of the following other samples tested for SARS-CoV-2 at birth?		
Placenta		
- **IF YES**, what was the test result?		- Leave blank if no test
Cord blood		
- **IF YES**, what was the test result?		- Leave blank if no test
High vaginal swab		
- **IF YES**, what was the test result?		- Leave blank if no test

Other viral tests (performed in pregnancy or at birth)		
Were any of the following viral tests performed?	Yes, Influenza Yes, Respiratory-Syncytial Virus (RSV) No other viral testing performed Unknown	- SELECT ALL THAT APPLY
- **IF YES**, swab date viral testing performed	MM/DD/YYYY	- Leave blank if no test
- **IF YES**, result of viral testing	Positive for Influenza A Positive for Influenza B Positive for Respiratory Syncytial Virus (RSV) Negative for Influenza A, B and RSV Results pending Unknown/Indeterminate	- SELECT ALL THAT APPLY - Leave blank if no test

Maternal COVID-19 clinical symptoms observed or reported in pregnancy or at birth		
CORE VARIABLES		
Fever		
Cough		
Shortness of breath		
ADDITIONAL CLINICAL VARIABLES		
Date of COVID-19 diagnosis, if known	MM/DD/YYYY	- Leave blank if unknown
Estimated date of infection, if known	MM/DD/YYYY	- Leave blank if unknown
Fever (> 38°C)		
- **IF YES**, date of onset	MM/DD/YYYY	- Leave blank if not applicable
- **IF YES**, duration	days	- Leave blank if not applicable
- **IF YES**, max temp recorded	°C	- Leave blank if not applicable
Cough		
- **IF YES**, date of onset	MM/DD/YYYY	- Leave blank if not applicable
- **IF YES**, duration	days	- Leave blank if not applicable

Headache		
- **IF YES**, date of onset	MM/DD/YYYY	- Leave blank if not applicable
- **IF YES**, duration	days	- Leave blank if not applicable
Shortness of breath		
- **IF YES**, date of onset	MM/DD/YYYY	- Leave blank if not applicable
- **IF YES**, duration	days	- Leave blank if not applicable
Muscle pain/myalgia		
- **IF YES**, date of onset	MM/DD/YYYY	- Leave blank if not applicable
- **IF YES**, duration	days	- Leave blank if not applicable
Anorexia		
- **IF YES**, date of onset	MM/DD/YYYY	- Leave blank if not applicable
- **IF YES**, duration	days	- Leave blank if not applicable
Diarrhea		
- **IF YES**, date of onset	MM/DD/YYYY	- Leave blank if not applicable
- **IF YES**, duration	days	- Leave blank if not applicable
Vomiting		
- **IF YES**, date of onset	MM/DD/YYYY	- Leave blank if not applicable
- **IF YES**, duration	days	- Leave blank if not applicable
Malaise		
- **IF YES**, date of onset	MM/DD/YYYY	- Leave blank if not applicable
- **IF YES**, duration	days	- Leave blank if not applicable
Anosmia (loss of smell)		
- **IF YES**, date of onset	MM/DD/YYYY	- Leave blank if not applicable
- **IF YES**, duration	days	- Leave blank if not applicable

Other symptoms:		- Leave blank if not applicable
- **IF YES**, date of onset	MM/DD/YYYY	- Leave blank if not applicable
- **IF YES**, duration	days	- Leave blank if not applicable

Maternal chest imaging related to COVID-19 illness		
CORE VARIABLES		
Was chest imaging related to COVID-19 performed?		
- **IF YES**, what was chest imaging result?		
ADDITIONAL CLINICAL VARIABLES		
X-ray test performed?		
- **IF YES**, x-ray result		- Leave blank if not applicable
CT scan test performed?		
- **IF YES**, CT scan result		- Leave blank if not applicable
MRI test performed?		
- **IF YES**, MRI result		- Leave blank if not applicable

Maternal SARS-CoV-2 complications (in pregnancy or at birth)		
CORE VARIABLES		
Hospitalized for COVID-19 illness?		
- **IF YES**, date of hospital admission	MM/DD/YYYY	
- **IF YES**, date of hospital discharge	MM/DD/YYYY	
- **IF YES**, was person admitted to ICU during this admission?		
Was there a maternal death related to COVID-19 illness?		
- **IF YES**, date of death	MM/DD/YYYY	- Leave blank if not applicable

ADDITIONAL CLINICAL VARIABLES		
Pneumonia?		
- **IF YES**, date	MM/DD/YYYY	- Leave blank if not applicable
Sepsis?		
- **IF YES**, date	MM/DD/YYYY	- Leave blank if not applicable
Respiratory failure?		
- **IF YES**, date	MM/DD/YYYY	- Leave blank if not applicable
Acute respiratory distress syndrome?		
- **IF YES**, date	MM/DD/YYYY	- Leave blank if not applicable
Heart failure?		
- **IF YES**, date	MM/DD/YYYY	- Leave blank if not applicable
Septic shock?		
- **IF YES**, date	MM/DD/YYYY	- Leave blank if not applicable
Coagulopathy?		
- **IF YES**, date	MM/DD/YYYY	- Leave blank if not applicable
Disseminated intravascular coagulopathy?		
- **IF YES**, date	MM/DD/YYYY	- Leave blank if not applicable
Renal failure?		
- **IF YES**, date	MM/DD/YYYY	- Leave blank if not applicable

Maternal treatment for COVID-19 illness in pregnancy or at birth		
CORE VARIABLES		
Did person receive ventilatory support during a hospital admission for COVID-19 illness?		If more than one type of support was used during the admission, indicate the most invasive option
ADDITIONAL CLINICAL VARIABLES		
Start date of ECMO (if received)	MM/DD/YYYY	- Leave blank if not applicable
Duration of ECMO (if received)	days	- Leave blank if not applicable
Start date of invasive mechanical ventilation (if received)	MM/DD/YYYY	- Leave blank if not applicable
Duration of invasive mechanical ventilation (if received)	days	- Leave blank if not applicable
Start date of non-invasive mechanical ventilation (if received)	MM/DD/YYYY	- Leave blank if not applicable
Duration of non-invasive mechanical ventilation (if received)	days	- Leave blank if not applicable
Intravenous immunoglobulin		
- **IF YES**, dose		- Leave blank if not applicable
- **IF YES**, date started	MM/DD/YYYY	- Leave blank if not applicable
- **IF YES**, duration	days	- Leave blank if not applicable
High-flow nasal cannula oxygen therapy		
- **IF YES**, date started	MM/DD/YYYY	- Leave blank if not applicable
- **IF YES**, duration	days	- Leave blank if not applicable
Renal replacement therapy		
- **IF YES**, date started	MM/DD/YYYY	- Leave blank if not applicable
- **IF YES**, duration	days	- Leave blank if not applicable

Maternal COVID-19 medications and natural health products in pregnancy or at birth		
Over-the-counter medications: acetaminophen (Tylenol)		
Over-the-counter medications: acetylsalicylic acid (Aspirin)		
Over-the-counter medications: ibuprofen (Advil, Motrin, others)		
Over-the-counter medications: Naproxen (Aleve, Naprosyn, others)		
Over-the-counter medications: Other		
- **IF YES**, specify all		- Specify all additional over-the-counter medications; separated by semi-colon - Leave blank if not applicable
Prescription medications: Corticosteroids		
- **IF YES**, specify all		- Specify all corticosteroids; separated by semi-colon - Leave blank if not applicable
Prescription medications: Steroids for fetal lung maturation		
- **IF YES**, specify all		- Specify all steroids for fetal lung maturation; separated by semi-colon - Leave blank if not applicable
Prescription medications: Chloroquine		
- **IF YES**, describe circumstance		- Describe circumstances for chloroquine prescription - Leave blank if not applicable
Prescription medications: Hydrochloroquine		
- **IF YES**, describe circumstance		- Describe circumstances for hydrochloroquine prescription - Leave blank if not applicable
Prescription medications: Colchicine		
Prescription medications: Kaletra (Lopinavir/Ritonavir)		
Prescription medications: Remdesivir		
Prescription medications: Antibiotics		
- **IF YES**, specify all		- Specify all antibiotics; separated by semi-colon - Leave blank if not applicable

Prescription medications: Other		
- **IF YES**, specify all		- Specify all additional prescription medications; separated by semi-colon - Leave blank if not applicable
Natural health products		
- **IF YES**, specify all		- Specify all natural health products; separated by semi-colon - Leave blank if not applicable

Delivery (other variables about pregnancy, birth and newborn will be obtained via record linkage with the BORN Information System)		
Number of fetuses		- Please contact BORN Ontario for triplets or higher-order multiples (this form will accommodate data from singletons and twins only)
Outcome of pregnancy during this clinical encounter	Pregnancy loss <20 weeks and <500 grams (spontaneous miscarriage or termination of pregnancy) Stillbirth at ≥20 weeks or ≥500 grams (spontaneous or termination of pregnancy) Live birth Pregnancy continued (undelivered)	- Outcome of pregnancy during this admission, including live births, stillbirths, terminations, losses and pregnancy terminations - Pregnancy continued refers to a person who is undelivered at end of this clinical encounter - **IF TWINS**, SELECT ALL THAT APPLY (e.g., if there is 1 live birth and 1 stillbirth, select each applicable box)
- **IF A BIRTH OCCURRED**, where did it occur?	Other -	- Leave blank if pregnancy continued (undelivered) at the end of this clinical encounter - If other, please specify
- **IF A BIRTH OCCURRED**, what was the date of birth?	MM/DD/YYYY	- Provide date for live births, stillbirths, terminations, losses - Leave blank if pregnancy continued (undelivered) at the end of this clinical encounter
- **IF A BIRTH OCCURRED**, what was the gestational age?	weeks + days	- Provide for live births, stillbirths, terminations, losses - Leave blank if pregnancy continued (undelivered) at the end of this clinical encounter

- **IF LIVE BIRTH OR STILLBIRTH OCCURRED**, what was the birth weight?	grams (singletons or Baby A of twins) grams (Baby B, if twins)	- Provide for live births and stillbirths only - Leave blank if pregnancy continued (undelivered) at the end of this clinical encounter
Newborn(s) from birth to discharge (if a birth occurred during this clinical encounter)		
Management of newborn(s)	1: Newborn asymptomatic and kept with well mother in hospital room or home 2: Newborn asymptomatic and isolated away from mother in another area in hospital (postnatal ward, special care nursery, NICU or special ward) or home 3: Newborn symptomatic and isolated away from mother in another area in hospital (postnatal ward, neonatal nursery, NICU or special ward) or home 4: Newborn transferred to another setting/hospital due to clinical needs 5: Other Baby B, if twins: (*provide applicable number from response options above*)	- Select one tick box - If twins, select one tick box for Baby A and provide applicable number from response options on line below for Baby B - Leave blank if pregnancy continued (undelivered) at the end of this clinical encounter
Was there an NICU admission?	Baby B, if twins: (*provide applicable number from response options above*)	- Choose option from dropdown - If twins, choose option for Baby A and provide applicable number from response options on line below for Baby B - Leave blank if pregnancy continued (undelivered) at the end of this clinical encounter

Newborn feeding (if a birth occurred during this clinical encounter)

- **SELECT ALL THAT APPLY**
- Provide response in this table for singletons or Baby A of twins (separate table for Baby B is below)
- Leave blank if pregnancy continued (undelivered) at the end of this clinical encounter

Type of feeding in first 48 hours	Fed by mother	Fed by alternate health care provider or family, who is NOT currently COVID-19 positive and is NOT a contact of a current COVID-19 case	Fed by alternate health care provider or family, who is either currently COVID-19 positive or a contact of a current COVID-19 case
Breast fed		N/A	N/A
Expressed breast milk			
Breast milk substitute – formula			
Donor milk			
Intravenous and/or TPN			

*Note: alternate health care provider or family member who is asymptomatic is presumed to be COVID-19 negative

Newborn feeding (if a birth occurred during this clinical encounter) – BABY B, IF TWINS

- **SELECT ALL THAT APPLY**
- **IF TWINS**, provide Baby B response in this table (leave blank if it was a singleton birth)
- Leave blank if pregnancy continued (undelivered) at the end of this clinical encounter

Type of feeding in first 48 hours	Fed by mother	Fed by alternate health care provider or family, who is NOT currently COVID-19 positive and is NOT a contact of a current COVID-19 case	Fed by alternate health care provider or family, who is either currently COVID-19 positive or a contact of a current COVID-19 case
Breast fed		N/A	N/A
Expressed breast milk			
Breast milk substitute – formula			
Donor milk			
Intravenous and/or TPN			

*Note: alternate health care provider or family member who is asymptomatic is presumed to be COVID-19 negative

Newborn(s) SARS-CoV-2 testing (if a birth occurred during this clinical encounter)		
CORE VARIABLES		
Was at least one SARS-CoV-2 lab test performed on the infant(s)?	Baby B, if twins: (*provide applicable number from response options above*)	- Choose option from dropdown - If twins, choose option for Baby A and provide applicable number from response options on line below for Baby B - Leave blank if pregnancy continued (undelivered) at the end of this clinical encounter
- **IF YES**, did at least one lab test have a positive result?	Baby B, if twins: (*provide applicable number from response options above*)	- Leave blank if no test - If twins, choose option for Baby A and provide applicable number from response options on line below for Baby B - Leave blank if pregnancy continued (undelivered) at the end of this clinical encounter
ADDITIONAL CLINICAL VARIABLES		
Nasopharyngeal (NP) swab 1		- RT-PCR test 1
- Sample collection date	MM/DD/YYYY Baby B, if twins: MM/DD/YYYY	- Leave blank if no test
- Lab report date	MM/DD/YYYY Baby B, if twins: MM/DD/YYYY	- Leave blank if no test
- Result	Baby B, if twins: (*provide applicable number from response options above*)	- Leave blank if no test - If twins, choose option for Baby A and then Baby B from drop down fields.

Nasopharyngeal (NP) swab 2		- RT-PCR test 2
- Sample collection date	MM/DD/YYYY Baby B, if twins: MM/DD/YYYY	- Leave blank if no second test
- Lab report date	MM/DD/YYYY Baby B, if twins: MM/DD/YYYY	- Leave blank if no second test
- Result	Baby B, if twins: (*provide applicable number from response options above*)	- Leave blank if no second test - If twins, choose option for Baby A and then Baby B from drop down fields.
Nasopharyngeal (NP) swab 3		- RT-PCR test 3
- Sample collection date	MM/DD/YYYY Baby B, if twins: MM/DD/YYYY	- Leave blank if no third test
- Lab report date	MM/DD/YYYY Baby B, if twins: MM/DD/YYYY	- Leave blank if no third test
- Result	Baby B, if twins: (*provide applicable number from response options above*)	- Leave blank if no third test - If twins, choose option for Baby A and then Baby B from drop down fields.
Throat swab		
- Sample collection date	MM/DD/YYYY Baby B, if twins: MM/DD/YYYY	- Leave blank if no test
- Lab report date	MM/DD/YYYY Baby B, if twins: MM/DD/YYYY	- Leave blank if no test
- Result	Baby B, if twins: (*provide applicable number from response options above*)	- Leave blank if no test - If twins, choose option for Baby A and then Baby B from drop down fields.

Serology - IgM		
- Sample collection date	MM/DD/YYYY Baby B, if twins: MM/DD/YYYY	- Leave blank if no test
- Lab report date	MM/DD/YYYY Baby B, if twins: MM/DD/YYYY	- Leave blank if no test
- Result	Baby B, if twins: (*provide applicable number from response options above*)	- Leave blank if no test - If twins, choose option for Baby A and then Baby B from drop down fields.
Serology - IgG		
- Sample collection date	MM/DD/YYYY Baby B, if twins: MM/DD/YYYY	- Leave blank if no test
- Lab report date	MM/DD/YYYY Baby B, if twins: MM/DD/YYYY	- Leave blank if no test
- Result	Baby B, if twins (*provide applicable number from response options above*)	- Leave blank if no test - If twins, choose option for Baby A and then Baby B from drop down fields.