



A GREAT TIME TO BE BORN.

2011 – 2012

BORN: BETTER OUTCOMES REGISTRY & NETWORK
PROGRAM REPORT

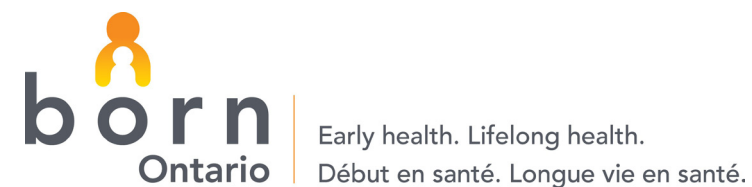


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Pilot Project

142,376

ONTARIO BIRTHS WERE CAPTURED IN THE BORN
INFORMATION SYSTEM IN 2011-2012.



BORN: ONTARIO'S PREGNANCY, BIRTH AND CHILDHOOD REGISTRY AND NETWORK

Established in 2009 to collect, share and rigorously protect critical data about each child born in the province, BORN Ontario manages an advanced registry that provides reliable, secure and comprehensive information on maternal and child care.

As pregnancies and births in Ontario are thoroughly documented, and because the clinical data collected are complete, professionals in every discipline within the health sector gain vital knowledge they can apply to improve the system.

The result is change that contributes directly to the well being of mothers, with positive and lasting effects on the health of newborns, children and the citizens of Ontario.

DIRECTOR'S MESSAGE

2011–2012 was an exciting year for the team at BORN Ontario. Focused on increasing our value to those who provide and use the data we gather and safeguard, we experienced remarkable growth in a number of areas:

- The Information Privacy Commissioner granted us prescribed registry status in October 2011, enabling us to collect pregnancy, birth and childhood data.
- The BORN Information System (BIS) went live April 1, 2012. Starting with a rigorous request for proposal (RFP) process, the system's two-year build involved 82 participants including staff, users, technology partners and trusted advisors.
- The BORN team grew with the addition of an epidemiologist, an analyst, a manager of health informatics, technology experts, a hosting partner, and me.

- New partnerships led to important ventures, such as the Ontario Antenatal Record parts 1 & 2 (A1A2) pilot project with eHealth Ontario (see page 20), and H1N1 research and publications with the Public Health Agency of Canada (PHAC) and the Canadian Institutes of Health Research (CIHR) (see page 20).

With these foundational elements in place, we turned our attention to the translation of raw data into information, knowledge and change. We conducted clinically relevant reporting, created performance dashboards and discharge reports, identified missed newborn screens and informed numerous quality improvement projects.

I'm extremely excited about other new tools and functionality we have in development to support mothers, children and health care providers across Ontario.

High quality maternal-newborn data are the building blocks in all our work, and we wish to express our sincere thanks to Ontario's hospitals, clinics, labs and midwifery practice groups for submitting that data, which is so valuable to them and those they care for. We also deeply appreciate the support of the Children's Hospital of Eastern Ontario (CHEO), Ontario's Ministry of Health and Long-Term Care (MOHLTC), eHealth Ontario, PHAC, the Provincial Council for Maternal and Child Health (PCMCH) and CIHR in enabling BORN to deliver on its vision of the *best possible beginnings for lifelong health*.



A handwritten signature in blue ink, appearing to read 'Mari Teitelbaum'.

Mari Teitelbaum
Director, BORN Ontario

BORN INFORMATION SYSTEM (BIS)

The BIS stores data on every birth and young child in the province. Every birthing hospital and midwifery practice in Ontario contributes data to populate more than 200 searchable elements in the system. BORN also receives data from prenatal screening laboratories, specialized antenatal clinics, newborn screening laboratories, prenatal screening and newborn screening follow-up clinics, and fertility clinics. The BIS receives nearly 3,000 data entries each day and captures more than 140,000 Ontario births each year.

BORN uses this data to:

- Support evidence-based decisions in maternal and infant care.
- Monitor maternal and perinatal system performance, including analyzing and identifying gaps in the delivery of maternal or perinatal services.

- Facilitate access to specialized care and treatment for women who have screened positive during their pregnancy for fetal anomalies and metabolic disorders.
- Ensure screening for these anomalies and metabolic disorders are offered to all women and babies.
- Provide advice to LHINs, hospitals, health care providers and MOHLTC on effective management and planning.

BORN continually develops and administers reports and analytic tools that provide users with meaningful data through the BIS. In 2012, 49 reports were available to system users for managing administrative data quality for clinical reporting purposes, including antenatal, maternal-newborn, newborn intensive care unit/special care nursery, and prenatal and newborn screening.

BIS ACTIVITY

TABLE 1

BIS Activity in 2012

TOTAL BIRTHS DOCUMENTED*	378,562
HOSPITALS SUBMITTING DATA	106
MIDWIFERY PRACTICE GROUPS PARTICIPATING	84
PRENATAL SCREENING LABS PARTICIPATING	5
REGISTERED USERS	4,776
AVAILABLE REPORTS	49

*April 1, 2010 to December 31 2012, with 2010–2012 Niday Legacy data

PRIVACY

In October 2011, Ontario's Information Privacy Commissioner granted BORN Ontario status as a prescribed registry under the *Personal Health Information Protection Act, 2004*. This status allows BORN to collect personal health information **without consent** to help facilitate and improve the provision of healthcare.

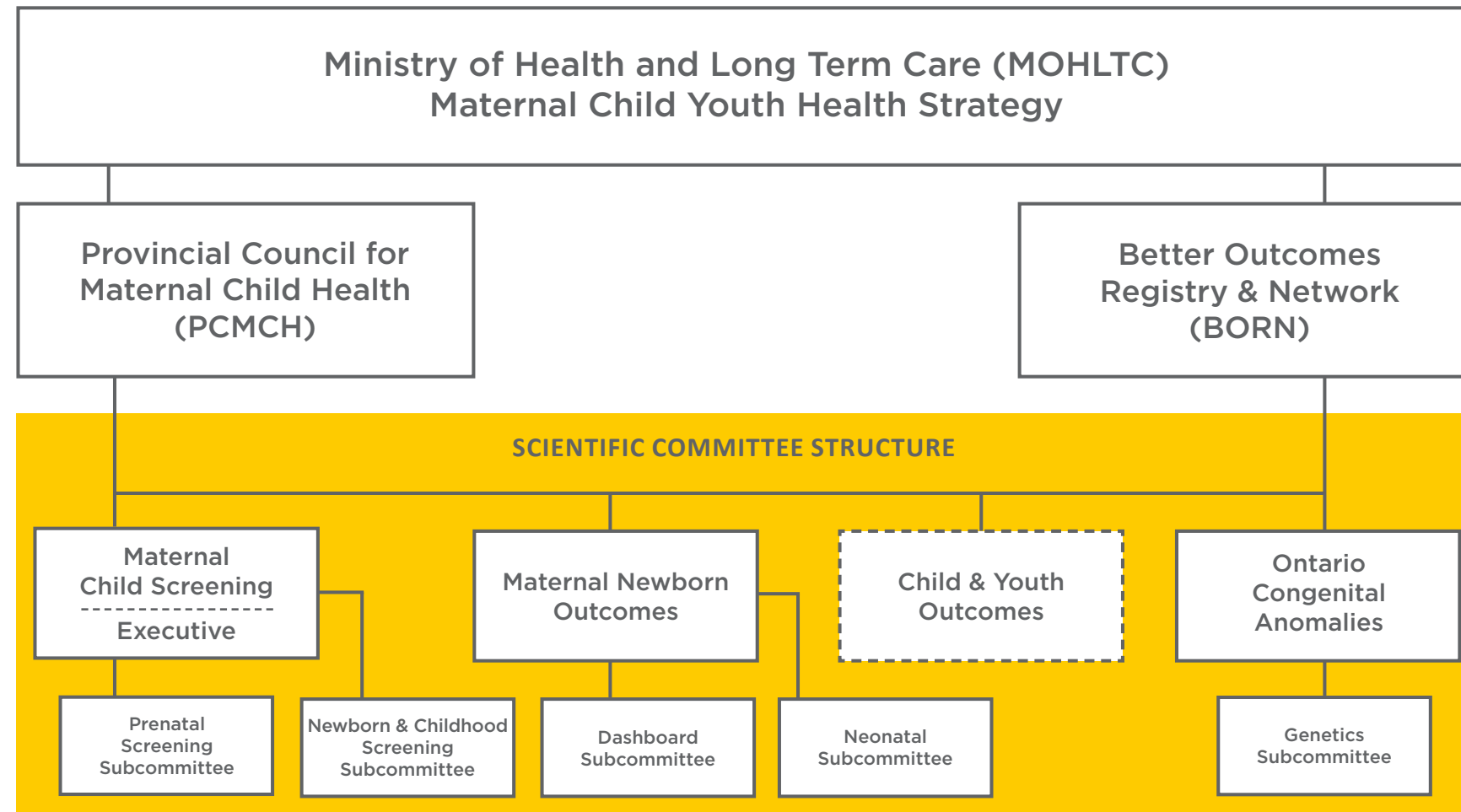
BORN recognizes the sensitive nature of the data we collect and the privacy of the individuals whose personal health information we receive. We invest carefully to ensure that their information is protected through a rigorous privacy and security infrastructure. We also work closely with the Information Privacy Commissioner of Ontario and other privacy experts to ensure that the information is used appropriately.

In 2013, BORN hired a new Privacy Officer, Heather Irwin, as well as a consultant Privacy Advisor, Carol Appathurai. BORN's privacy team is also supported by Dr Khaled El Emam of the Electronic Health Information Laboratory (eHIL) at CHEO.

ADVICE

BORN depends on expert advice to inform strategic direction, key projects and scientific output. Essential guidance is provided by the more than 50 scientific, technical and medical experts who serve on BORN's extensive network of eight committees and sub-committees.

COMMITTEE STRUCTURE



OPERATIONS

Under the leadership of Susan Richardson, Dr Mark Walker and Dr Pranesh Chakraborty, the BORN team includes the full range of expertise to deliver all aspects of its service at the highest quality. Epidemiologists, researchers, data analysts, coordinators, subject matter experts, and informatics, privacy and administration personnel are located across the province to ensure that BORN meets the needs of Ontarians in every region.

REPORT METHODOLOGY

This report presents maternal-newborn data primarily for births that occurred during the fiscal year 2011–2012 (April 1, 2011 to March 31, 2012); however, some indicators are presented across five fiscal years (April 1, 2007 to March 31, 2012).

The data source for this report is BORN Ontario. Historical Niday Perinatal data has been integrated in the BIS. Prenatal screening data for 2011–2012 was provided by Prenatal Screening Ontario; newborn screening data was collected from Newborn Screening Ontario as referenced throughout the report.

Data include hospital births to residents of Ontario only.¹ Hospital births attended by midwives are included in these analyses. Data on home births attended by midwives were provided by the Ontario Midwifery Program and are presented separately (see Table 1 and Figure 6). Maternal residence is assigned according to the May 2011 Postal Code Conversion File.

¹ Records for home births, and for births in Ontario hospitals to non-Ontario residents, were excluded unless otherwise stated.

This report presents descriptive statistics, expressed predominantly as proportions. No statistical tests have been conducted on these data; therefore, differences in estimates across subgroups or over time are not necessarily statistically significant and should be interpreted cautiously. To quantify the precision of the values (i.e., proportions) for indicators that are presented over a five-year period, 95% confidence intervals were calculated.

To evaluate the capture of births in the database, BORN compared the number of hospital births captured in the birth records with those captured in the Canadian Institute for Health Information’s Discharge Abstract Database (DAD). Table 2 shows the BORN figures expressed as a proportion of the DAD totals, including live births and stillbirths, over five fiscal years. It is important to consider that the number of hospital births recorded by BORN was based on the infant date of birth, whereas DAD based its totals on the dates infants were discharged from hospital in the given fiscal year. These variations in process for data collection can account for the number of births collected by BORN being greater than the number from DAD in 2011–2012.

In relation to graphs that present five-year trends in this report, consider also the expansion of BORN data collection activities during that period. Changes to the rate over time may be mainly due to improvements in data capture rather than temporal trends.

Records that were missing information for a particular indicator were excluded from analyses of that indicator. As a result, the effective denominator size used for analysis occasionally varied across graphs. Footnotes alert the reader when more than 10% but less than 30% of records for a particular estimate were missing information. Due to validity concerns, we excluded estimates for which 30% or more of records were missing information for that indicator. Footnotes clarify other aspects of data quality where needed.

ONTARIO BIRTHS

TABLE 2

Comparison of the number of hospital births from BORN and DAD Ontario, 2007–2008 to 2011–2012

TOTAL NUMBER OF ONTARIO HOSPITAL BIRTHS	FISCAL YEAR				
	2007–2008	2008–2009	2009–2010	2010–2011	2011–2012
BORN	136,980	139,278	138,775	137,278	139,386
DAD	144,240	142,896	141,514	138,988	138,975
% CAPTURED BY BORN	95.0%	97.5%	98.0%	98.8%	100.3%

43.3

PERCENT OF WOMEN WHO GAVE BIRTH
IN ONTARIO WERE FIRST-TIME MOTHERS.



PREGNANCY

FIRST TRIMESTER VISIT

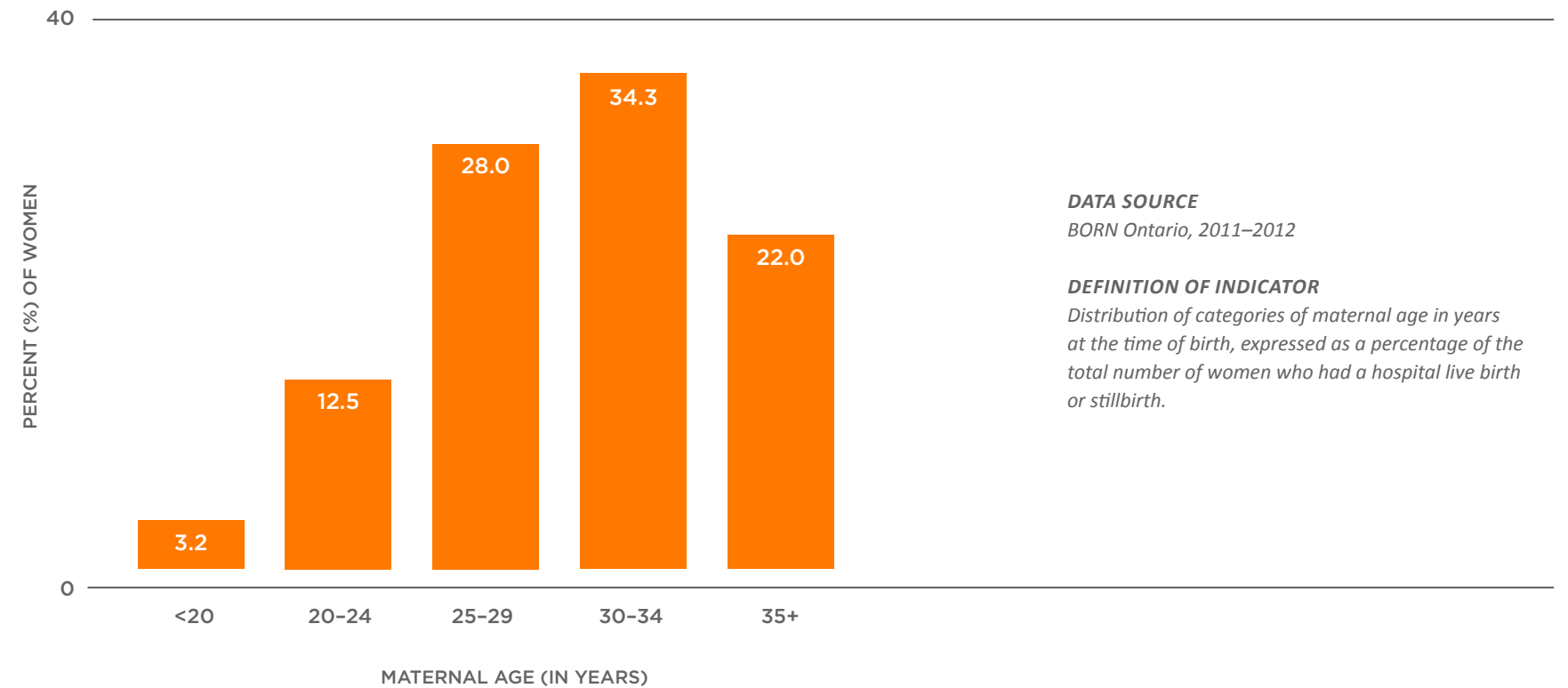
In 2011–2012, 86.0% of women attended an antenatal visit with a health care professional in their first trimester.² This proportion has been stable for five years. In 2007–2008, for example, 84.3% of women attended an antenatal visit in their first trimester.³

² 20.9% of records were excluded for missing data.

³ 29.9% of records were excluded for missing data.

MATERNAL AGE

FIGURE 1 Distribution of maternal age
Ontario, 2011–2012



In 2011–2012, the largest proportion of births (34.3%) was to women between the ages of 30 and 34.

During the same time period, 3.2% of births were to teenage women; 22.0% were to women 35 years of age or over.

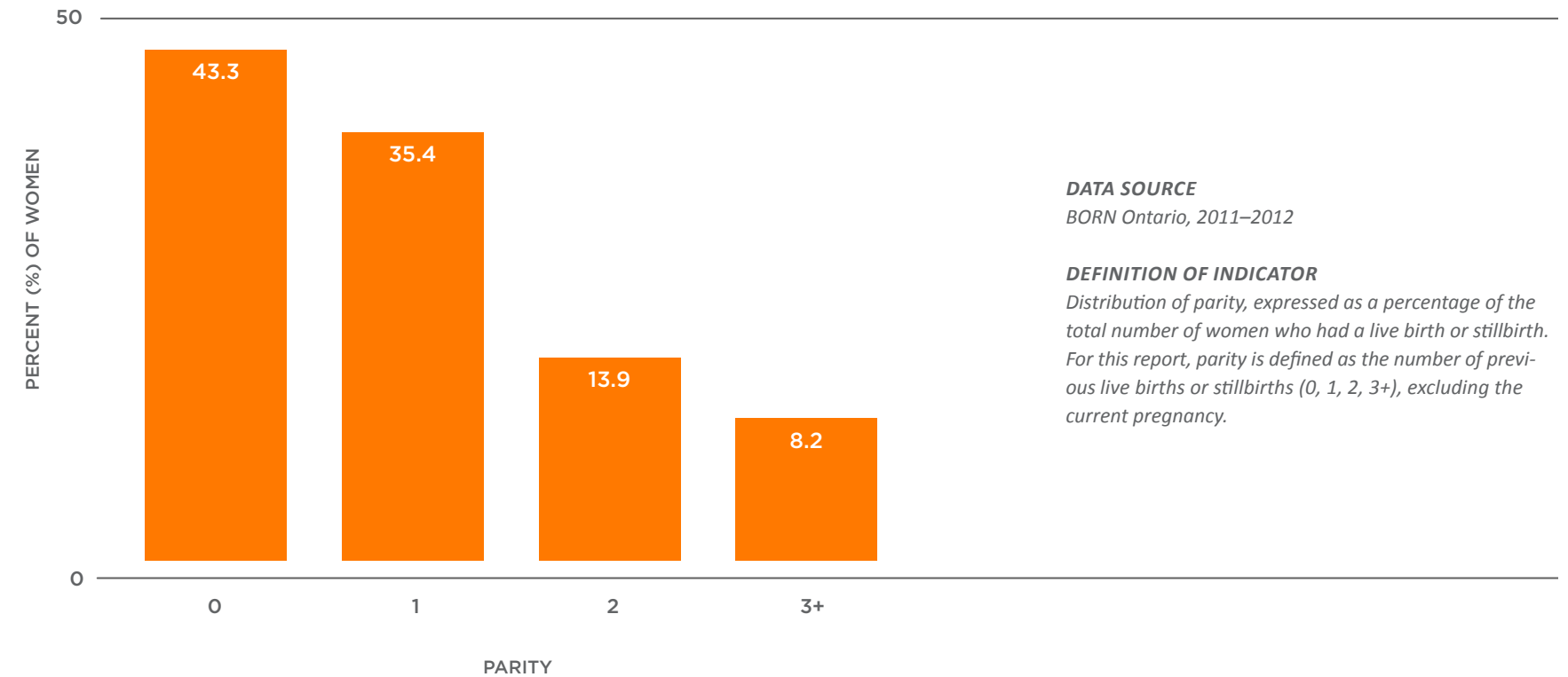
PRENATAL SCREENING

The proportion of pregnant women who resided in Ontario who had prenatal screening during 2011–2012 was 68.4% compared to 68.2% in 2010–2011 and 66.9% in 2009–2010.

Ontario's prenatal screening program includes laboratory and ultrasound testing, clinical assessment, genetic counselling and diagnostic testing. More than 90,000 pregnant women are screened annually. Pregnancy and outcome data are captured in the BIS. This dataset is then used for the quality assurance of prenatal screening services. The data also support BORN's prenatal screening subcommittee, which advises MOHLTC via the PCMCH regarding provincial policies, standards and guidelines for prenatal screening in the province.

NUMBER OF PREVIOUS BIRTHS (PARITY)

FIGURE 2 Distribution of parity
Ontario, 2011–2012



In 2011–2012, 43.3% of women who gave birth in Ontario were first-time mothers (i.e., parity was 0).

MENTAL HEALTH ISSUES

The proportion of Ontario women who reported mental health issues who gave birth in 2011–2012 was 7.4%. This included current disorders or a history of disorders such as anxiety or depression.

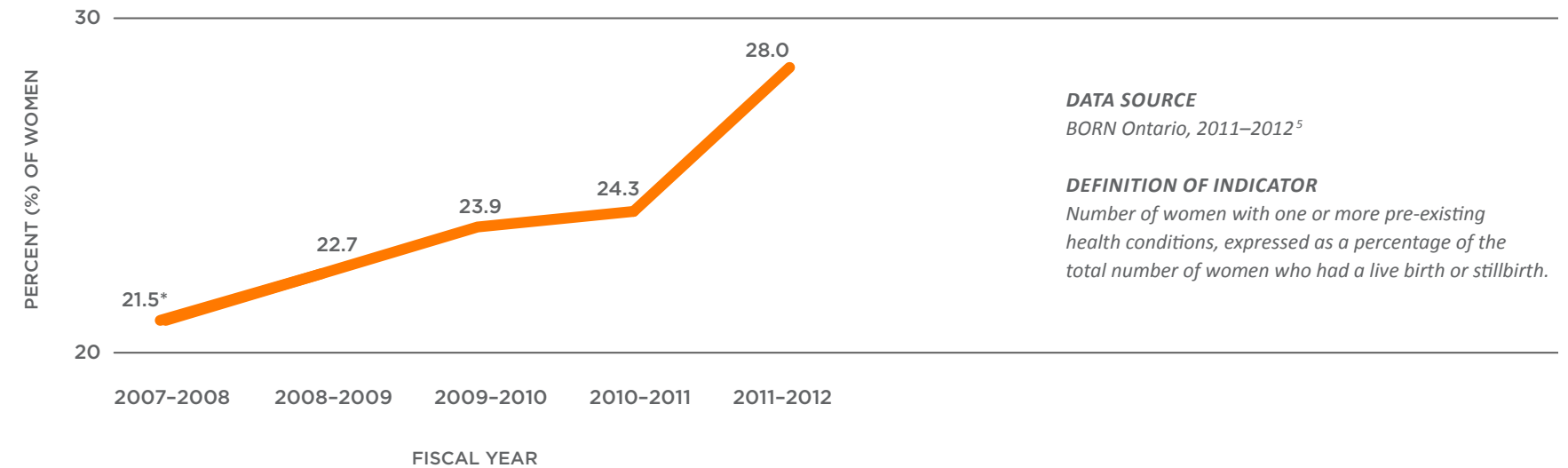
SMOKING DURING PREGNANCY

In 2011–2012 in Ontario, 9.0% of women reported smoking during pregnancy at 20 weeks' gestation or later, compared to 9.7% in 2010–2011 and 10.2% in 2009–2010.⁴

⁴ *Beginning in 2012–2013, maternal smoking data will be reported as the number of cigarettes women smoked at their first prenatal visit, as well as at the time of labour and admission.

PRE-EXISTING HEALTH CONDITIONS

FIGURE 3 Proportion of women with pre-existing health conditions Ontario, 2007–2008 to 2011–2012



The proportion of women with one or more pre-existing health conditions increased from 21.5% (95% CI: 21.1–21.9) in 2007–2008 to 28.0% (95% CI: 27.8–28.3) in 2011–2012.

In 2011–2012, the most common pre-existing conditions were other (10.5%), chronic disease (e.g., asthma, hypertension, diabetes and heart disease; 11.4%) and psychiatric disorders and mental illness (7.4%).

Comparisons across years should be interpreted with caution due to expansion of data collection activities for this variable over the five-year period. The rate for 2011–2012 is likely to reflect the most accurate estimate of the proportion of women with one or more pre-existing health conditions since the data capture was more complete than in previous years.

⁵ 10.4% records were excluded for missing data.

ONTARIO ANTENATAL RECORD (A1A2) PILOT PROJECT

During pregnancy, women in Ontario have multiple prenatal care visits with health care providers. Information regarding each woman and her pregnancy is recorded on the Ontario Antenatal Record parts 1 & 2 (A1A2) forms, which help facilitate communication between health care providers and a woman's birthing hospital. Preliminary research by BORN indicates that while use of the forms is standard, how they reach the birthing unit is not. Forms are submitted by fax, mail, email or in person. Some are lost in the process. If a woman goes into labour early or experiences an acute complication somewhere other than her planned birthing hospital, her antenatal file is often inaccessible. Care providers are forced to work without vital information, and related costs increase as lab tests and ultrasounds must be repeated.

A partnership between BORN Ontario, the eHealth Ontario Physician e-Health Program and the Centre for Effective Practice (CEP), the A1A2 pilot project helps ensure antenatal data is available to care providers regardless of where a birth happens.

As part of the pilot project, a pregnancy pathway is added to a woman's electronic medical record

(EMR), which is then made available in the BIS. Hospitals can leverage their existing BIS connections to give care providers virtually immediate access to antenatal records anywhere. The project also gives BORN early access to high quality data directly from providers, rather than requiring collection after labour and birth.

The A1A2 pilot is currently active in four family health teams and two hospitals; an expansion to ten family health teams and two EMR vendors is in the planning phase.

H1N1 PROJECT

The BIS can be enhanced to respond to urgent health issues. For example, in the wake of the 2009 H1N1 pandemic, BORN launched a data collection initiative in partnership with PHAC. Team members examined three BIS data variables related to:

- H1N1 and other influenza-like illnesses in pregnancy,
- treatment with antiviral medication and
- receipt of influenza vaccine during pregnancy.

The outcomes for women who were vaccinated versus those who were not suggest vaccination delivers some protection for both the mother and the fetus.⁶ Efforts are now underway to link data from the cohort born during the pandemic with administrative health databases in the Institute for Clinical Evaluative Sciences (ICES). The aim is to analyze differences in the first-year health of infants born during the pandemic to H1N1-vaccinated and unvaccinated mothers.

EXAMPLE OF A1A2 PILOT PROJECT DATA CAPTURE

The screenshot shows a web-based form for data capture. The left sidebar contains navigation options: Antenatal Pathway, Gest. Age, Viewers:1, Request Lock, Visit Checklist (First Visit, 16 week Visit), Info (No Weight Entered, No Height Entered, No BMI Entered, Printing Log), Warnings, Prompts (Labs, Forms, Vitals Integration, Labs Integration). The main content area is a grid of questions with 'Yes' and 'No' checkboxes. The questions are organized into categories: Current Pregnancy (1-8), Genetic History (22-26), Family History (38), Medical History (9-17), Infectious Disease (27-30), Psychosocial (31-37), Physical Examination (39-50). The right side of the form contains a 'Test' section with a table for 'Prenatal Genetic Investigations' and a 'Comments' section at the bottom.

Test	Result	Test	Result
Hb		HIV	Not Done
MCV		<input type="checkbox"/> Counseled and test declined	
ABO	Not Done	Last Pap	
Rh	Not Done	Antibody Screen	GC
Rubella Immune	Not Done	Chlamydia	Not Done
HBsAg	Not Done	Urine C&S	
VDRL	Not Done		
Sickle Cell	Not Done		

Prenatal Genetic Investigations

Test	Result
a) All ages-MSS, IPS, FTS	
b) Age >= 35 at EDB-CVS/amnio	
c) If a or b declined, or twins, then MSAFP	
d) Counseled	<input type="checkbox"/>
d) test declined, or too late	<input type="checkbox"/>

885 Characters left

Extra Comments (Will print on a separate page)

⁶ Fell DB et al. H1N1 influenza vaccination during pregnancy and fetal and neonatal outcomes. *Am J Public Health*. 2012;102(6):e33-40.

91.6

PERCENT OF LIVE BIRTHS IN ONTARIO
OCCURED AT TERM.



BIRTH

BIRTHS IN ONTARIO

TABLE 3 Total number of births to Ontario residents
2011–2012

NUMBER OF BIRTHS	
NUMBER OF HOSPITAL BIRTHS	139,386
NUMBER OF HOME BIRTHS	2,990
TOTAL NUMBER OF BIRTHS	142,376

DATA SOURCE

BORN Ontario, 2011–2012 and the Ontario Midwifery Program Maternal-Newborn Health Reporting System (Ontario MOHLTC), 2011–2012

DEFINITION OF INDICATOR

Hospital births include births attended by all health care providers including midwives. Home births are specific to women in midwifery care who gave birth at home. The total number of births include both hospital and home births.

LHIN OF BIRTH

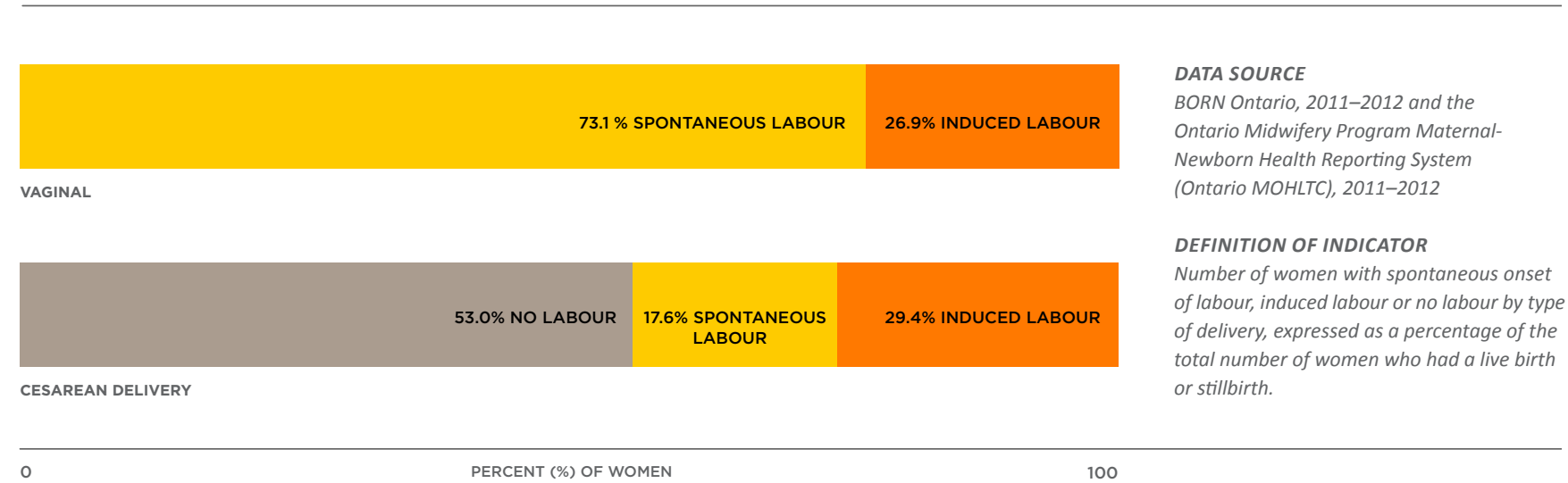
In 2011–2012, 84.8% of Ontario mothers gave birth in a hospital in the local health integration network (LHIN) in which they resided.

TABLE 4 Total number of hospital births to Ontario residents, by LHIN of birth
2011–2012

LHIN OF BIRTH	NUMBER OF HOSPITAL BIRTHS
1. ERIE ST. CLAIR	6,082
2. SOUTH WEST	9,911
3. WATERLOO WELLINGTON	7,973
4. HAMILTON NIAGARA HALDIMAND BRANT (HNHB)	12,843
5. CENTRAL WEST	8,321
6. MISSISSAUGA HALTON	12,800
7. TORONTO CENTRAL	20,432
8. CENTRAL	17,997
9. CENTRAL EAST	13,670
10. SOUTH EAST	4,140
11. CHAMPLAIN	13,546
12. NORTH SIMCOE MUSKOKA	4,068
13. NORTH EAST	5,155
14. NORTH WEST	2,448
ONTARIO	139,386

TYPE OF DELIVERY AND TYPE OF LABOUR

FIGURE 4 Distribution of type of labour, by type of delivery
Ontario, 2011–2012



Of the women who had a vaginal delivery in 2011–2012, 73.1% experienced spontaneous onset of labour.

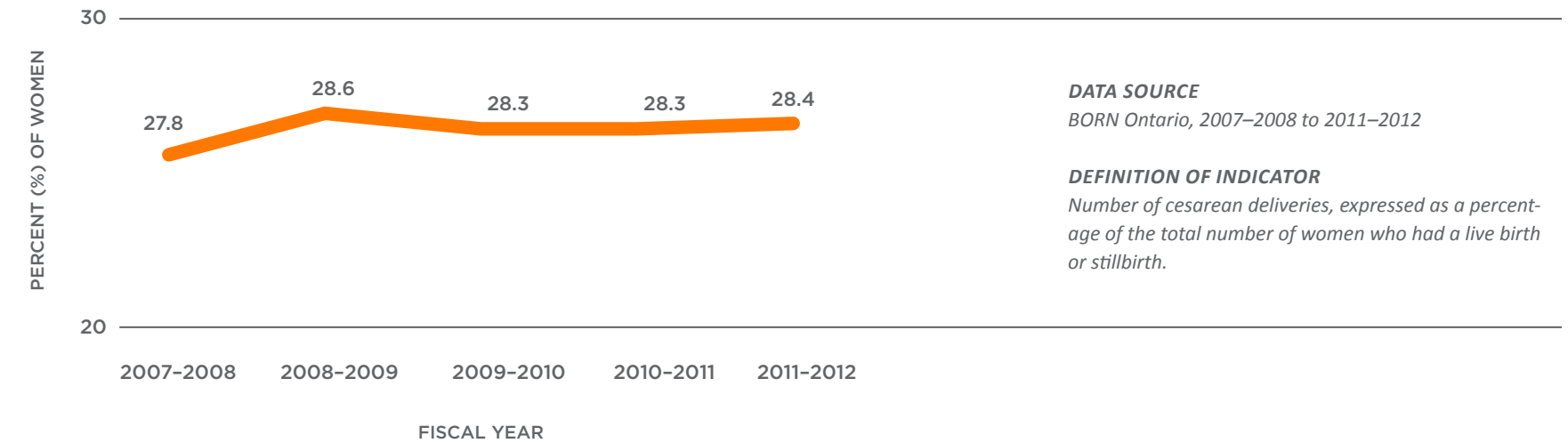
More than half (53.0%) of women who delivered by cesarean did not labour, 17.6% went into spontaneous labour prior to cesarean delivery, and 29.4% were induced prior to cesarean delivery. 43.3% of all women who delivered by cesarean were repeat cesarean sections (data not shown).

PAIN MANAGEMENT DURING LABOUR

In 2011–2012, 63.1% of women who had a vaginal live birth used some form of regional anesthesia (including epidural and spinal-epidural combination) for pain management during labour.

CESAREAN DELIVERY

FIGURE 5 Rate of cesarean delivery
Ontario, 2007–2008 to 2011–2012



The rate of cesarean delivery in Ontario was stable between 2007–2008 and 2011–2012. In 2011–2012, the rate was 28.4% (95% CI: 27.7–29.1), representing 38,779 cesarean deliveries.

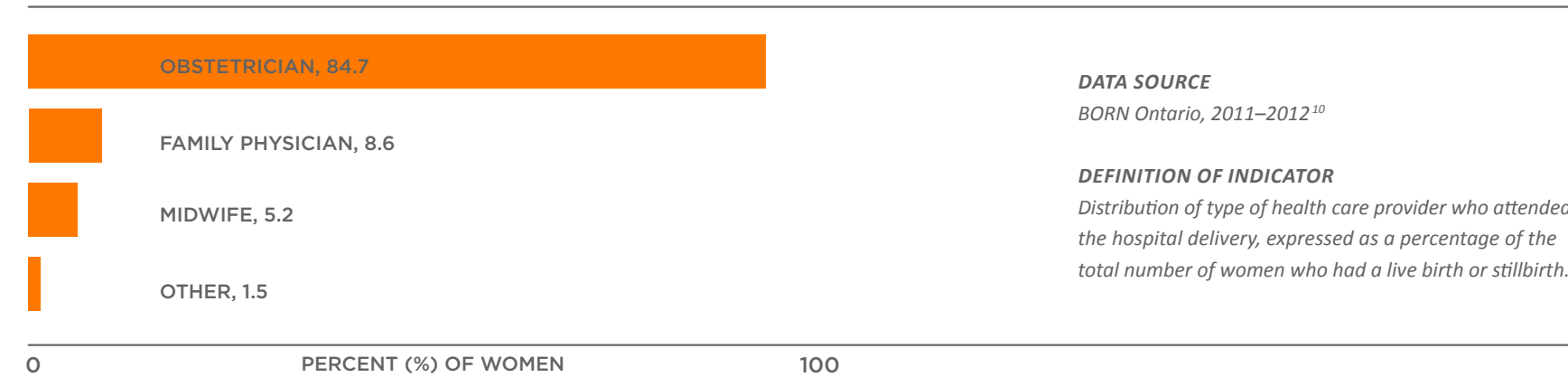
The detailed data collected in the BIS enables researchers, policy makers and care providers to further analyze cesarean deliveries. The BIS also provides users access to the Robson Cesarean Section Monitoring report, which facilitates analysis of cesarean deliveries across 10 discrete groupings.^{7,8}

⁷ Robson MS. Can we reduce the caesarean section rate? Best Pract Res Clin Obstet Gynaecol 2001;15:179–94.

⁸ Kelly S, et al. Examining Caesarean Section Rates in Canada Using the Robson Classification System. J Obstet Gynaecol Can 2013;35(3):206–14.

ATTENDING HEALTH CARE PROVIDER

FIGURE 6 Distribution of type of health care provider who attended the hospital delivery Ontario, 2011–2012



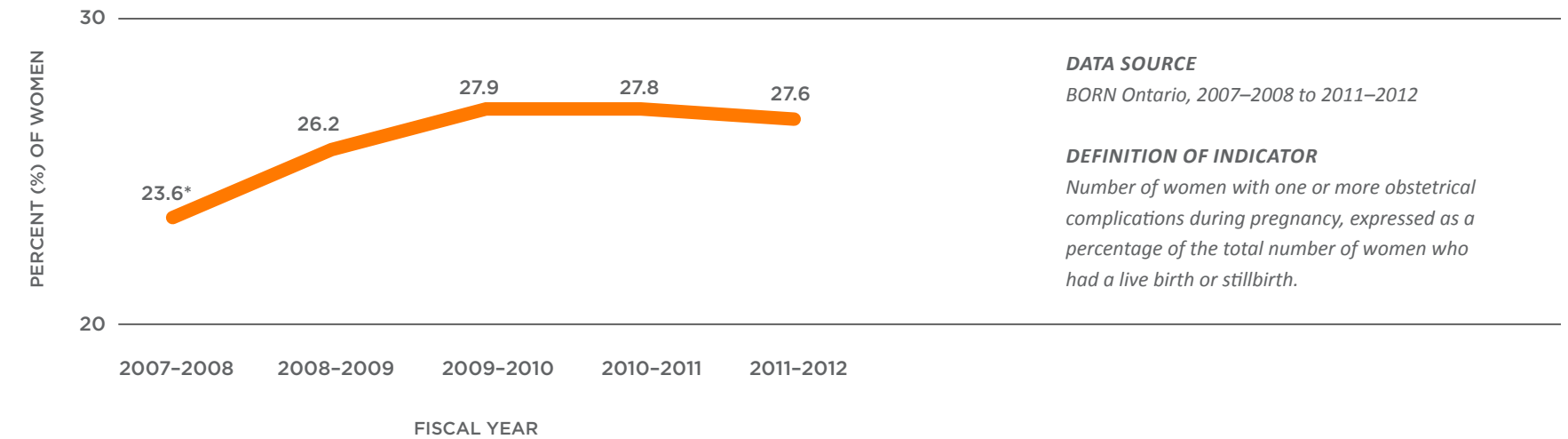
In 2011–2012, obstetricians attended the hospital births of 84.7% of Ontario women. This figure remained relatively unchanged between 2007–2008 and 2011–2012, ranging between 84.7% and 85.8%.

Midwife-attended births shown in Figure 6 include only those attended in hospital—7,069 in 2011–2012. In the same period, 2,990 midwife-attended births in Ontario occurred at home.

⁹ “Other” includes nurse practitioners and care providers whose type was unspecified.

OBSTETRICAL COMPLICATIONS

FIGURE 7 Proportion of women with obstetrical complications Ontario, 2007–2008 to 2011–2012



The proportion of women with one or more obstetrical complications increased from 23.6% (95% CI: 22.8–24.4) in 2007–2008 to 27.6% (95% CI: 26.9–28.3) in 2011–2012.

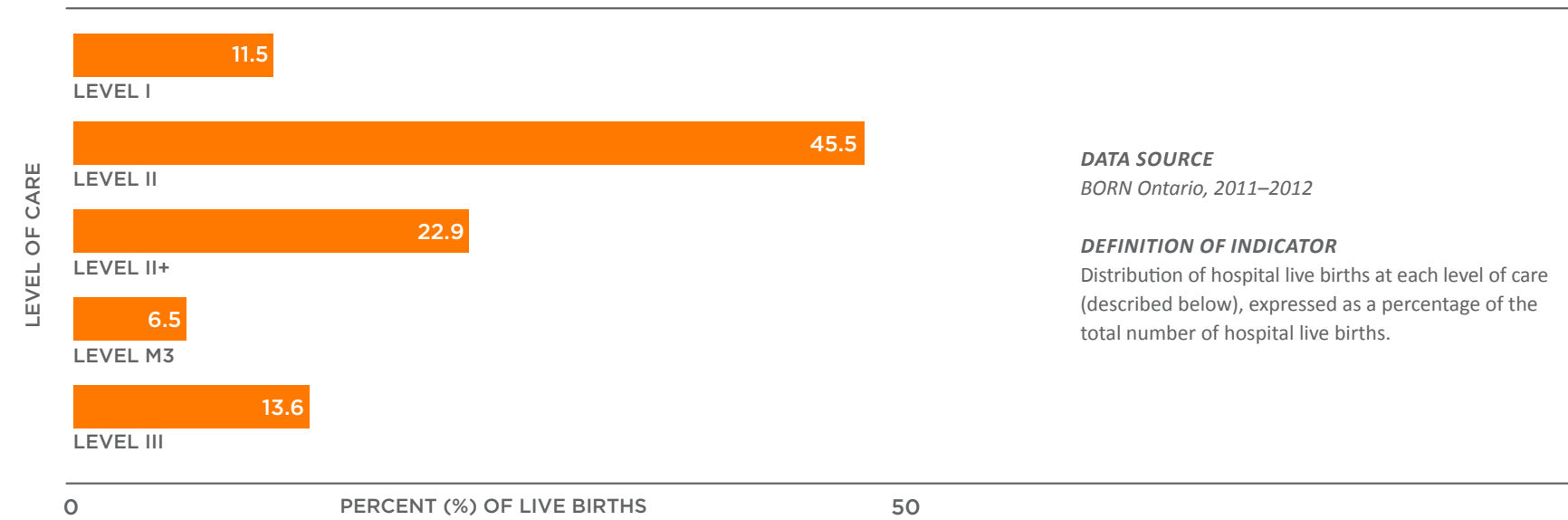
In 2011–2012, the most common obstetrical complications were grouped as “other” (8.9%), which includes large for gestational age/intrauterine growth restriction, placental abruption or previa, pre-eclampsia, preterm premature rupture of membranes, or urinary tract infection, followed by preterm labour (2.6%) and small for gestational age (2.5%).

Comparisons across years should be interpreted with caution due to expansion of data collection activities for this variable over the five-year period. The rate for 2011–2012 is likely to reflect the most accurate estimate since the data capture was more complete than in previous years.

*10.3% of records were excluded for missing data.

LEVEL OF CARE

FIGURE 8 Distribution of hospital live births, by level of care¹⁰
Ontario, 2011–2012



Across Ontario, the majority of live births took place in Level II hospitals (45.5%), followed by 22.9% in Level II+ hospitals, 13.6% in Level III hospitals and 11.5% in Level I hospitals.

Data were collected from 2007–2008 to 2011–2012 according to the following levels of care defined by the Ontario Ministry of Health and Long-Term Care.¹¹ Level I hospitals provide care for healthy mothers and infants after 36 weeks' gestation. Level II hospitals provide care for mothers and infants at or beyond 32 weeks' gestation. Level II and II+ hospitals provide care for all high-risk pregnancies, including prematurity before 32 weeks. Modified Level III (M3) provides care for infants at or beyond 29 weeks' gestation.

¹⁰As of April 1, 2012, the level of care classification changed following PCMCH (Provincial Council for Maternal and Child Health) guidelines.

¹¹Data for 2012–2013 and subsequent years will reflect changes to the provincial levels of care made by the ministry as of April 1, 2012.

LHIN REGIONAL REPORTS

In 2011, BORN published a series of regional perinatal health reports to provide an overview of the 2009–2010 fiscal year maternal-newborn outcomes at hospitals across Ontario.¹² Each report addresses outcomes in one of the five provincial LHIN regions. Based primarily on BORN data, the reports help guide policy decisions for maternal and newborn issues province-wide and in each region.







MATERNAL NEWBORN DASHBOARD

Launched in 106 hospitals in November 2012, the Maternal Newborn Dashboard is an innovative web-based audit tool that helps labour, birth and postpartum departments meet quality mandates as set out in the *Excellent Care for all Act, 2010*. The dashboard provides feedback on selected key performance indicators, compares performance with benchmarks and other hospitals, and signals the need for action if performance is sub-optimal.

¹²The complete set of reports can be accessed at <http://bornontario.ca/reports/lhin-regional-reports>.

MATERNAL NEWBORN DASHBOARD – HOME PAGE

Hospital, 01-Jun-2013 to 31-Aug-2013. Months with acknowledged data submission: June, July, August.

Key Performance Indicators	Rate (%)	Status	Benchmark rates (%)			Comparator rates (%)		
			Target (green)	Warning (yellow)	Alert (red)	Other Neonatal Level IIc hospitals	Other 1001-2499 birth volume hospitals	Ontario
1 Proportion of newborn screening samples that were unsatisfactory for testing	0.9		<2.0	2.0-3.0	>3.0	1.1	1.5	1.1
2 Rate of episiotomy in women who had a spontaneous vaginal birth	8.7		<13.0	13.0-17.0	>17.0	19.4	10.6	12.9
3 Rate of formula supplementation at discharge in term infants whose mothers intended to breastfeed	34.8		<20.0	20.0-25.0	>25.0	36.8	35.8	35.0
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	49.4		<11.0	11.0-15.0	>15.0	48.3	51.4	42.3
5 Proportion of women who delivered at term and had Group B Streptococcus (GBS) screening at 35-37 weeks' gestation	90.2		>94.0	90.0-94.0	<90.0	91.0	86.9	90.2
6 Proportion of women who were induced with an indication of post-dates and were less than 41 weeks' gestation at delivery	14.6		<5.0	5.0-10.0	>10.0	26.7	27.9	20.3

DATA SOURCE BORN Ontario, 2013–2014

- NOTES
1. Rates and status are based on three prior months of data that have been acknowledged for submission, allowing for a one month lag.
 2. Grey status indicates incomplete month end acknowledgement for key performance indicators. Please ensure month end acknowledgement is complete for each of the three months in the reporting period. If a key performance indicator has a grey status, no comparator data for that indicator will be shown.
 3. Comparator data is represented as the rate from a minimum of three or more hospitals who have acknowledged their data for the three month reporting period, within a given comparator category. The comparator rates for other same level of care hospitals and other similar birth volume hospitals exclude the reporting hospital, whereas the rates for Ontario include the reporting hospital.
 4. Neonatal Level of Care was chosen for comparator data as Maternal Level of Care designations were created by the Provincial Council for Maternal and Child Health (PCMCH) in 2011 and were not available prior to this date.

Advancing quality improvement

Accessed through the BIS, the dashboard provides a simple, easy-to-use interface. Healthcare organizations are able to closely monitor performance, identify evidence-practice gaps and make changes to enhance quality care.

3.6

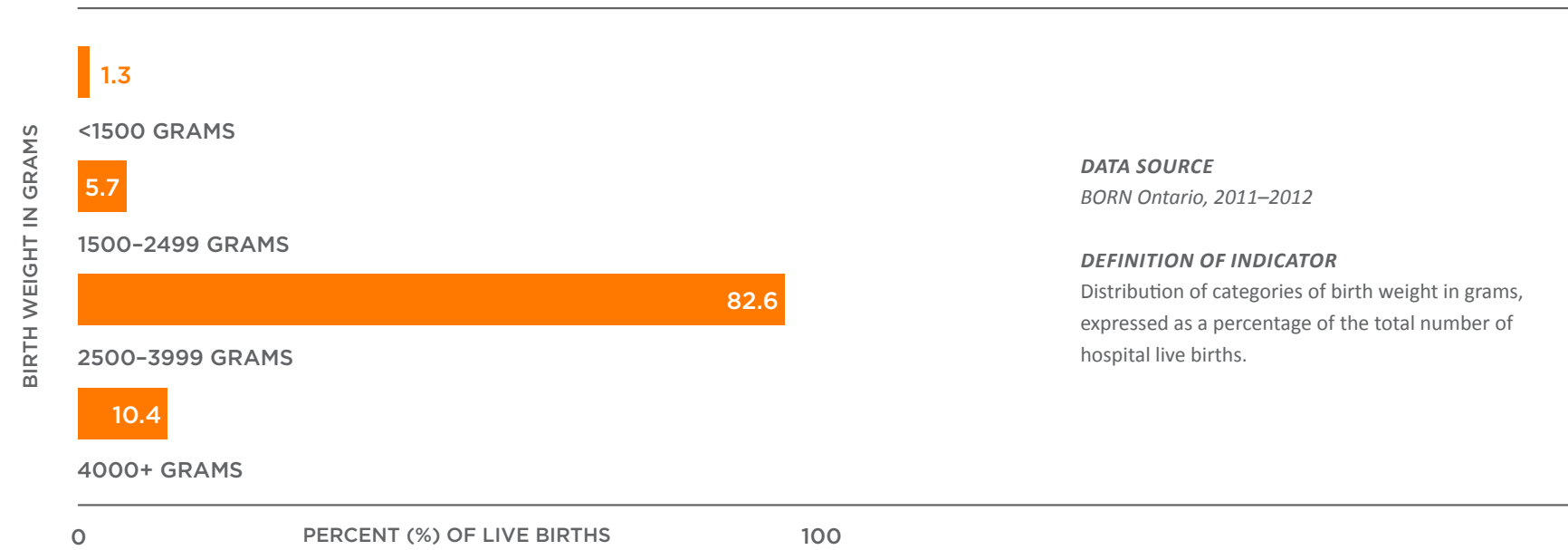
PERCENT OF PREGNANCIES RESULTED IN
MULTIPLE BIRTHS.



CHILDREN

BIRTH WEIGHT

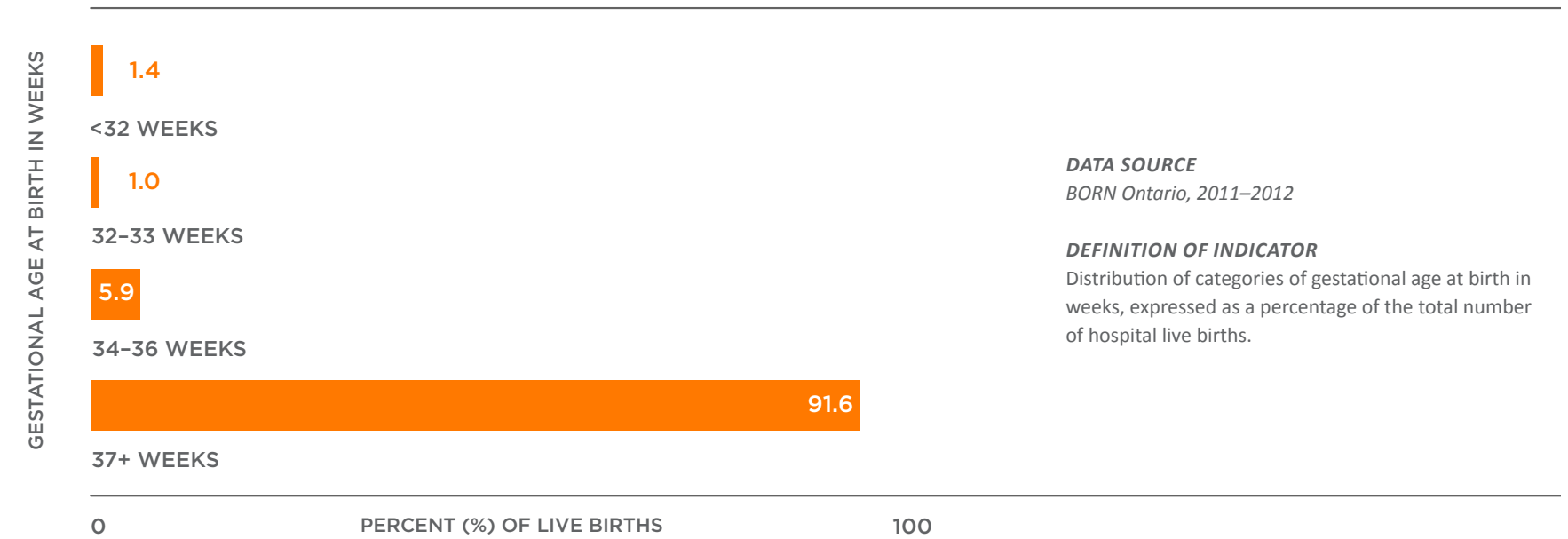
FIGURE 9 Distribution of birth weight
Ontario, 2011–2012



The majority (82.6%) of live born infants weighed between 2,500 and 3,999 grams.

GESTATIONAL AGE

FIGURE 10 Distribution of gestational age at birth
Ontario, 2011–2012

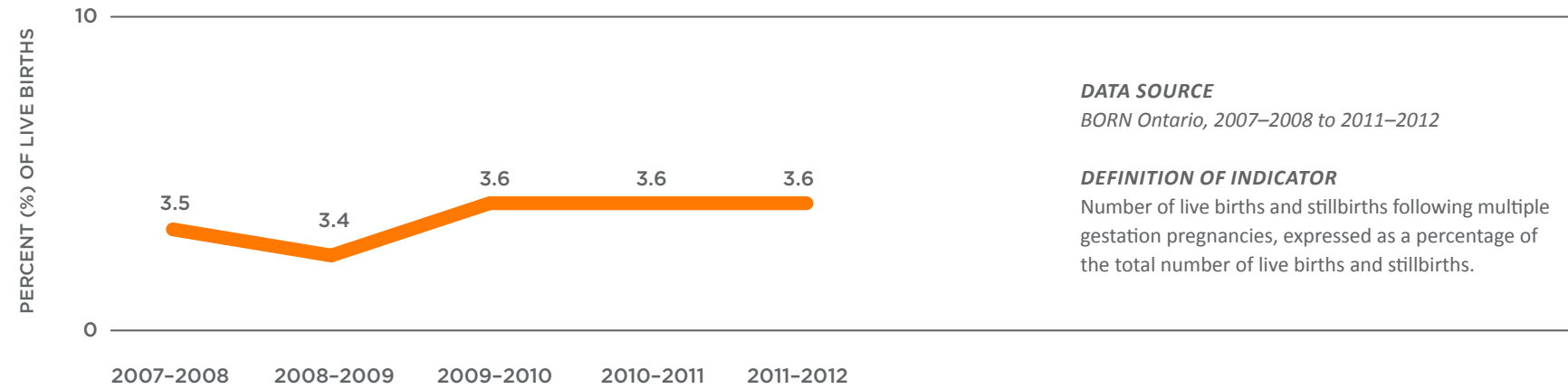


In 2011–2012, 91.6% of live births in Ontario occurred at term (37+ weeks).

1.4% of infants were born very preterm (<32 weeks' gestation). These infants would have required care in a Level III hospital. The majority of preterm infants were born between 34 and 36 weeks' gestation.

MULTIPLE BIRTH

FIGURE 11 Rate of multiple birth
Ontario, 2007–2008 to 2011–2012



At 3.6% (95% CI: 2.6–4.6) in 2011–2012, the multiple birth rate in Ontario has been stable since 2007–2008.

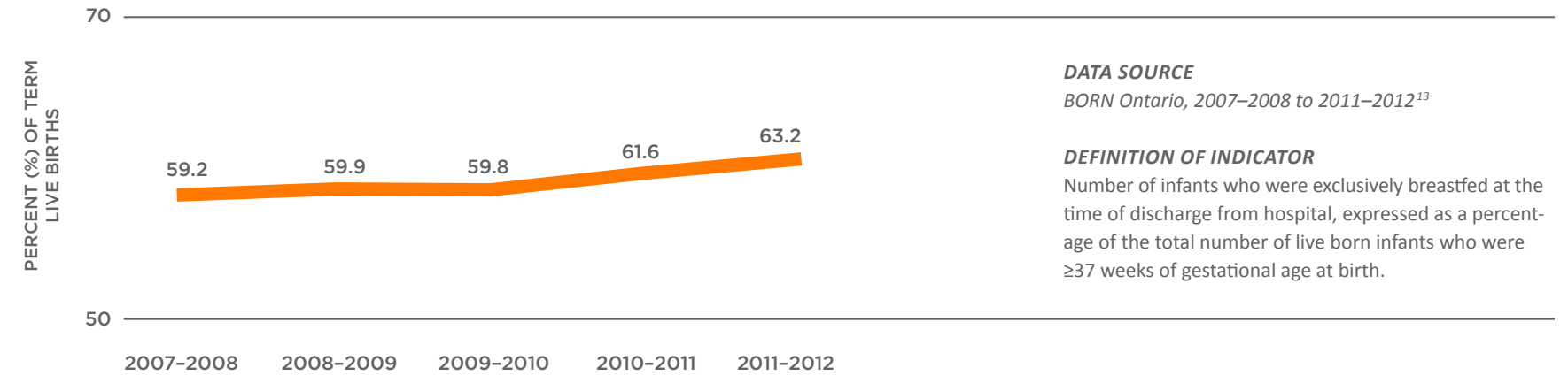
The number of infants born in the province following a multiple gestation pregnancy increased from 4,695 in 2007–2008 to 5,009 in 2011–2012.

APGAR SCORE

In 2011–2012, the proportion of live births in Ontario with a 5-minute Apgar score below 4 was 0.9%. The proportion of births with a 5-minute Apgar score between 4 and 6 was 1.2%.

BREASTFEEDING

FIGURE 12 Rate of exclusive breastfeeding at discharge among term live births
Ontario, 2007–2008 to 2011–2012



The rate of exclusive breastfeeding at discharge among term live births in Ontario increased slightly to 63.2% in 2011–2012 from 59.2% in 2007–2008.

¹³Individual hospitals that do not collect information on breastfeeding at discharge from hospital, or at which more than 30% of records are missing information on this variable, have been excluded from these calculations. In 2011–2012, nine hospitals or 13.0% (16,482 of 127,249) of term live births were excluded.

SUPPORTING THE BABY-FRIENDLY INITIATIVE (BFI)

BFI Ontario is a multidisciplinary committee that brings together healthcare professionals, service providers and member of the public who are interested in protecting, promoting and supporting breastfeeding by implementation of the WHO/UNICEF Baby-Friendly Initiative. BORN actively supports this international initiative by making a hospital specific BFI report available in the BIS. The report summarizes a range of key breastfeeding statistics from hospitals and birthing centres throughout the province.

NEWBORN SCREENING

Newborn Screening Ontario (NSO) tests all babies in the province to assess their risk of having any of 28 rare but treatable diseases. Ontario is planning to add an additional screen for SCID (Severe Combined Immunodeficiency) in 2013. Summary statistics are updated regularly in the BIS.

In 2011–2012, an estimated 143,584 infants received newborn screening; 1,288 infants (0.90%) received a positive screen. This was similar to

results from 2009–2010 and 2010–2011, in which the proportion of infants with a positive screen was 0.92% and 1.01% respectively.¹⁴

The BIS also lists babies who may have been missed when testing for the 28 diseases. In 2012, 495 potential missed screens were identified.

18-MONTH ENHANCED WELL-BABY VISIT PILOT PROJECT

The success of the A1A2 pilot project resulted in the logical continuation of that work to assess child health at 18-months. Using the Rourke & Nipissing tools, the 18-month Well-Baby Visit pilot project is a partnership between BORN, eHealth Ontario and the Ministry of Children and Youth Services. In the project, assessment forms are embedded in provincial EMRs, and results are transmitted to the BIS for longitudinal understanding of outcomes. The project was launched in late 2012 with the participation of ten family health teams and two EMR vendors.

DISCLAIMER

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¹⁴The data source for this data was Newborn Screening Ontario (NSO). NSO data values include infants whose mothers resided out-of-province at time of screening.

63.2

PERCENT OF TERM INFANTS DISCHARGED
FROM HOSPITAL WERE EXCLUSIVELY
BREASTFED.



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