



BORN Information System (BIS): Guide to Hospital Reports



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BORN Information System (BIS): Guide to Reports for Hospitals

Note: To view reports, you must have access permission for BIS reports. Ask your local administrator for permission.

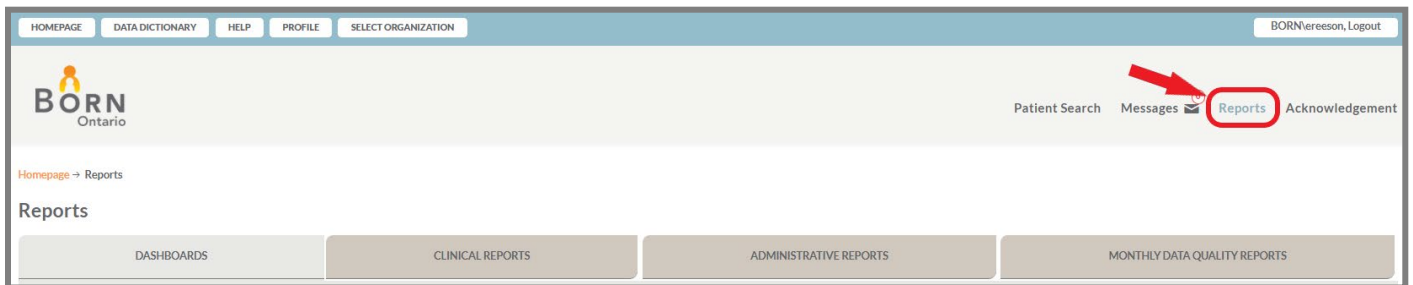
This guide covers 3 types of reports:

1. Administrative Reports (includes Data Quality reports)
2. Clinical Reports
3. Dashboard Reports

How to Access Reports

1. Click on **Reports** which is located on the top menu bar of the BIS landing page
2. Select either the **Dashboards**, **Clinical Reports**, **Administrative Reports** or **Monthly Data Quality Reports** Tab

Figure 1 - BIS Reports Page



1. Administrative Reports

- Are an important part of data quality management
- They help you identify missing data and data entry errors
- To keep your work manageable, run administrative reports monthly.

Administrative Reports Include:

- ✓ Incomplete Record Reports
- ✓ Maternal-Infant Cross Encounter Discrepancy Reports



- ✓ Reconciliation Reports
- ✓ Missing Data Element Reports
- ✓ Month-End Data Acknowledgement
- ✓ User Roles Report

Incomplete Record Reports

What are they?

- Reports listing records that are:
 - Unlinked (i.e. Maternal and infant records that have been created, but are not linked)
 - Missing (i.e. Maternal record has been created, but baby record is missing)
 - Discrepant (i.e. Maternal record says baby was transferred to NICU, but baby record says baby went home)
 - Unfinished (i.e. Records in draft status – has not been submitted)

Table 1 - Incomplete Record Report Descriptions

Report Name	Description
Incomplete Infant Records	<ul style="list-style-type: none"> • Helps you correct discrepancies and create/submit encounters that were missed • Provides total number of admissions/births and disposition types (discharge/transfer to) • Provides 4 discrepancy reports: <ul style="list-style-type: none"> ○ Disposition ○ Neonatal death ○ Stillbirth ○ NICU transfer
Incomplete Maternal Records	<ul style="list-style-type: none"> • Identifies maternal records that are unlinked, missing, discrepant or in draft • Lists encounters missing the date of admission • Provides 4 discrepancy reports: <ul style="list-style-type: none"> ○ Disposition ○ Number of fetuses ○ Type of labour and type of birth ○ Type of birth/vacuum forceps
Incomplete NICU Records	<ul style="list-style-type: none"> • Identifies NICU/SCN records that are missing or incomplete



Report Name	Description
	<ul style="list-style-type: none"> Lists un-submitted NICU/SCN encounters that are missing a date of admission

Maternal-Infant Cross Encounter Discrepancy Report

What is it?

- A report that identifies data discrepancies between the maternal and child encounters

Why use it?

- To ensure key data elements have been answered correctly on both the maternal and child records

Maternal-Infant Cross-Encounter Discrepancy Report Description

Discrepancies listed:

- Pregnancy/Birth Outcome (live birth, stillbirth)
- Type of Birth (spontaneous vs assisted)
- Birth Location (home, hospital)
- Newborn date of birth
- Transfer location discrepancies

Reconciliation Reports

What are they?

- Reports that allow you to compare the number of births and number of NICU discharges (if applicable) you have entered into the BORN Information System (BIS) with one of your internal sources (e.g. ADT system, DAD data, log book etc.)

Why use them?

- To ensure you've captured 100% of births and NICU discharges in the BIS

Table 2 - Reconciliation Report Descriptions

Report Name	Description
Reconciliation – Maternal Newborn	<ul style="list-style-type: none"> Provides the number of: <ul style="list-style-type: none"> Maternal admissions and dispositions Births (live and stillbirths) Neonatal transfers/discharges
Reconciliation - NICU	<ul style="list-style-type: none"> Provides the number for NICU admissions and discharges



Report Name	Description
	<ul style="list-style-type: none"> Note: NICU acknowledgment is based on discharges

Missing Data Elements Report

What are they?

- Reports showing data elements with an answer = 'unknown'

Why use them?

- The goal is 95% data capture for each data element for interpretation reliability
 - >30% missing – Data is not reliable and should not be analyzed
 - 10-30% missing – Use caution when interpreting data
 - 5-10% missing – Good progress! Aim for < 5%

Table 3 - Missing Data Element Report Descriptions

Report Name	Description
Missing Data Elements – Birth and Postpartum Child	<ul style="list-style-type: none"> • Lists missing data (entered as 'unknown') from the Birth Child and Postpartum Child encounters. • Examples are delayed cord clamping and hearing screening
Missing Data Elements - Labour Birth and Postpartum Mother	<ul style="list-style-type: none"> • Lists missing data (entered as 'unknown'), from the Labour-Birth Mother, and Postpartum Mother encounters. • Examples are maternal weight and prenatal education
Missing Data Elements - NICU	<ul style="list-style-type: none"> • Lists missing data (entered as 'unknown') from the NCU encounter • Examples are ROP screening type and oxygen therapy days

Month End Acknowledgement Report

What is Acknowledgement:

Acknowledgement is the final step of data submission to the BORN Information System (BIS), for each month of data entered.



- Once data has been acknowledged, clinical reports can be viewed with confidence. Your hospital data can also be included in research/data requests and the comparators in profile reports for other hospitals.

What is the Month End Acknowledgement Report?

- A report that lists the months that have been acknowledged for a selected date range for Labour Birth and NICU.

Note: See the BORN [Quick Guide to Data Quality Management](#) for further instructions and information about acknowledgement.

User Roles Report

What is it?

- A report designed for the Local Administrator – the person(s) who manages access to the BORN Information System (BIS) at your hospital

Why use it?

- Use this report to:
 1. Verify all users have appropriate roles and access
 2. Ensure users no longer requiring access have been made inactive or revoked

See the BORN [Local Administrator Guide](#) for more information

User Roles Report Description

- Lists all BIS users in your organization and identifies:
 - User Name, Contact information, ID number, Organization, Job Title
 - BIS roles*
 - Status (active, locked, password locked)
 - Access privileges
 - User last access date

Note: BIS Roles are associated with specific access privileges (i.e. data entry, reports, local administration, acknowledgement, etc.)



2. Clinical Reports

- Designed to help you monitor and analyze program performance and patient outcomes.
- Reports are grouped into three categories:
 1. **Maternal Newborn reports** – frequencies and percentages
 - Key Indicator Reports
 - Profile Reports
 - NICU Profile Reports
 - Baby-Friendly Initiative Reports
 - Formula Supplementation with Intention to Breastfeed Report
 - Robson Cesarean Section Monitoring Report
 - VBAC Quality Standard Report
 2. **Data Download reports** – raw exported data for multiple patients
 - Encounter List
 - Patient Experience Lists
 3. **Patient-Level reports** – Summary of a single patient record that can be accessed withing the record
 - Newborn Profile at Discharge
 - NICU Profile at Discharge
 - Encounter Summary Reports
 - Patient Experience Report

Maternal Newborn Reports (Frequencies and Percentages)

Key Indicator Reports

What are they?

- These reports provide frequencies and counts of key infant and maternal care indicators. They do not allow comparison with other hospitals. For comparator data, see Profile Reports.

Why use them?

- For help with monitoring, planning, utilization, audits etc
- Tip: You can select single, multiple or all data elements



Table 4 - Key Indicator Report Descriptions

Report Name	Description
Infant Summary	<p>Provides data on births, for example:</p> <ul style="list-style-type: none"> • Gestational age at birth • Birth weight • Apgar scores <p>Note: Does not include NICU data. For a complete list of data elements, see Appendix C</p>
Maternal Summary	<p>Provides data on women who gave birth, for example:</p> <ul style="list-style-type: none"> • Type of labour • Type of birth • Multiple gestations • Maternal age <p>For a complete list of indicators, see Appendix C</p>

Profile Reports

What are they?

- These summary reports compare your patient population with your hospital peers (same level-of-care or similar birth volumes). Note: Three or more comparator hospitals must have acknowledged their data (for the selected date range) for the numbers to populate the report.

Why use them?

- Enable you to benchmark clinical outcomes with peers, identify practice variations and monitor trends.

Table 5 - Profile Report Descriptions

Report Name	Description
Demographics	<p>Provides the number of women who have birth by:</p> <ul style="list-style-type: none"> • Maternal age • Parity • Primary language • Number of births distributed by location • Live birth or stillbirth



Report Name	Description
	For a complete list of indicators, see Appendix C
Pregnancy	Provides the list of the number of women who have birth by: <ul style="list-style-type: none"> • Pre-pregnancy BMI • Pre-existing health conditions (outside of pregnancy) • Gestational diabetes • Hypertension disorders • GBS For a complete list of indicators, see Appendix C
FSA (Forward Sortation Area)	Provides a list of the number of women who gave birth by maternal residence. Forward Sortation Area (FSA) represents the first three digits of the maternal postal code.
Birth/Mother	Provides a list of the number of women who gave birth by: <ul style="list-style-type: none"> • Type of admitting provider • Type of birth • Rates of episiotomy • Pharmacological pain management • Intrapartum complications For a complete list of indicators see Appendix C
Birth/Newborn	Provides frequencies and percentage of infants by: <ul style="list-style-type: none"> • Gestational age at birth • Type of gestation (singleton/multiples) • Birth weight • SGA, AGA, LGA • Resuscitation methods • 5 minute Apgar score • Neonatal health conditions • Newborn and hearing screening • Pain relief measures during newborn screening or serum bilirubin testing Delayed cord clamping

NICU Profile Reports

What are they?

- These reports compare your NICU babies with your hospital peers (same level-of-care or similar birth volumes). Three or more comparator hospitals must acknowledge their data (within the selected date range) for the numbers to populate the report.



Why use them?

- Enable you to benchmark clinical outcomes with peers, identify practice variations and monitor trends.

Table 6 - NICU Profile Report Descriptions

Report Name	Description
Admission Data	<p>Provides frequencies and percentage of infants by:</p> <ul style="list-style-type: none"> • Rate of all NICU/SCN admissions, by type of admission • Rate of inborn primary NICU/SCN admissions • Location transferred from, for all NICU/SCN admissions • Admission temperature by gestational age at birth, by type of admission • Rate of primary NICU/SCN admissions for singleton live births, by gestational age at birth and size for gestational age (SGA, AGA or LGA) • Rate of primary NICU/SCN admissions for singleton live births, by birth weight and size for gestational age (SGA, AGA or LGA) • Arterial cord blood pH, by gestational age at birth <p>Venous cord blood pH, by gestational age at birth</p>
Intervention Data	<p>Provides frequencies and percentage of infants by:</p> <ul style="list-style-type: none"> • Neonatal resuscitation (first 30 min), by gestational age at birth for inborn • NICU/SCN neonatal therapies, by gestational age at birth • Respiratory support, by gestational age at birth • Summary of all interventions in hospital for all admissions • Pain relief measures during newborn screening or serum bilirubin • Bilirubin measurements and hyperbilirubinemia treatment



Report Name	Description
	<ul style="list-style-type: none"> ROP eye screening type
Infant Feeding Data	Provides frequencies and percentage of infants by: <ul style="list-style-type: none"> Feeding in hospital, by gestational age at birth Feeding on day of discharge, by gestational age at birth Reason for breast milk substitute, by gestational age at birth
Discharge Data	Provides frequencies and percentage of infants by: <ul style="list-style-type: none"> Location of discharge/transfer, by all NICU/SCN admissions Rate of neonatal death, by gestational age (GA) at birth, and days of life Distribution of weight loss since birth of primary admissions discharged home Distribution of infant length of stay (LOS), by gestational age at birth

Baby Friendly Initiative Reports

What are they?

- These reports provide information about infant feeding and attachment. The comparison report provides aggregate data from other hospitals, other LHINS, and the province.

Why use them?

- These reports provide data required for the Baby-Friendly designation. BORN data aligns with the Baby Friendly Initiative (BFI) Strategy to facilitate reporting and support quality improvement. See the [BFI Ontario](#) website
- The Baby-Friendly Initiative Indicator Status-Comparison Report includes two hotlinks that allow you to drill down to the chart ID or patient encounter in the BIS.

Table 7 - Baby Friendly Initiative Report Descriptions

Report Name	Description
Baby-Friendly Initiative Indicator Status - Comparison	Includes BFI data for your hospital as well as comparator hospitals, LHINS, and the province.



Report Name	Description
Baby-Friendly Initiative Statistics	<p>BFI Indicators in a Summary table including:</p> <ul style="list-style-type: none"> • Distribution of live births by gestational age and baby transfer after birth • Proportion of infant feeding type from birth to discharge • Distribution of breast milk substitute for medical or non-medical reasons • And distribution of type of feeding at discharge by type of birth and parity
Baby-Friendly Initiative Indicator Summary Report	<ul style="list-style-type: none"> • Convenient one page summary showing data in graph-form over time. • A line graph compares breastfeeding initiation rates, exclusive breastfeeding rates (or fed human milk) and adjusted breastfeeding rates • A bar graph compares supplementation rates with and without medical reasons.

Formula Supplementation with Intention to Breastfeed Report

What is it?

- In January 2021, Key Performance Indicator (KPI) # 3 from the Maternal Newborn Dashboard was updated to align with the above BFI reports. The original KPI 3 data has been restructured into this new report.

Why use it?

- This report identifies rate of formula supplementation from birth to discharge in term infants whose mothers intended to exclusively breastfeed, by reason for supplementation, hospital of birth and comparator groups.

Table 8 - Formula Supplementation Report Description

Report Name	Description
Formula Supplementation with the Intention to Breastfeed	<p>Provides :</p> <ul style="list-style-type: none"> • Rate of formula supplementation from birth to discharge in term infants whose mother intended to exclusively breastfeed, by reason for supplementation and hospital of birth • Comparators include similar levels of care and similar birth volume hospitals as well as Ontario



Report Name	Description
	Links from hospital chart numbers to the respective patient profiles are also provided

Robson Cesarean Section Monitoring Report

What is it?

- This report is based on the Robson Classification System – a standard classification system that divides women into 10 mutually exclusive, but totally inclusive classification categories for cesarean section.

Why use it?

- The Robson Report identifies the most important contributors for caesarean rates. It allows you to monitor cesarean rates and evaluate the impact of changes in management that may alter these rates.

Table 9 - Robson Cesarean Section Monitoring Report Description

Report Name	Description
Robson Cesarean Section Monitoring Report	Provides: <ul style="list-style-type: none"> • Distribution of type of delivery, by hospital of birth and other same-level-of-care hospitals • Rate of cesarean section, by Robson Classification Groups • List of maternal records for each group • List of maternal records and associated data values that meet the criteria for one of BORN's key performance indicator - KPI 4: Elective Repeat Cesarean Section (ERCS) <39 weeks • Links from hospital chart numbers to respective patient profile for review

VBAC Quality Standard Report

What is it?

- This report includes frequencies and percentages for all BORN specific indicators referenced in the VBAC Quality Standard. Individuals who are: **eligible** for VBAC, **plan** a VBAC, **have** a planned elective repeat cesarean birth, **attempt a VBAC**, have a **successful VBAC**, experience **uterine rupture**, and **infants admitted to NICU/SCN born to individuals who attempt/do not attempt VBAC**.

Why use it?

- This report has been developed for the VBAC QS to help facilitate hospitals monitoring the indicators. The report includes same level of care, same birth volume and provincial comparators.



Table 10 - VBAC Quality Standard Report Description

Report Name	Description
VBAC Quality Standard Report	<p>Indicator 1: Percentage of pregnant individuals who are eligible for a VBAC among all pregnant individuals who have had one previous cesarean birth</p> <p>Indicator 2: Percentage of eligible pregnant individuals who plan a VBAC</p> <p>Indicator 3: Percentage of eligible pregnant individuals who have a planned elective repeat cesarean section (ERCS)</p> <p>Indicator 4: Percentage of eligible pregnant individuals who attempt a VBAC</p> <p>Indicator 5: Percentage of pregnant individuals who have a successful VBAC among eligible pregnant people who attempted a VBAC</p> <p>Indicator 6: Rate of uterine rupture per 1,000 attempted VBACs</p> <p>Indicator 7: Percentage of infants who are admitted to SCN/NICU among infants born to individuals who were eligible and attempted a VBAC compared to those who were eligible and did not attempt a VBAC</p>

Data Download Reports (Raw exported data for multiple patients)

Encounter Lists

What are they?

- These lists provide a spreadsheet view of every data element for every client for a particular encounter (within a selected date range).

Why use them?

- If you need information that is not available in one of our Maternal Newborn Reports, you may be able to find it by exporting this list to Excel and applying filters. Note that these reports do not provide a patient/client experience perspective as they are encounter specific.

Table 11 - Encounter List Report Descriptions

Report Name	Description
Encounter List Antenatal General	<ul style="list-style-type: none"> • Lists all maternal records (within selected date range) with Antenatal General encounter data. Includes:

Report Name	Description
	<ul style="list-style-type: none"> ○ Demographic identifiers ○ Maternal health conditions ○ Pregnancy history
Encounter List Birth Child	<ul style="list-style-type: none"> ● Lists child records (within selected date range) with Birth Child encounter data. Includes: <ul style="list-style-type: none"> ○ Demographic identifiers ○ Birth details ○ Health conditions ○ Outcomes and transfer details
Encounter List Labour-Birth	<ul style="list-style-type: none"> ● Lists all maternal records (within selected date range) with Labour Mother encounter data. Includes: <ul style="list-style-type: none"> ○ Demographic identifiers ○ Admissions and transfers ○ Maternal health conditions and pregnancy history ○ Birth details and outcomes
Encounter List NICU	<ul style="list-style-type: none"> ● Lists all infant records (within selected date range) with NICU encounter data. Includes: <ul style="list-style-type: none"> ○ Demographic identifiers ○ Birth and transfer details ○ Resuscitation ○ Therapies/interventions ○ Feeding ○ Discharge/transfer details
Encounter List Postpartum Child	<ul style="list-style-type: none"> ● Lists all child records (within selected date range) with Postpartum Child encounter data. Includes: <ul style="list-style-type: none"> ○ Demographic identifiers ○ Postpartum details ○ Health conditions ○ Screening



Report Name	Description
	<ul style="list-style-type: none"> ○ Outcomes ○ Transfer/discharge details
Encounter List Postpartum Mother	<ul style="list-style-type: none"> ● Lists all maternal records (within selected date range) with Postpartum Mother encounter data. Includes: <ul style="list-style-type: none"> ○ Demographic identifiers ○ Maternal health conditions ○ Pregnancy history ○ Postpartum details ○ Outcomes ○ Transfer/discharge details

Patient Experience Reports

What are they?

- These lists provide a spreadsheet view of data elements for the full patient experience, which includes **All** encounters for the maternal and infant records.

Why use them?

- These reports include every data element collected across the full patient/client experience. If you need information that is not available in one of our Maternal Newborn Reports, you may be able to find it here by exporting this list to Excel and applying filters.

Table 12 - Patient Experience Report Descriptions

Report Name	Description
Infant Patient Experience List	<ul style="list-style-type: none"> ● Lists all infant records (within selected date range) and includes every element from: <ul style="list-style-type: none"> ○ The Birth Child encounter ○ The Postpartum Child encounter
Maternal Patient Experience List	<ul style="list-style-type: none"> ● Lists all maternal records (within selected date range) and includes every element from: <ul style="list-style-type: none"> ○ The Labour Birth Mother Encounter ○ The Postpartum Mother encounter

Within-Record Reports (Summary of a single patient record; accessed **within** the clinical record)

Encounter Summary Reports

What are they?


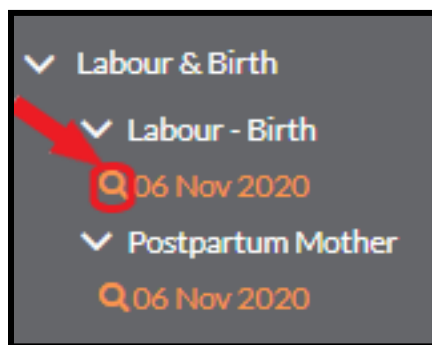
- These encounter specific summaries are located in the patient record in the BIS. Access them by clicking on the magnifying glass next to the encounter date along the left side of the screen 

Figure 2 - Encounter Summary Report Location



Why use them?

- To print a summary of a specific encounter for a patient.

Table 13 - Encounter Summary Report Descriptions

Report Name	Description
Encounter Summary – Labour Birth Mother	Overview of the Labour Birth Mother encounter for a single maternal record.
Encounter Summary – Postpartum Mother	Overview of the Postpartum Mother encounter for a single maternal record.
Encounter Summary – Birth Child	Overview of the Birth Child encounter for a single infant record.
Encounter Summary – Postpartum Child	Overview of the Postpartum child encounter for a single infant record.
Encounter Summary – NICU	Overview of the NICU encounter for a single infant record.



Figure 3 - Encounter Summary Report – Postpartum Mother

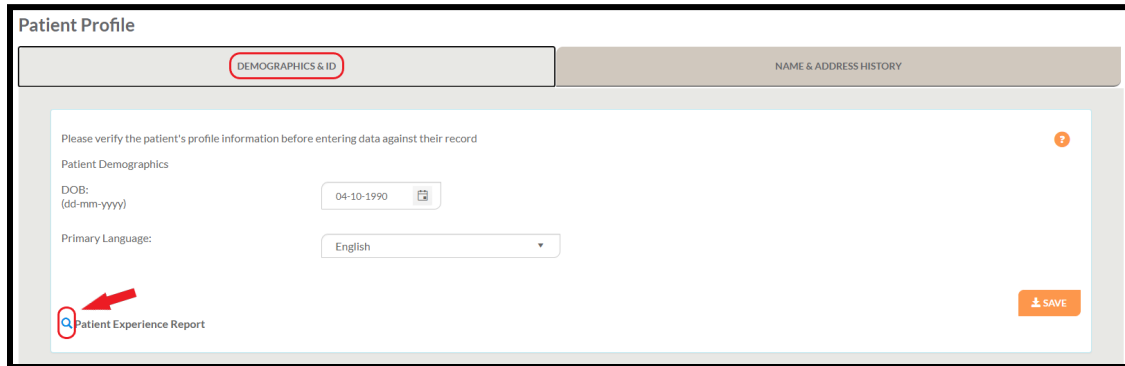
BORN		Postpartum Mother Summary	
Patient: Mom1 Test		Organization:	
Date: 30-Oct-2020		Chart #:	
Status: Submitted			
Profile			
OHIP:	2020103004	Postal Code:	K1T4C9
DOB:	04-Oct-1990	City:	OTTAWA
Sex:	Female	Gravida:	1
P:	0	T:	0
L:	0	A:	0
Summary			
Was the patient admitted to this organization for Postpartum Care only? (The birth did not occur at the admitting hospital.)		N	
Admission Date:	30-Oct-2020		
Admission Time:	06:00		
Postpartum Complication:	None		
Breastfeeding Education & Support provided:	N		
Type of Breastfeeding Education & Support:			
Reasons Breastfeeding Support not provided:	Not applicable		
Healthy Baby Healthy Children (HBHC) Screen:	Completed		
Reason HBHC screen not sent to PHU:			
Maternal Outcome:	Discharged Home		
Maternal Transfer to:			
Reason for Maternal Transfer:			
Maternal Discharge / Transfer Out / Death Date:	30-Oct-2020		
Maternal Discharge / Transfer Out / Death Time:	12:00		

Patient Experience Reports

What are they?

- These patient/client experience reports are found on the demographics tab for a maternal client only. They combine information from **All** encounters for a single maternal or infant client.
- These reports are for internal hospital use – if you'd like a printable discharge summary for families, see the **Profile at Discharge** reports.
- Access the report by clicking on the magnifying glass icon inside the patient profile demographics tab.

Figure 4 – Patient/Client Experience Report Location



Why use them?

- Provides a comprehensive overview of all encounters for one patient.
- To print these reports, you must export them to Microsoft Word or PDF.

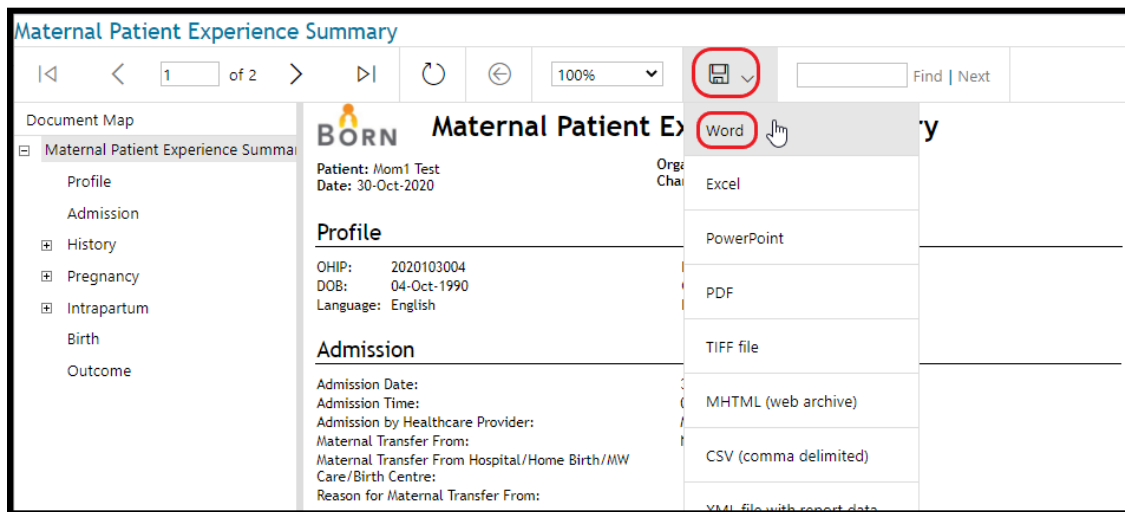
Table 14 - Patient Experience Report Descriptions

Report Name	Description
Maternal Patient Experience Summary	<ul style="list-style-type: none"> • Summary of all maternal encounters for a single patient and includes: <ul style="list-style-type: none"> ○ Admission details ○ Health and obstetrical history ○ Pregnancy exposures and complications ○ Labour and Birth information ○ Maternal outcome ○ Discharge details • Found on the demographics tab of the maternal record
Infant Patient Experience Summary	<ul style="list-style-type: none"> • Summary of all infant encounters for a single patient and includes: <ul style="list-style-type: none"> ○ Demographics ○ Birth information ○ Newborn status ○ Screening and tests ○ Infant feeding ○ Discharge/transfer details



Report Name	Description
	<ul style="list-style-type: none"> Found on the demographics tab of the infant record

Figure 5 - Maternal Patient/Client Experience Summary Report



3. Dashboard Reports

What are they?

- These Dashboards are innovative online audit and feedback tools designed to help you identify where evidence based practice is occurring and where there is room for improvement.
- These report shows your hospital's performance for six key Maternal Newborn and two key NICU performance indicators (KPIs) with well-defined benchmarks. Only acknowledged data is reflected in the dashboards.
- Comparators include similar level of care and similar birth volume hospitals as well as Ontario data for the KPIs. Links from hospital chart numbers to the respective patient profiles are also provided.

Why use them?

- These tools helps you monitor performance within your organization, identify evidence practice gaps and initiate change to enhance quality care.

Table 15 - Dashboard Reports

Report Name	Description
Maternal Newborn Dashboard	Includes 6 Key Performace Indicators: <ol style="list-style-type: none"> 1. Proportion of newborn screening samples that were unsatisfactory for testing

Report Name	Description
	<ol style="list-style-type: none"> 2. Rate of episiotomy in women who had a spontaneous vaginal birth 3. Adjusted Breastfeed Rate (ABR): Rate of infants who were exclusively breastfed from birth to discharge plus those infants supplemented with documented medical indication(s) 4. Proportion of women with a cesarean section performed from ≥ 37 to < 39 weeks' gestation among low-risk women having a repeat cesarean section at term 5. Proportion of women who delivered at term and had Group B Streptococcus (GBS) screening at 35-37 weeks' gestation 6. Proportion of women who were induced with any indication of post-dates and were less than 41 weeks' gestation at delivery <p>Also includes: KPI Sub-reports: a list of maternal records and associated data values that meet or are missing the criteria for the six key performance indicators. Links from hospital chart numbers to the respective patient profile are also provided.</p>
NICU Dashboard	<p>Includes 2 key performance indicators:</p> <ol style="list-style-type: none"> 1. Rate of primary NICU admissions of inborn infants ≥ 35 weeks' gestation receiving "Air" as the initial gas used during resuscitation (in the first 30 minutes of life). 2. Rate of normal infant temperature (36.5 to 37.5 C inclusive) on primary admission to NICU for inborn infants (excluding 'Therapeutic Hypothermia.').



Appendix A: BIS Reporting FAQs

Q1. What data quality management reports do I use to help verify and acknowledge data?

1. **Reconciliation Reports:** Maternal Newborn and NICU
 - Reconcile all admissions, births and dispositions with daily census report or other health record reports
 - Hospitals with high daily birth volumes may run reports daily whereas sites with low birth volumes may choose weekly or monthly
 - **Goal:** To capture 100% of admissions and births in a timely manner.
2. **Incomplete Reports:** Incomplete Infant Record, Incomplete Maternal Record and Incomplete NICU report
 - Confirm total number of admissions/births and disposition types
 - Create encounters that were missed
 - Submit encounters that are in draft
 - Correct discrepancies
 - **Goal:** To ensure data capture is complete and accurate.
3. **Missing Data Reports**
 - Identify missing (i.e. unknown data):
 - >30% missing → Data is not reliable and should not be analyzed
 - > 10-30% missing → Use caution when interpreting data
 - 5-10% missing → Good progress! Aim for <5%
 - Need to question why data is missing and find a solution; identify root cause of issue
 - Compare your data capture with other organizations
 - Showcase your own success and learn from others
 - Develop data quality improvement initiatives.
 - **Goal:** Missing/unknown data should be less than 5% to increase confidence in analysis

Q2. What does '% Valid' refer to in the Key Indicator reports?

The '% Valid' column excludes records with any missing (i.e. entered as 'unknown') data for the denominator used to calculate these percentage values, as described in the footnotes for each Key Indicator table. Missing data reduces the validity of the data reported.

Q3. If I modify data in records for a month that has already been acknowledged, do I have to re-acknowledge the data for this month?

The short answer = NO.

The purpose of acknowledging data for submission is to notify BORN that the data entered for a given time period is complete and accurate. If you make changes to data that has already been



acknowledged, it will be assumed that changes made to data are complete and have been verified. Thus the user does not need to re-acknowledge the data for this time period.

Changes made to data after it has been acknowledged will be reflected in BIS reports. Of note, there is a time stamp on every BIS data entry activity should anyone need to investigate the changes made to data collected. This allows BORN to conduct required audit activities for our privacy role and to track changes made relative to the acknowledgement process.

Q4. Which reports display Cesarean Section rates?

Once the data has been verified and acknowledged, the following BIS Clinical reports can be generated to examine Cesarean Section rates:

1. Key Indicator - Maternal Summary
 - Type of birth
 - Type of CS
 - Previous CS
2. Profile of Birth - Birth/Mother (includes comparators)
 - Type of birth
 - Planned vs. Unplanned CS
 - Primary vs. Repeat CS
3. Maternal Newborn Dashboard
 - Key Performance Indicator 4: Elective Repeat CS in low risk women at term performed prior to 39 weeks gestation
4. Robson Cesarean Section Monitoring
 - Cesarean sections categorized using Robson classification
5. Maternal Patient Experience
 - Report can be used to filter and examine records for women who had a CS
6. VBAC Quality Standard Report
 - This report includes Individuals who are: **eligible** for VBAC, **plan** a VBAC, **have** a planned elective repeat cesarean birth, **attempt a VBAC**, have a **successful VBAC**, experience **uterine rupture**, and **infants admitted to NICU/SCN born to individuals who attempt/do not attempt VBAC**.



Q5. Why might there be differences in denominator values between Administrative and Clinical reports?

There is a one day lag for Clinical Report data to be updated in the BORN Information System, whereas Administrative data is updated in real-time.

Q6. Why are quarterly and yearly values sometimes blank in certain reports?

Data can only be reported for quarters or fiscal years that are complete. For example, quarterly values for comparator data are not reported in the *Maternal Newborn Dashboard* report as there is a requirement for three months of data to be acknowledged on the dashboard landing page, whereas, the maternal dashboard report only requires data to be acknowledged on a monthly basis. To safeguard against differences in reported values, quarterly values for comparator data are not displayed in the dashboard report.

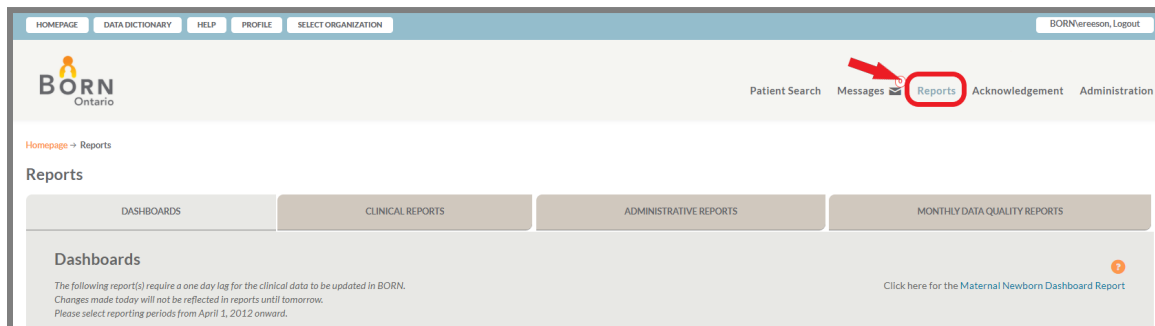
Q7. For the Maternal Newborn Dashboard report, why are values only being populated for Key Performance Indicator (KPI) 1 – Newborn Screening Unsatisfactory Samples, but rates for all other KPI values are blank?

KPI 1 Data is reported by Newborn Screening Ontario (NSO). This is independent of hospital data acknowledgement for other KPI'S (2-6) which require that the three previous months of data, allowing for a one month lag, be acknowledged for submission. That is why you will always see a colored dot for KPI 1 while others may be "greyed out".

Appendix B: How to access, run and print reports

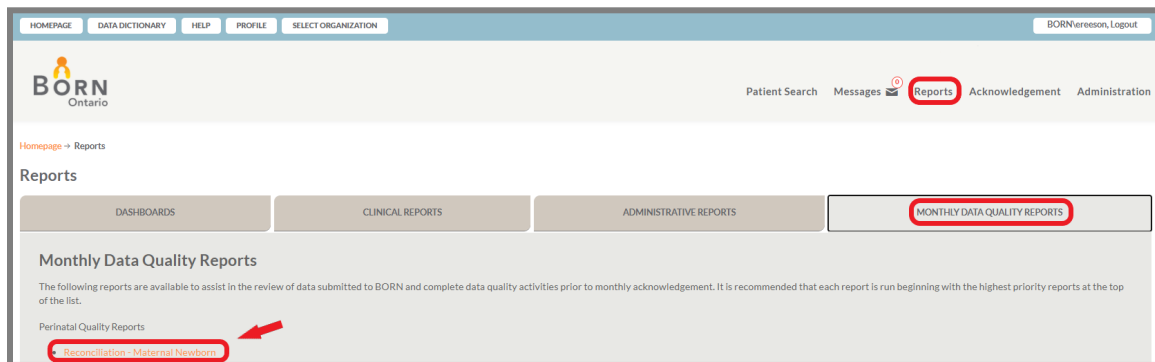
How to access reports:

1. Login to the BORN Information System (BIS). Select **'Reports'** in the top menu.
2. Select the type of report you wish to run, either **'Dashboard Reports,' 'Clinical Reports,' 'Administrative Reports'** or **'Monthly Data Quality Reports'**.



How to run a report:

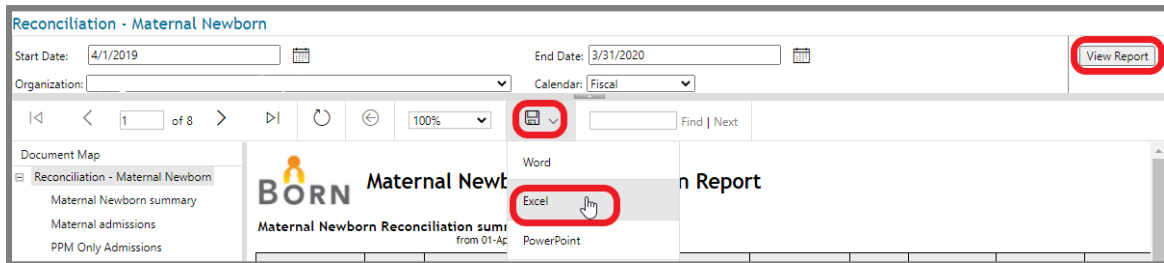
1. Then select the specific report you wish to run, from within the type of report you have selected. Shown here: Monthly Data Quality Reports (type of report), Reconciliation – Maternal Newborn (specific report within Monthly Data Quality Reports)



2. A new window will open. Select the date range you would like to run the report for (eg fiscal year April 1, 2019 to March 31, 2020) and click 'View Report.' Once it is run, we recommend exporting it to Excel by selecting the floppy disk icon in the center of the top section



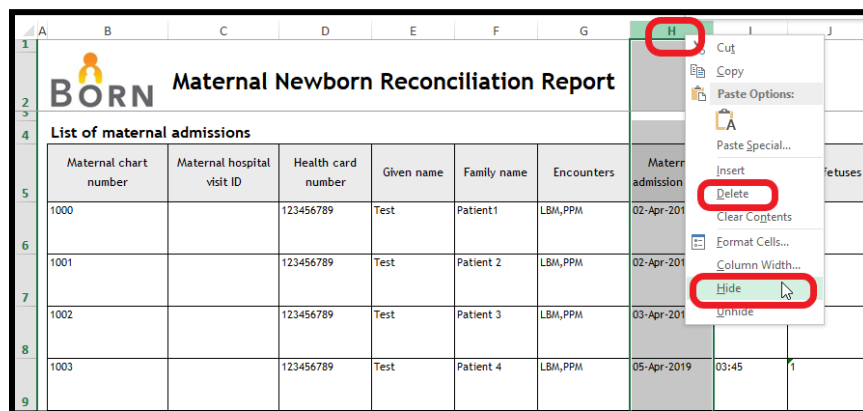
How to export to Microsoft Excel



If you want to print this report - how to hide columns and rows in excel:

When printing in Excel, most reports will need adjustment so that they fit perfectly on a page.

1. Hide any unnecessary columns or row from your table by right clicking on the letter cell and select 'Delete' or 'Hide.'



2. Decrease column widths by right clicking on the letter cell and selecting 'Column Width...'. Manually adjust column widths by dragging the rightmost line of the cell to the desired width. Repeat all of the above steps for rows.

How to use page –break preview to set a print area

1. As an alternative to hiding and/or deleting columns or rows, you can go to the 'View' screen and select 'Page-break preview' to set a print area
2. Drag the page-break lines to choose which area you would like to print



How to use the Page Break Preview

List of Courses of Care Report

List of courses of care (CoC)
Courses of care records with estimated date of birth between 18-Dec-2012 to 18-Dec-2020

MPG #	Client #	OHIP	Last Name	First Name	Booking Date	EDB	Pregnancy Outcome	Number of fetuses	Link to fetuses	Birth date	Birth location type	Billable type	Date of discharge from	Sent to MIS date
1000	3252-1	1000000000	Test	Baby Girl	15-Nov-2012	16-Jun-2021	Live birth	1	1	02-Jun-2021	Hospital	Yes-12 weeks of care and/or midwife attended birth	25-Jul-2016	15-Nov-2017
1000	456789	1000000000	Test	Baby Girl	17-Dec-2020	21-Jun-2021	Live birth	1	1	31-May-2021	Home	Yes-12 weeks of care and/or midwife attended birth	05-Jun-2016	06-Jun-2016
1000	454545	1000000001	Test	Baby Boy	13-Jun-2020	01-Dec-2020	Live birth	1	0	02-Dec-2020	Hospital	Yes-12 weeks of care and/or midwife attended birth	20-Dec-2016	20-Dec-2016

How to print a report in Excel

Click on 'File' and then 'Print.' To choose a smaller print area, select the cells that you want by clicking on one corner and dragging your cursor to highlight the cells you would like to print.

List of Courses of Care Report

List of courses of care (CoC)
Courses of care records with estimated date of birth between 18-Dec-2012 to 18-Dec-2020

MPG #	Client #	OHIP	Last Name	First Name	Booking Date	EDB	Pregnancy Outcome	Number of fetuses	Link to fetuses	Birth date	Birth location type	Billable type	Date of discharge from	Sent to MIS date
1000	2528-1	1000000000	Test	Baby Girl	25-Nov-2020	16-Jun-2021	Live birth	1	1	02-Jun-2021	Hospital	Yes-12 weeks of care and/or midwife attended birth	25-Jul-2016	15-Nov-2017
1000	456789	1000000000	Test	Baby Girl	17-Dec-2020	21-Jun-2021	Live birth	1	1	31-May-2021	Home	Yes-12 weeks of care and/or midwife attended birth	05-Jun-2016	06-Jun-2016
1000	454545	1000000001	Test	Baby Boy	13-Jun-2020	01-Dec-2020	Live birth	1	0	02-Dec-2020	Hospital	Yes-12 weeks of care and/or midwife attended birth	20-Dec-2016	20-Dec-2016



Appendix C: Complete List of Indicators for Select Reports

Table 16 - Complete List of Indicators for Select Reports

Report Name	Complete List of Indicators
Key Indicator Report - Infant Summary	<ul style="list-style-type: none"> • Multiple Gestation • Gestational age at birth • Birth weight • Apgar 1 • Apgar 5 • Newborn Resuscitation • Delayed cord clamping • Hyperbilirubinemia treatment • Newborn birth complications • Neonatal health conditions • Infant early attachment • Reason for no skin-to-skin • Baby positioned to breastfeed • Breastfeeding behaviour observed • Newborn feeding from birth to discharge • Arterial cord status • Arterial cord pH • Arterial cord base excess/deficit • Hearing screening • Confirmed congenital anomalies • Transfers to NICU • Final neonatal disposition • Length of stay
Key Indicator – Maternal Summary	<ul style="list-style-type: none"> • Month end acknowledgement summary • Denominator totals • First trimester visit • Prenatal education • Preexisting health conditions • Mental health conditions • Pregnancy related complications • Diabetes and pregnancy • Hypertensive disorder of pregnancy • Infections and pregnancy • GBS screening • Alcohol exposure • Drug and substance exposure

Report Name	Complete List of Indicators
	<ul style="list-style-type: none"> • Cannabis exposure • Antenatal exposure to medications • Maternal smoking at time of newborn’s birth • Fetal surveillance • Type of labour • Pharmacologic pain management • Supportive care • Labour and birth complications • Type of birth • Type of caesarean section • Previous caesarean section • Provider caught baby • Forceps/vacuum • CS anesthesia • Multiple gestation • Intention to breastfeed • Postpartum breastfeeding education and support • HBHC screening • Maternal outcome • Maternal primary language • Domestic/Intimate partner violence
Profile of Birth Report – Demographics	<ul style="list-style-type: none"> • Number of women who gave birth, by hospital and LHIN of birth • Number of total births, by hospital and LHIN of birth • Distribution of location of birth, by hospital and LHIN of birth • Distribution of live births and stillbirths, by hospital of birth and other similar birth volume hospitals • Distribution of maternal age, by hospital and LHIN of birth • Distribution of parity, by hospital and LHIN of birth • Distribution of maternal primary language, by hospital and LHIN of birth
Profile of Birth – Pregnancy	<ul style="list-style-type: none"> • Pre-pregnancy body mass index (BMI), by hospital and LHIN of birth • Preexisting health conditions (outside of pregnancy), by hospital of birth and other same level of care hospitals

Report Name	Complete List of Indicators
	<ul style="list-style-type: none"> • Obstetrical complications during pregnancy, by hospital of birth and other same level of care hospitals • Gestational diabetes, by insulin-dependence, hospital of birth and other same level of care hospitals • Maternal hypertensive disorders of pregnancy, by hospital and other same level of care hospitals • Mental health concerns during pregnancy, by hospital of birth and other same level of care hospitals • Group B Streptococcus (GBS) screening among women who delivered at ≥ 37 weeks of gestation, by hospital of birth and other same level of care hospitals
Profile of Birth – Birth Mother	<ul style="list-style-type: none"> • Type of admitting health care provider • Type of attending health care provider who caught/delivered baby • Type of birth: type of birth (vaginal vs. cesarean) • Type of vaginal birth (assisted vs. spontaneous) • Assisted vaginal birth (forceps, vacuum) • Vaginal birth after cesarean • Planned vs. Unplanned cesarean • Type of labour (induced vs. spontaneous) • Primary cesarean vs. Repeat cesarean • Rate of episiotomy or 3rd/4th degree perineal laceration • Pain management in vaginal live birth • CS by anesthesia • Intrapartum complications