



BORN Information System

Description

The Better Outcomes Registry & Network (BORN) is Ontario's prescribed maternal, newborn and child registry with the role of facilitating quality care for families across the province. BORN collects, interprets, shares and rigorously protects high-quality data essential to making Ontario the safest place in the world to have a baby.

The BORN Information System (BIS) is a database established to collect, manage, protect and share critical data about every pregnancy, birth and child in Ontario.

Data Source(s) Table

Original Source: Better Outcomes Registry Network (BORN) Ontario
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Suggested Citation (see Data Citation Notes) Better Outcomes Registry Network (BORN) Ontario. [Report Name]. BORN Information System [month, year - month, year], Extracted: [month, year]. E.g. Better Outcomes Registry Network (BORN) Ontario. Newborn Standard Report. BORN Information System April, 2023 – April, 2024, Extracted: May, 2026.

Related OPHS Standards

This section cross-links the indicator to related Core Indicators products, by listing all OPHS standards where this data source would be used; these will be linked to the appropriate OPHS Standard pages.

Healthy Growth and Development

Data Notes

Background

BORN Ontario is a provincial program funded by the Ontario Ministry of Health (MOH) and supported by CHEO (The Children's Hospital of Eastern Ontario) that was established in 2009 to:

- Facilitate and improve care for pregnant individuals, children and youth by linking information and providers to address care gaps spanning the spectrum from normal to high acuity and rare conditions;

- Be an authoritative source of accurate, trusted and timely information to monitor, evaluate and plan for the best possible beginnings for life-long health;
- Provide scientific and technical leadership for Ontario's maternal, child and youth health system through the support of research and innovation;
- Mobilize information and expertise to optimize care and contribute to a high-performing healthcare system, improving the lives of pregnant individuals and children.

The five founding members of BORN (Fetal Alert Network (fetal and congenital anomalies), Prenatal Screening Ontario, Niday Perinatal & NICU/SCN Database, Ontario Midwifery Program, Newborn Screening Ontario) have integrated their data into one accurate and timely maternal-child registry to form the authoritative information system. The BORN Information System (BIS) provides access to real-time population-based pregnancy and child health data to organizations and practice groups providing health care to pregnant individuals and children in Ontario, including: hospitals, midwives, labs and treatment/follow-up centers, pediatric diabetes education programs and fertility clinics.

The new BIS was launched in January of 2012 and operates on a secure, web-based platform administered by the Children's Hospital of Eastern Ontario (CHEO). Over 100 hospitals and 84 midwifery practice groups contribute data to the BIS capturing all births in Ontario. With the addition of the Midwifery encounter in 2012, all home births attended by midwives are now in the system as well.

The information supports the MOHLTC, the Provincial Council for Maternal and Child Health (PCMCH), Ontario Health Regions and Networks and Public Health Units (PHUs) of Ontario in measuring maternal-child health status and outcomes, developing responsive health policies, and improving evaluation and accountability.

BORN Data Structure and Specifics

- Specific information is collected for each patient encounter, which is integrated across the continuum of care for the pregnant individual and infant. Please see the BORN Data Dictionary for a list and description of data elements captured in the BORN database: [Data Dictionary | BORN Ontario](#)
- Maternal encounters include: assisted reproduction, prenatal screening, prenatal screening follow-up, labour and birth and postpartum. Infant encounters include: birth child, postpartum child, newborn screening, NICU/SCN (Neonatal ICU/Special Care Nursery), and NICU follow-up. The system architecture was designed to allow for new encounters to be added as new data sources are identified.
- Information collected for the labour and birth encounter includes pregnant individual demographics and health behaviors; pre-existing health problems; obstetric complications; intrapartum interventions and birth outcomes. When a pregnant individual is admitted to hospital to give birth, data are collected by health care providers and hospital staff from charts, clinical forms and patient interview, and subsequently entered into the database either through a secure website by hospital staff, or uploaded directly from hospitals that have electronic record capability. An ongoing program of data verifications, quality checks, and formal training sessions for individuals collecting and entering data assures a high level of data quality is maintained.

Working with BORN Data

- The BORN database is a web interface that includes both data entry and reporting system called the BORN Information System (BIS). The reporting system is comprised of a variety of data reporting tools including: clinical dashboards, standard reports and analytical cubes.

- Clinical dashboards display outcomes for key performance indicators from maternal-newborn care settings.
- Standard reports are designed to assist clinical programs and practice groups to examine their performance, outcomes and utilization, and to assist with planning. These reports are meant to be generated from the system on a regular basis (monthly, quarterly or annually) and will have drill down capability when further information is required, as well as display comparator values.
- Analytic Cubes have been developed to enable users to perform custom queries of the BORN data. Users with access to these cubes can manipulate data to answer specific questions.
- Access to the BORN reporting system is based on status as a Health Information Custodian (HIC), and various levels of access can be given based on an individual's clearance to see personal health information. BORN data is available to PHUs by custom request and through the BORN Ontario reporting environment as Standard Reports and the Public Health Analytics Cube. The Standard Reports include three groupings: 1) Pregnancy (e.g. age group, parity, prenatal education, pre-pregnancy body mass index (BMI), etc.), smoking during pregnancy), 2) Birth (e.g. number of births, location, etc.), and 3) Newborn (e.g. preterm, multiple, birth weight, congenital anomalies, infant feeding at discharge). Tables and graphs provide information for the health unit, comparator group (if applicable) and Ontario. The Public Health Analytics Cube allows users to drill down to more specific information for their health unit.
 - For a custom data request, please submit the request form available on the following site: <http://www.bornontario.ca/en/data/data-requests/>
 - If you are working in a Public Health Unit in Ontario and would like to gain access to either the BORN Ontario standard reports or the public health analytics cube, please contact privacy@bornontario.ca for details on the requirements.

Analysis Checklist

General Checklist for All Associated Indicators

- BORN data are available to PHUs by custom request and through the BORN Ontario reporting environment as Public Health Standard Reports and the Public Health Unit Analytical Reporting Tool (cube). All users are required to sign a data sharing agreement and adhere to strict privacy and security measures.
- Refer to the Using BORN Ontario Data for Public Health Surveillance – User Guide and the BORN Information System (BIS) resource (located in the HELP section of the BORN Information System under PHU) for more information about the data. The [BORN Data Dictionary](#) contains a list and description of data elements captured in the BIS.
- For key information used by the Reproductive Health Sub-Group (RHSG) in their revision of the reproductive health core indicators and accompanying resources, refer to the [Reproductive Health Core Indicators Document Report](#).
- Data from the Legacy Datasets (birth data prior to April 1, 2012) is available from BORN upon request. However, not all data elements available in BORN are available in the legacy datasets. Additionally, the smoking data element was not defined the same way as the corresponding data element in the BIS and may not give consistent results over time.

- Although the BIS was launched in April 2012, data may not be complete for some elements and geographical areas in that first year. It is recommended that analyses begin from the calendar year 2013.
- The BORN licensing agreement with health units does not require suppression of small cells; however, BORN recommends the suppression of cells five or less, although zero counts may be presented. This practice decreases the risk of re-identifying individuals. In general, caution should be used when reporting data at a level that could identify individuals (e.g., reporting at the dissemination area by maternal age).
- Aggregation (combining years, age groups, geographic levels, categories, or pick-list items) should be considered when dealing with small cell counts.
- Data in the Standard Reports represents all data that has been entered, submitted, and acknowledged into the BIS as of the date of extraction. Data in the PHU Analytics Cube is based on submitted data only. As such, the numbers are subject to change as organizations continue to submit, acknowledge, and fix errors in their data.
- The date of extraction must be included in the data source citation. The date of extraction is not automatically recorded when the user exports BIS data; the user must add it.
- For any analysis of the BIS, ensure that all (or most) hospitals and midwifery practice groups in your area have acknowledged their data. BORN aims to have all organizations acknowledge their data within 3 months of the fiscal year-end.
 - Every PHU standard report starts with a month-end data acknowledgement summary that can be used to verify the proportion of hospitals/midwife practice groups that have acknowledged their data in your area.
 - Please note: Midwife-attended hospital births must have acknowledgement from both the hospital AND the midwifery practice group in order for the month to show as acknowledged in the PHU acknowledgement report. Unacknowledged data does not necessarily mean that the data is missing, it has just not been signed off by the submitting organization.
- Caution should be taken when interpreting data, if the percentage of “missing data” for a particular data element is $\geq 10\%$. BORN Ontario recommends not reporting data if the missing data are $\geq 30\%$.
- In the Public Health Standard Reports, comparator data is provided for Ontario. This comparator is only available for six months prior to the date of extraction. The Ontario comparator includes all PHUs.

Additional Questions

If you have further questions about BORN data, please contact:

- Paula Morrison, Clinical Content Specialist, BORN Ontario pmorrison@bornontario.ca
- Shelby Huffman, Data Analyst, BORN Ontario shuffman@bornontario.ca

References

General References


- Website location: <https://www.bornontario.ca/>

Acknowledgements

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Revision History

This Core Indicator Product webpage is maintained by the [Reproductive Health Subgroup](#).

Date	Review Type	Author	Changes	PDF
June 16, 2014	Date of Last Revision	Reproductive Health Subgroup		 Adobe Acrobat Document
December 2, 2019	Website Update: No Content Review	Caitlyn Paiget, on behalf of the CIWG	Migrated to new website structure and format, including: <ul style="list-style-type: none"> • Reorganized content to provide high-level information at a glance, and move in-depth analytic information into dedicated sections for users to access when needed. • Added short data source description in header. • Moved Analysis Checklist items that are specific to the data source from the indicators pages to this data source page to reduce duplication. • Crosslinked to relevant Core Indicators webpages including OPHS program standard(s) and associated indicator(s). • Added Revision History table, with PDF copy of previous version for reference. 	
May 11, 2026	Date of Last Revision	BORN Ontario	<ul style="list-style-type: none"> • Reviewed and updated content • Reorganized content to updated website structure 	