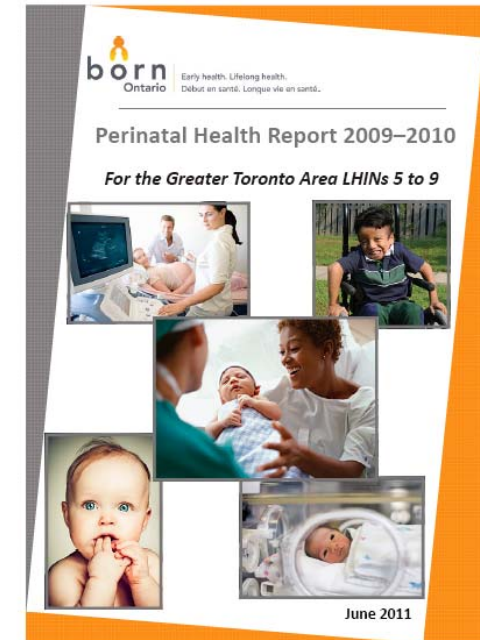




Early health. Lifelong health.
Début en santé. Longue vie en santé.



Highlights from the BORN Ontario LHIN Region Reports for 2009–2010

born: Better Outcomes Registry & Network

August 2011

Introduction

Report objectives:

- Illustrate the utility of data in supporting indicators that are relevant to maternal-newborn care and provision of obstetrical health services
- Highlight maternal-newborn issues and trends arising from the analysis
- Present a baseline for future examination of trends

Introduction

Methods:

- Unless otherwise noted, data presented in the reports originate from the BORN–Niday Perinatal Database, 2009–2010
- Time trends are provided for selected indicators (2005–2006 to 2009–2010)
- Only hospital births to Ontario residents were included
- Hospital births attended by midwives are included in these analyses
- Unless otherwise noted, analysis is by LHIN of birth (i.e., where the hospital birth occurred, regardless of maternal residence)

Introduction

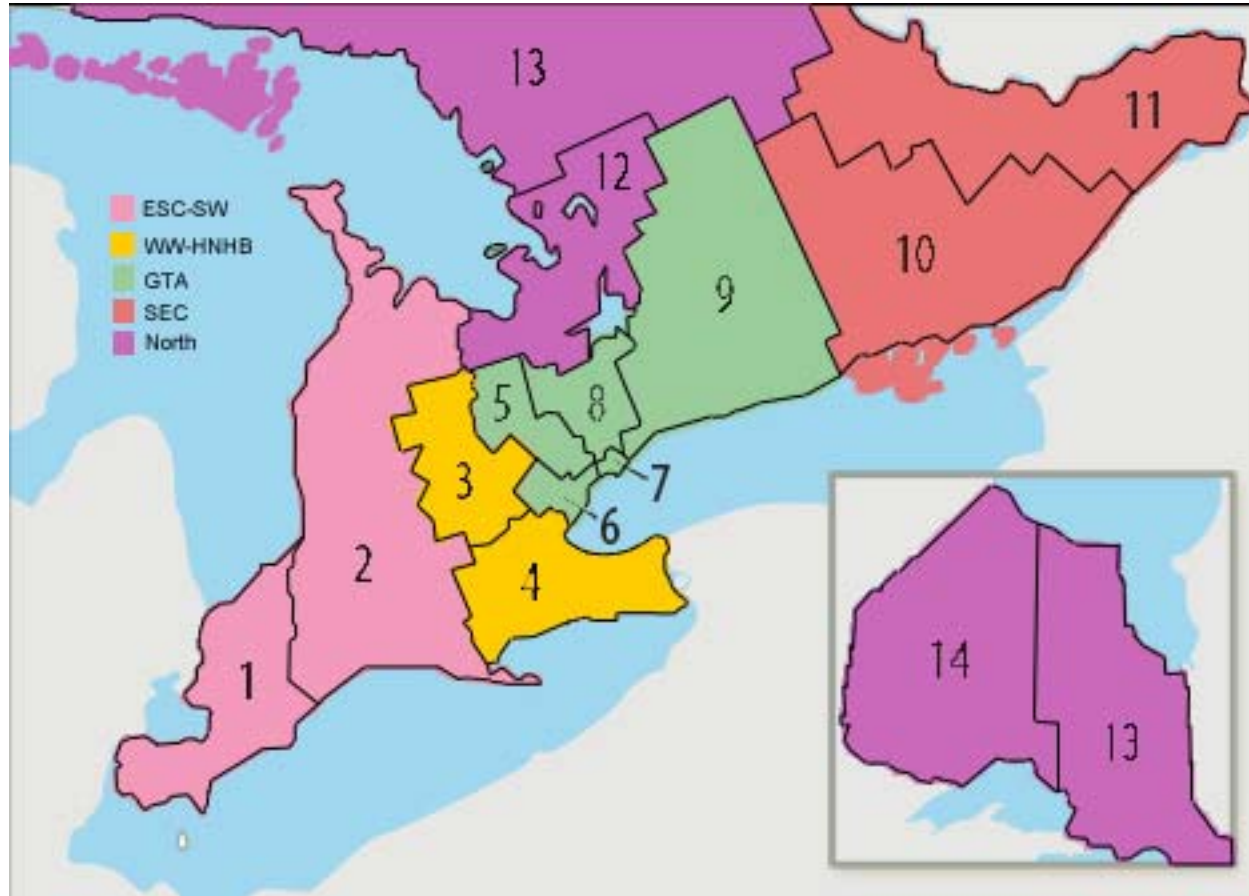
Notes:

- Definitions for each indicator and footnotes regarding the calculation of each indicator are provided in the body of the report underneath each figure
- Records that were missing information for a particular indicator were excluded from analyses of that indicator
 - Footnotes have been added to figures to 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 $\geq 30\%$ of records were missing information for that indicator

Ontario Local Health Integration Networks

LHIN region	LHINs
ESC-SW (1&2)	Erie St. Clair (1) South West (2)
WW-HNHB (3&4)	Waterloo Wellington (3) Hamilton Niagara Haldimand Brant (4)
GTA (5–9)	Central West (5) Mississauga Halton (6) Toronto Central (7) Central (8) Central East (9)
SEC (10&11)	South East (10) Champlain (11)
North (12–14)	North Simcoe Muskoka (12) North East (13) North West (14)

Ontario Local Health Integration Networks



Where to find the reports

- All 5 LHIN region reports are available online

www.bornontario.ca

Indicators

Section I - Profile of obstetrical population

- Distribution of hospital births
- Number of women in midwifery care that gave birth at home
- Distribution of maternal age
- Distribution of parity
- Proportion of women who were ≥ 35 years and nulliparous at delivery

Section II - Pregnancy

- Proportion of women who did not attend an antenatal visit with a health care provider during the first trimester
- Proportion of women with pre-existing health conditions
- Proportion of women with obstetrical complications
- Rate of assisted conception

Section III - Maternity health services

- Distribution of births at each level of care
- Distribution of live births at each level of care, by gestational age at birth

Indicators

Section IV - Birth

- Distribution of care provider who attended the hospital birth
- Fetal surveillance methods during labour
- Rate of auscultation only for fetal surveillance during labour
- Rate of labour induction
- Proportion of women who were <41 weeks of gestational age at delivery among women who were induced with a post-dates indication for induction of labour
- Rate of assisted vaginal delivery
- Rate of cesarean delivery
- Proportion of women with a cesarean delivery performed prior to 39 weeks' gestation among low-risk women having an elective repeat cesarean delivery at term
- Rate of episiotomy
- Proportion of women with intrapartum complications
- Rate of pharmacologic pain management among women who had a vaginal live birth
- Length of second stage of labour among women with a vaginal birth
- Fetal mortality rate ≥ 500 grams
- Rate of preterm birth
- Rate of small for gestational age
- Rate of large for gestational age
- Rate of multiple birth

Indicators

Section V - Postpartum and newborn

- Proportion of live births with a 5-minute Apgar score <7
- Rate of exclusive breastfeeding at discharge among term live births

Section VI - Maternal and newborn screening

- Ratio of maternal multiple marker screening
- Proportion of women who were screened for Group B Streptococcus among women who delivered at ≥ 37 weeks of gestation
- Number of infants with newborn screening completed and proportion who screen positive
- Ratio of Parkyn screen completion

Section I

Profile of obstetrical population

Number of total hospital births, by LHIN of birth

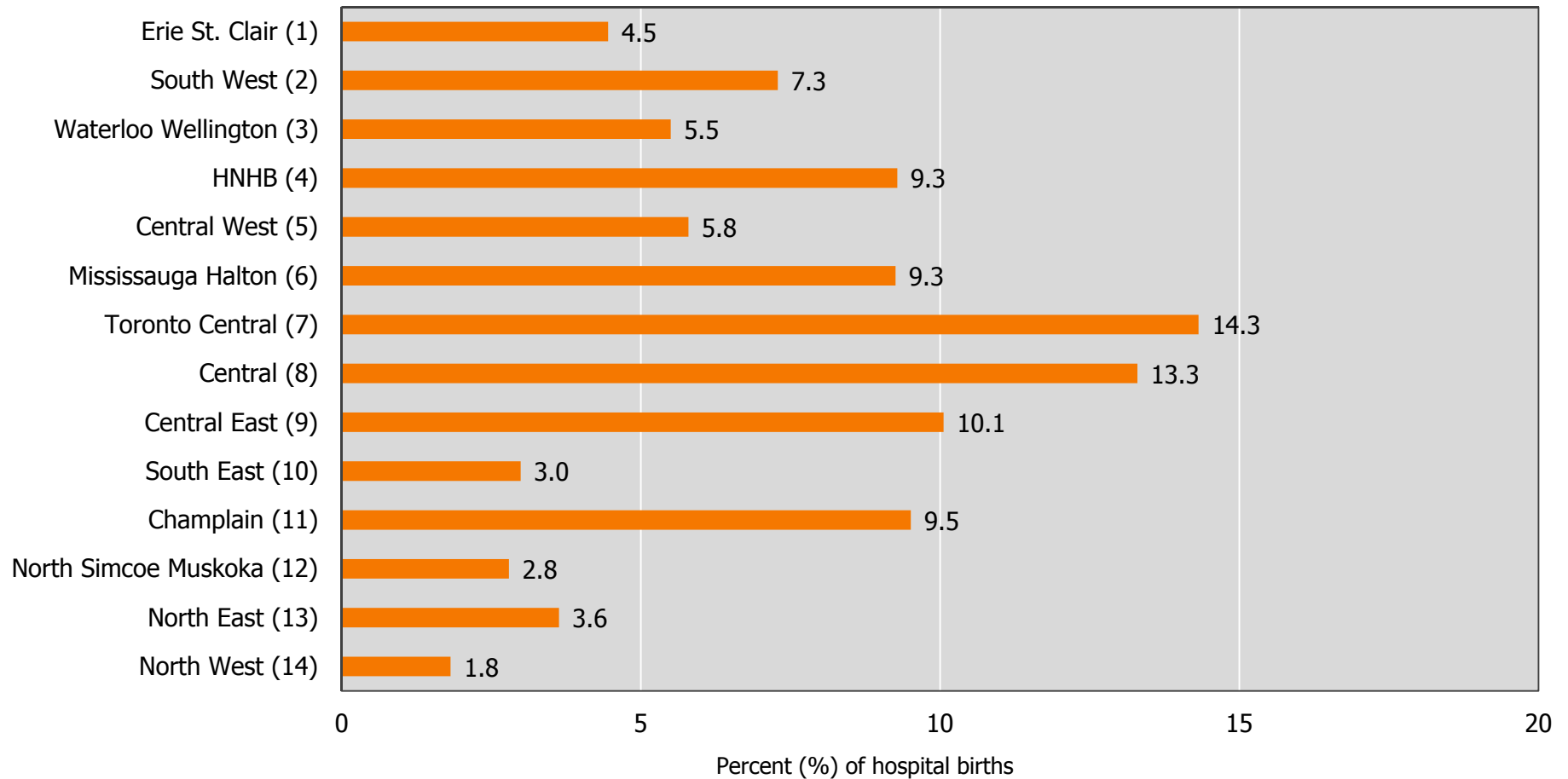
Ontario†, 2009–2010

LHIN of birth	Number of hospital births	
	Erie St. Clair (1)	6,180
	South West (2)	10,114
	Waterloo Wellington (3)	7,631
	HNHB (4)	12,884
	Central West (5)	8,041
	Mississauga Halton (6)	12,845
	Toronto Central (7)	19,871
	Central (8)	18,453
	Central East (9)	13,959
	South East (10)	4,152
	Champlain (11)	13,199
	North Simcoe Muskoka (12)	3,880
	North East (13)	5,040
	North West (14)	2,526
	ONTARIO	138,775

Source – BORN Ontario (Niday Perinatal Database), 2009–2010

† Ontario residents only

Distribution of hospital births, by LHIN of birth *Ontario†, 2009–2010*



Source – BORN Ontario (Niday Perinatal Database), 2009–2010

† Ontario residents only

Number of total hospital births, by LHIN region

Ontario†, 2009–2010

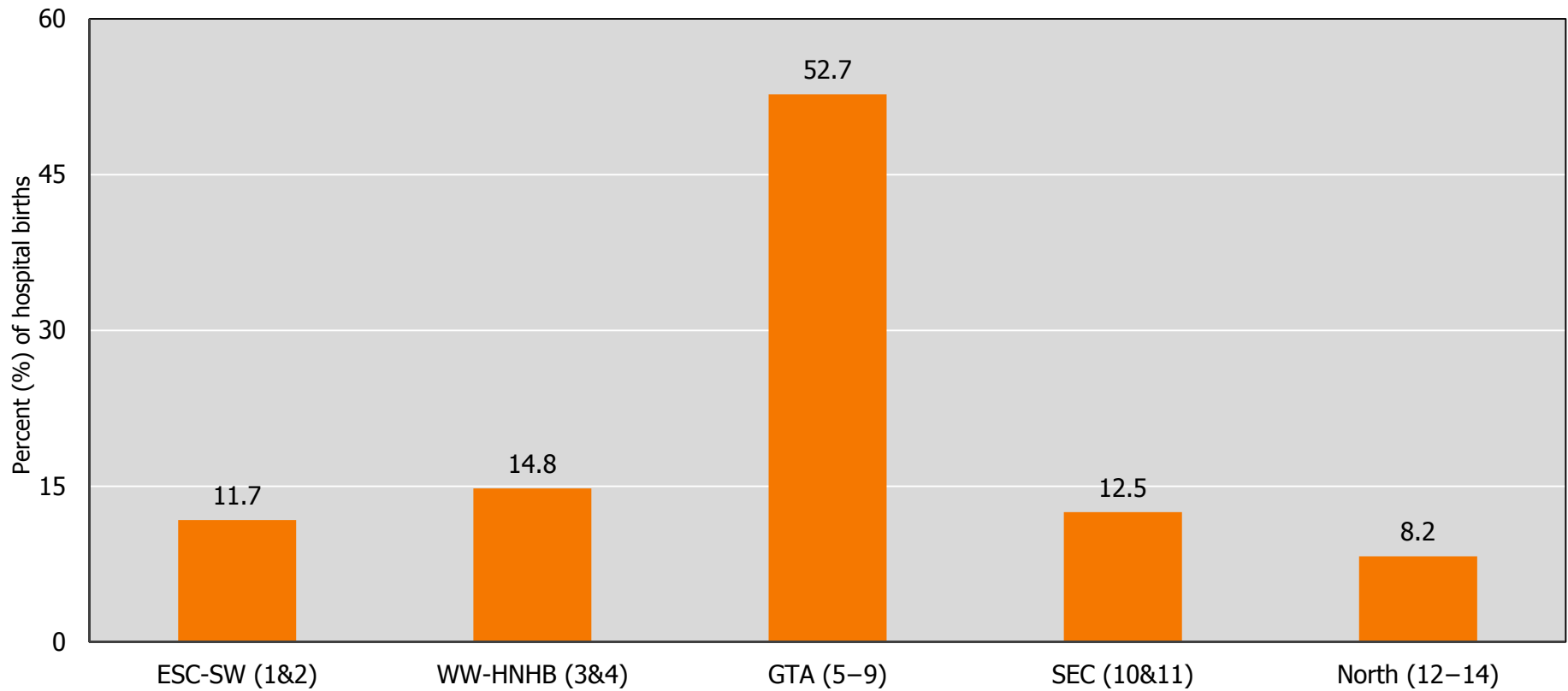
LHIN region of birth	Number of hospital births	
	ESC-SW (1&2)	16,294
	WW-HNHB (3&4)	20,515
	GTA (5–9)	73,169
	SEC (10&11)	17,351
	North (12–14)	11,446
	ONTARIO	138,775

Source – BORN Ontario (Niday Perinatal Database), 2009–2010

† Ontario residents only

Distribution of hospital births

Ontario†, 2009–2010



LHIN region of birth

Source – BORN Ontario (Niday Perinatal Database), 2009–2010

† Ontario residents only

Number of women in midwifery care that gave birth at home, by LHIN of maternal residence

Ontario†, 2009–2010

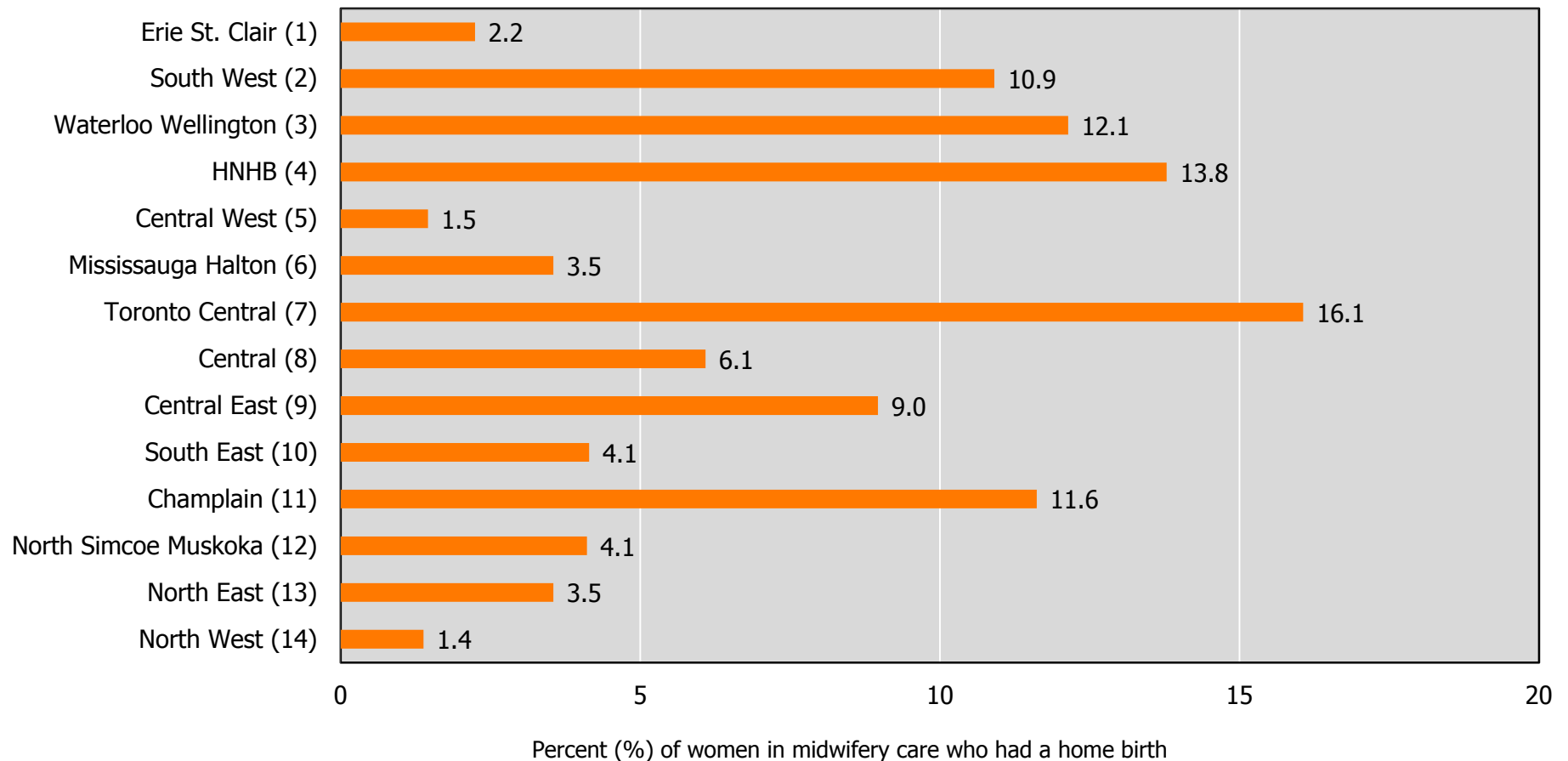
LHIN of maternal residence	Number of women	
	Erie St. Clair (1)	60
	South West (2)	292
	Waterloo Wellington (3)	325
	HNHB (4)	369
	Central West (5)	39
	Mississauga Halton (6)	95
	Toronto Central (7)	430
	Central (8)	163
	Central East (9)	240
	South East (10)	111
	Champlain (11)	311
	North Simcoe Muskoka (12)	110
	North East (13)	95
	North West (14)	37
ONTARIO		2,677

Source – Ontario Midwifery Program Maternal-Newborn Health Reporting System (Ontario MOHLTC), 2009–2010

† Ontario residents only

Distribution of women in midwifery care that gave birth at home, by LHIN of maternal residence

Ontario†, 2009–2010



Source – Ontario Midwifery Program Maternal-Newborn Health Reporting System (Ontario MOHLTC), 2009–2010

† Ontario residents only

Number of women in midwifery care that gave birth at home, by LHIN region of maternal residence

Ontario†, 2009–2010

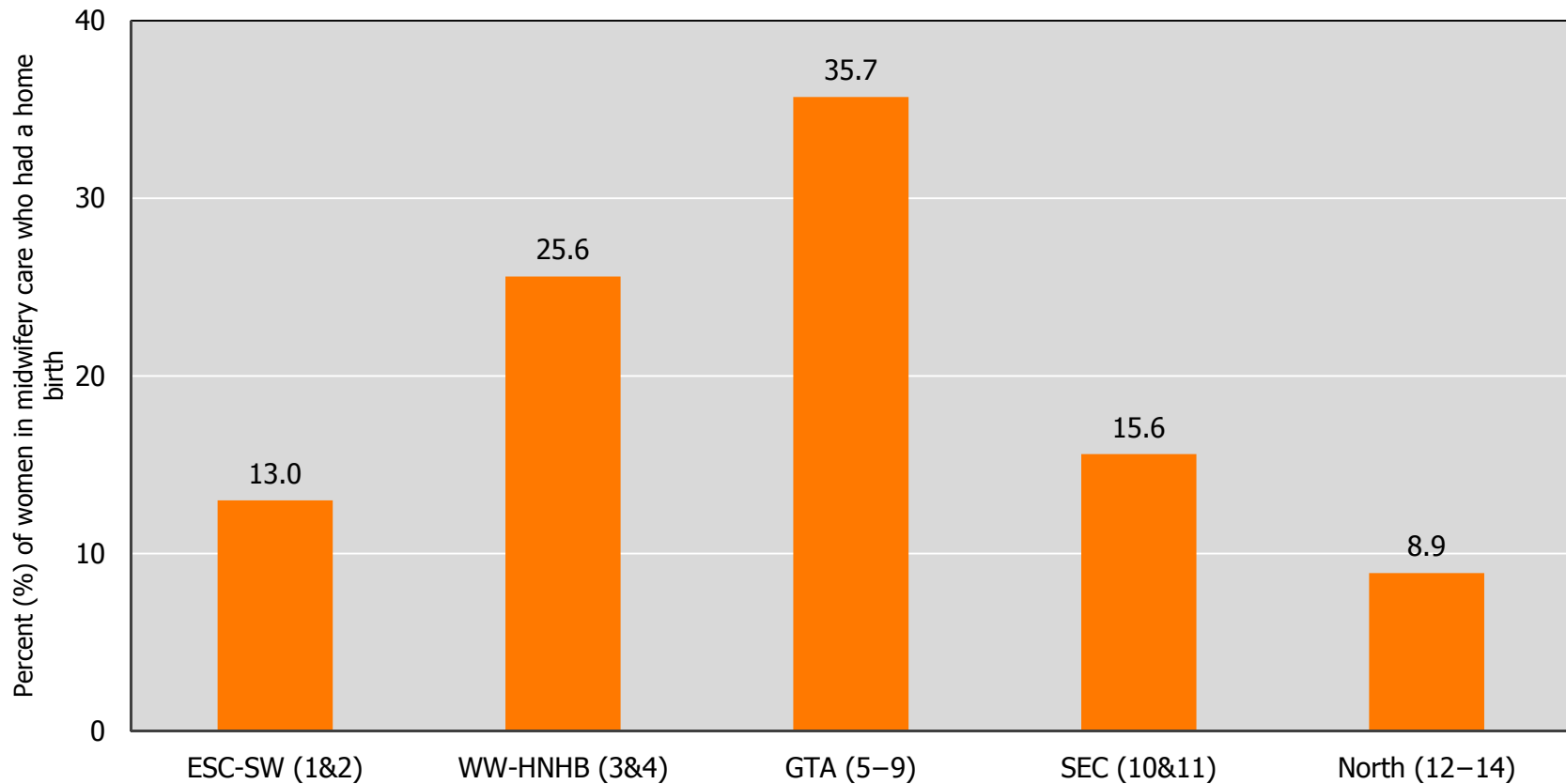
LHIN region of maternal residence	Number of women	
	ESC-SW (1&2)	352
	WW-HNHB (3&4)	694
	GTA (5–9)	967
	SEC (10&11)	422
	North (12–14)	242
	ONTARIO	2,677

Source – Ontario Midwifery Program Maternal-Newborn Health Reporting System (Ontario MOHLTC), 2009–2010

† Ontario residents only

Distribution of women in midwifery care that gave birth at home, by LHIN region of maternal residence

Ontario†, 2009–2010



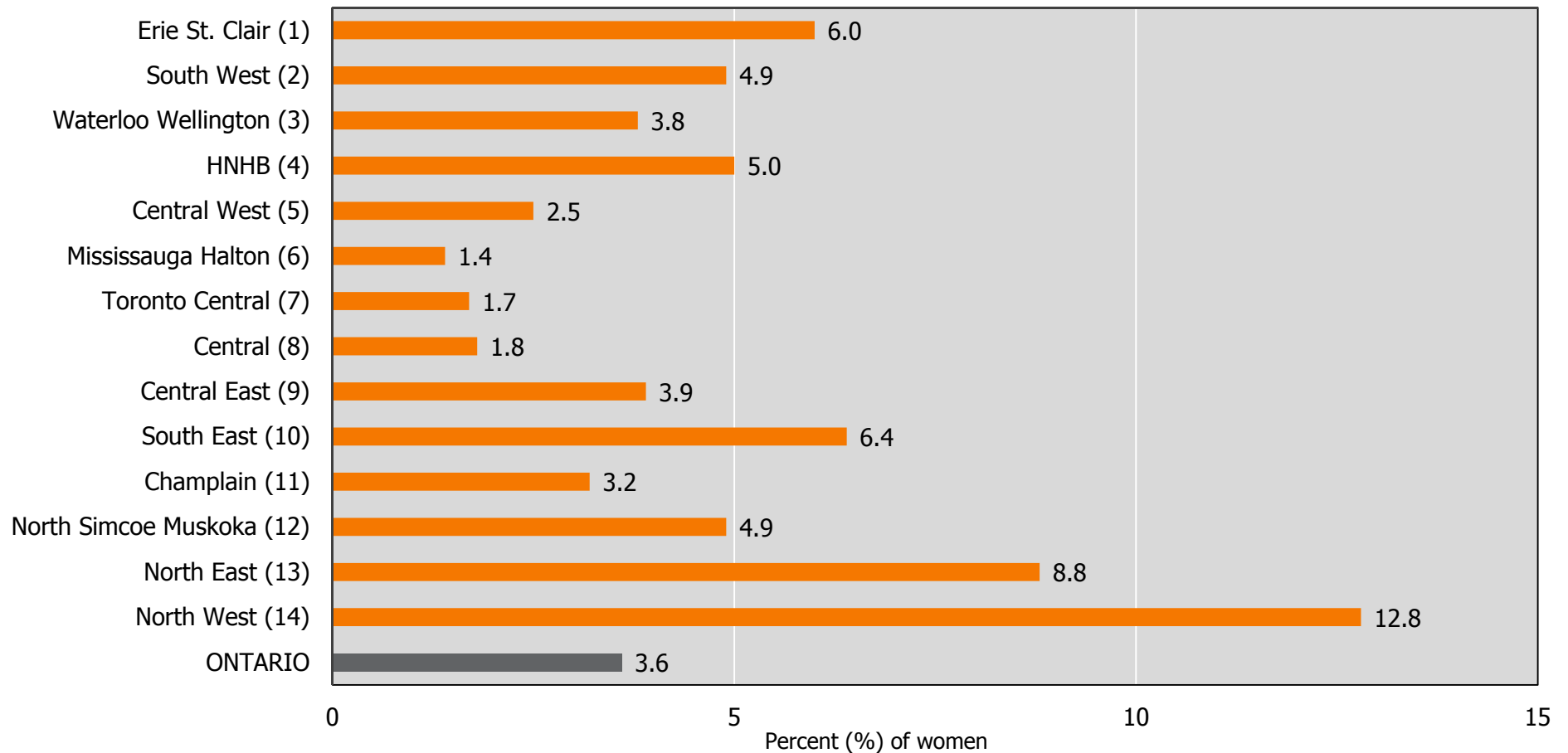
LHIN region of maternal residence

Source – Ontario Midwifery Program Maternal-Newborn Health Reporting System (Ontario MOHLTC), 2009–2010

† Ontario residents only

Proportion of women <20 years at delivery, by LHIN of birth

Ontario†, 2009–2010

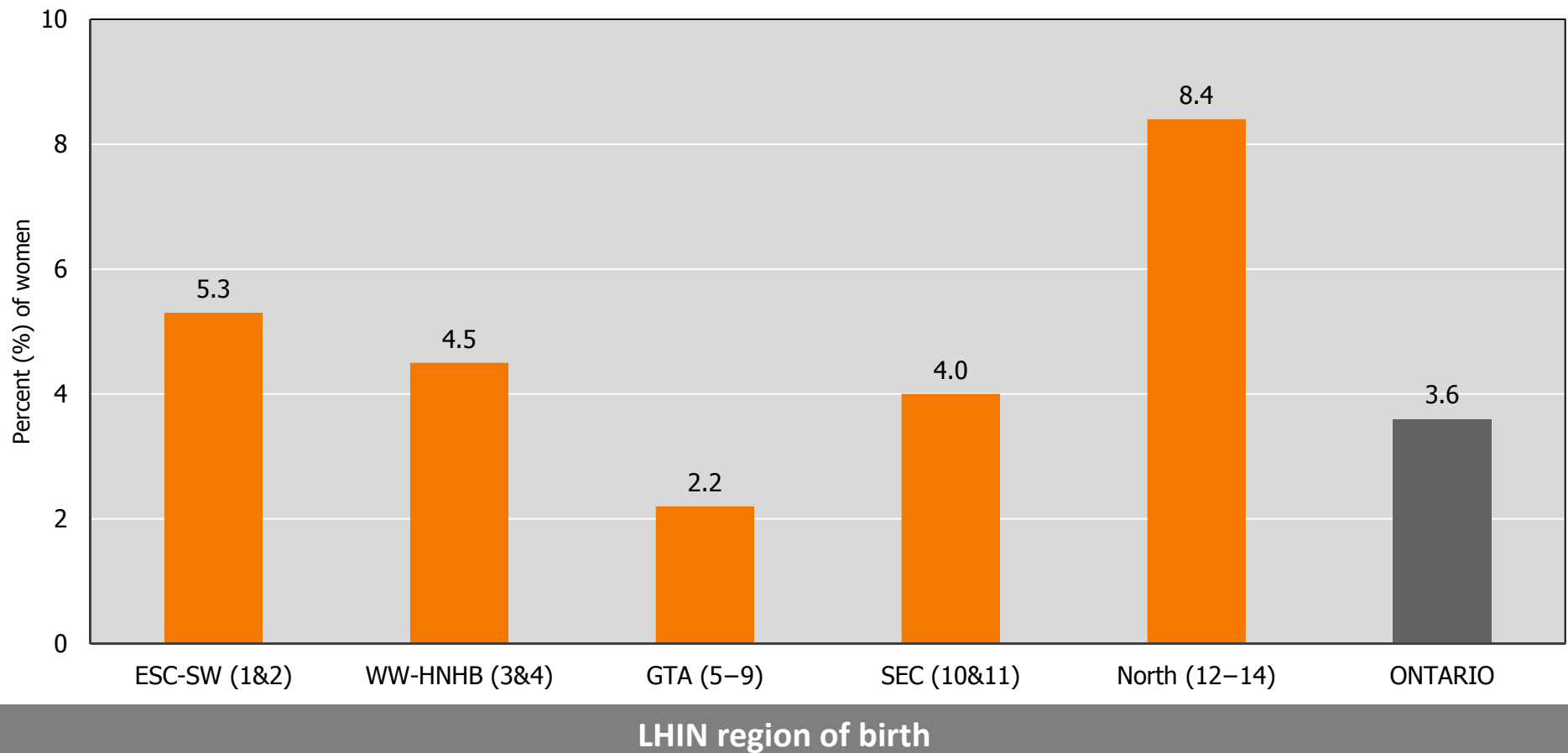


Source – Ontario Midwifery Program Maternal-Newborn Health Reporting System (Ontario MOHLTC), 2009–2010

† Ontario residents only

Proportion of women <20 years at delivery

Ontario†, 2009–2010

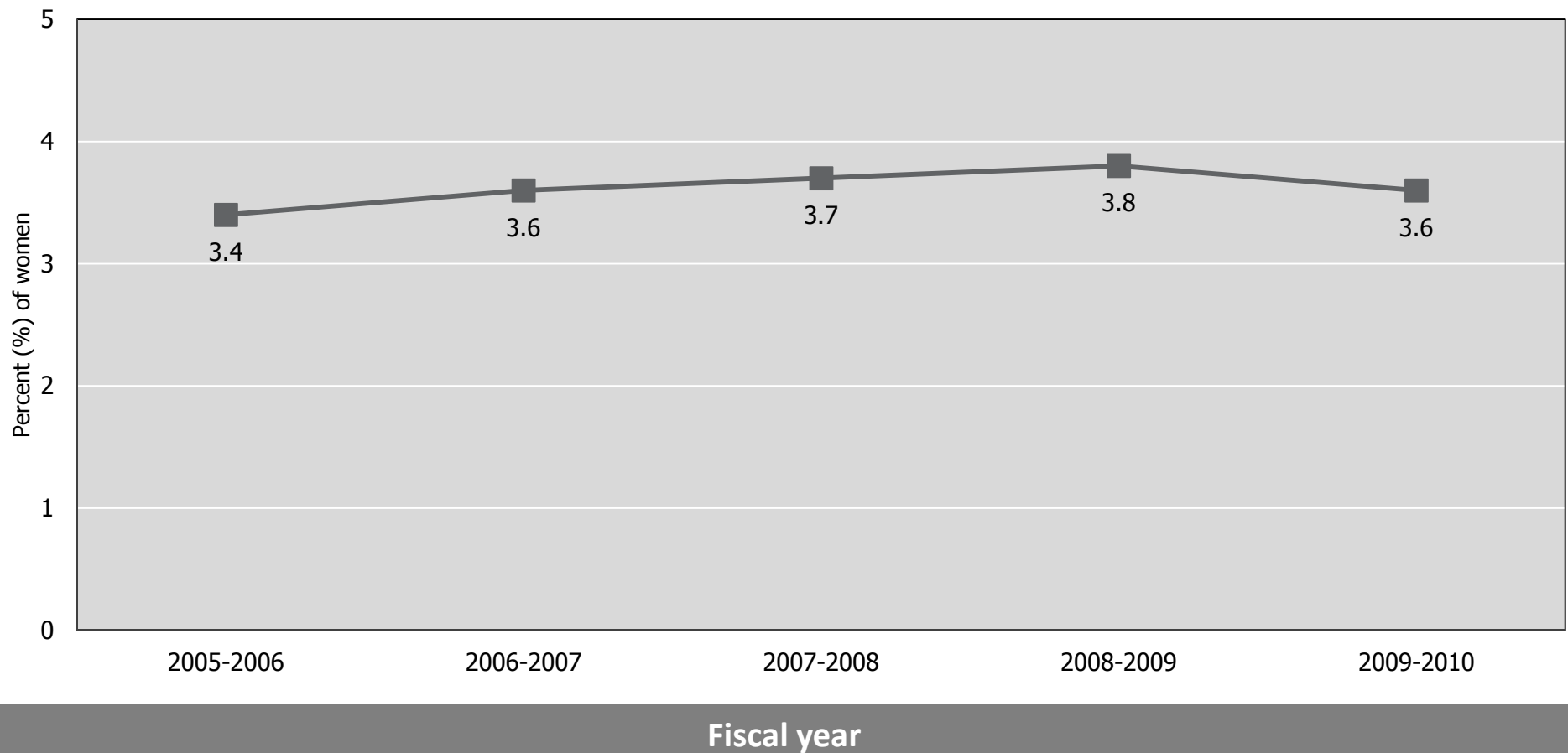


Source – BORN Ontario (Niday Perinatal Database), 2009–2010

† Ontario residents only

Proportion of women <20 years at delivery

Ontario†, 2005–2006 to 2009–2010

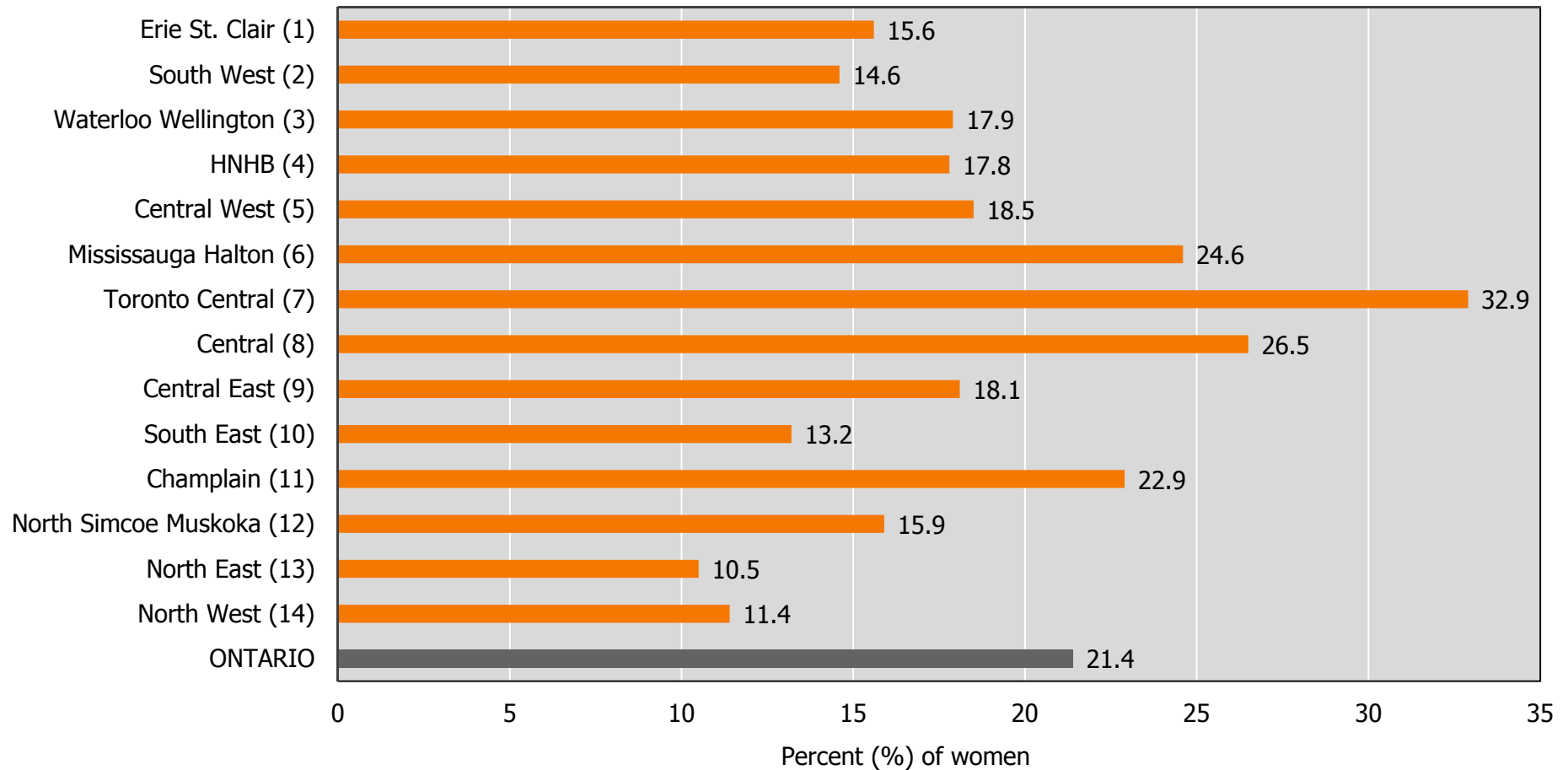


Source – BORN Ontario (Niday Perinatal Database), 2005–2006 to 2009–2010

† Ontario residents only

Proportion of women ≥ 35 years at delivery, by LHIN of birth

Ontario†, 2009–2010

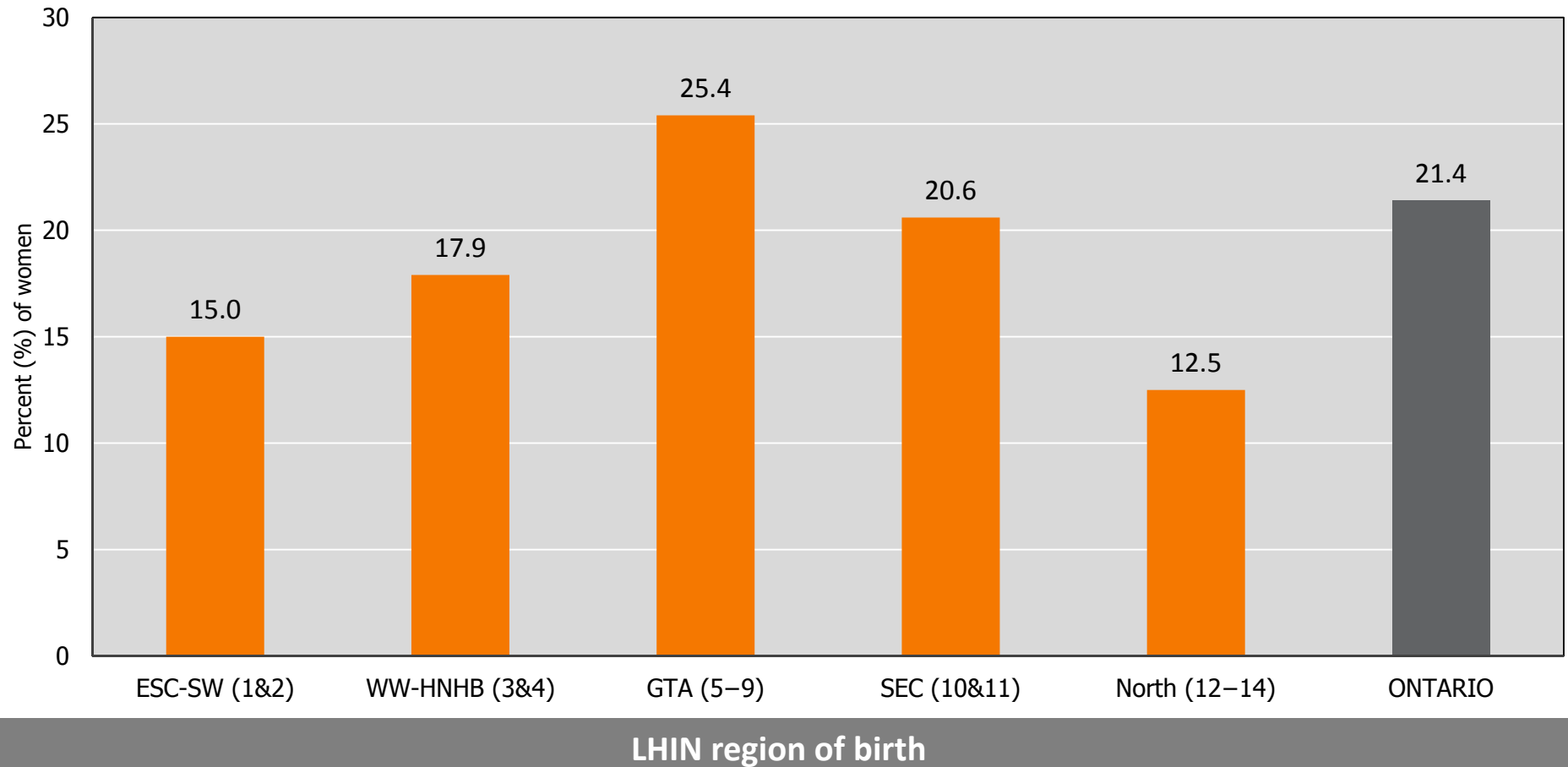


Source – BORN Ontario (Niday Perinatal Database), 2009–2010

† Ontario residents only

Proportion of women ≥ 35 years at delivery

Ontario†, 2009–2010

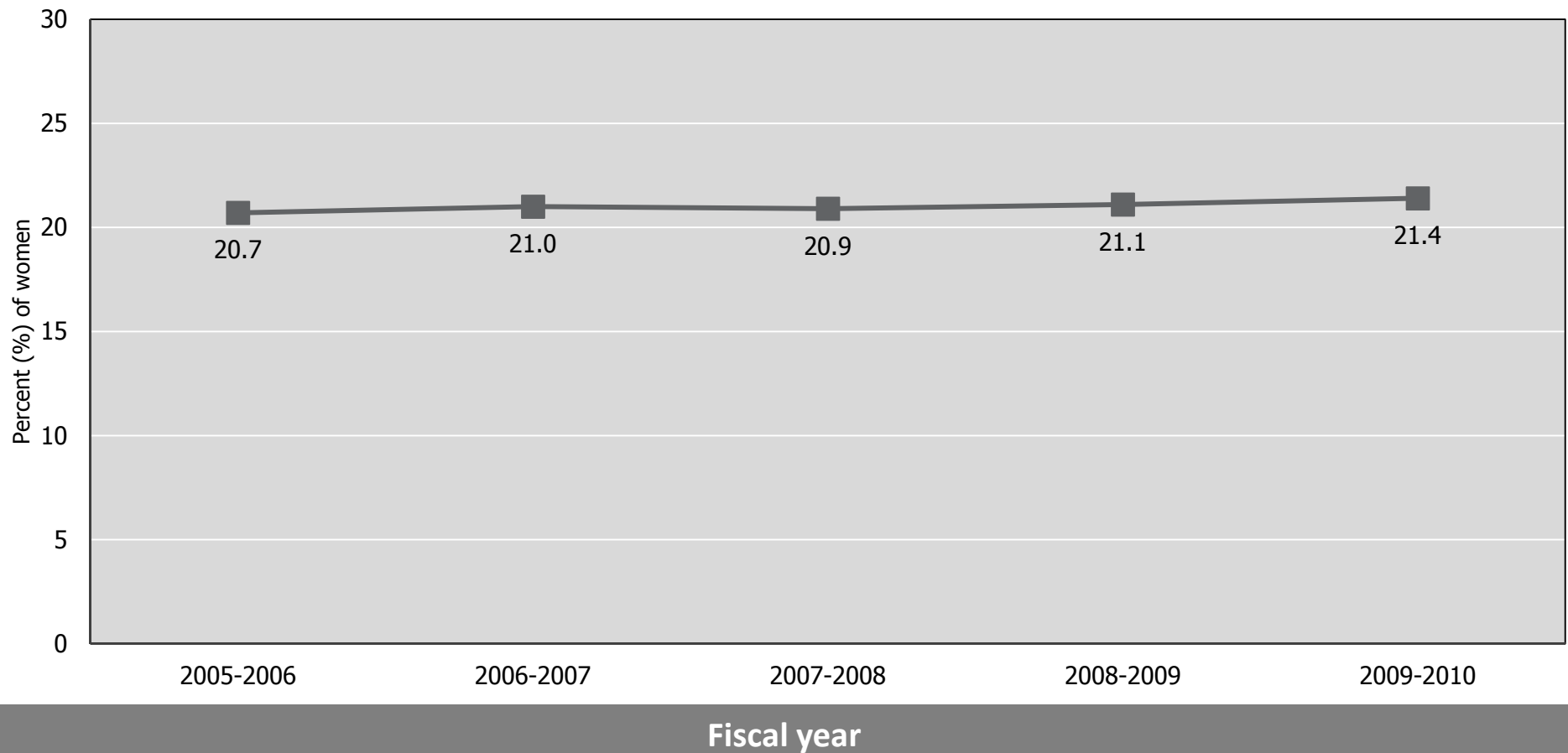


Source – BORN Ontario (Niday Perinatal Database), 2009–2010

† Ontario residents only

Proportion of women ≥ 35 years at delivery

Ontario†, 2005–2006 to 2009–2010

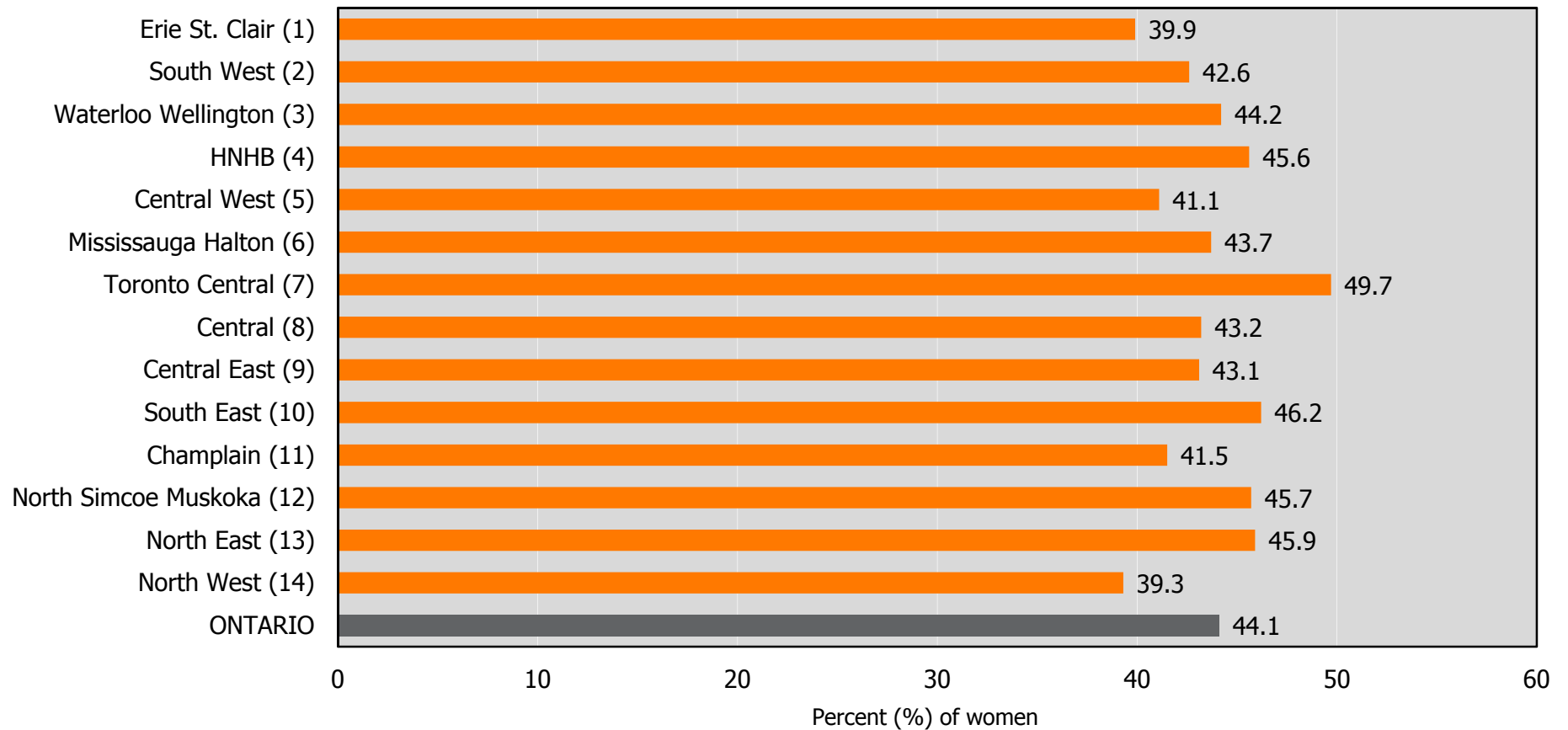


Source – BORN Ontario (Niday Perinatal Database), 2005–2006 to 2009–2010

† Ontario residents only

Proportion of women who were nulliparous at delivery, by LHIN of birth

Ontario†, 2009–2010

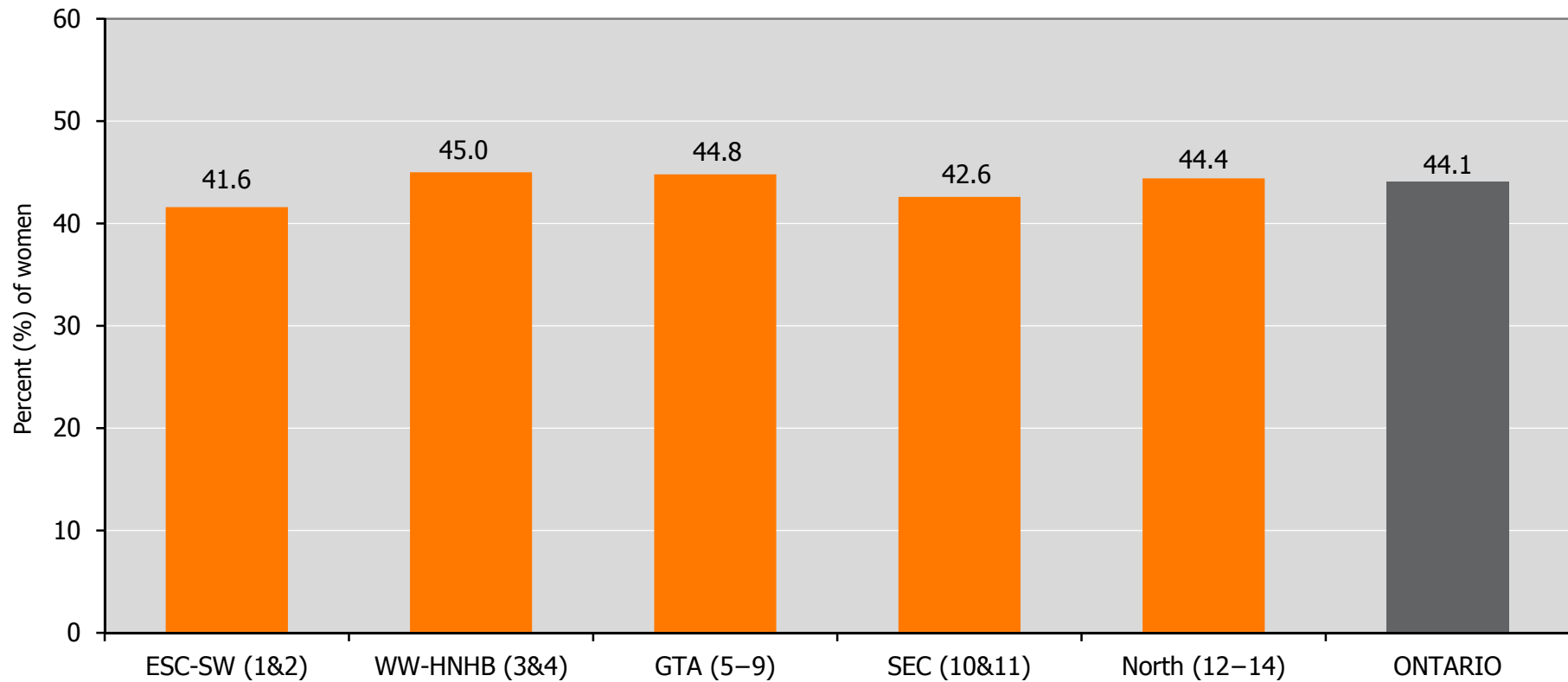


Source – BORN Ontario (Niday Perinatal Database), 2009–2010

† Ontario residents only

Proportion of women who were nulliparous at delivery

Ontario†, 2009–2010



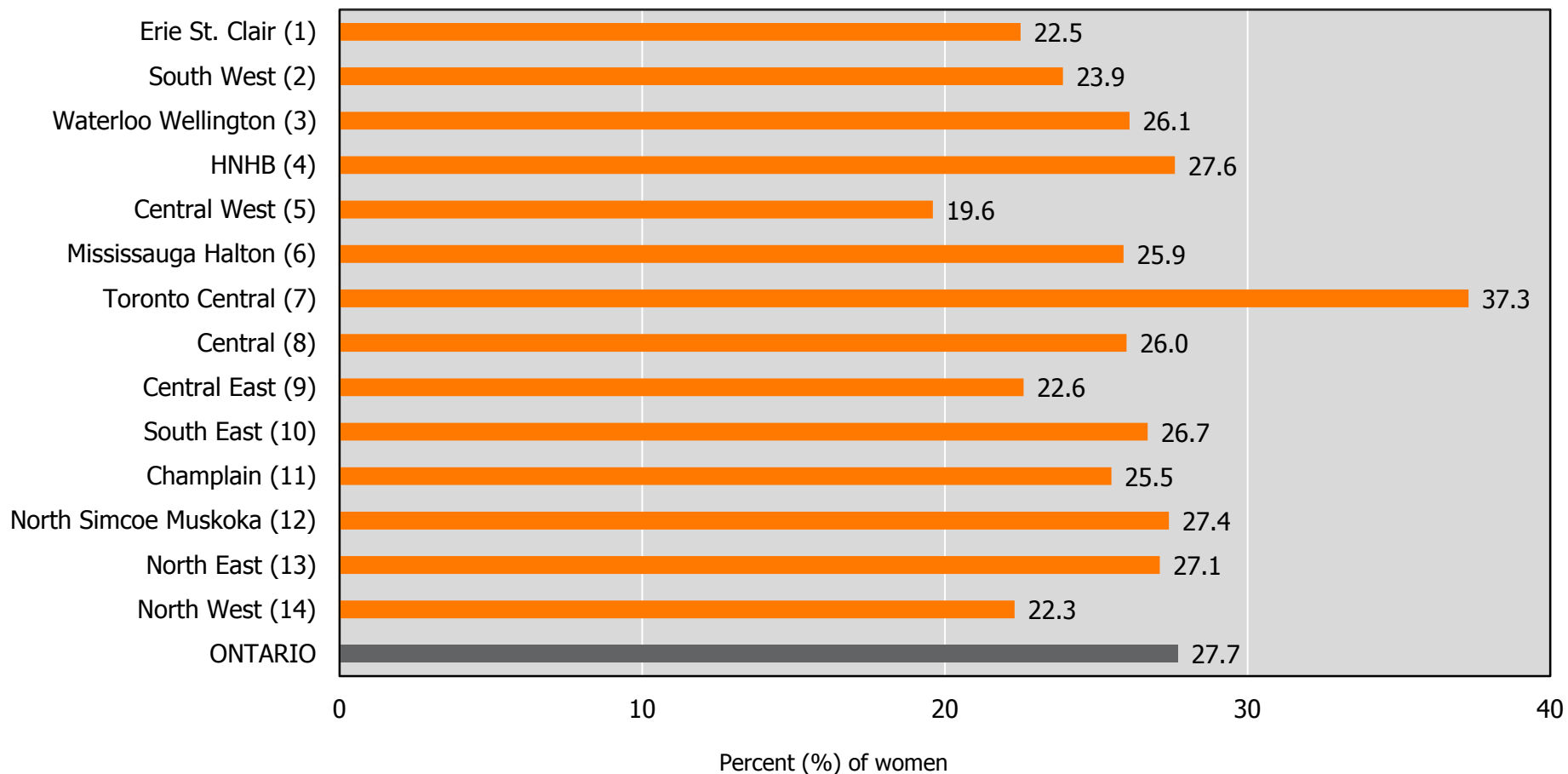
LHIN region of birth

Source – BORN Ontario (Niday Perinatal Database), 2009–2010

† Ontario residents only

Proportion of women who were ≥ 35 years of age and nulliparous at delivery, by LHIN of birth

Ontario†, 2009–2010

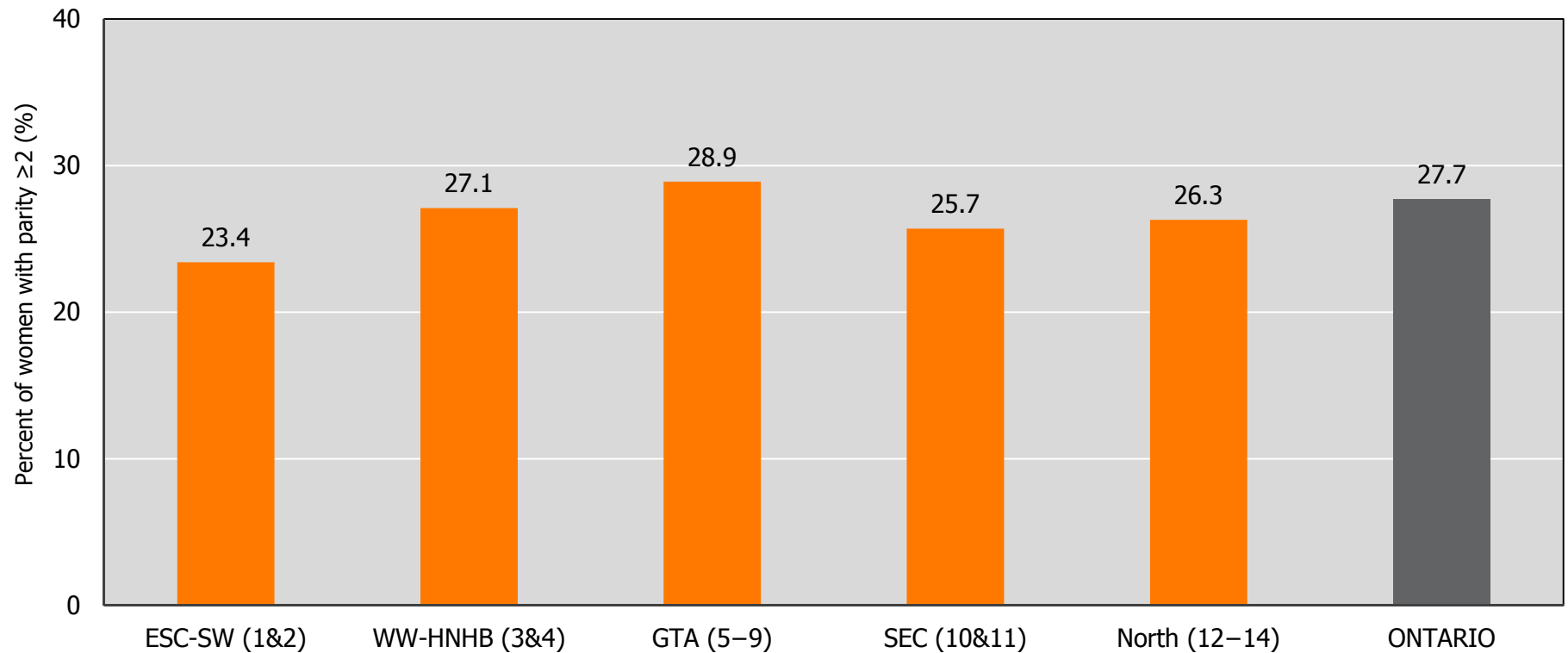


Source – BORN Ontario (Niday Perinatal Database), 2009–2010

† Ontario residents only

Proportion of women who were ≥ 35 years of age and nulliparous at delivery

Ontario†, 2009–2010



LHIN region of birth

Source – BORN Ontario (Niday Perinatal Database), 2009–2010

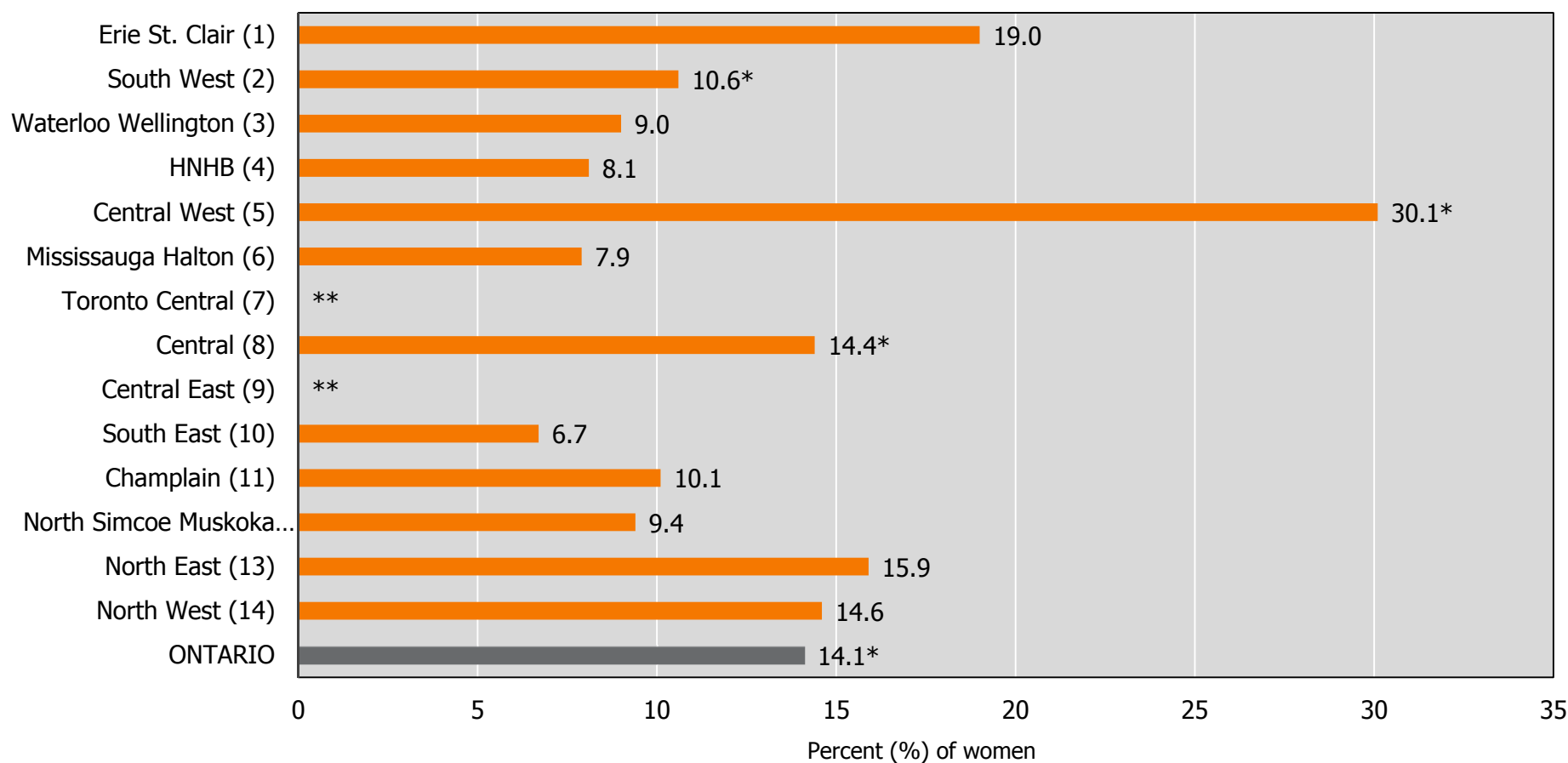
† Ontario residents only

Section II

Pregnancy

Proportion of women who did not attend an antenatal visit with a health care provider during the first trimester, by LHIN of birth

Ontario†, 2009–2010



Source – BORN Ontario (Niday Perinatal Database), 2009–2010

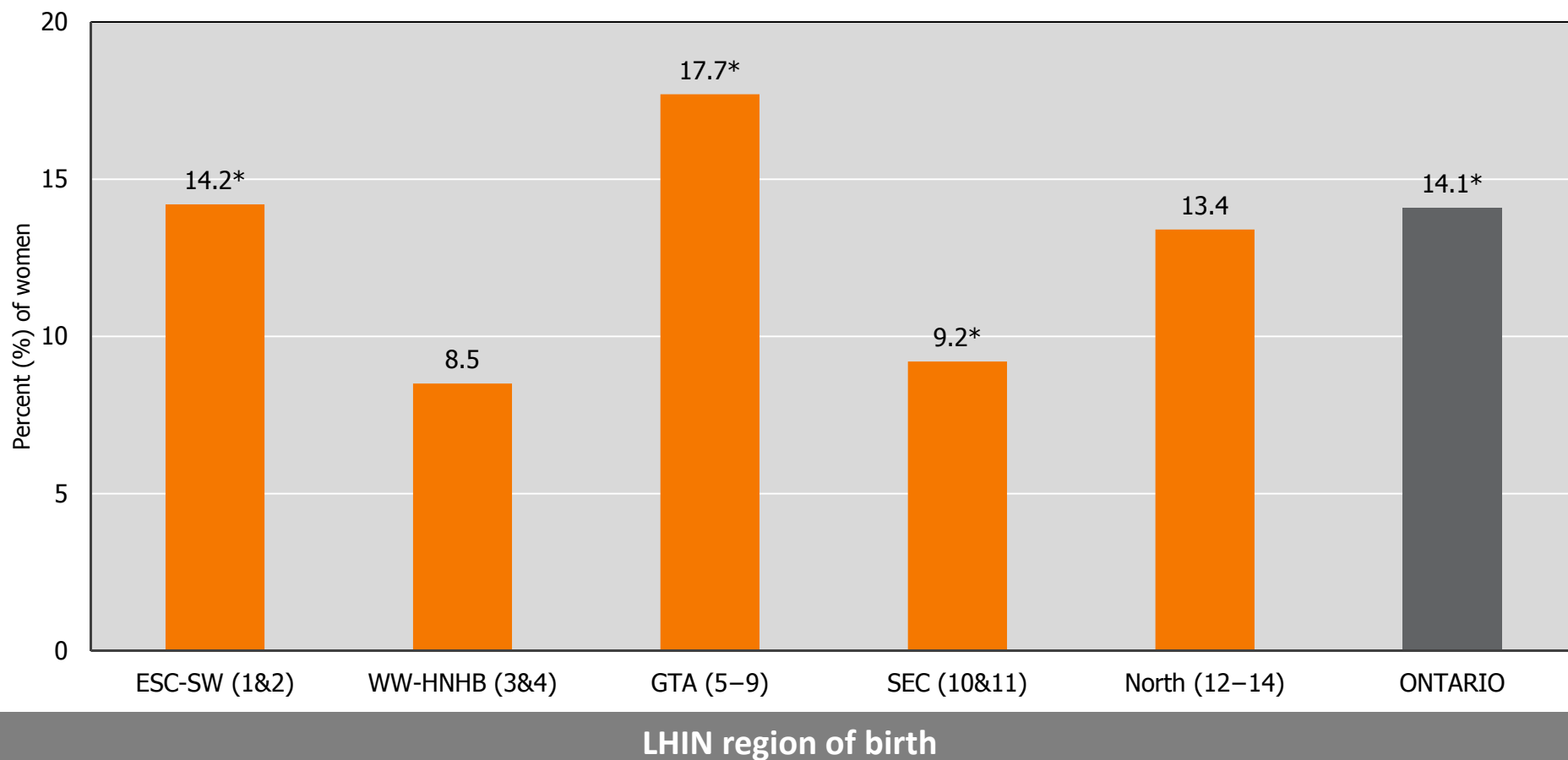
† Ontario residents only

* Between 10% and 30% of records and missing information and were excluded from the calculation of these estimates

** Estimate not shown because more than 30% of records had missing information

Proportion of women who did not attend an antenatal visit with a health care provider during the first trimester

Ontario†, 2009–2010



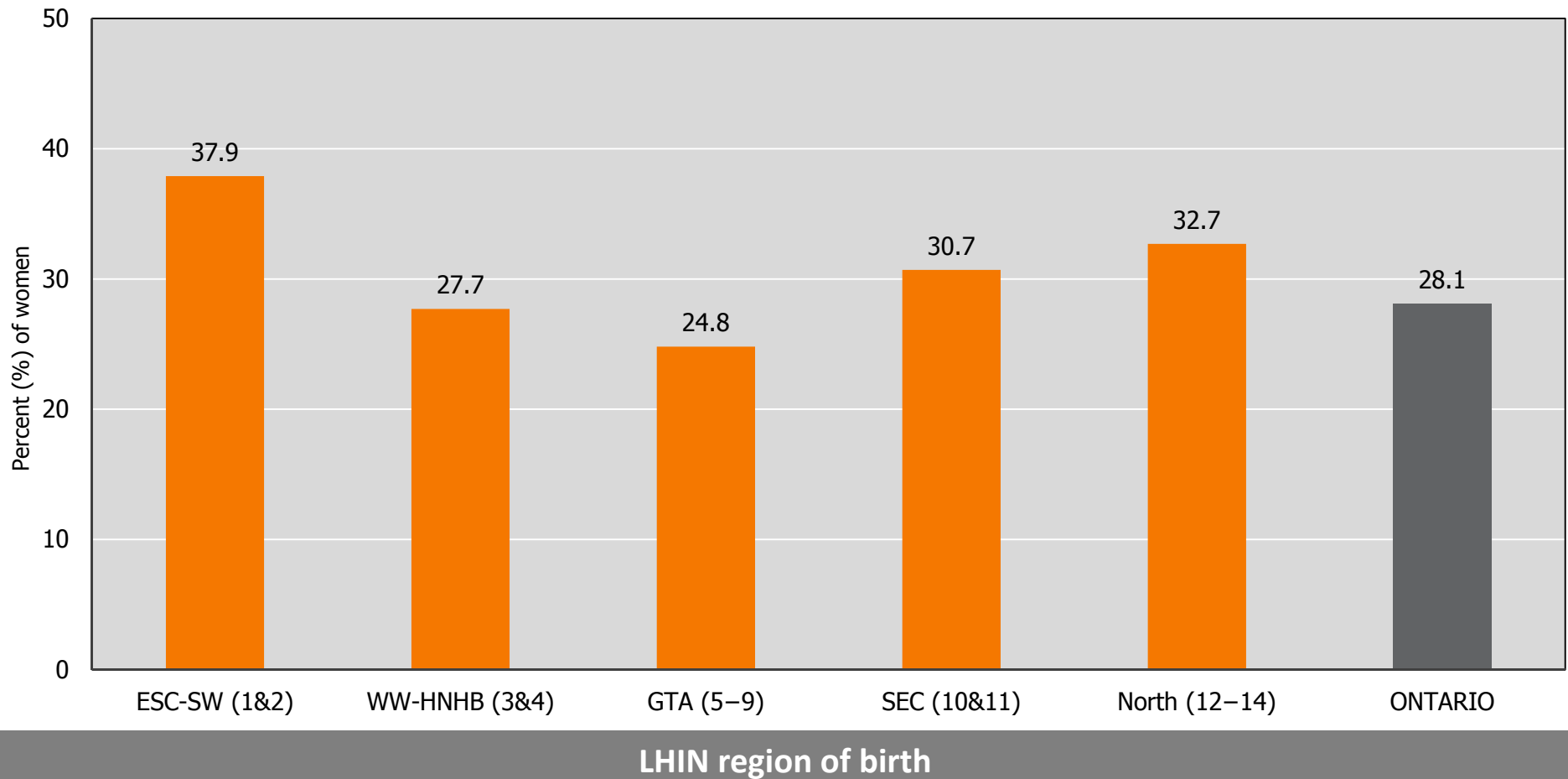
Source – BORN Ontario (Niday Perinatal Database), 2009–2010

† Ontario residents only

* Between 10% and 30% of records and missing information and were excluded from the calculation of these estimates

Proportion of women with pre-existing health conditions

Ontario†, 2009–2010

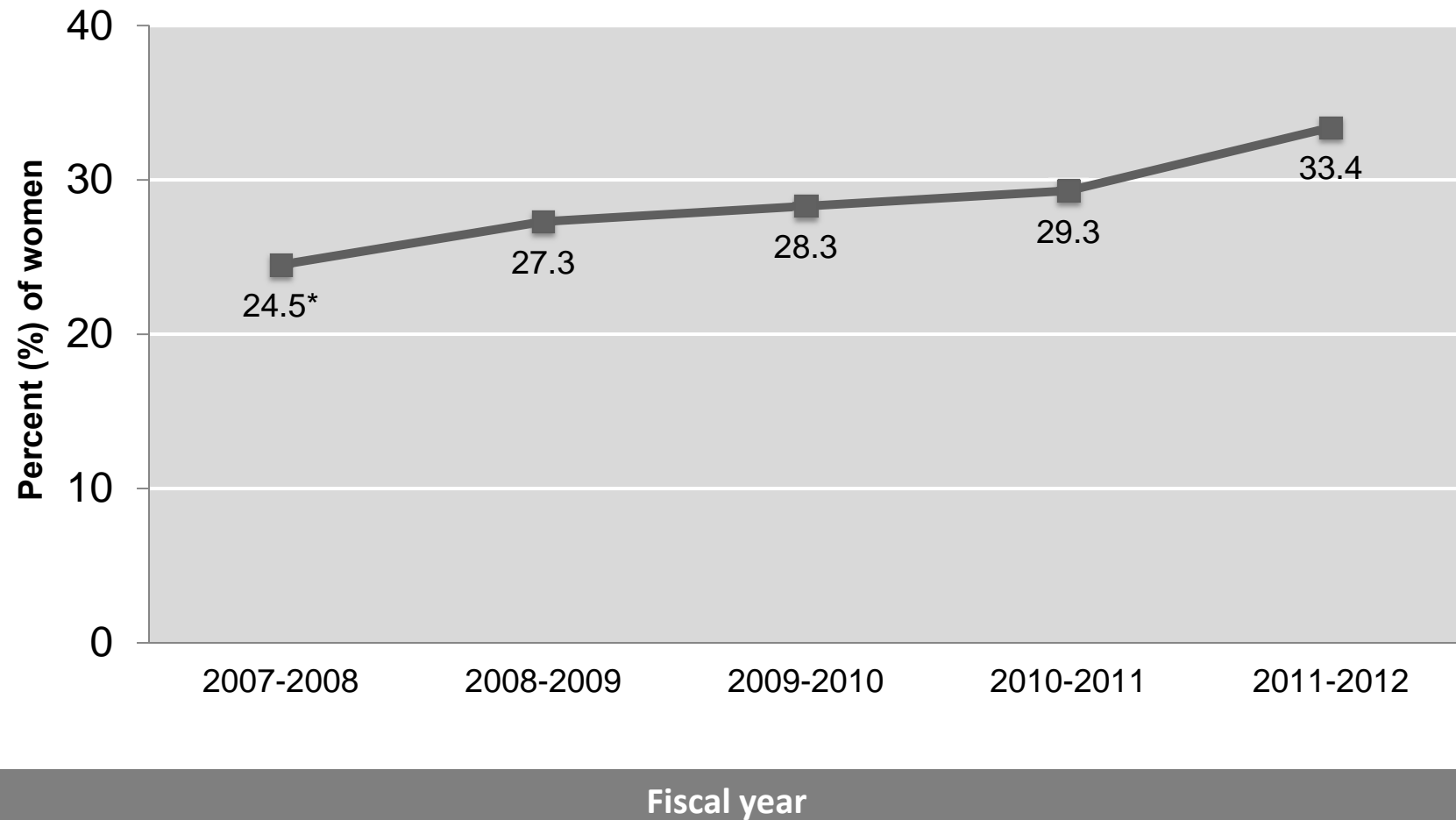


Source – BORN Ontario (Niday Perinatal Database), 2009–2010

† Ontario residents only

Proportion of women with pre-existing health conditions

Ontario†, 2005–2006 to 2009–2010



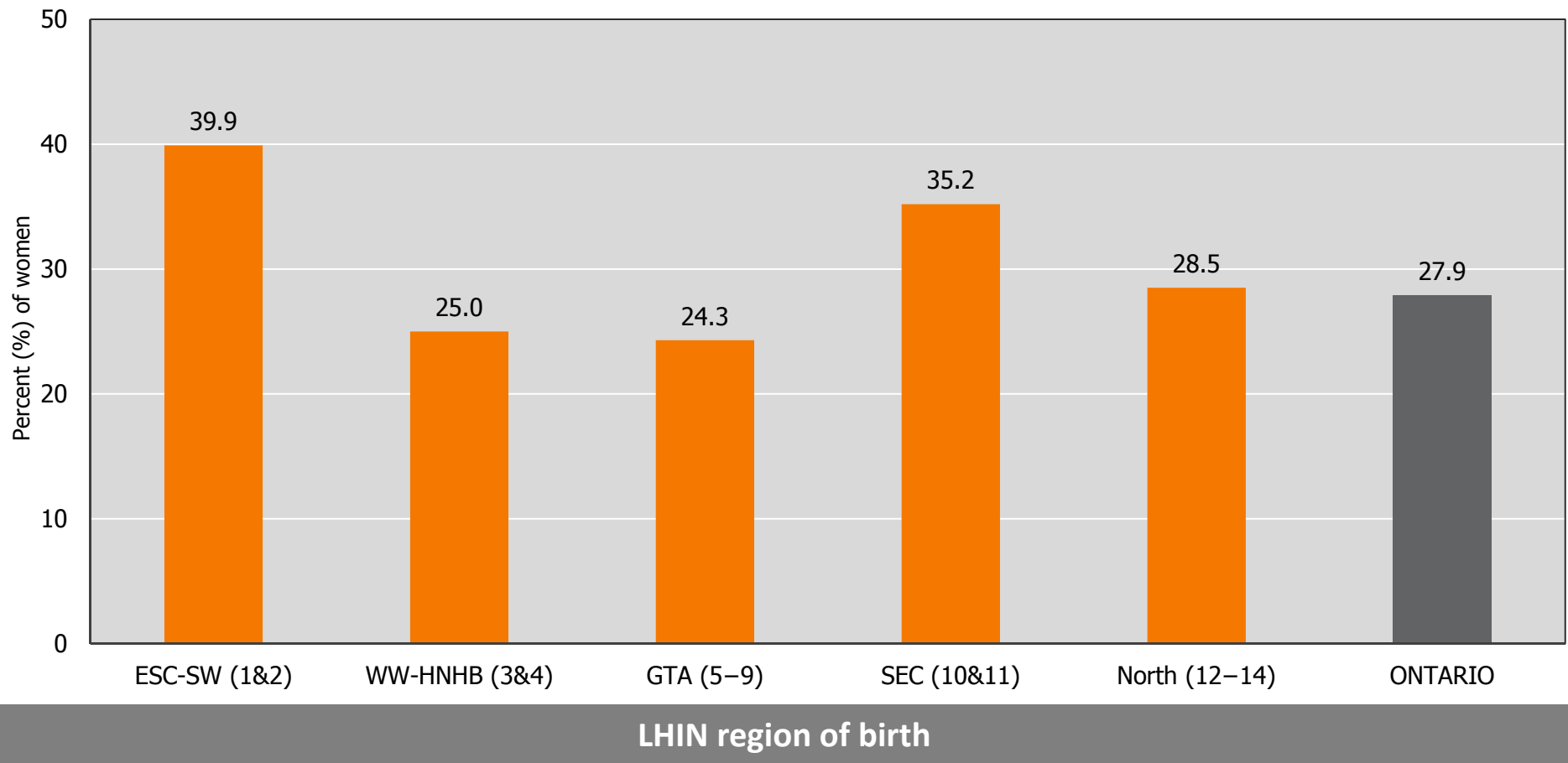
Source – BORN Ontario (Niday Perinatal Database), 2005–2006 to 2009–2010

† Ontario residents only

* Between 10% and 30% of records and missing information and were excluded from the calculation of these estimates

Proportion of women with obstetrical complications

Ontario†, 2009–2010

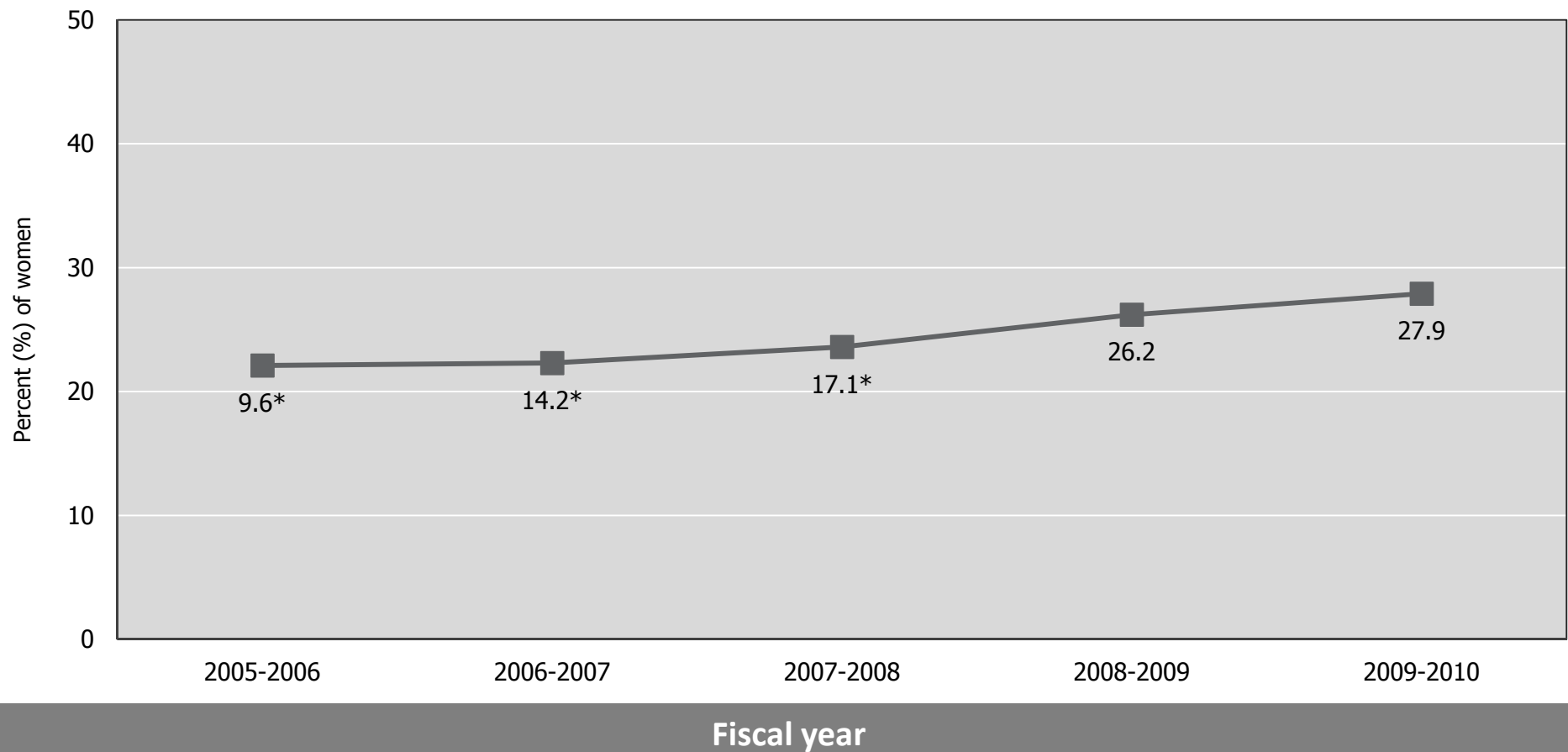


Source – BORN Ontario (Niday Perinatal Database), 2009–2010

† Ontario residents only

Proportion of women with obstetrical complications

Ontario†, 2009–2010



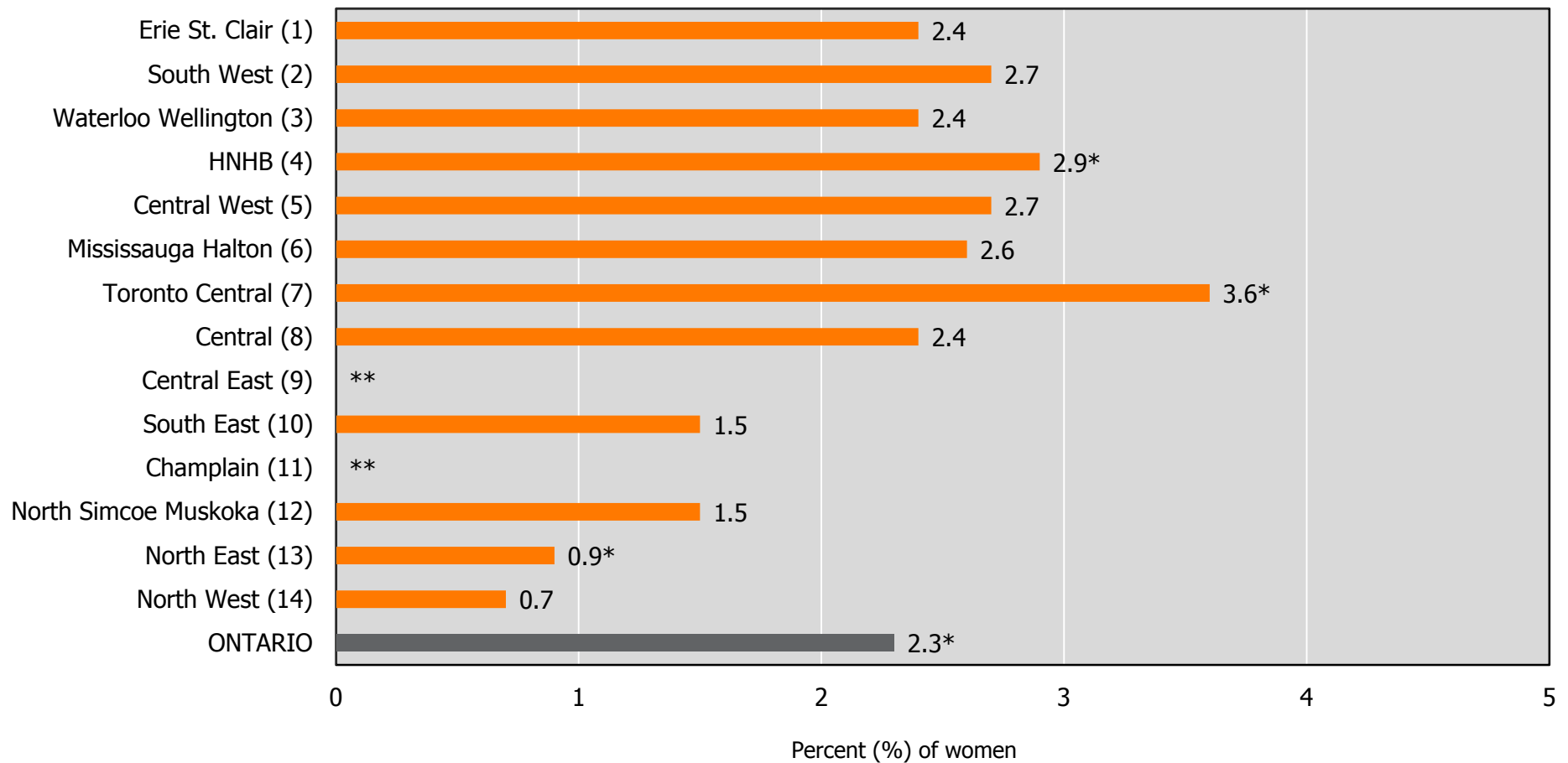
Source – BORN Ontario (Niday Perinatal Database), 2005–2006 to 2009–2010

† Ontario residents only

* Between 10% and 30% of records and missing information and were excluded from the calculation of these estimates

Rate of assisted conception, by LHIN of birth

Ontario†, 2009–2010



Source – BORN Ontario (Niday Perinatal Database), 2009–2010

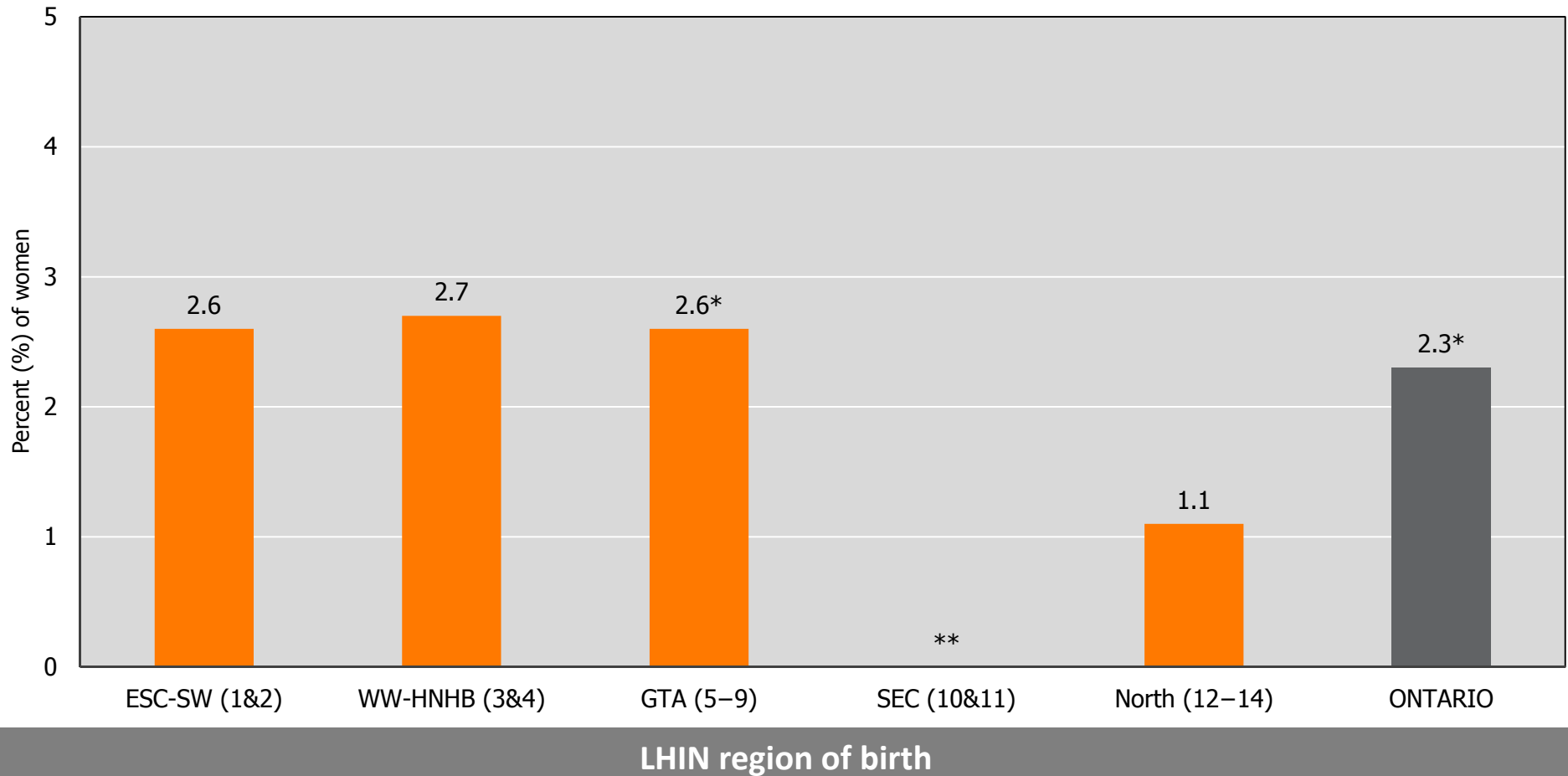
† Ontario residents only

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** Estimate not shown because more than 30% of records had missing information

Rate of assisted conception

Ontario†, 2009–2010



Source – BORN Ontario (Niday Perinatal Database), 2009–2010

† Ontario residents only

* Between 10% and 30% of records and missing information and were excluded from the calculation of these estimates

** Estimate not shown because more than 30% of records had missing information

Section III

Maternity health services

Levels of care

- Levels of care in Ontario hospitals are designated by the Ontario Ministry of Health and Long-Term Care
- These designations reflect the scope of medical services available at a particular hospital and define the maximum level of the acuity and complexity of mothers and infants who can be cared for at that hospital
- All hospitals care for mothers and infants who are healthy (low risk) as well as those who are at the maximum level of acuity and complexity according to their hospital's level of care designation

Levels of care

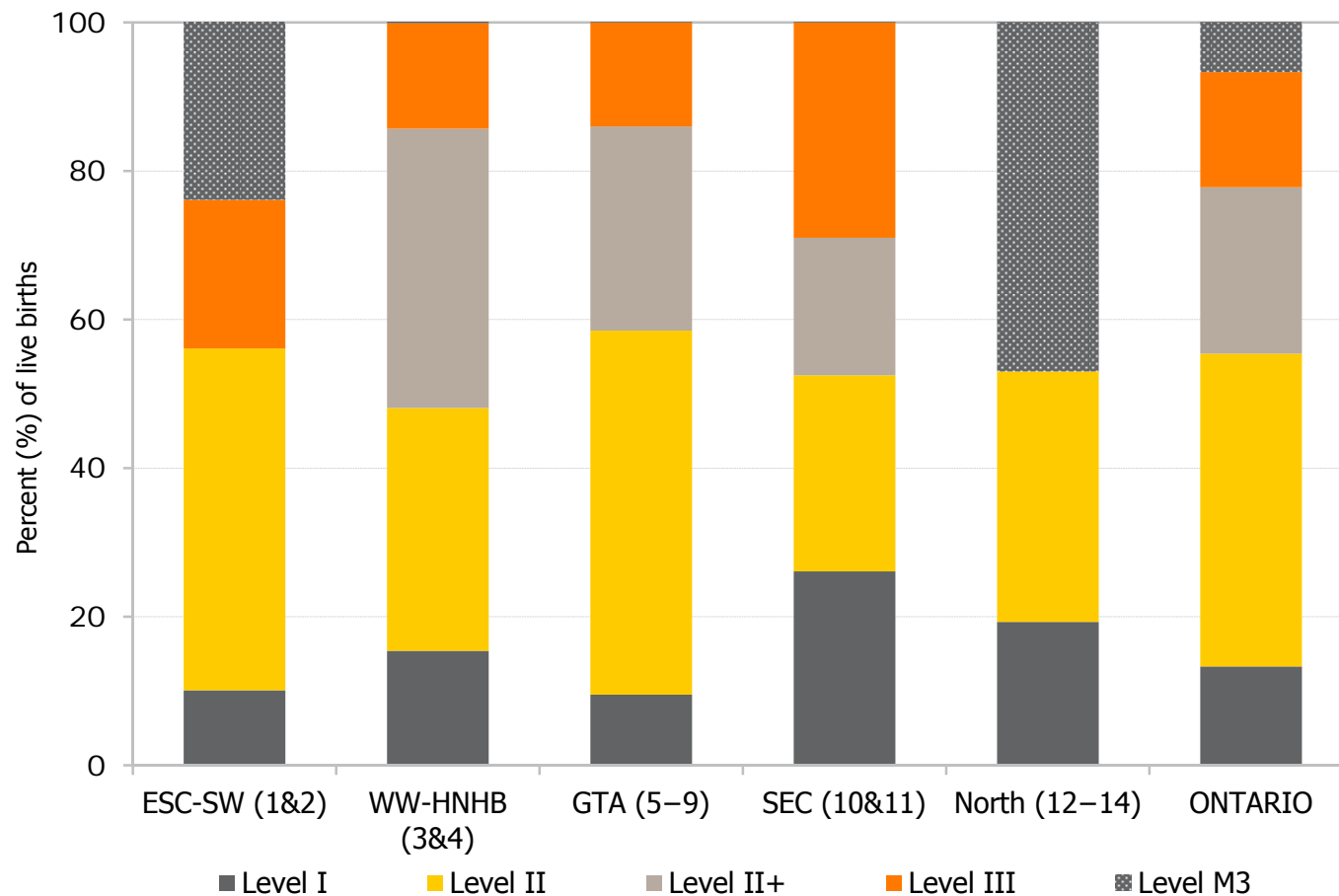
- At the time these reports were prepared, five levels of care designation for maternal-newborn services existed within Ontario:

Level of care	Description
I	Provide care for healthy mothers and infants >36 weeks' gestation
II/II+	Provide care for mothers and infants ≥32 weeks' gestation
Modified III (M3)	Provide care for mothers and infants ≥29 weeks' gestation without additional high risk maternal or fetal conditions
III	Provide care for all high-risk pregnancies, including prematurity <32 weeks

- In May 2011, recommendations regarding new maternal and newborn levels of care designation were announced by the Provincial Council for Maternal Child Health (PCMCH). These will likely phase in over the next several years and future BORN reports will reflect these new designations.

Distribution of live births at each level of care, by LHIN region of birth

Ontario†, 2009–2010



- Across Ontario, the majority of live births took place in a Level II hospital (42.1%), followed by 22.4% in a Level II+ hospital, 15.5% in a Level III hospital, 13.3% in a Level I hospital and 6.7% in a modified Level III hospital.

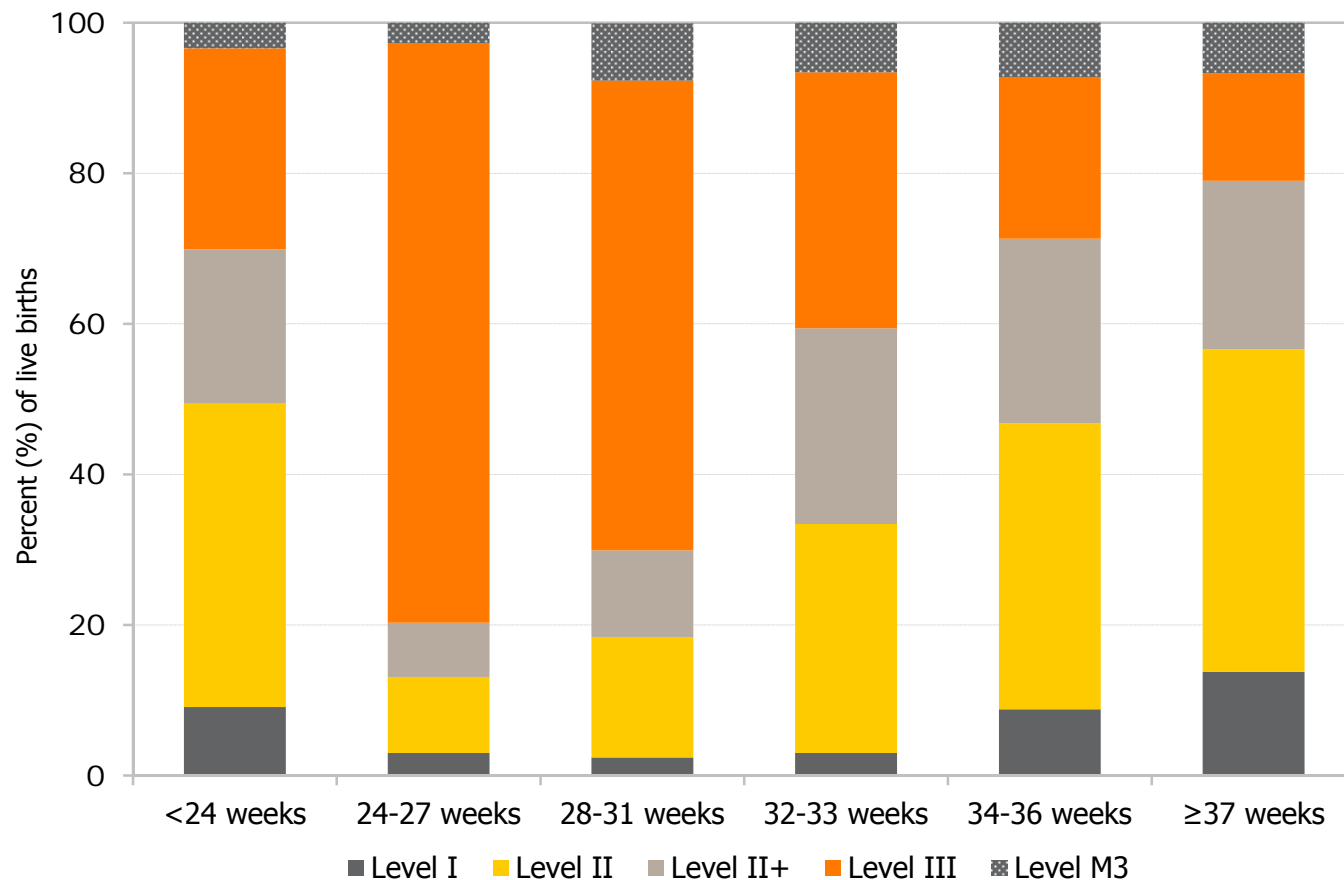
- Geographic differences in the distribution of live births at each level of care reflect the type of hospitals available in each LHIN as well as health service issues and practice patterns.

Source – BORN Ontario (Niday Perinatal Database), 2009–2010

† Ontario residents only

Distribution of live births at each level of care, by gestational age at birth

Ontario†, 2009–2010



- Across Ontario, the proportion of live births that took place in a Level III hospital was highest in infants born between 24–31 weeks (77.0% for 24–27 weeks, 62.4% for 28–31 weeks), which is the optimal level of care for this gestational age.

- Approximately a quarter (26.7%) of infants born during a gestational period where survival is extremely low (<24 weeks' gestation) were born at a Level III centre.

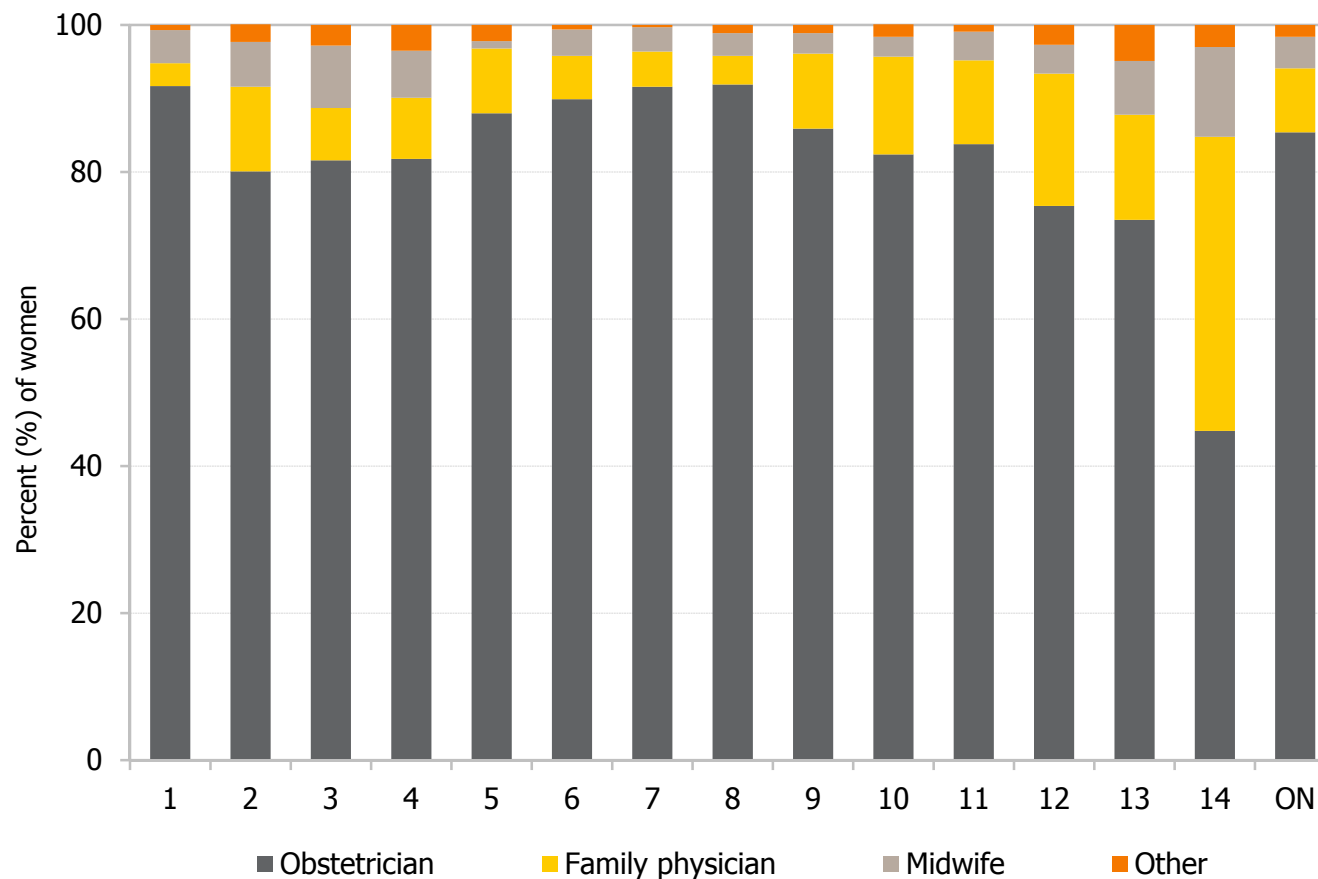
Source – BORN Ontario (Niday Perinatal Database), 2009–2010

† Ontario residents only

Section IV

Birth

Distribution of care provider who attended the hospital birth, by LHIN of birth Ontario†, 2009–2010



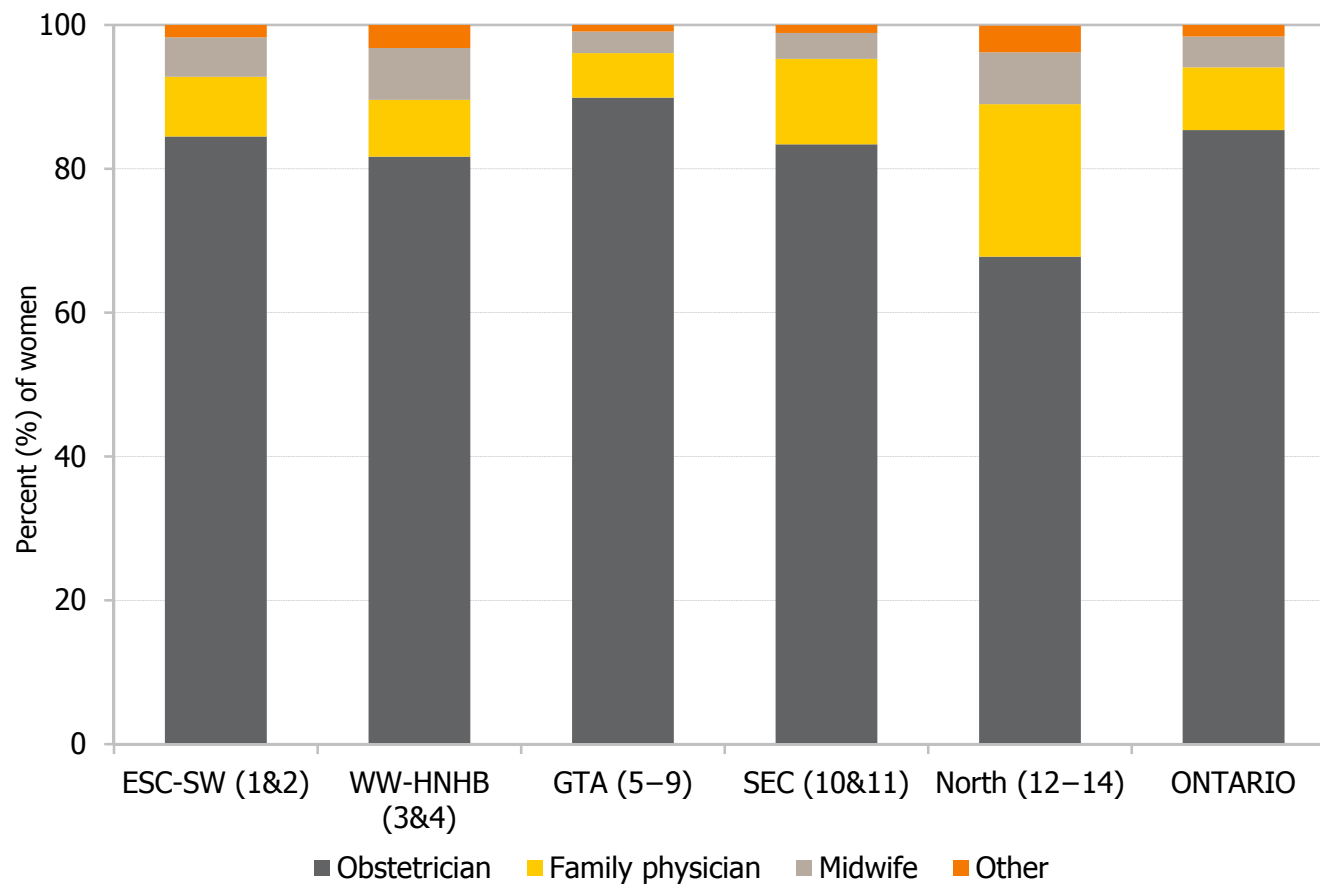
- Across Ontario, the majority of women had an obstetrician attend their hospital delivery (85.4%).
- The proportion of women whose care provider was a family physician at the time of their hospital delivery was 8.7% overall, but much higher in LHIN 14 (40.0%).
- Midwives were the primary care provider for 4.3% of hospital births in Ontario. 12.2% of women in LHIN 14 were attended by a midwife for their hospital delivery.

Source – BORN Ontario (Niday Perinatal Database), 2009–2010

† Ontario residents only

Distribution of care provider who attended the hospital birth, by LHIN region of birth

Ontario†, 2009–2010



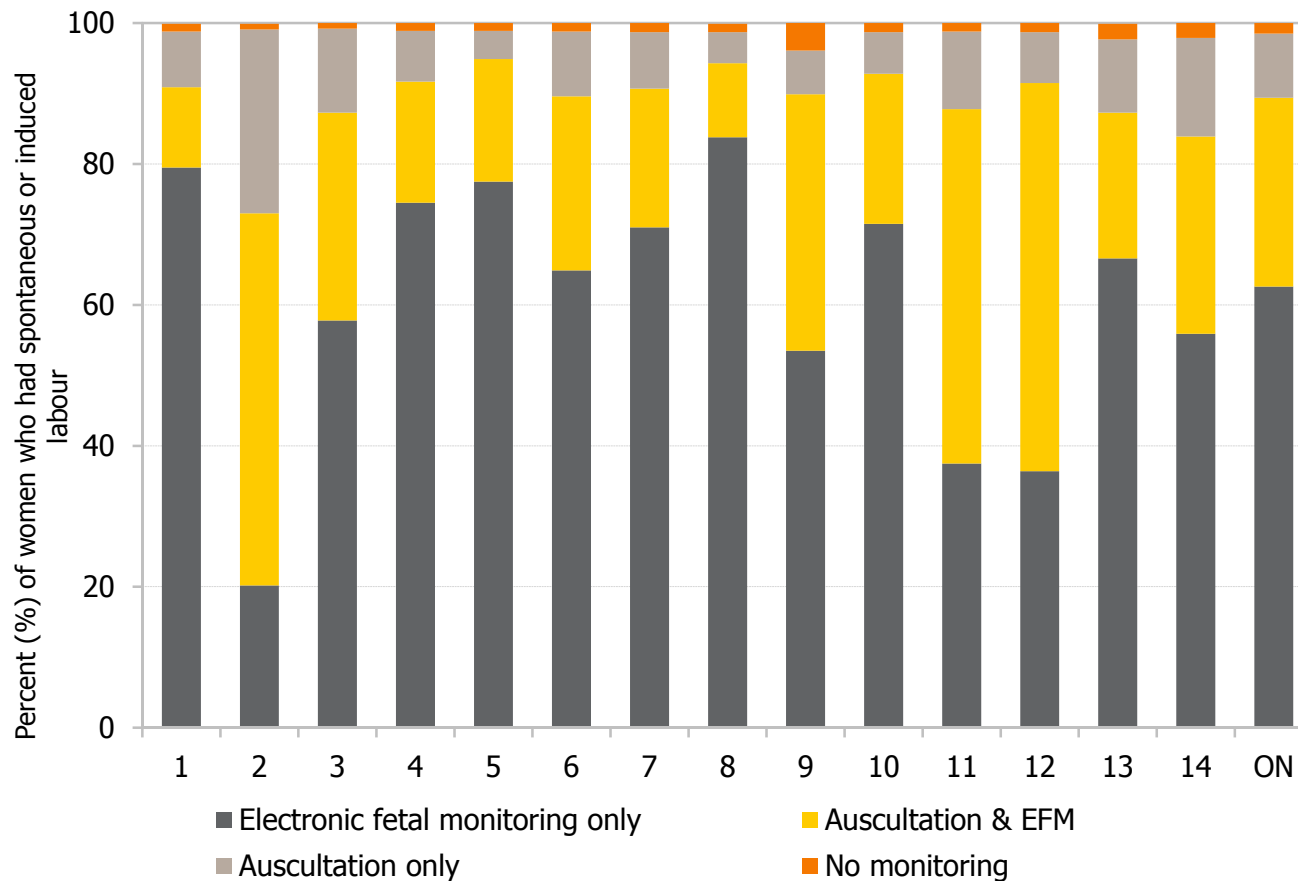
- Across Ontario, the majority of women had an obstetrician attend their hospital delivery (85.4%).
- The proportion of women whose care provider was a family physician at the time of their hospital delivery was 8.7% overall, and ranged from 6.2% in the GTA to 21.2% in LHINs 12–14.
- Midwives were the primary care provider for 4.3% of hospital births in Ontario, and ranged from 3.0% in the GTA to 7.2% in LHINs 3&4 and LHINs 12–14.

Source – BORN Ontario (Niday Perinatal Database), 2009–2010

† Ontario residents only

Fetal surveillance methods during labour, by LHIN of birth

Ontario†, 2009–2010



- Across Ontario, the majority of women (62.6%) received electronic fetal monitoring (EFM) alone during labour. A further 26.8% of women were monitored with auscultation in combination with EFM.

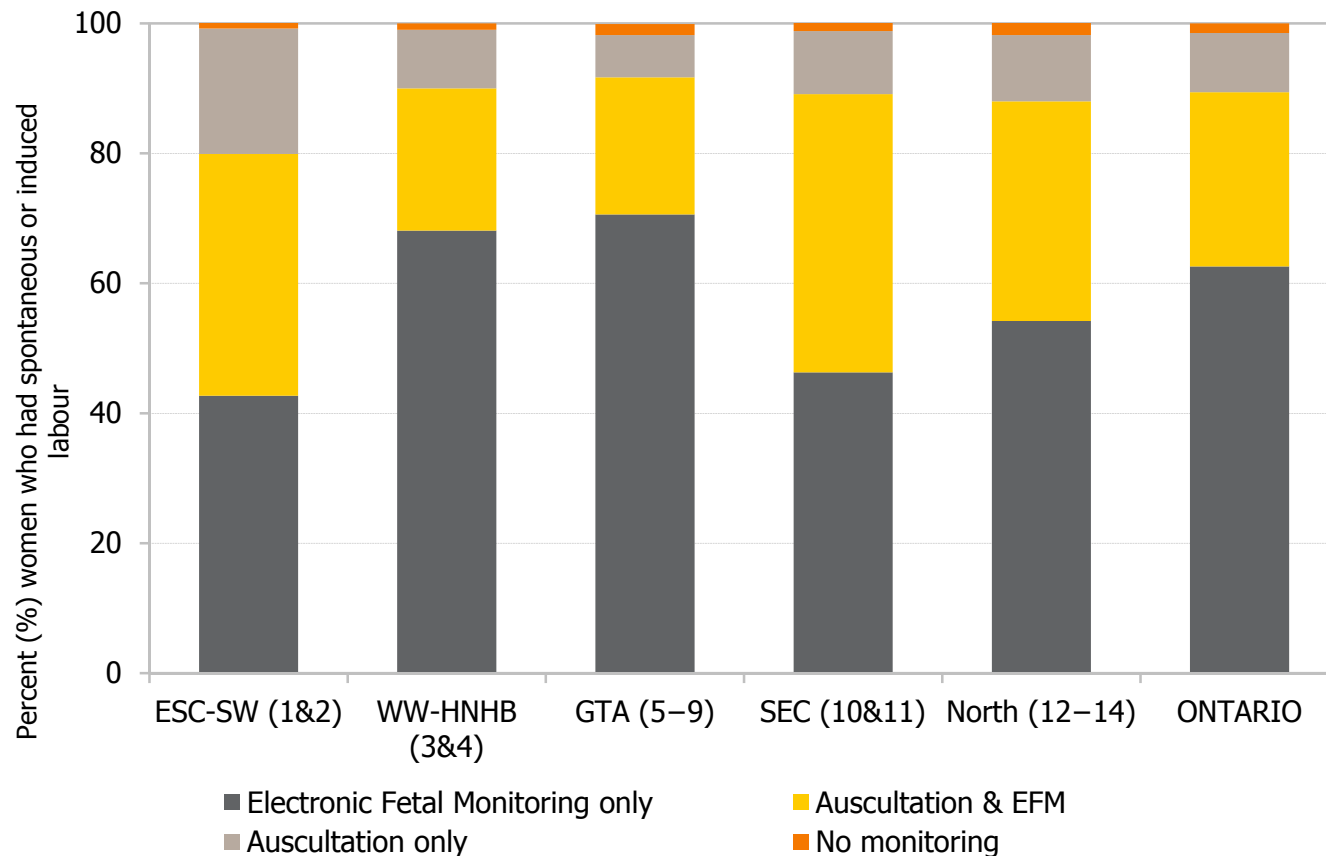
- The proportion of women who received auscultation alone was 9.1% overall, and ranged from 4.0% in LHIN 5, to 26.1% in LHIN 2.

Source – BORN Ontario (Niday Perinatal Database), 2009–2010

† Ontario residents only

Fetal surveillance methods during labour, by LHN region of birth

Ontario†, 2009–2010



- Across Ontario, the majority of women (62.6%) received electronic fetal monitoring (EFM) alone during labour. A further 26.8% of women were monitored with auscultation in combination with EFM.

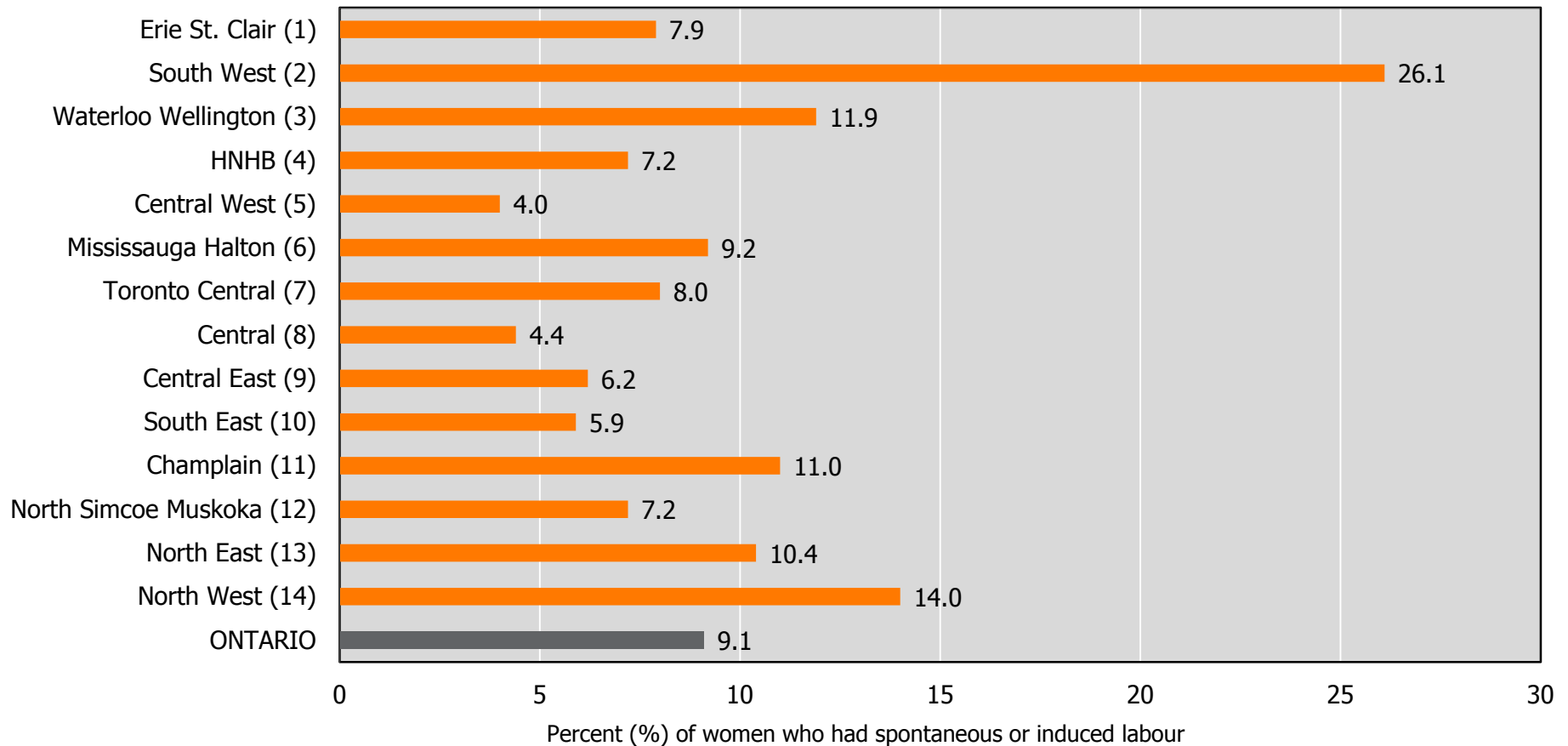
- The regional proportion of women who received auscultation alone was 9.1% overall, and ranged from 6.5% in the GTA, to 19.3% in LHINs 1&2.

Source – BORN Ontario (Niday Perinatal Database), 2009–2010

† Ontario residents only

Rate of auscultation only for fetal surveillance during labour, by LHIN of birth

Ontario†, 2009–2010

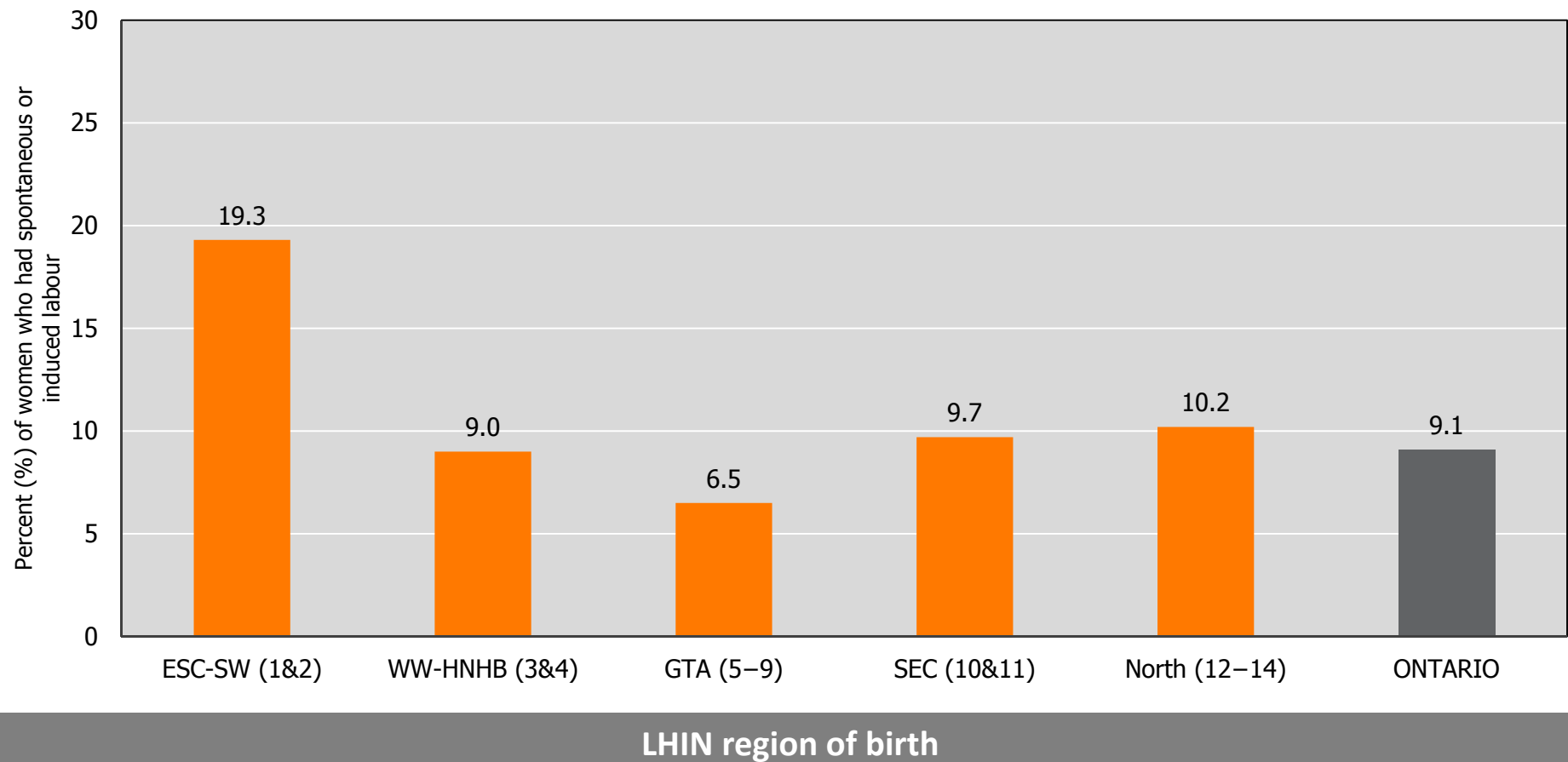


Source – BORN Ontario (Niday Perinatal Database), 2009–2010

† Ontario residents only

Rate of auscultation only for fetal surveillance during labour

Ontario†, 2009–2010

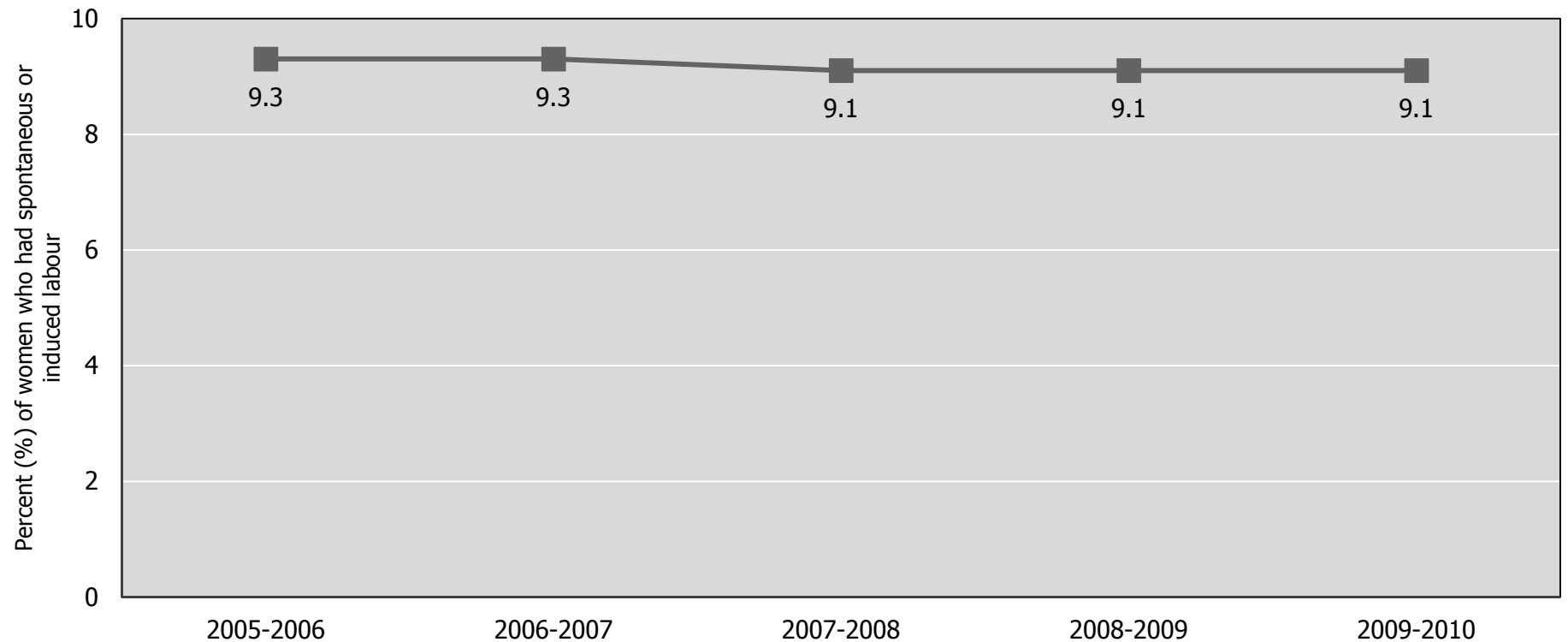


Source – BORN Ontario (Niday Perinatal Database), 2009–2010

† Ontario residents only

Rate of auscultation only for fetal surveillance during labour

Ontario†, 2005–2006 to 2009–2010



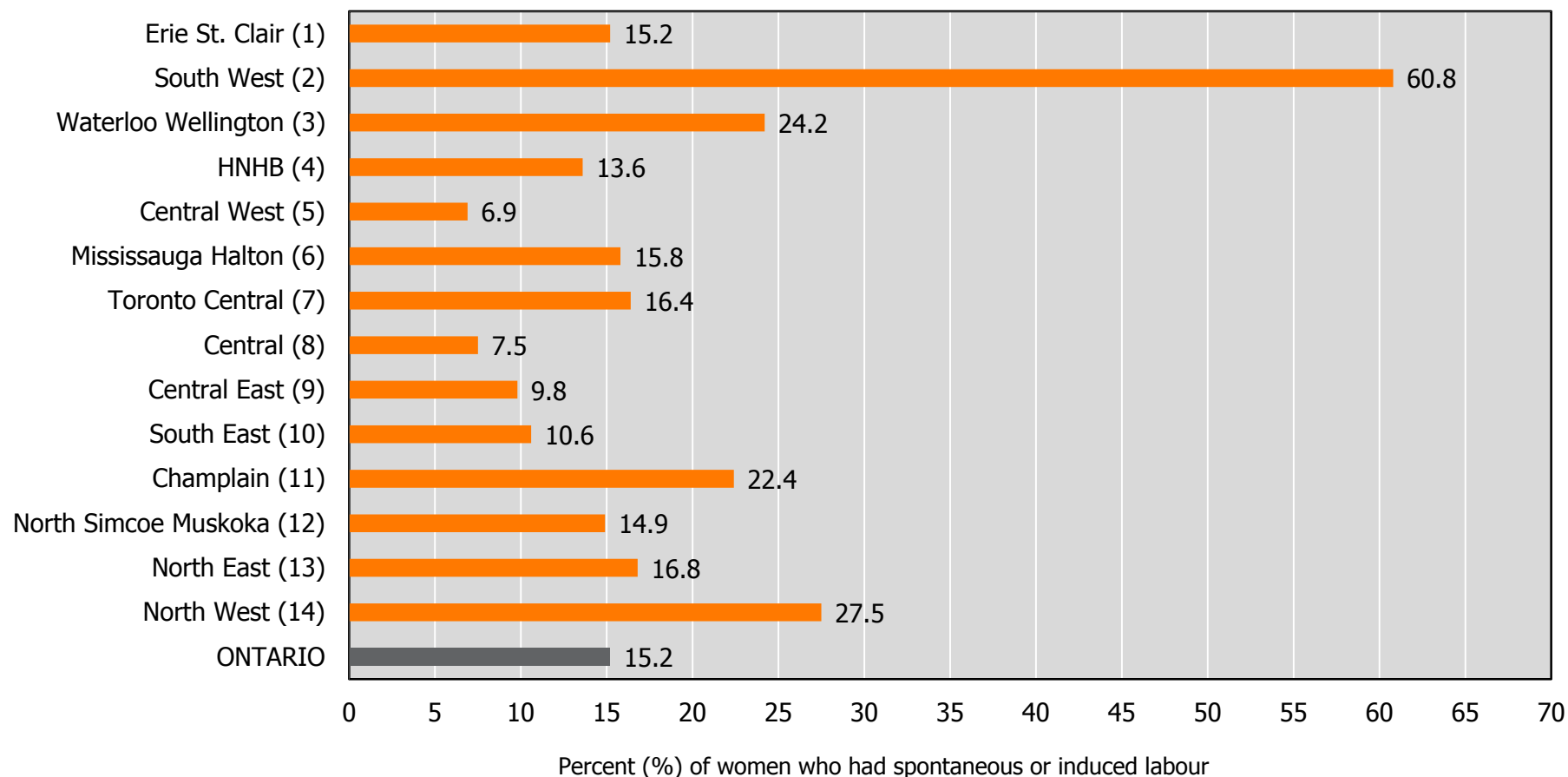
Fiscal year

Source – BORN Ontario (Niday Perinatal Database), 2005–2006 to 2009–2010

† Ontario residents only

Rate of auscultation only for fetal surveillance during labour among low-risk women, by LHIN of birth

Ontario†, 2009–2010

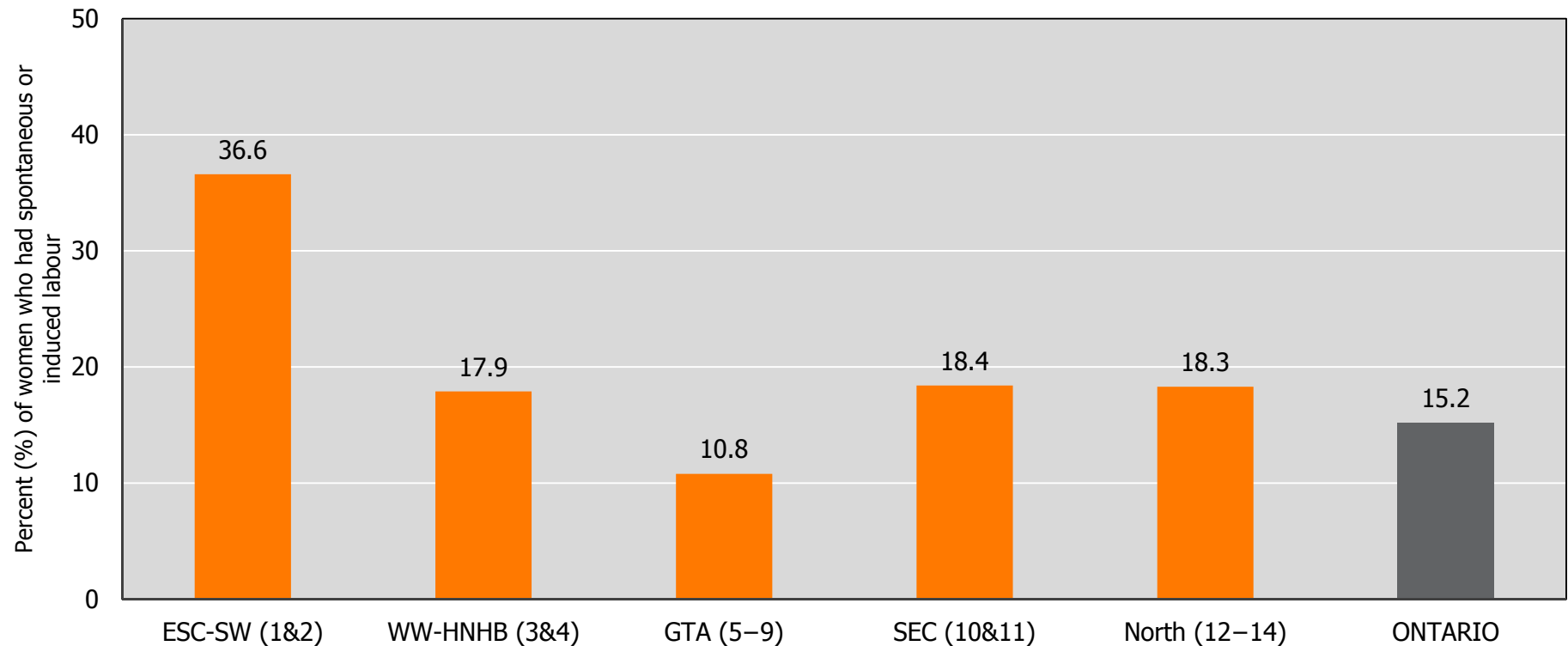


Source – BORN Ontario (Niday Perinatal Database), 2009–2010

† Ontario residents only

Rate of auscultation only for fetal surveillance during labour among low-risk women

Ontario†, 2009–2010



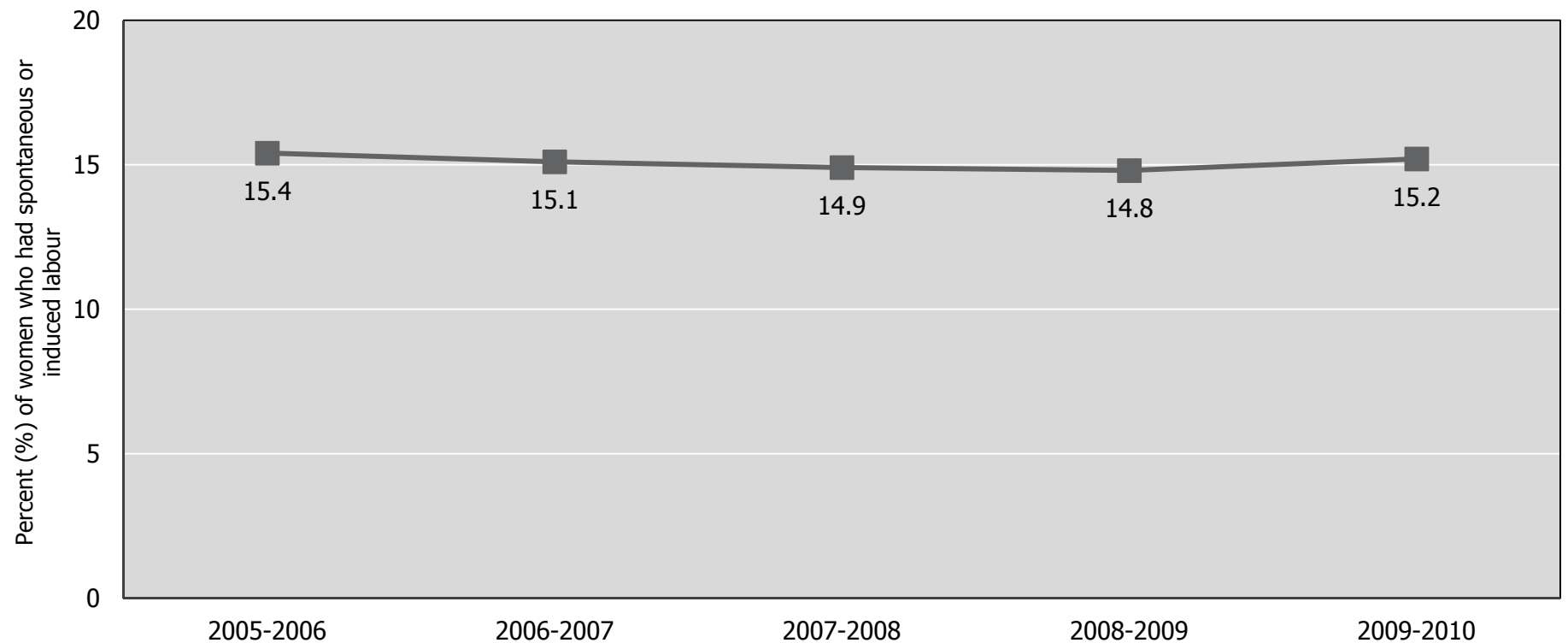
LHIN region of birth

Source – BORN Ontario (Niday Perinatal Database), 2009–2010

† Ontario residents only

Rate of auscultation only for fetal surveillance during labour among low-risk women

Ontario†, 2005–2006 to 2009–2010



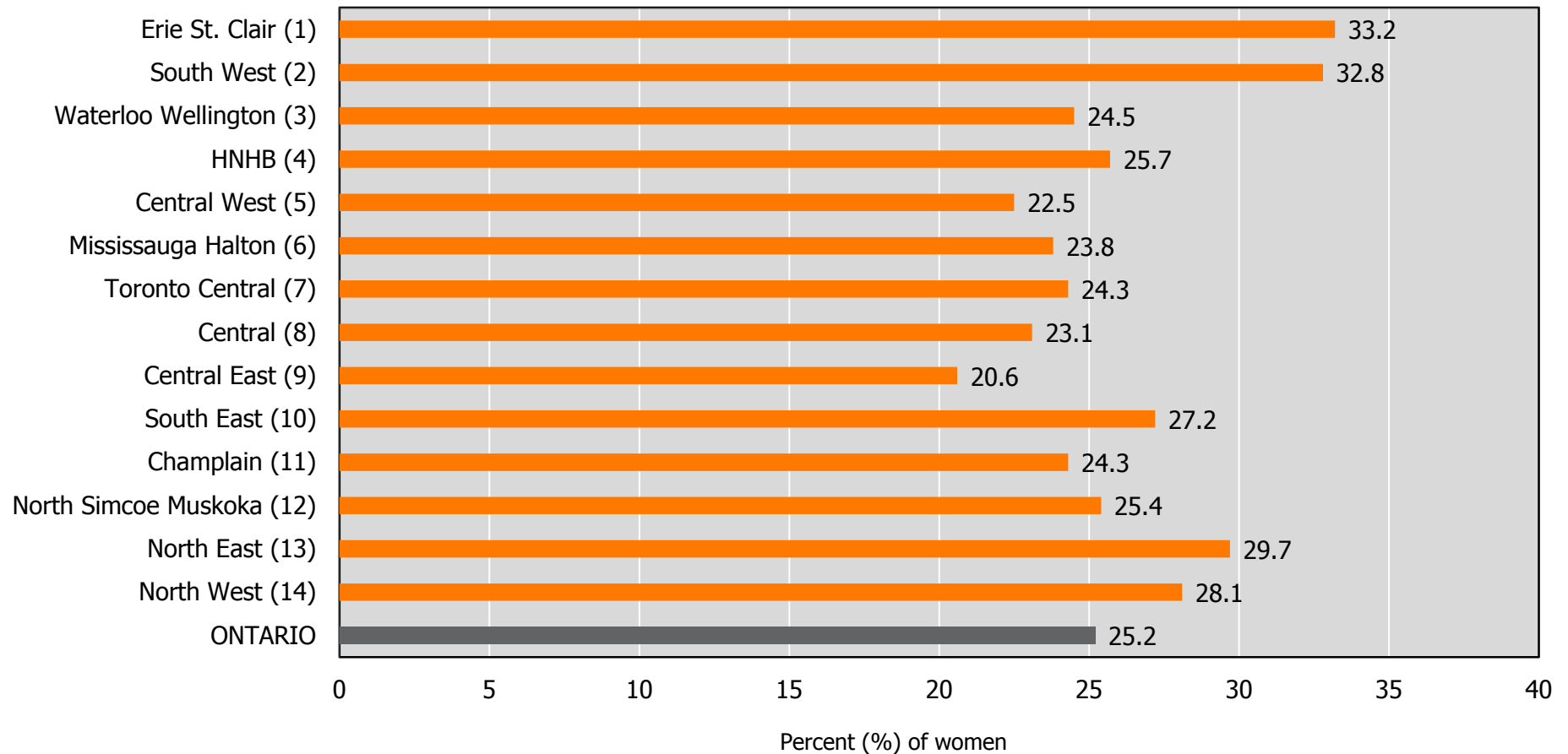
Fiscal year

Source – BORN Ontario (Niday Perinatal Database), 2005–2006 to 2009–2010

† Ontario residents only

Rate of labour induction, by LHIN of birth

Ontario†, 2009–2010

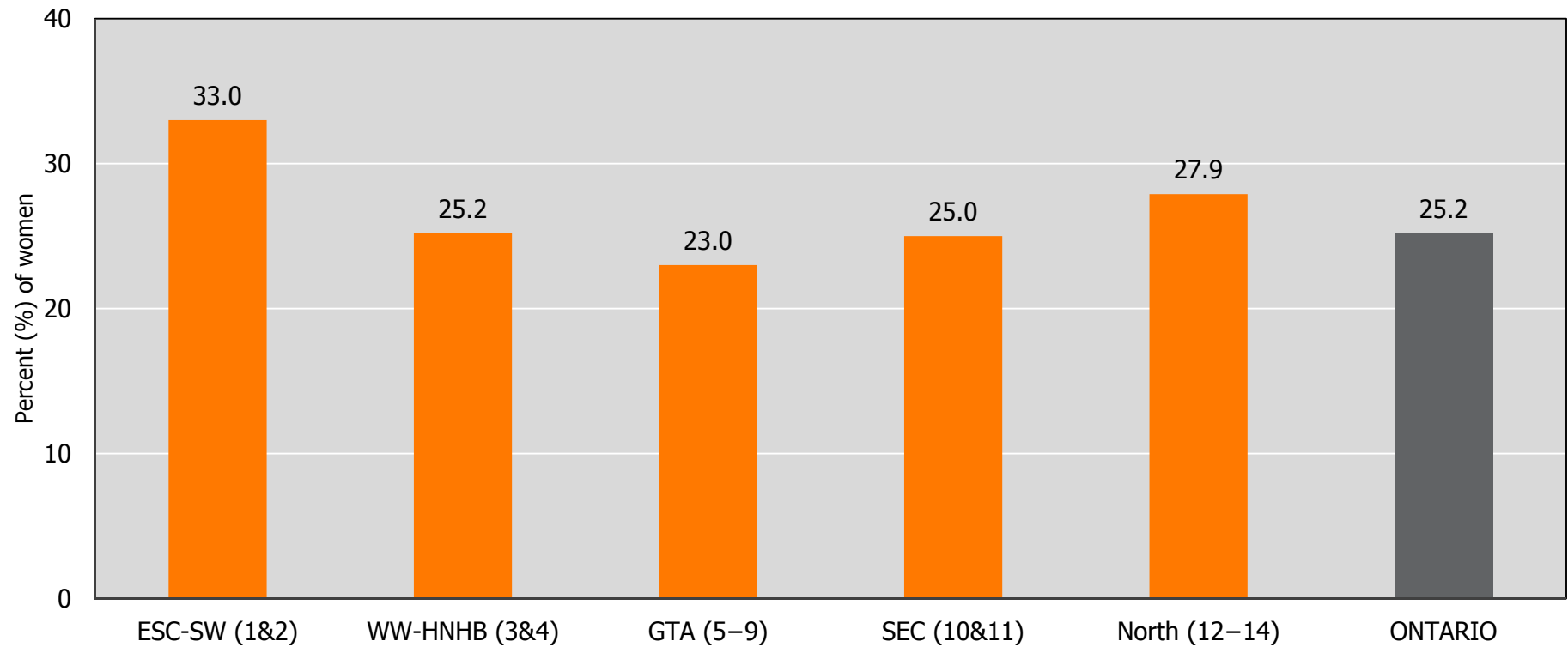


Source – BORN Ontario (Niday Perinatal Database), 2009–2010

† Ontario residents only

Rate of labour induction

Ontario†, 2009–2010



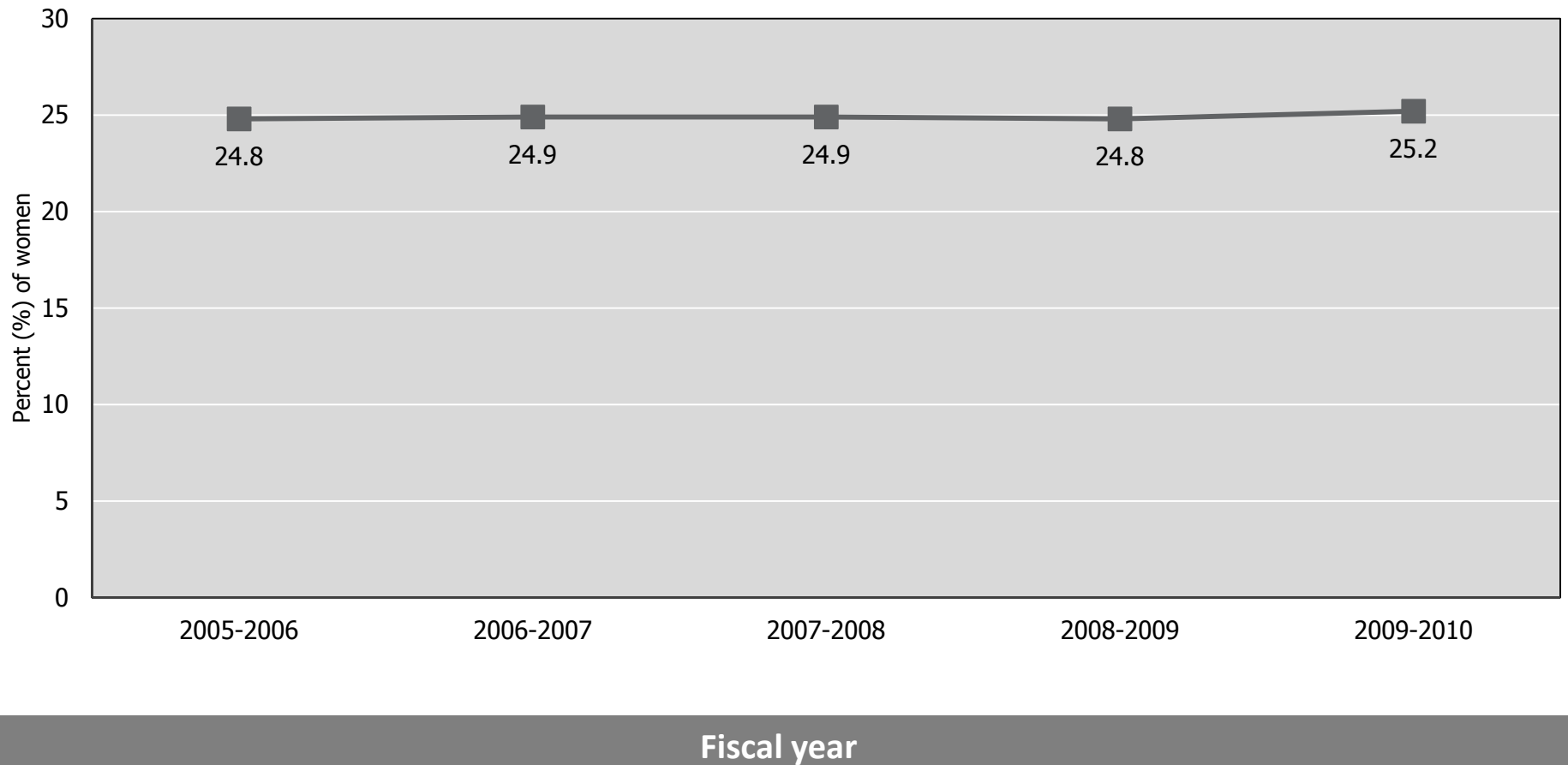
LHIN region of birth

Source – BORN Ontario (Niday Perinatal Database), 2009–2010

† Ontario residents only

Rate of labour induction

Ontario†, 2005–2006 to 2009–2010

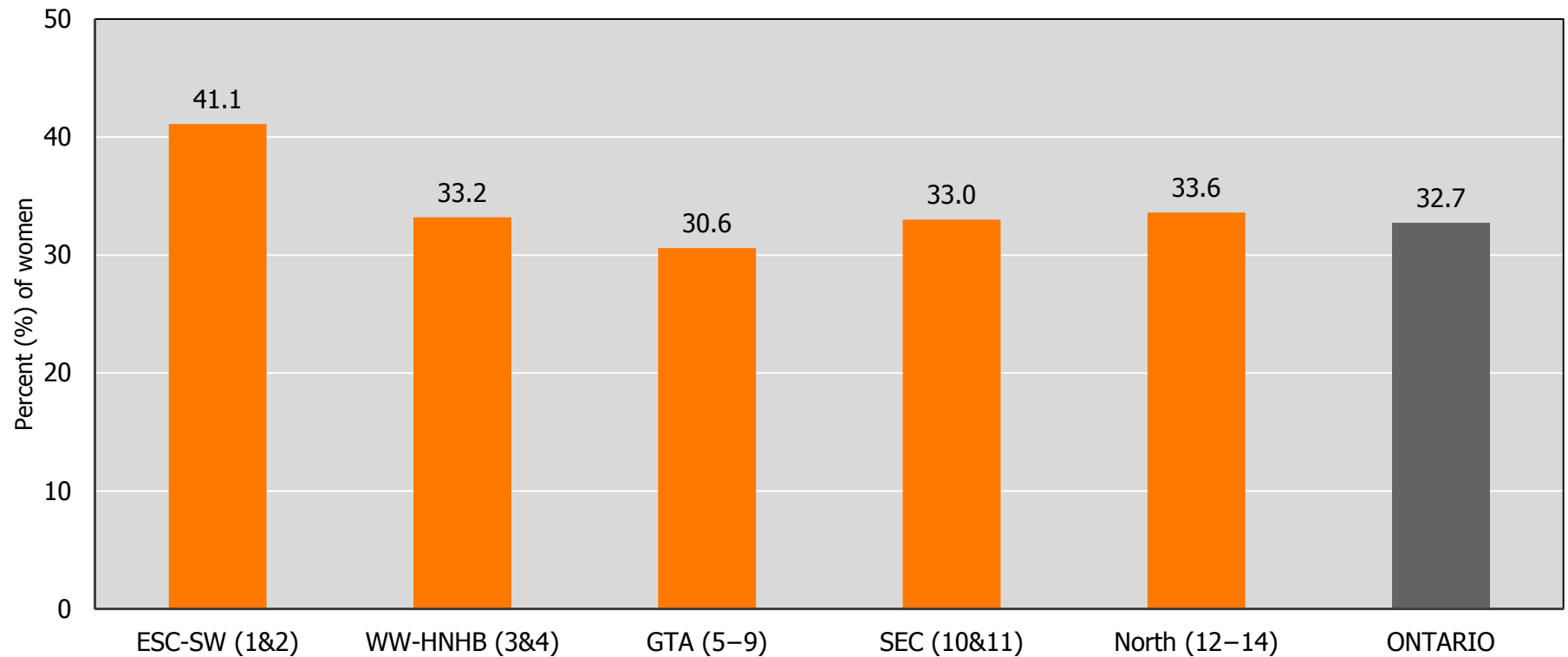


Source – BORN Ontario (Niday Perinatal Database), 2005–2006 to 2009–2010

† Ontario residents only

Rate of labour induction among standardized nulliparous women

Ontario†, 2009–2010



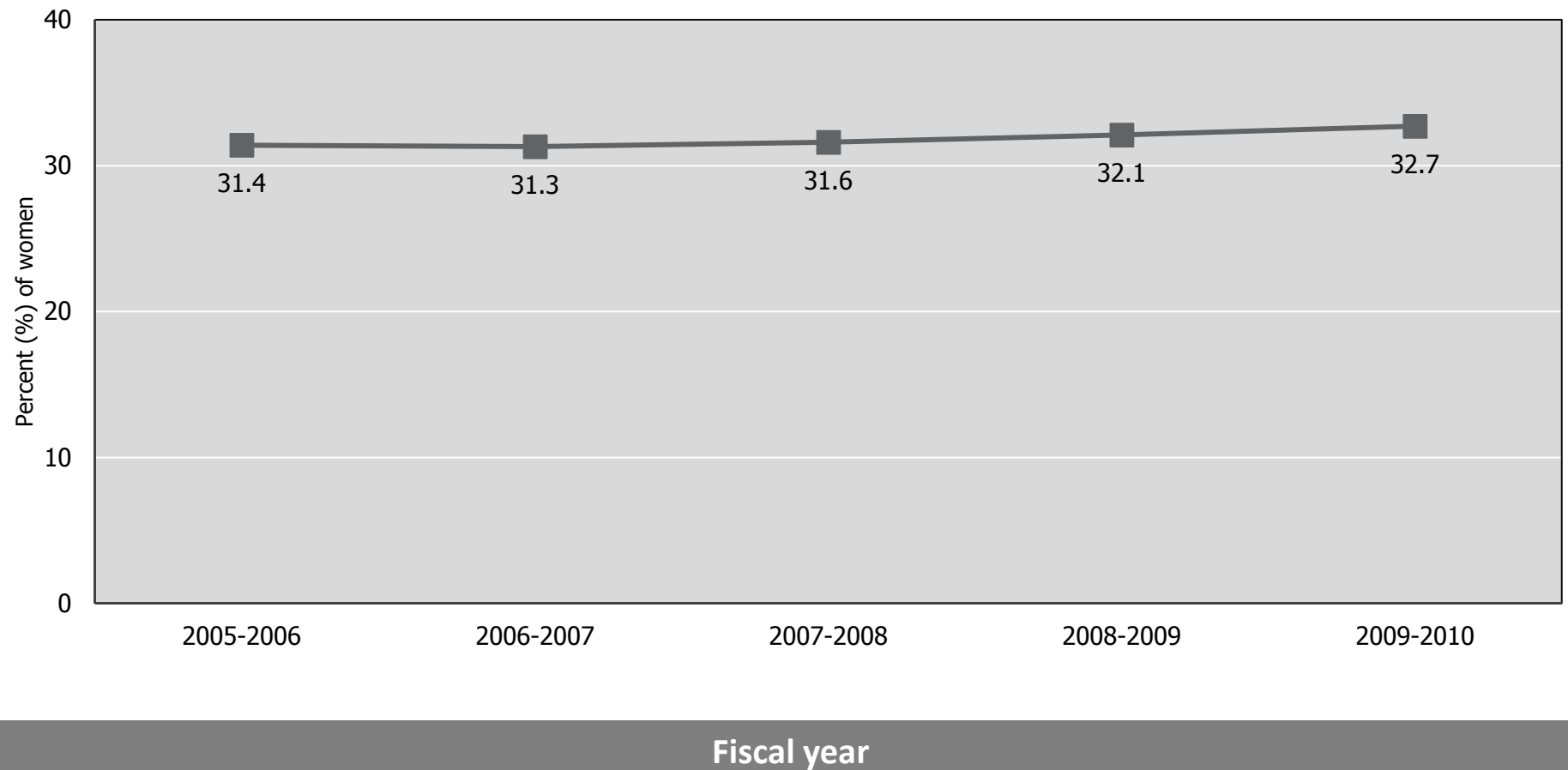
LHIN region of birth

Source – BORN Ontario (Niday Perinatal Database), 2009–2010

† Ontario residents only

Rate of labour induction among standardized nulliparous women

Ontario†, 2005–2006 to 2009–2010

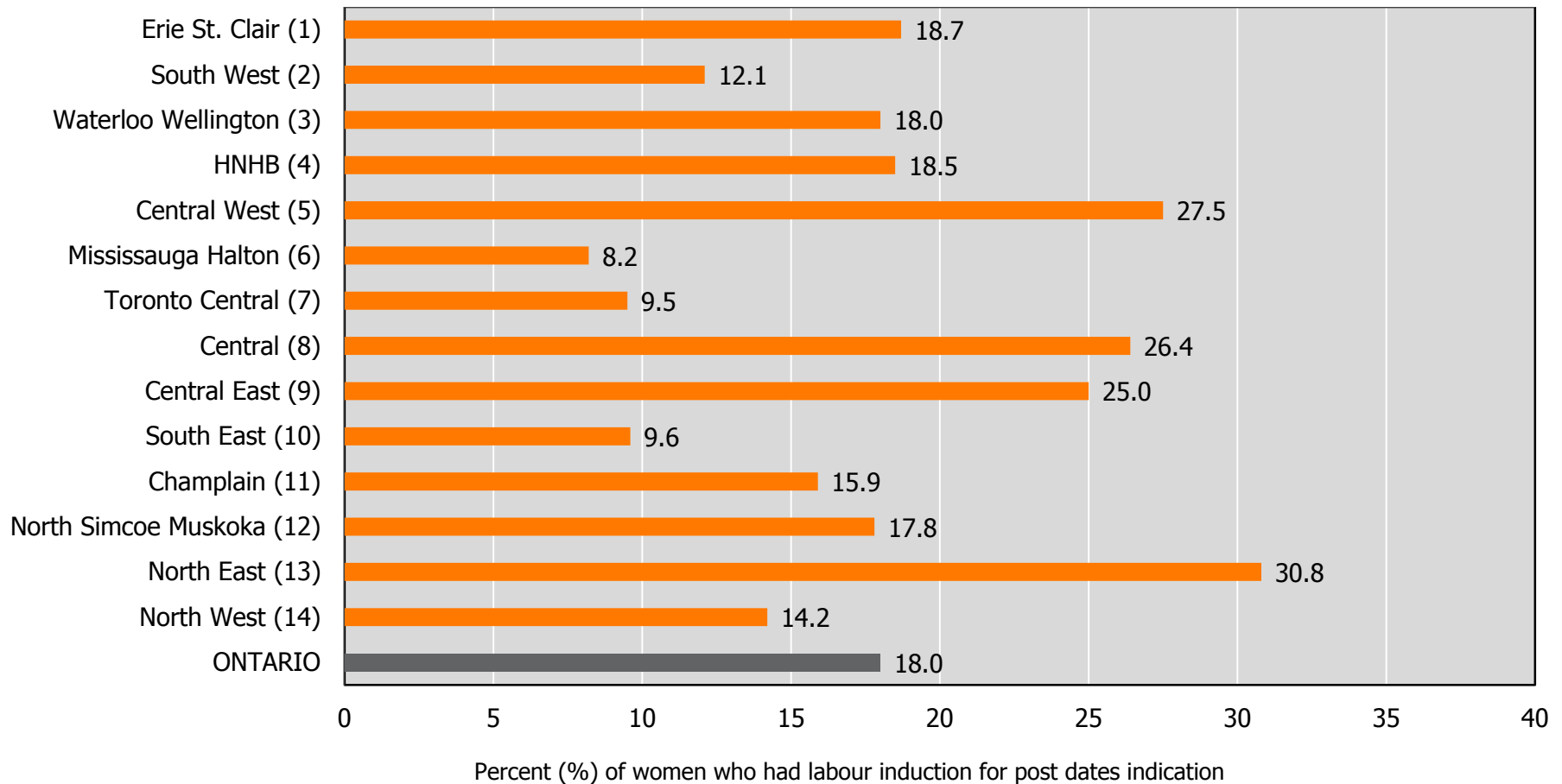


Source – BORN Ontario (Niday Perinatal Database), 2005–2006 to 2009–2010

† Ontario residents only

Proportion of women who were <41 weeks of gestational age at delivery among women who were induced with a post-dates indication for induction of labour, by LHIN of birth

Ontario†, 2009–2010

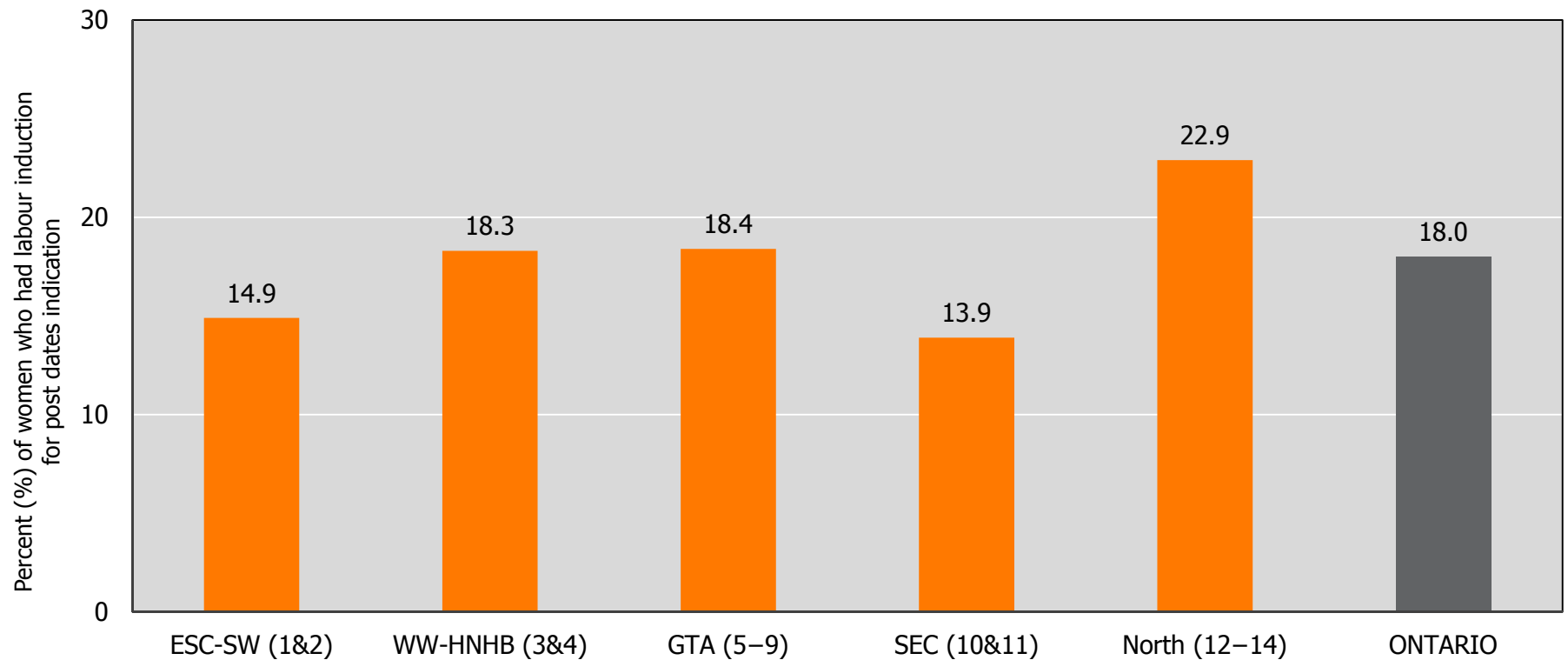


Source – BORN Ontario (Niday Perinatal Database), 2009–2010

† Ontario residents only

Proportion of women who were <41 weeks of gestational age at delivery among women who were induced with a post-dates indication for induction of labour

Ontario†, 2009–2010

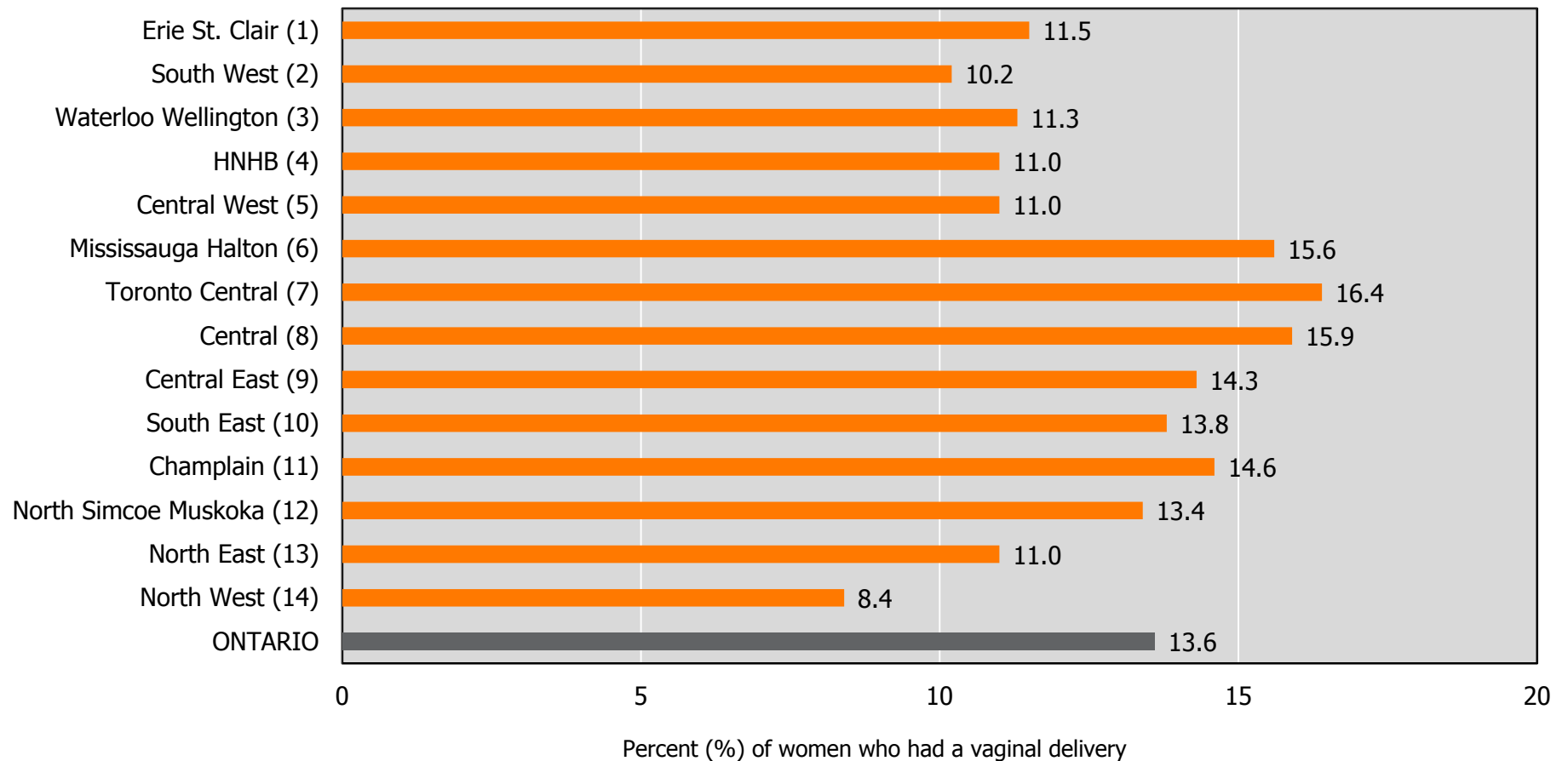


LHIN region of birth

Source – BORN Ontario (Niday Perinatal Database), 2009–2010

† Ontario residents only

Rate of assisted vaginal delivery, by LHIN of birth *Ontario†, 2009–2010*

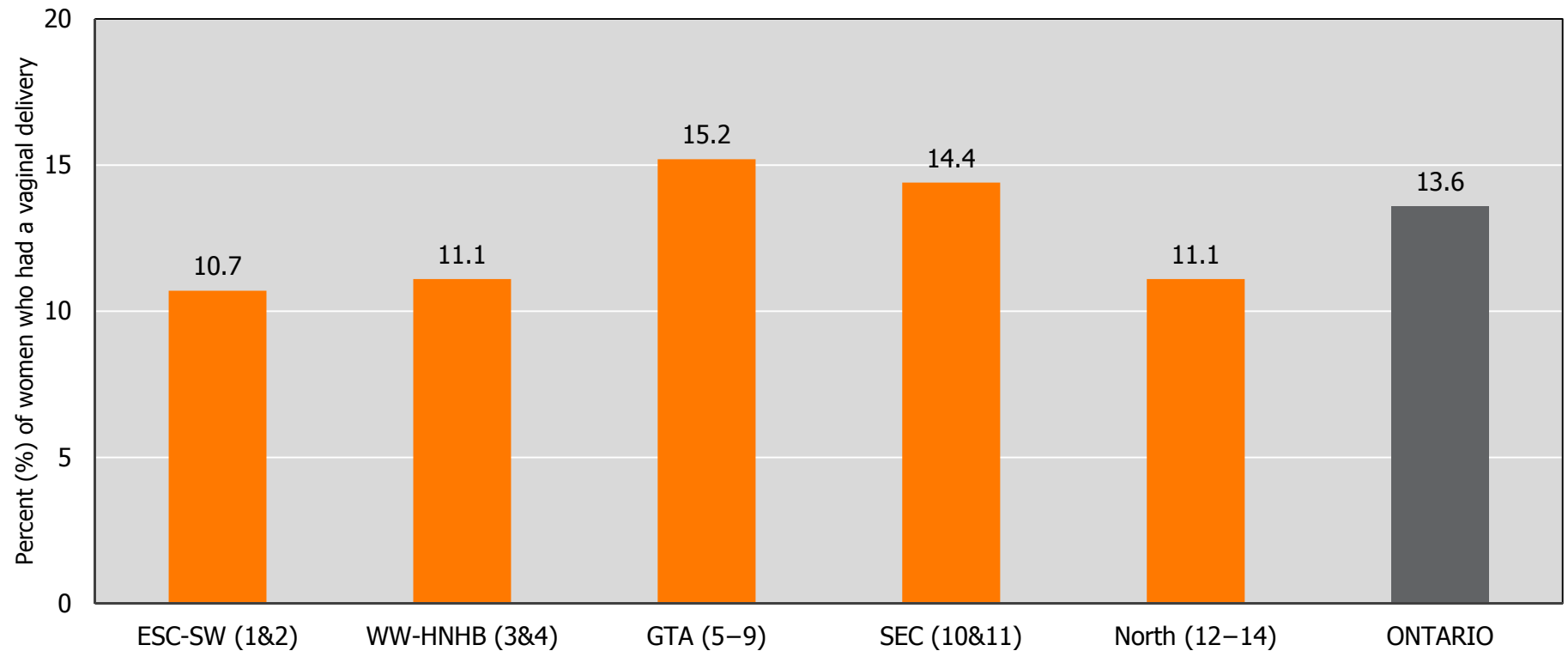


Source – BORN Ontario (Niday Perinatal Database), 2009–2010

† Ontario residents only

Rate of assisted vaginal delivery

Ontario†, 2009–2010



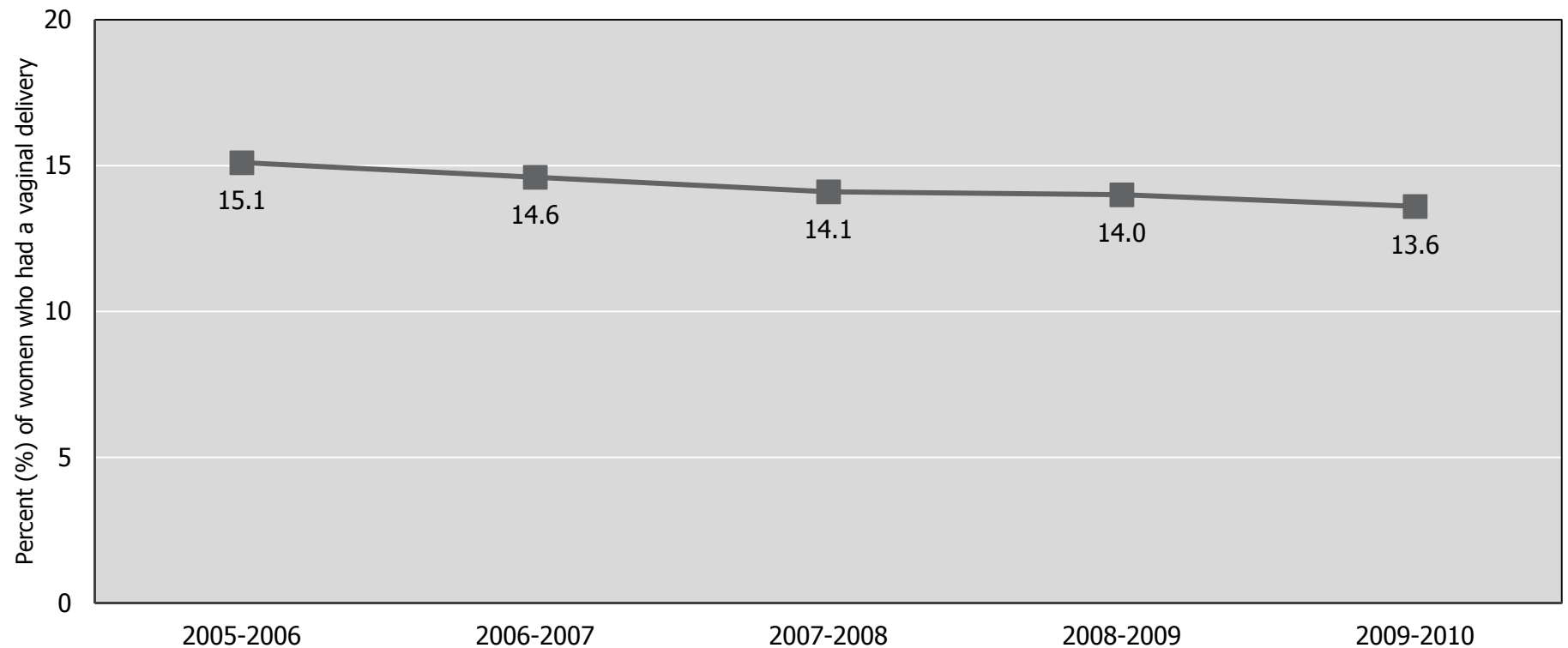
LHIN region of birth

Source – BORN Ontario (Niday Perinatal Database), 2009–2010

† Ontario residents only

Rate of assisted vaginal delivery

Ontario†, 2005–2006 to 2009–2010



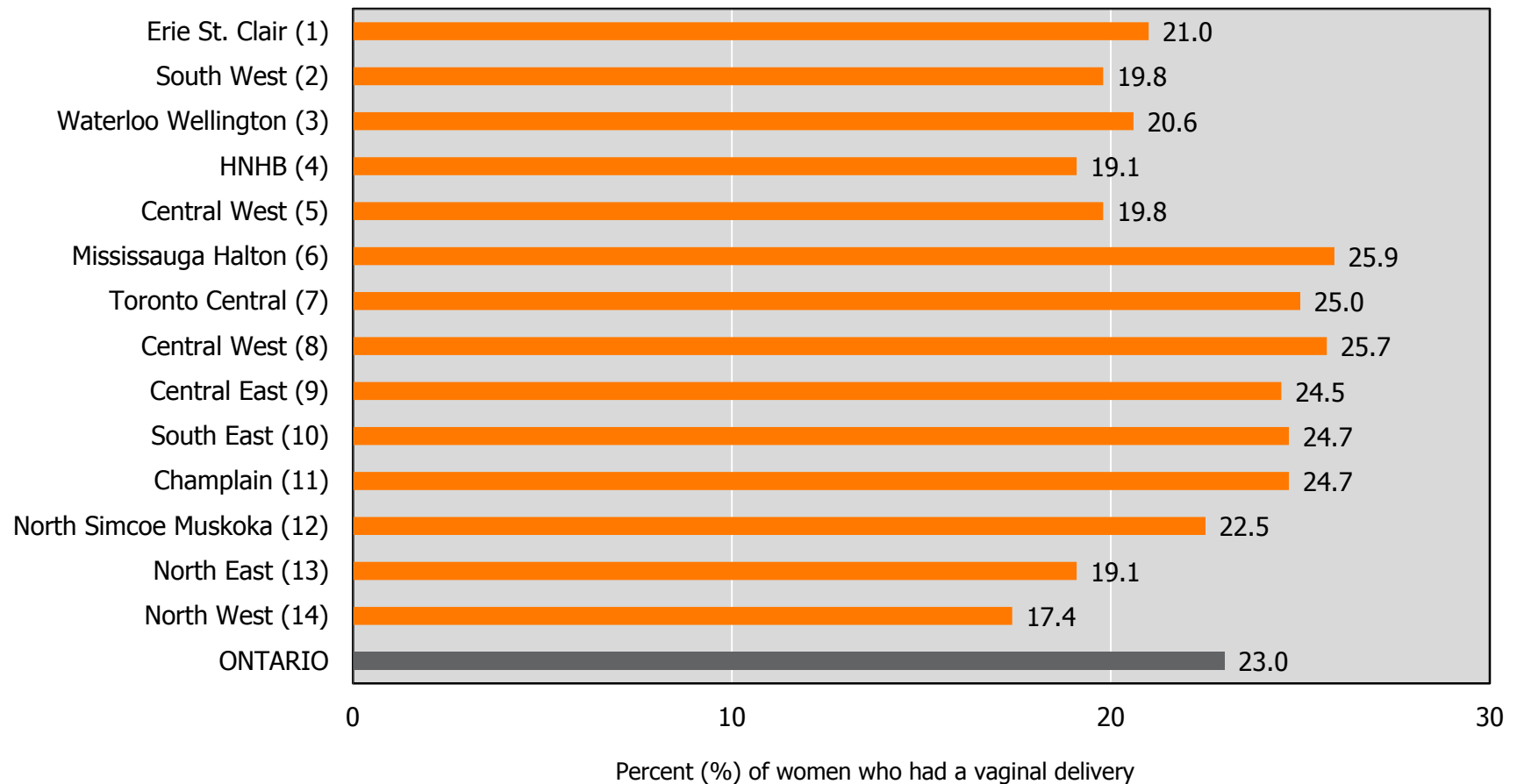
Fiscal year

Source – BORN Ontario (Niday Perinatal Database), 2005–2006 to 2009–2010

† Ontario residents only

Rate of assisted vaginal delivery among standardized nulliparous women, by LHIN of birth

Ontario†, 2009–2010

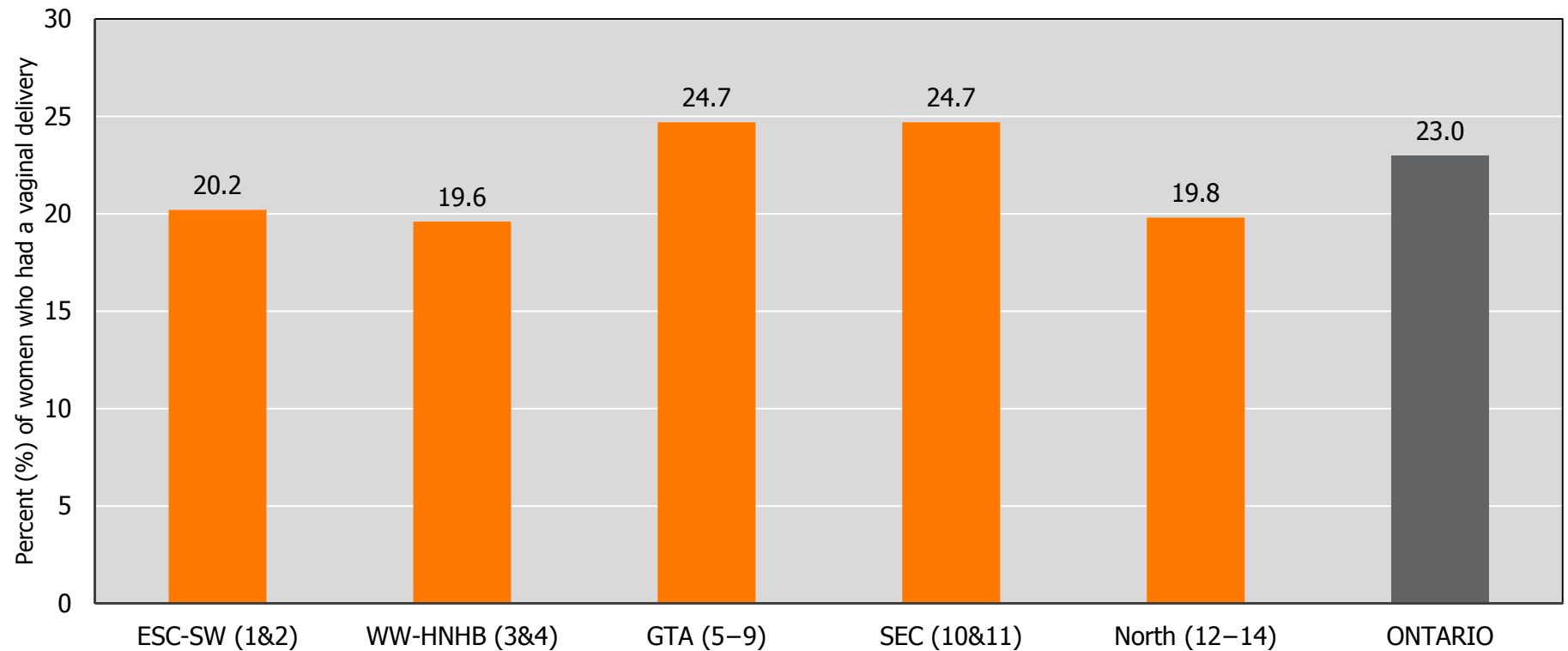


Source – BORN Ontario (Niday Perinatal Database), 2009–2010

† Ontario residents only

Rate of assisted vaginal delivery among standardized nulliparous women

Ontario†, 2009–2010



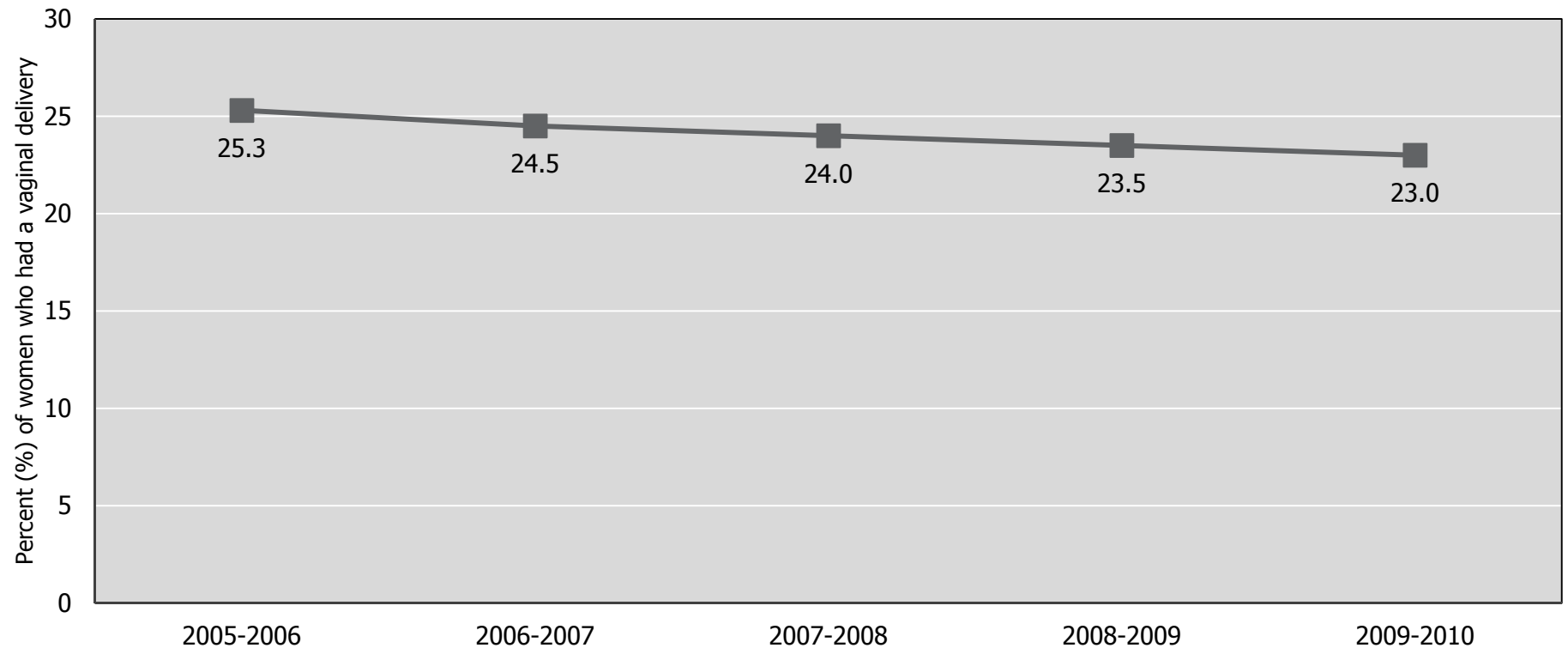
LHIN region of birth

Source – BORN Ontario (Niday Perinatal Database), 2009–2010

† Ontario residents only

Rate of assisted vaginal delivery among standardized nulliparous women

Ontario†, 2005–2006 to 2009–2010



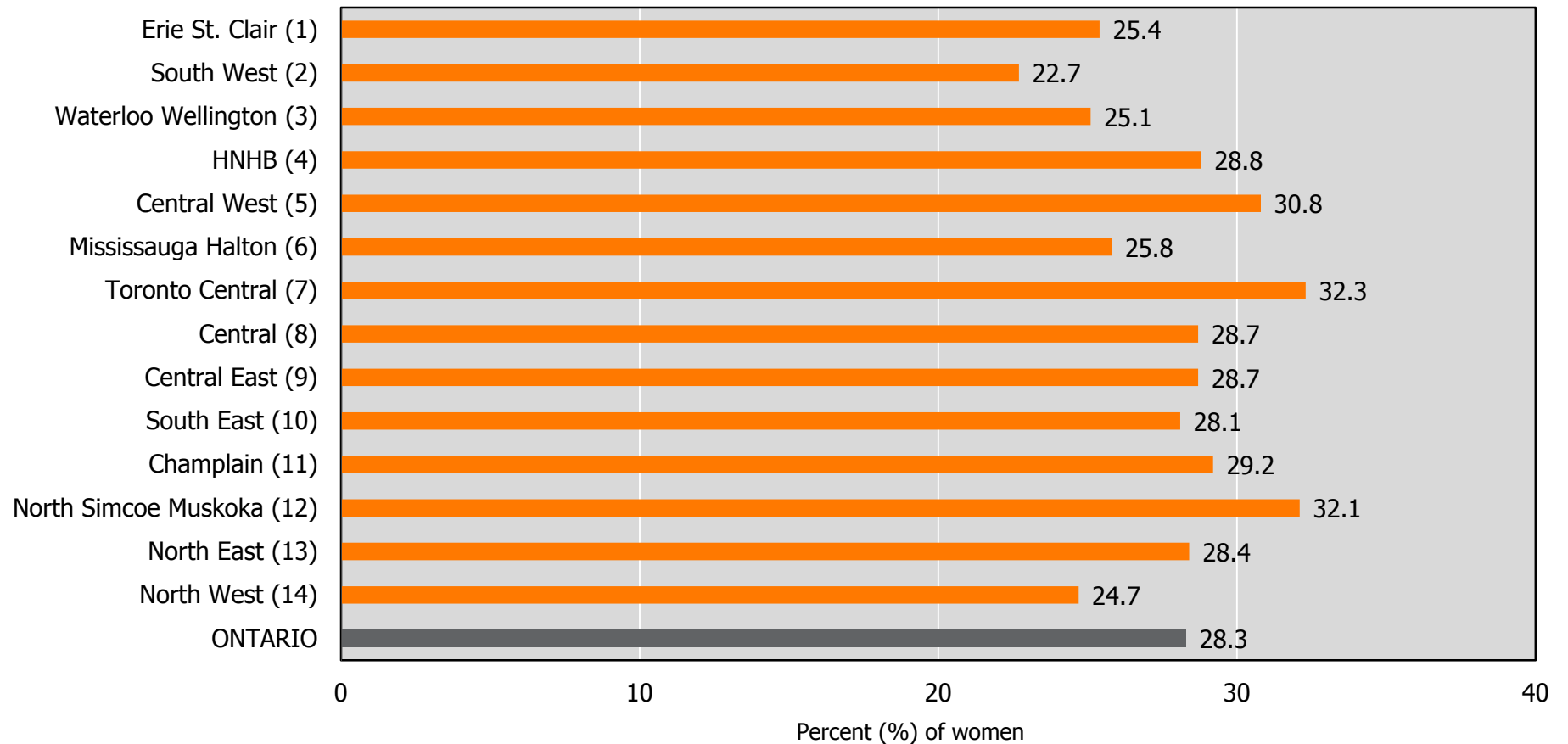
Fiscal year

Source – BORN Ontario (Niday Perinatal Database), 2005–2006 to 2009–2010

† Ontario residents only

Rate of cesarean delivery, by LHIN of birth

Ontario†, 2009–2010

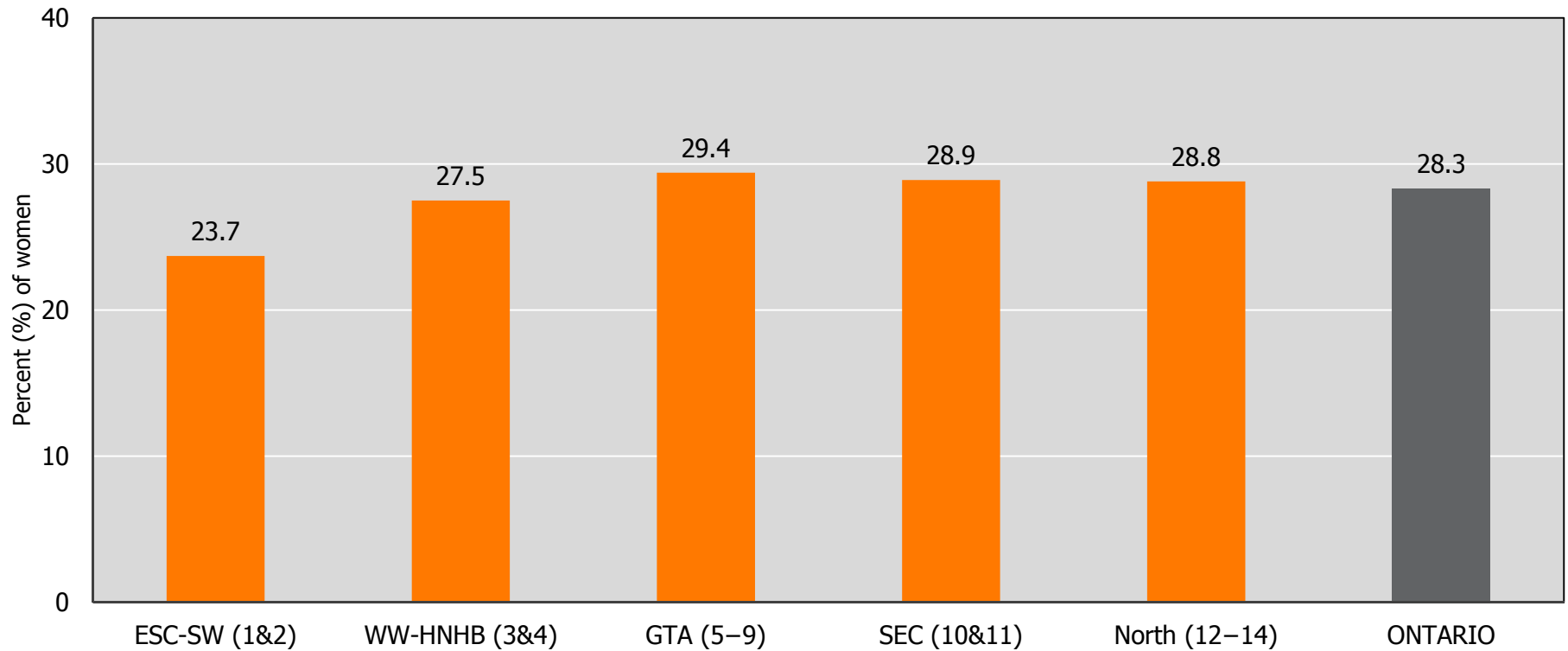


Source – BORN Ontario (Niday Perinatal Database), 2009–2010

† Ontario residents only

Rate of cesarean delivery

Ontario†, 2009–2010



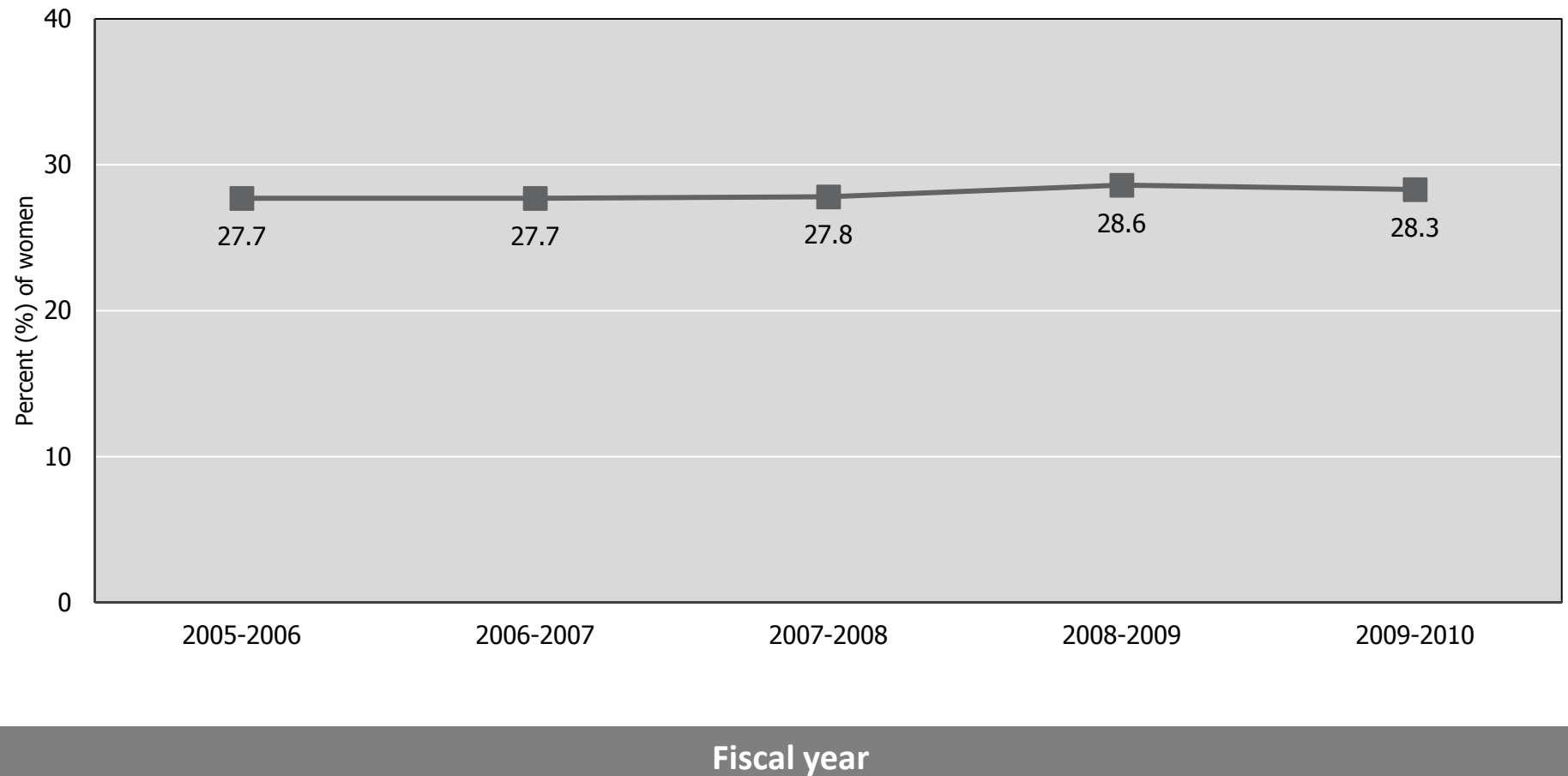
LHIN region of birth

Source – BORN Ontario (Niday Perinatal Database), 2009–2010

† Ontario residents only

Rate of cesarean delivery

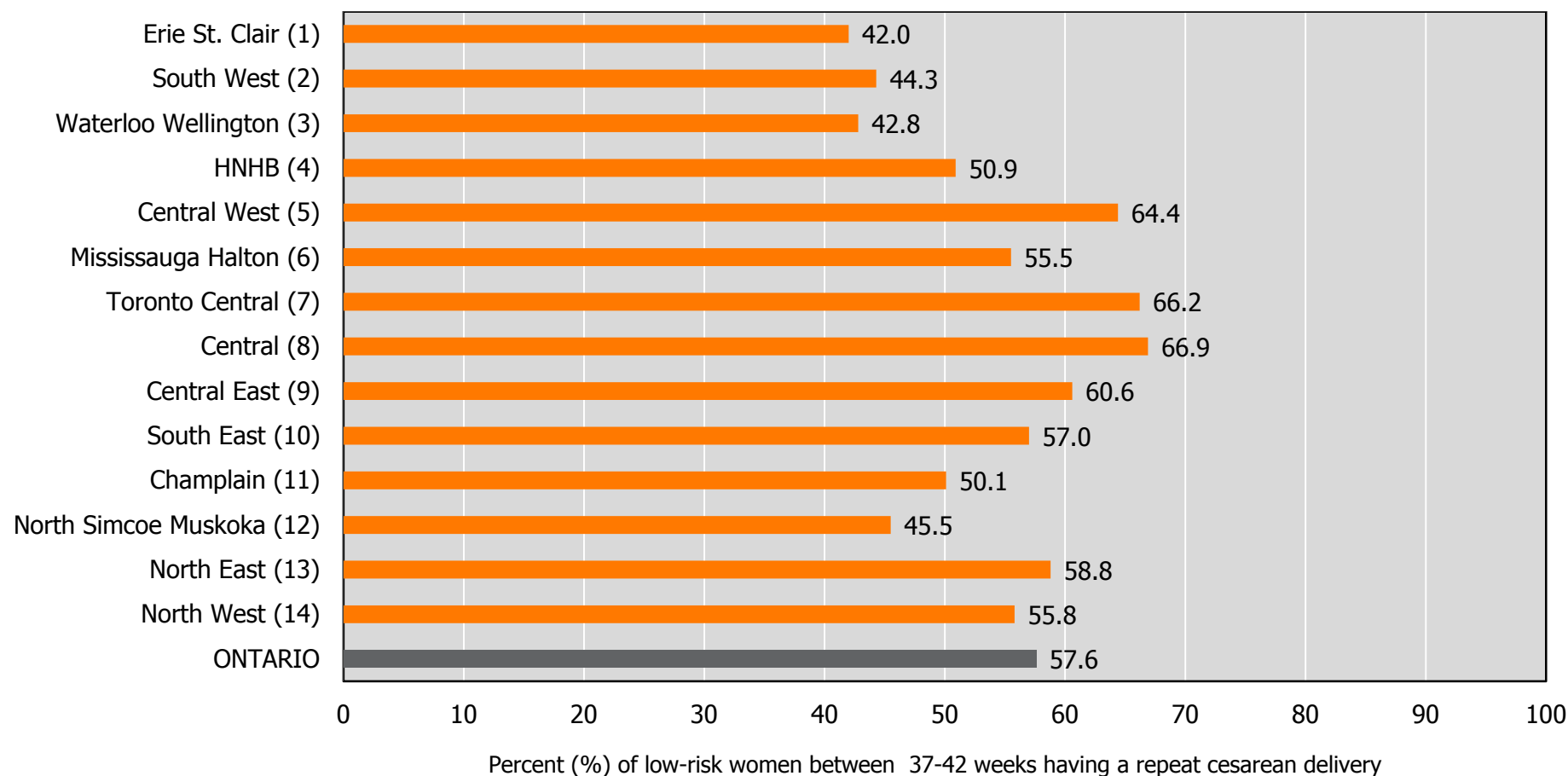
Ontario†, 2005–2006 to 2009–2010



Source – BORN Ontario (Niday Perinatal Database), 2005–2006 to 2009–2010

† Ontario residents only

Proportion of women with a cesarean delivery performed prior to 39 weeks' gestation among low-risk women having an elective repeat cesarean delivery at term, by LHIN of birth *Ontario†, 2009–2010*

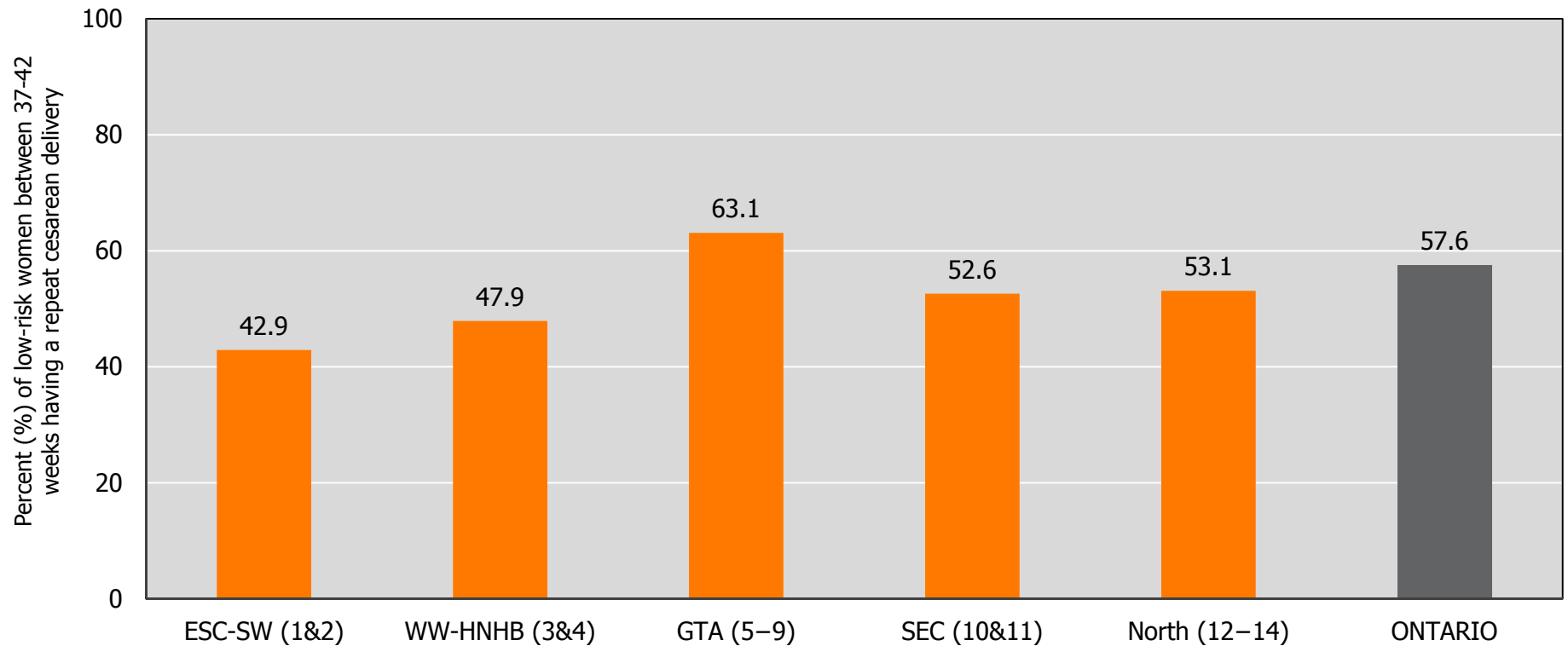


Source – BORN Ontario (Niday Perinatal Database), 2009–2010

† Ontario residents only

Proportion of women with a cesarean delivery performed prior to 39 weeks' gestation among low-risk women having an elective repeat cesarean delivery at term

Ontario†, 2009–2010



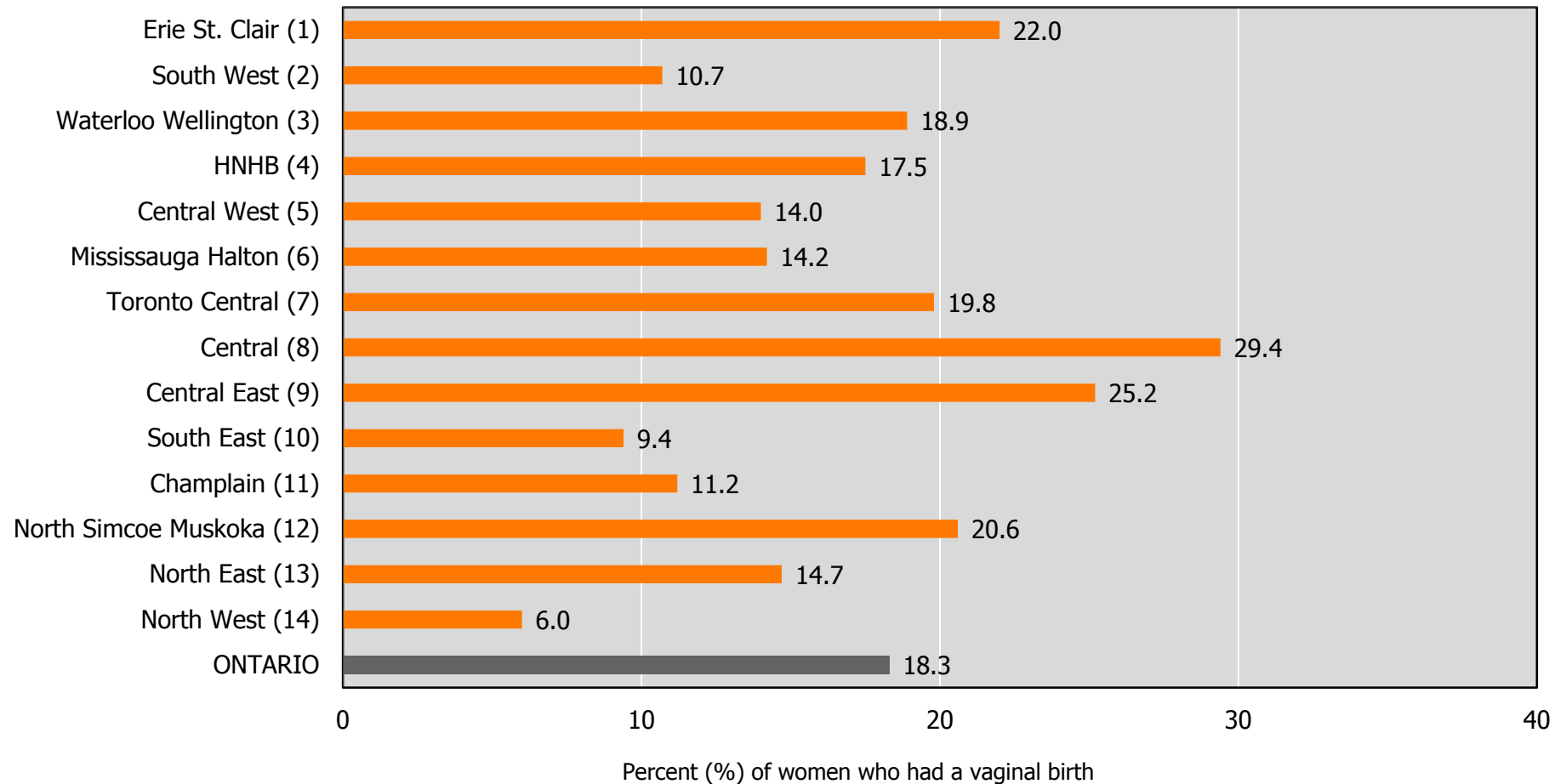
LHIN region of birth

Source – BORN Ontario (Niday Perinatal Database), 2009–2010

† Ontario residents only

Rate of episiotomy, by LHIN of birth

Ontario†, 2009–2010

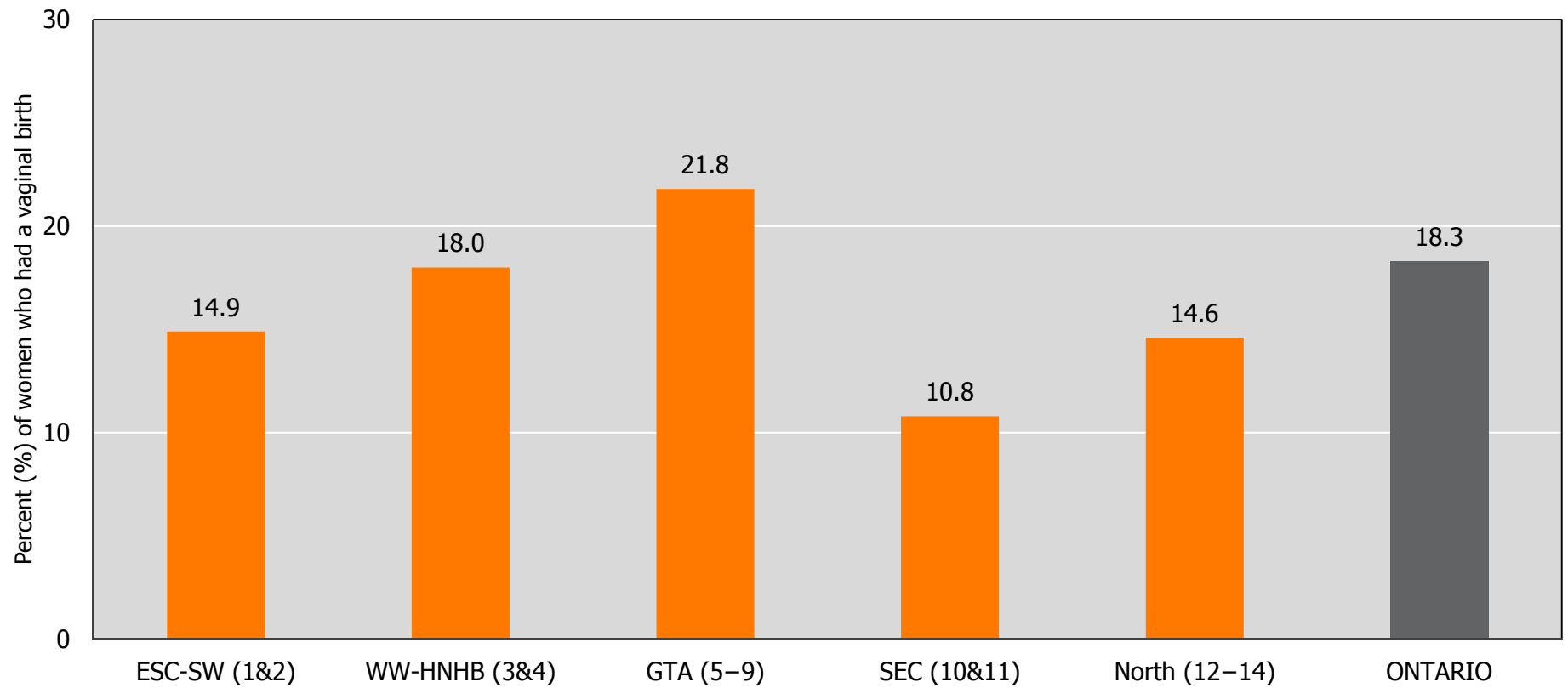


Source – BORN Ontario (Niday Perinatal Database), 2009–2010

† Ontario residents only

Rate of episiotomy

Ontario†, 2009–2010



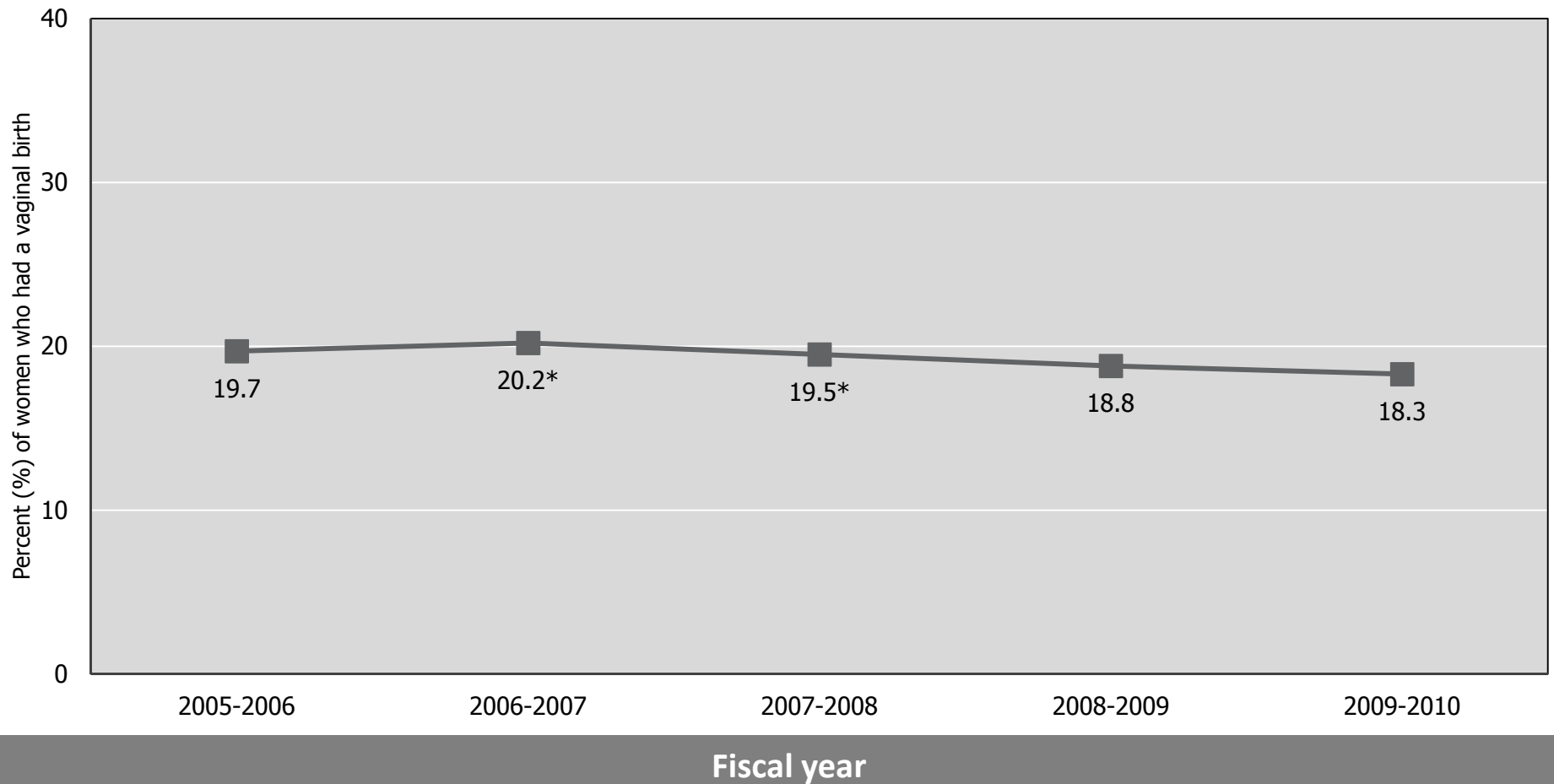
LHIN region of birth

Source – BORN Ontario (Niday Perinatal Database), 2009–2010

† Ontario residents only

Rate of episiotomy

Ontario†, 2005–2006 to 2009–2010



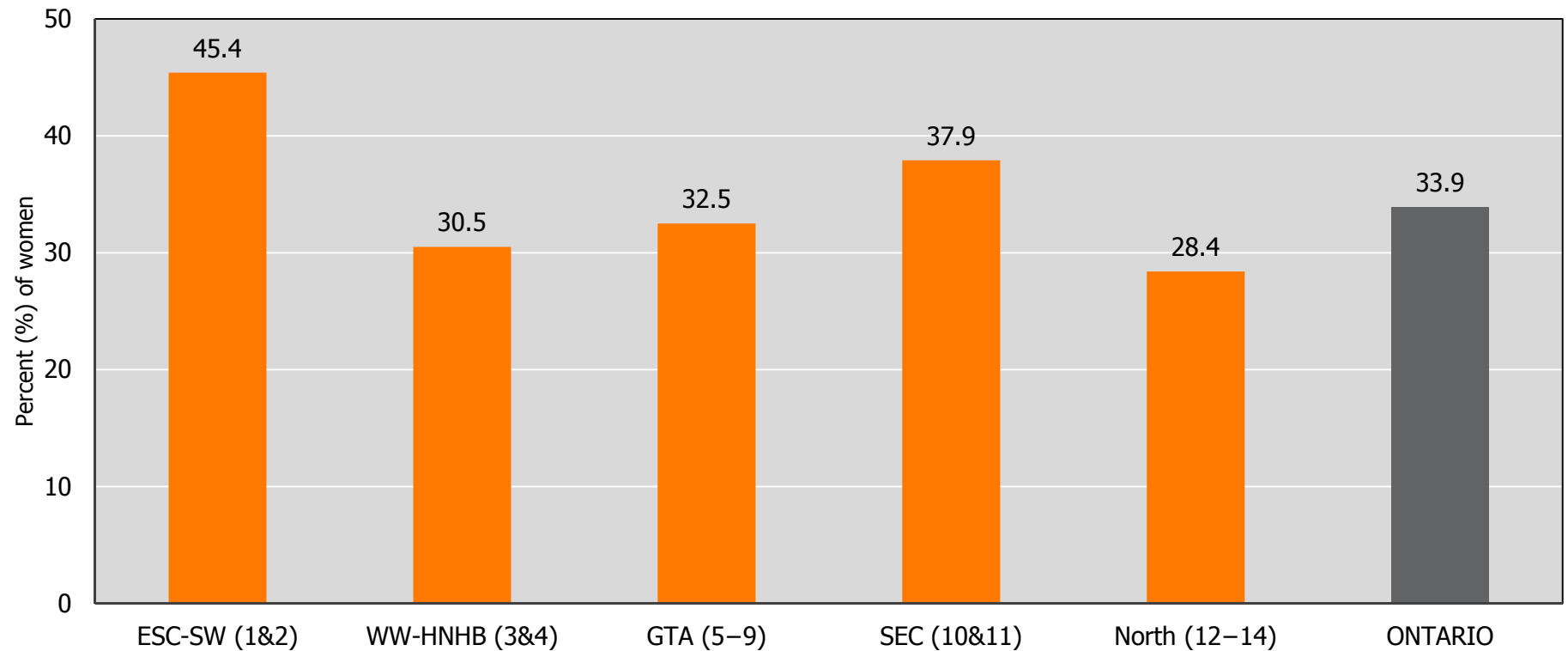
Source – BORN Ontario (Niday Perinatal Database), 2005–2006 to 2009–2010

† Ontario residents only

* Between 10% and 30% of records and missing information and were excluded from the calculation of these estimates

Proportion of women with intrapartum complications

Ontario†, 2009–2010



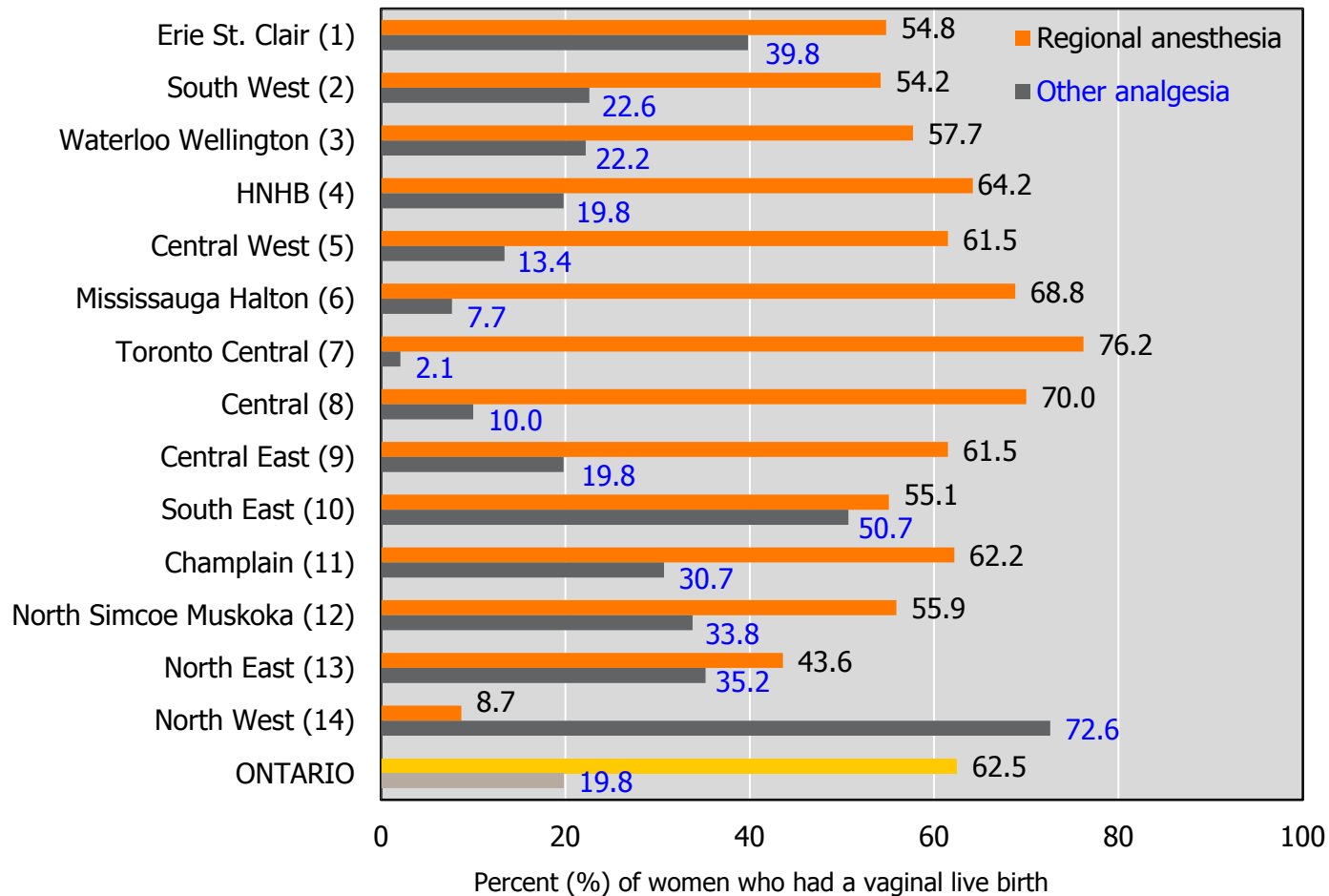
LHIN region of birth

Source – BORN Ontario (Niday Perinatal Database), 2009–2010

† Ontario residents only

Rate of pharmacologic pain management among women who had a vaginal live birth, by LHIN of birth

Ontario†, 2009–2010



- Across Ontario, 62.5% of women who had a vaginal live birth used some form of regional anesthesia. 19.8% of women used another form of analgesia.

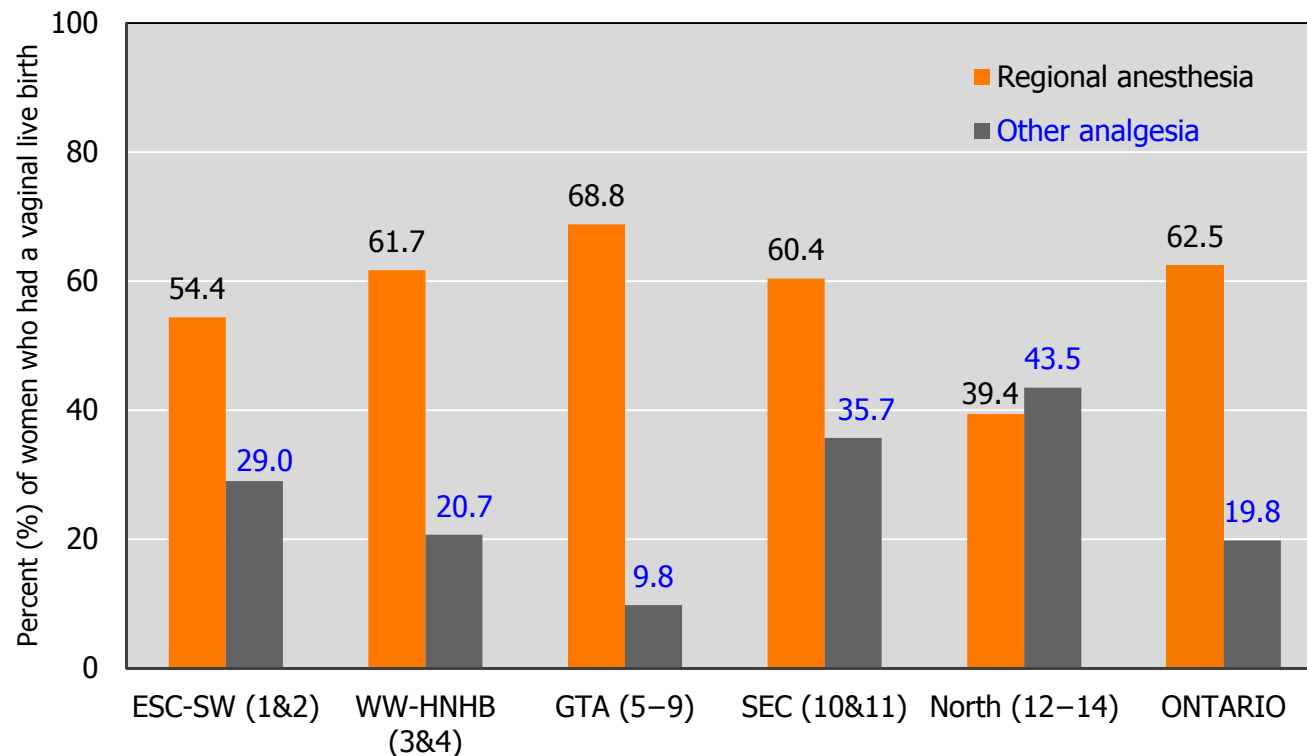
- 76.2% of women in LHIN 7 used some form of regional anesthesia; however, only 2.1% of these women used another form of analgesia. The reverse is true for women who delivered in LHIN 14 (8.7% used regional and 72.6% used another form of analgesia).

Source – BORN Ontario (Niday Perinatal Database), 2009–2010

† Ontario residents only

Rate of pharmacologic pain management among women who had a vaginal live birth

Ontario†, 2009–2010



- Across Ontario, 62.5% of women who had a vaginal live birth used some form of regional anesthesia. 19.8% of women used another form of analgesia.

- Across the GTA 68.8% of women used a regional anesthesia; however, only 9.8% used another form of analgesia.

- In the North LHINs, only 39.4% of women used a regional anesthesia; however, 43.5% used another form of analgesia.

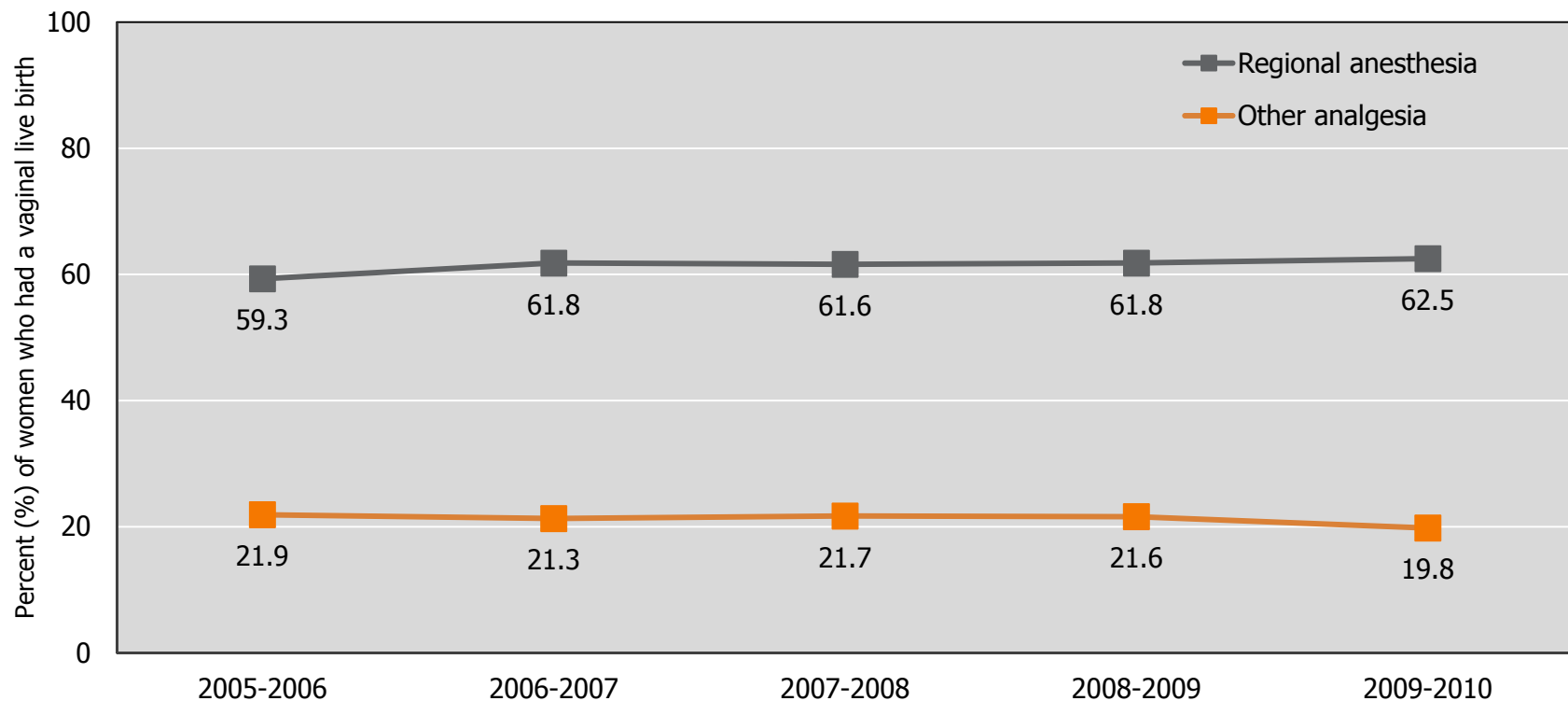
LHIN region of birth

Source – BORN Ontario (Niday Perinatal Database), 2009–2010

† Ontario residents only

Rate of pharmacologic pain management among women who had a vaginal live birth

Ontario†, 2005–2006 to 2009–2010



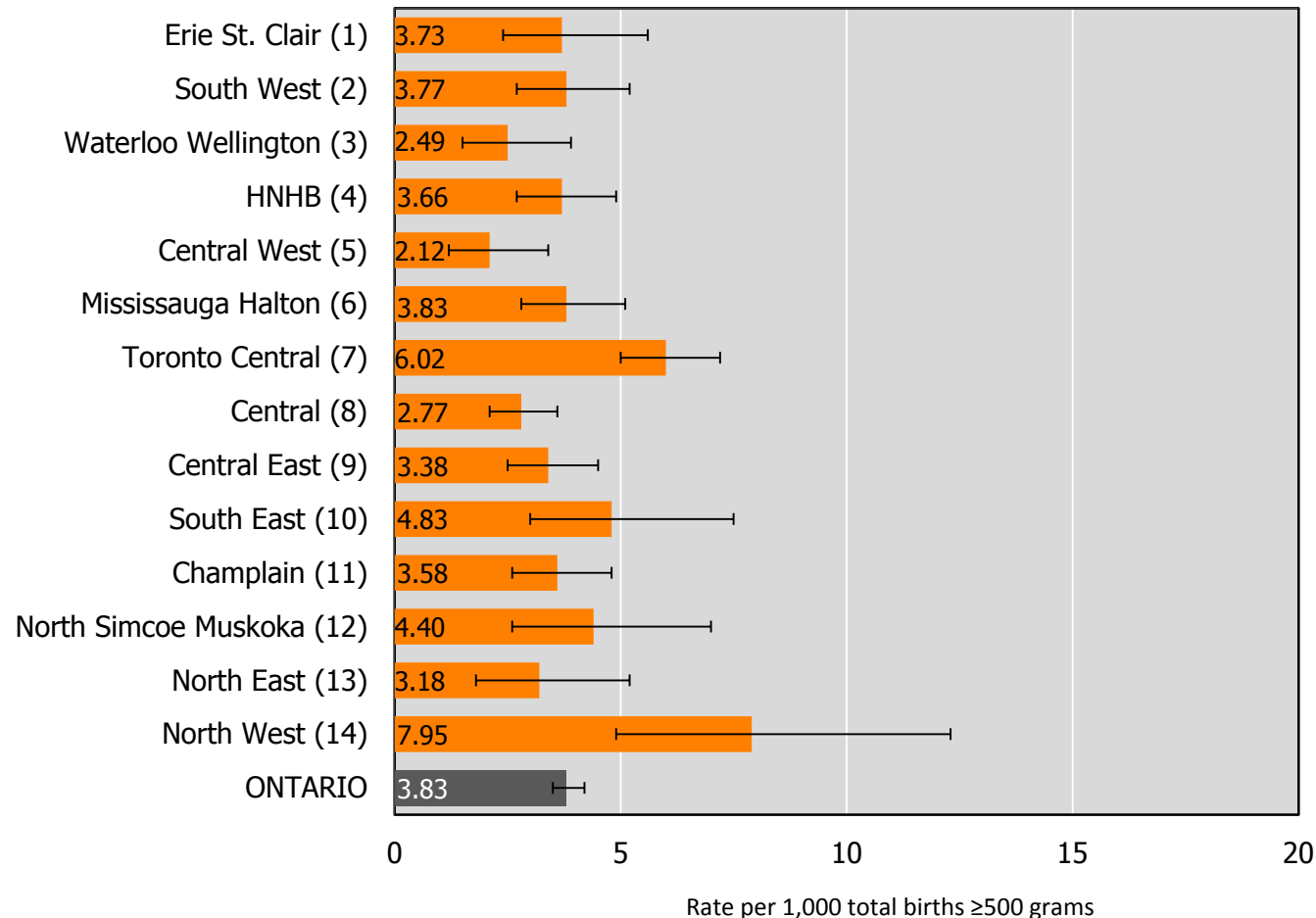
Fiscal year

Source – BORN Ontario (Niday Perinatal Database), 2005–2006 to 2009–2010

† Ontario residents only

Fetal mortality rate ≥ 500 grams, by LHIN of birth

Ontario†, 2009–2010



- Across Ontario, the rate of stillbirth ≥ 500 g was 3.83 per 1,000 total births.

- Variability in rates may be due to: (i) the number of Level III hospitals in a LHIN (there may be more stillbirths in these hospitals as they provide care to more women with high-risk pregnancies); (ii) small numbers (stillbirth is a rare event); and (iii) differences between hospitals in the complete capture of stillbirth records in the database.

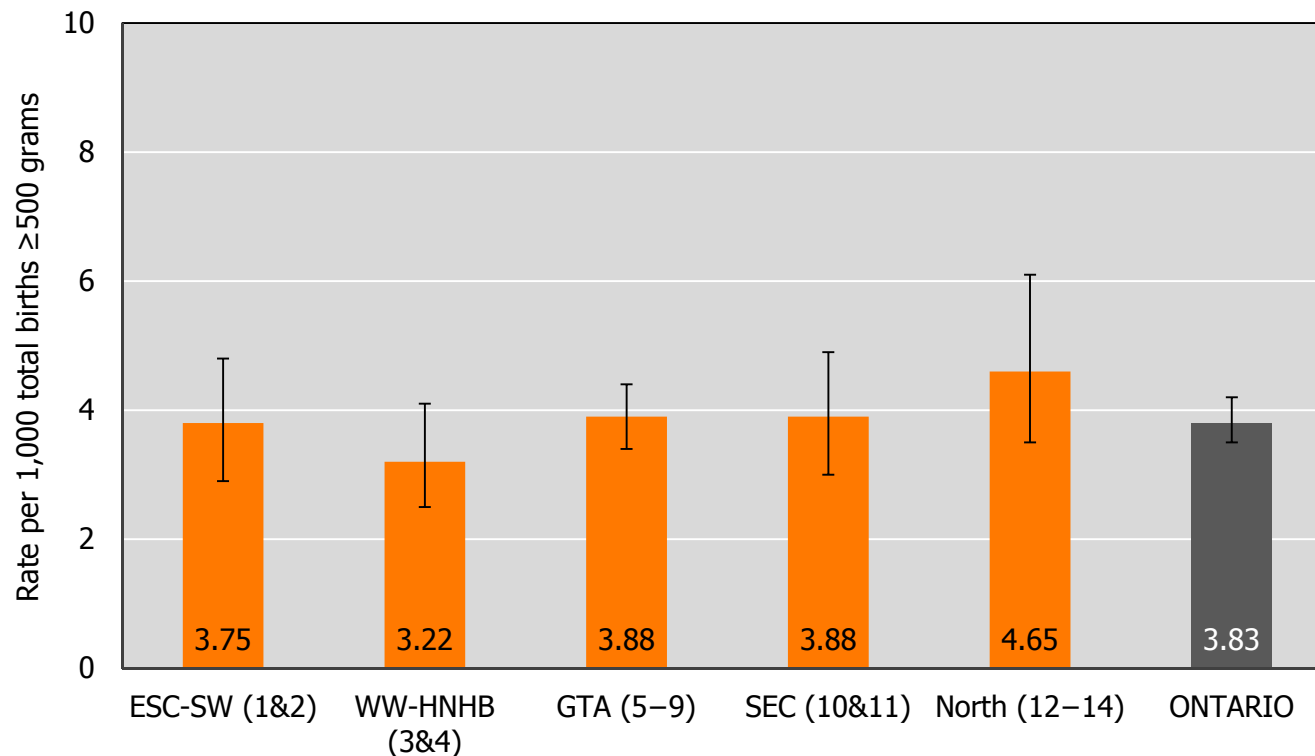
Source – BORN Ontario (Niday Perinatal Database), 2009–2010

† Ontario residents only

Error bars represent upper/lower 95% bounds

Fetal mortality rate ≥ 500 grams

Ontario†, 2009–2010



- Overall, the rate of stillbirth ≥ 500 g was 3.83 per 1,000 total births.

- Variability in rates may be due to: (i) the number of Level III hospitals in a LHIN (there may be more stillbirths in these hospitals as they provide care to more women with high-risk pregnancies); (ii) small numbers (stillbirth is a rare event); and (iii) differences between hospitals in the complete capture of stillbirth records in the database.

LHIN region of birth

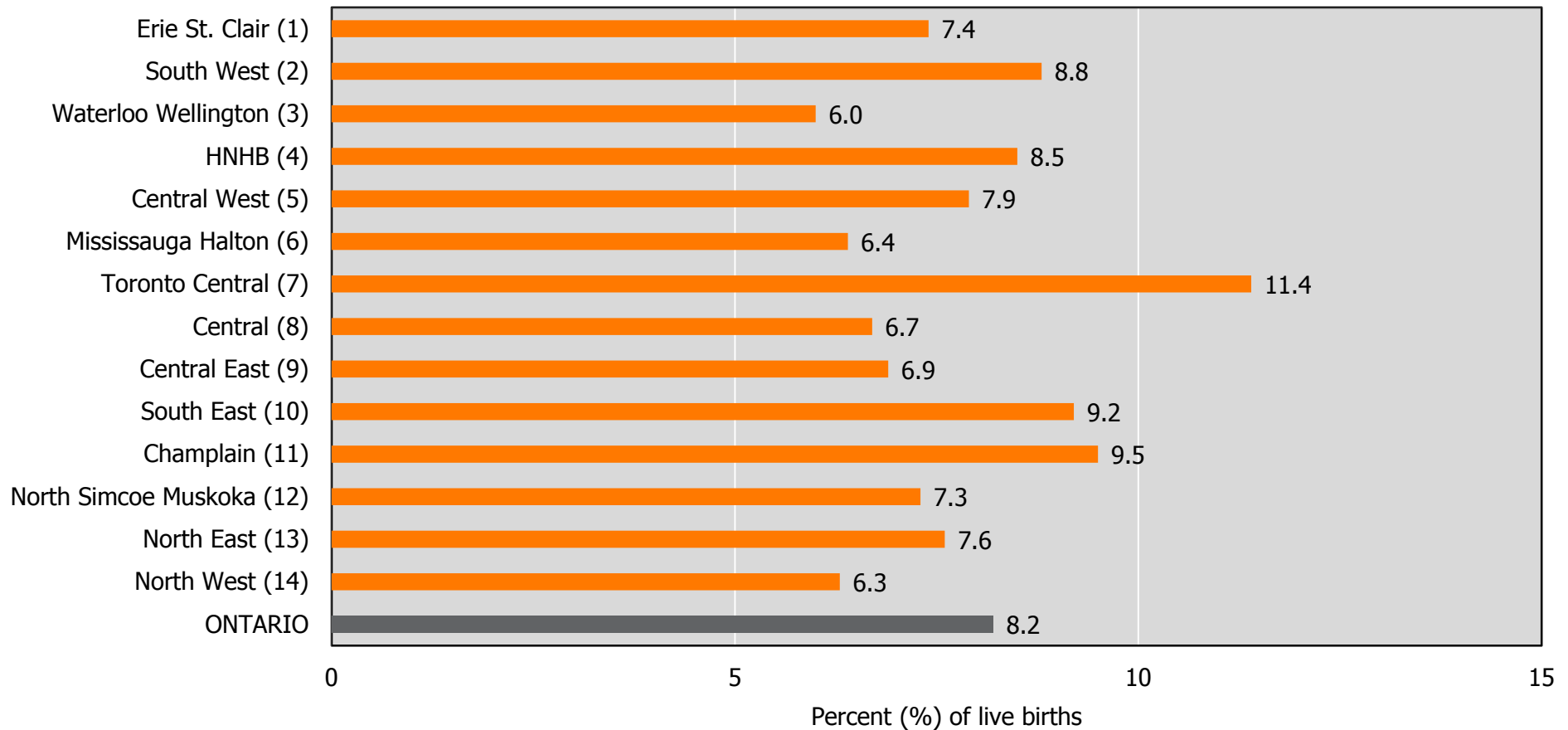
Source – BORN Ontario (Niday Perinatal Database), 2009–2010

† Ontario residents only

Error bars represent upper/lower 95% bounds

Rate of preterm birth (<37 weeks), by LHIN of birth

Ontario†, 2009–2010

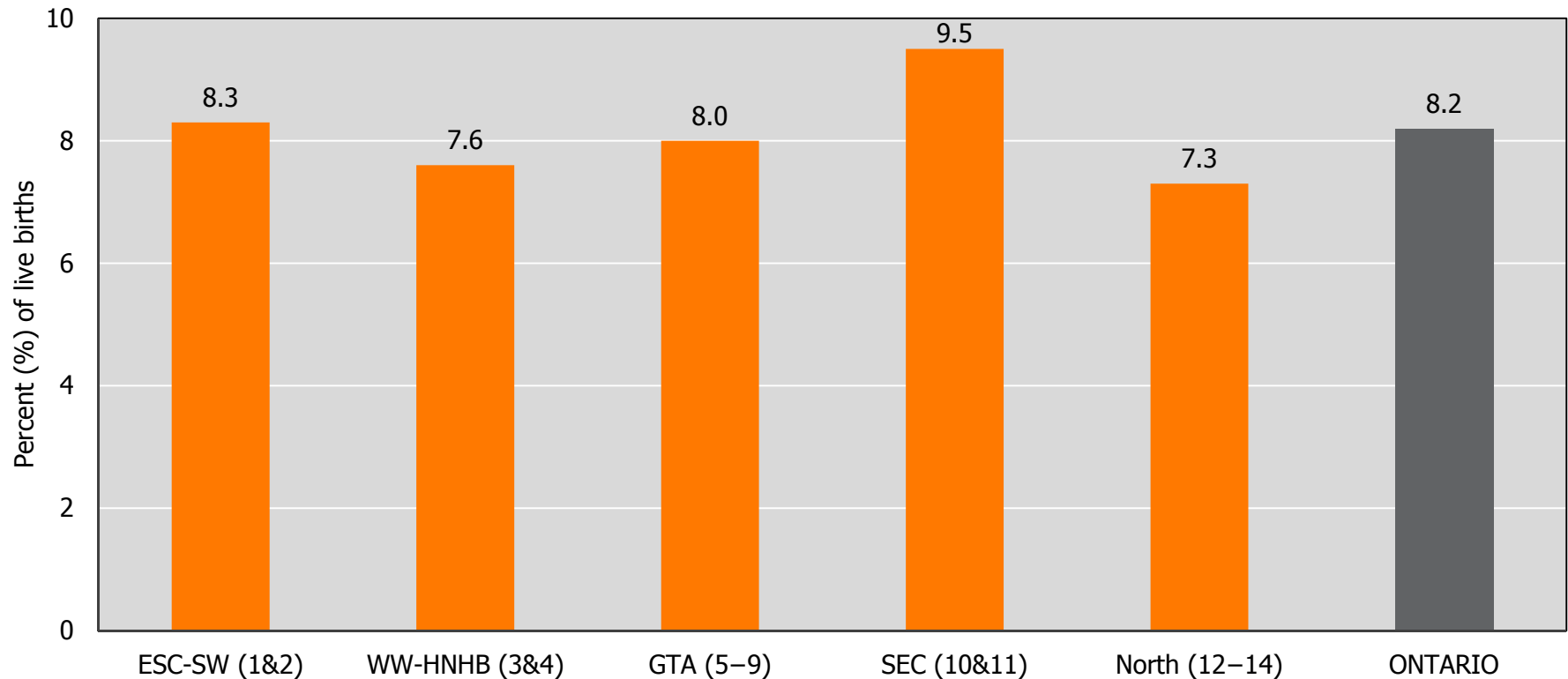


Source – BORN Ontario (Niday Perinatal Database), 2009–2010

† Ontario residents only

Rate of preterm birth (<37 weeks)

Ontario†, 2009–2010



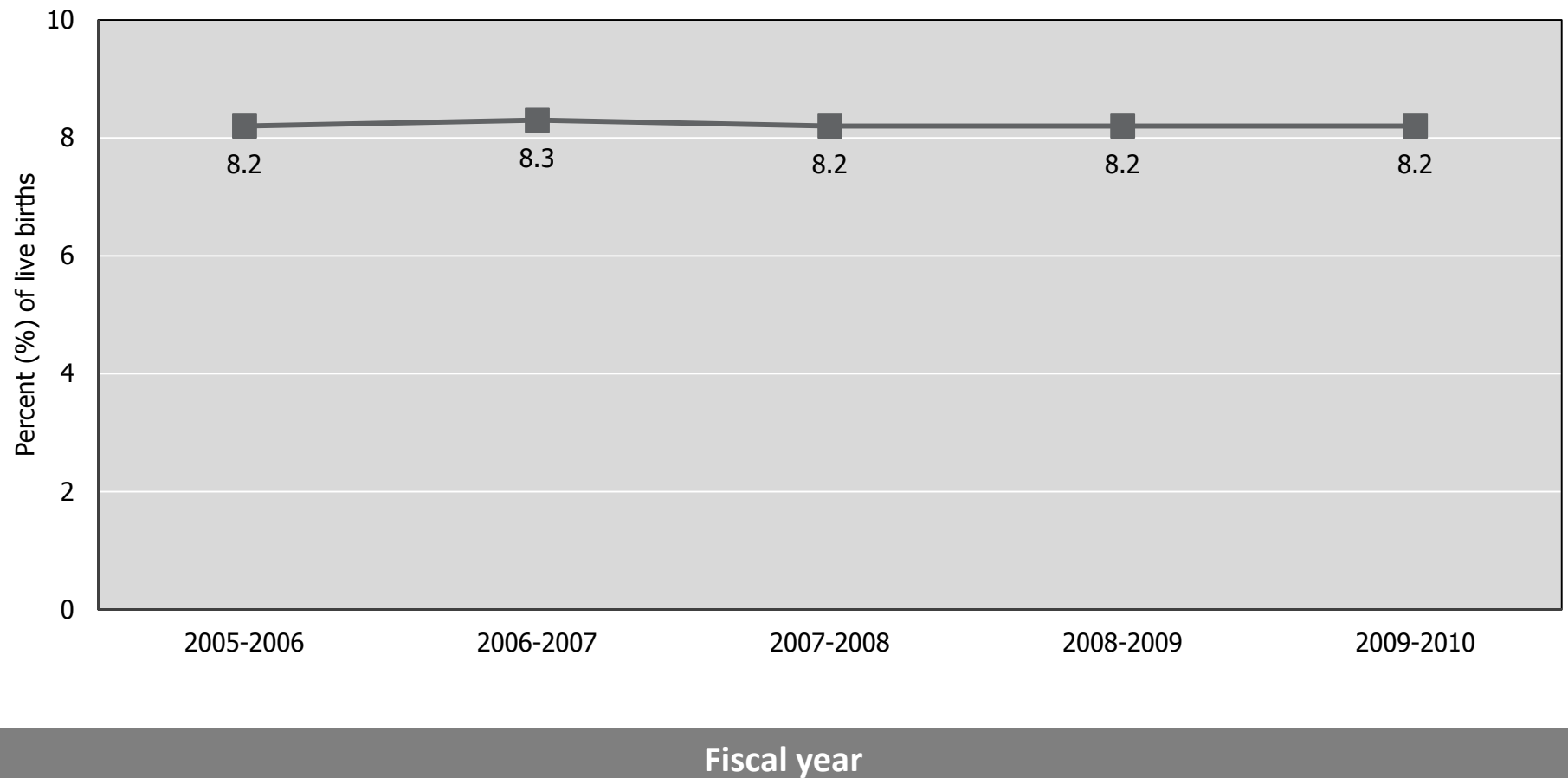
LHIN region of birth

Source – BORN Ontario (Niday Perinatal Database), 2009–2010

† Ontario residents only

Rate of preterm birth (<37 weeks)

Ontario†, 2005–2006 to 2009–2010

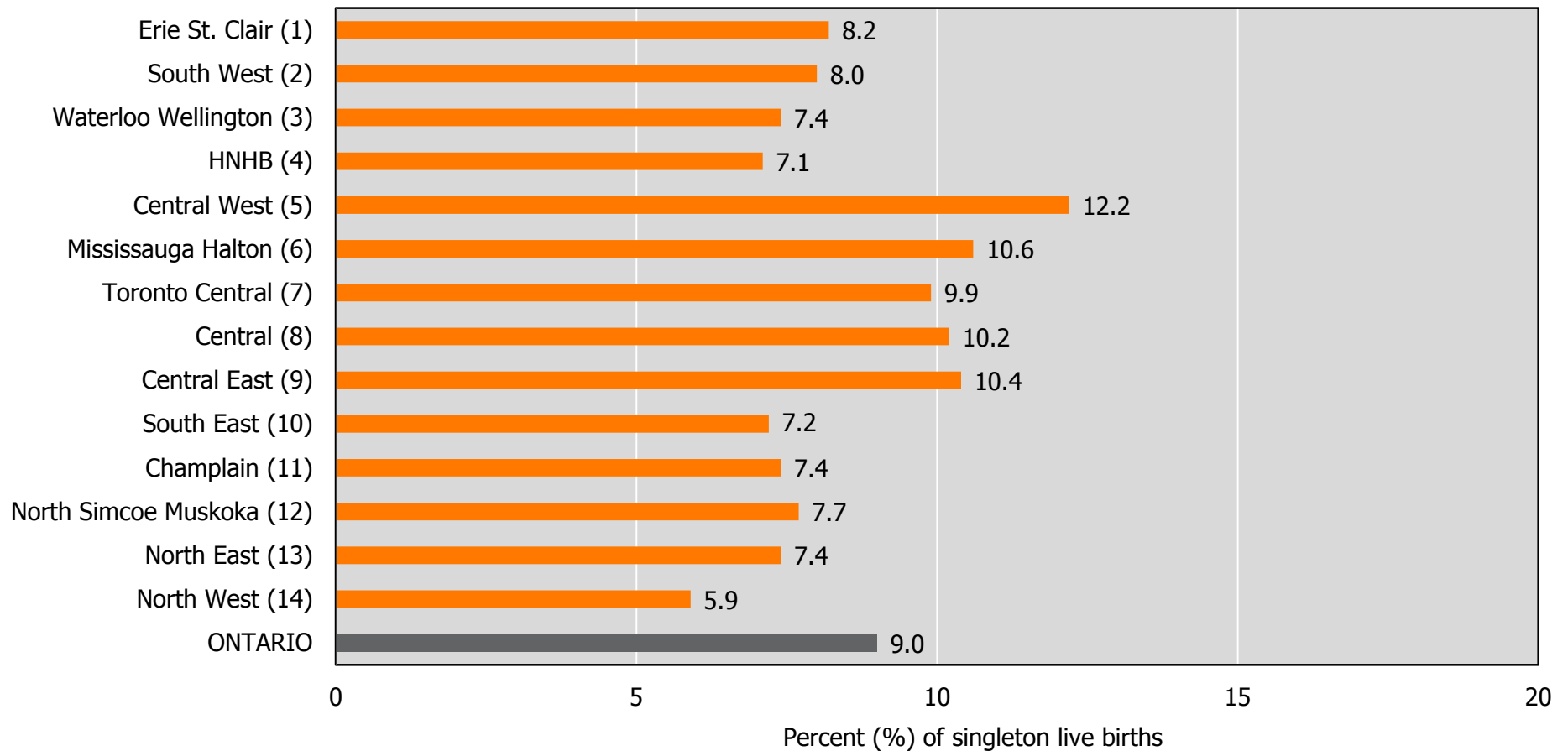


Source – BORN Ontario (Niday Perinatal Database), 2005–2006 to 2009–2010

† Ontario residents only

Rate of small for gestational age, by LHIN of birth

Ontario†, 2009–2010

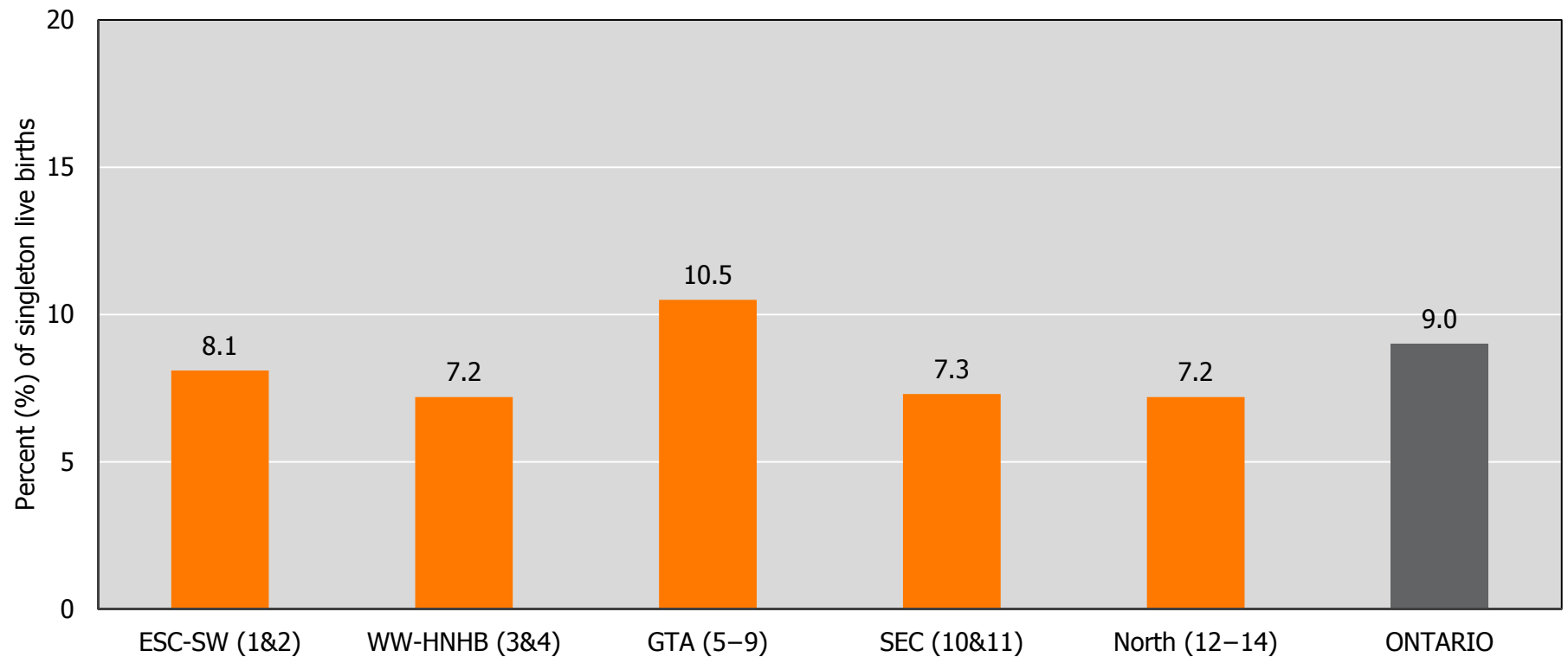


Source – BORN Ontario (Niday Perinatal Database), 2009–2010

† Ontario residents only

Rate of small for gestational age

Ontario†, 2009–2010



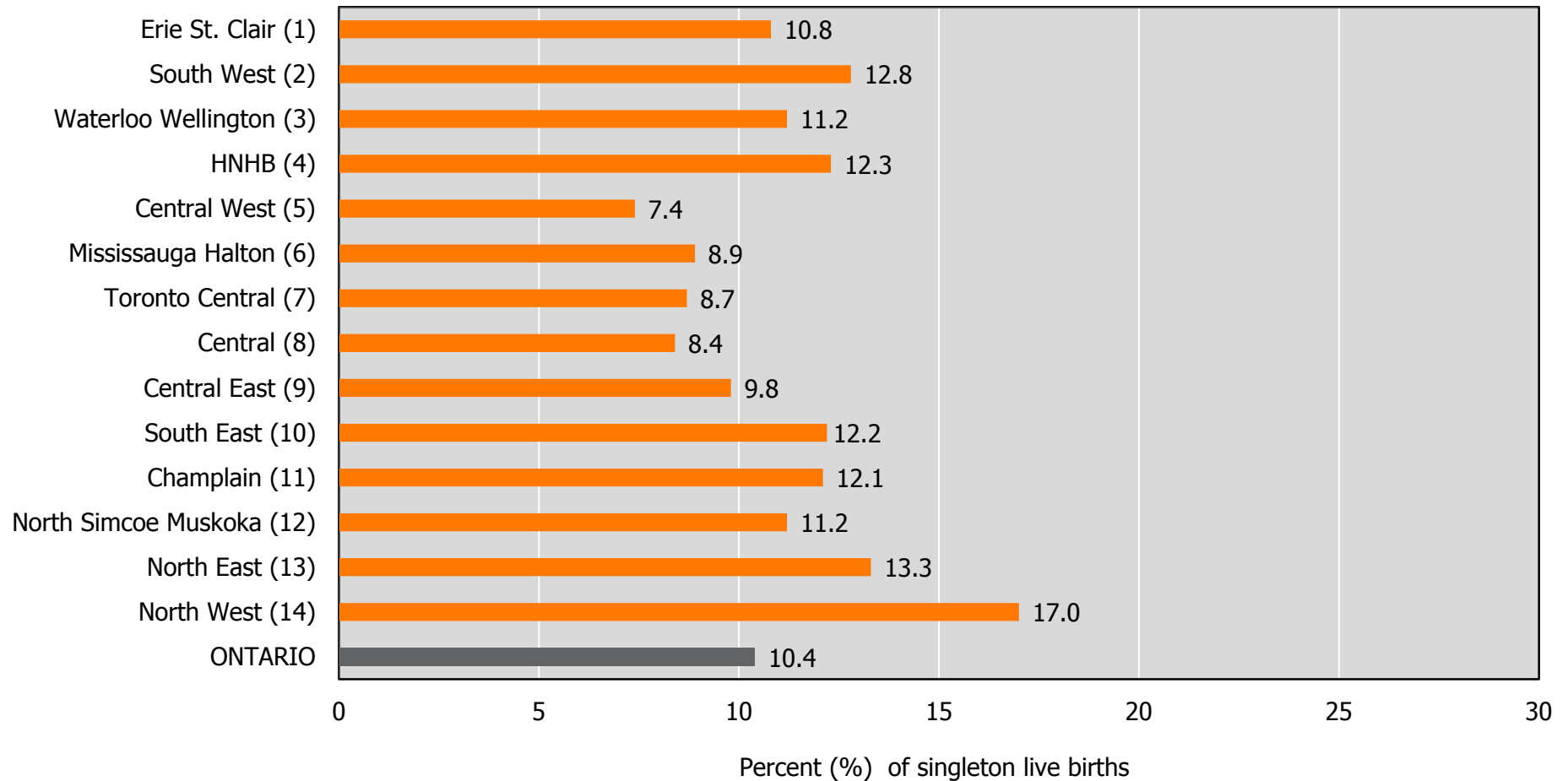
LHIN region of birth

Source – BORN Ontario (Niday Perinatal Database), 2009–2010

† Ontario residents only

Rate of large for gestational age, by LHIN of birth

Ontario†, 2009–2010

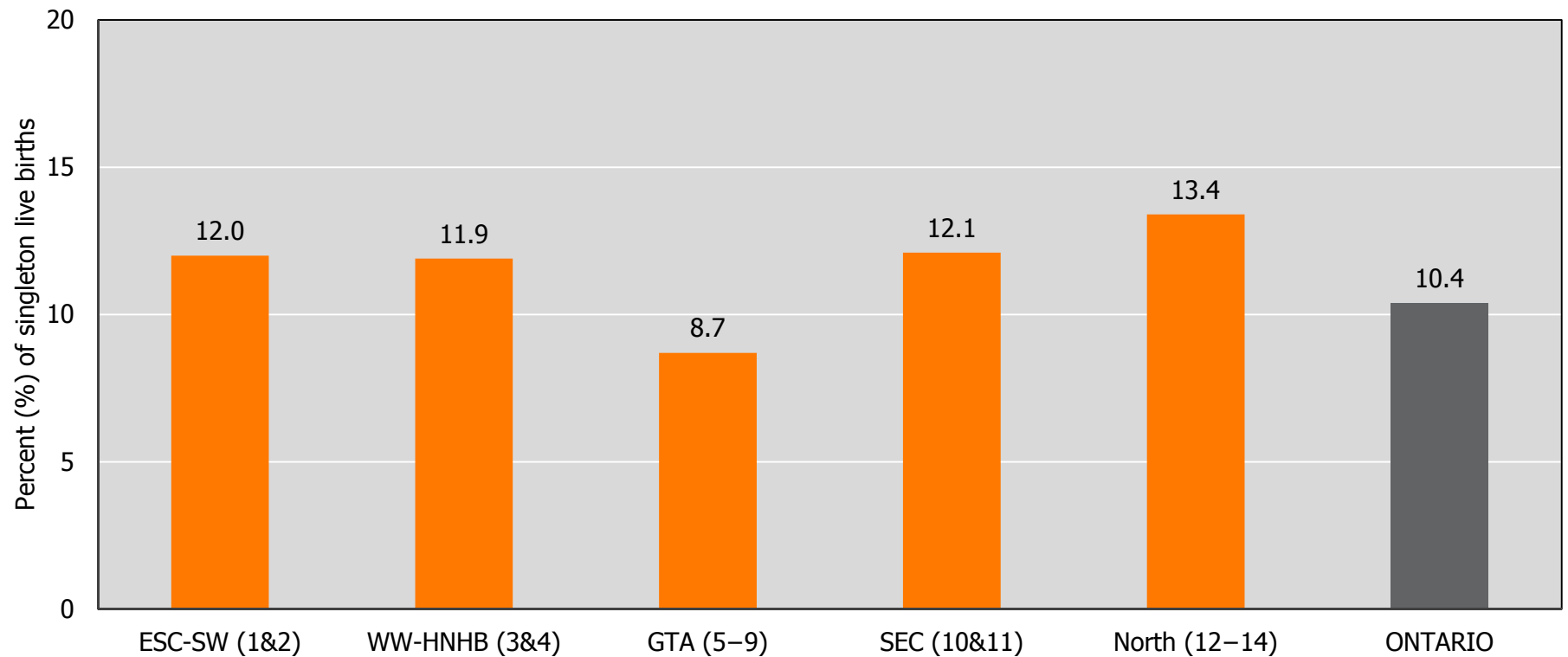


Source – BORN Ontario (Niday Perinatal Database), 2009–2010

† Ontario residents only

Rate of large for gestational age

Ontario†, 2009–2010



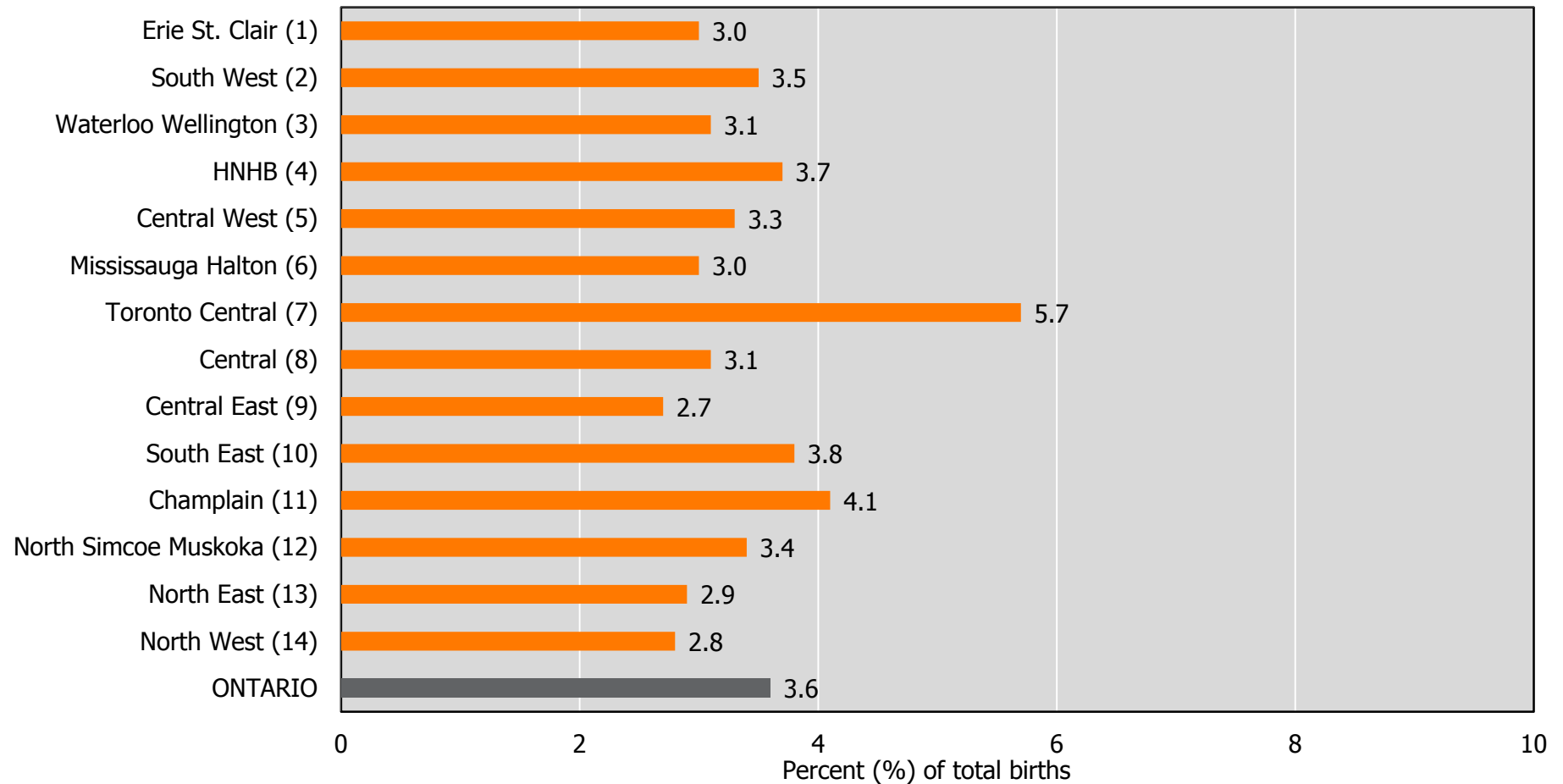
LHIN region of birth

Source – BORN Ontario (Niday Perinatal Database), 2009–2010

† Ontario residents only

Rate of multiple birth, by LHIN of birth

Ontario†, 2009–2010

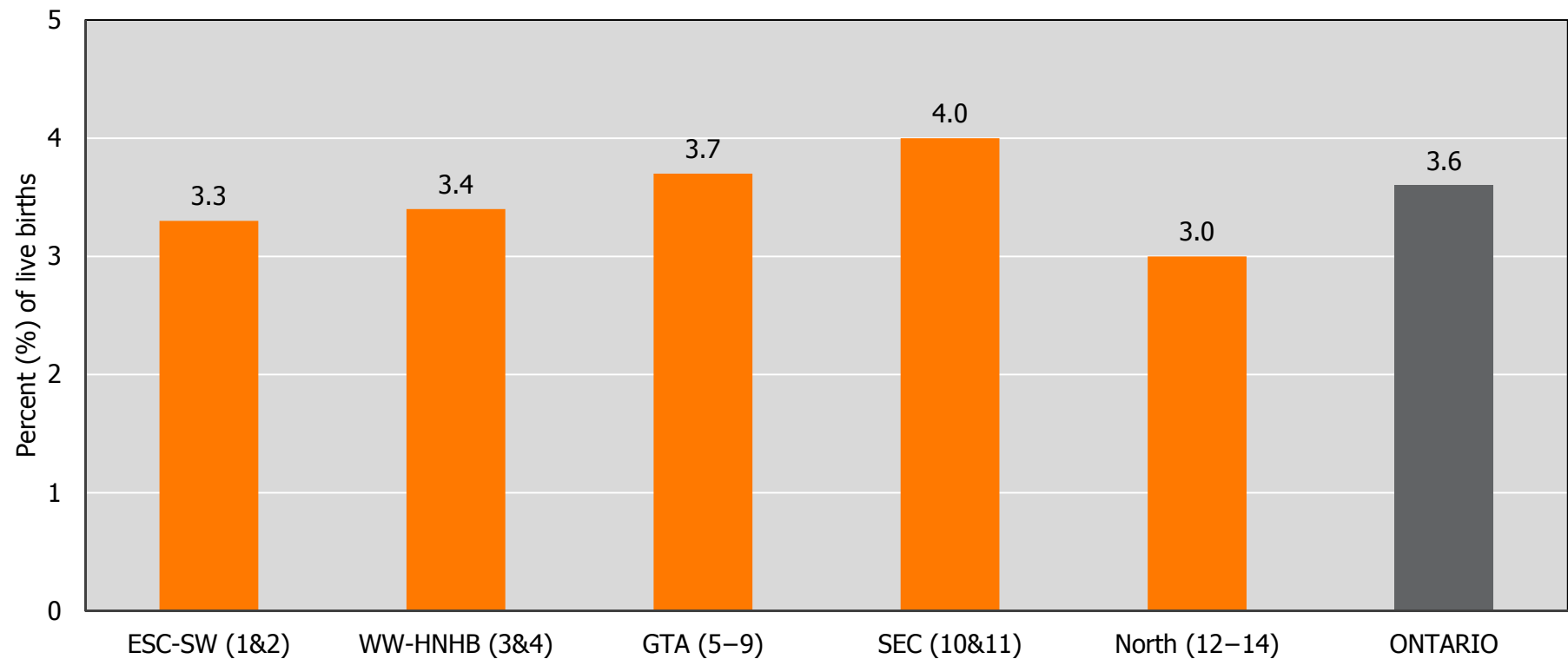


Source – BORN Ontario (Niday Perinatal Database), 2009–2010

† Ontario residents only

Rate of multiple birth

Ontario†, 2009–2010



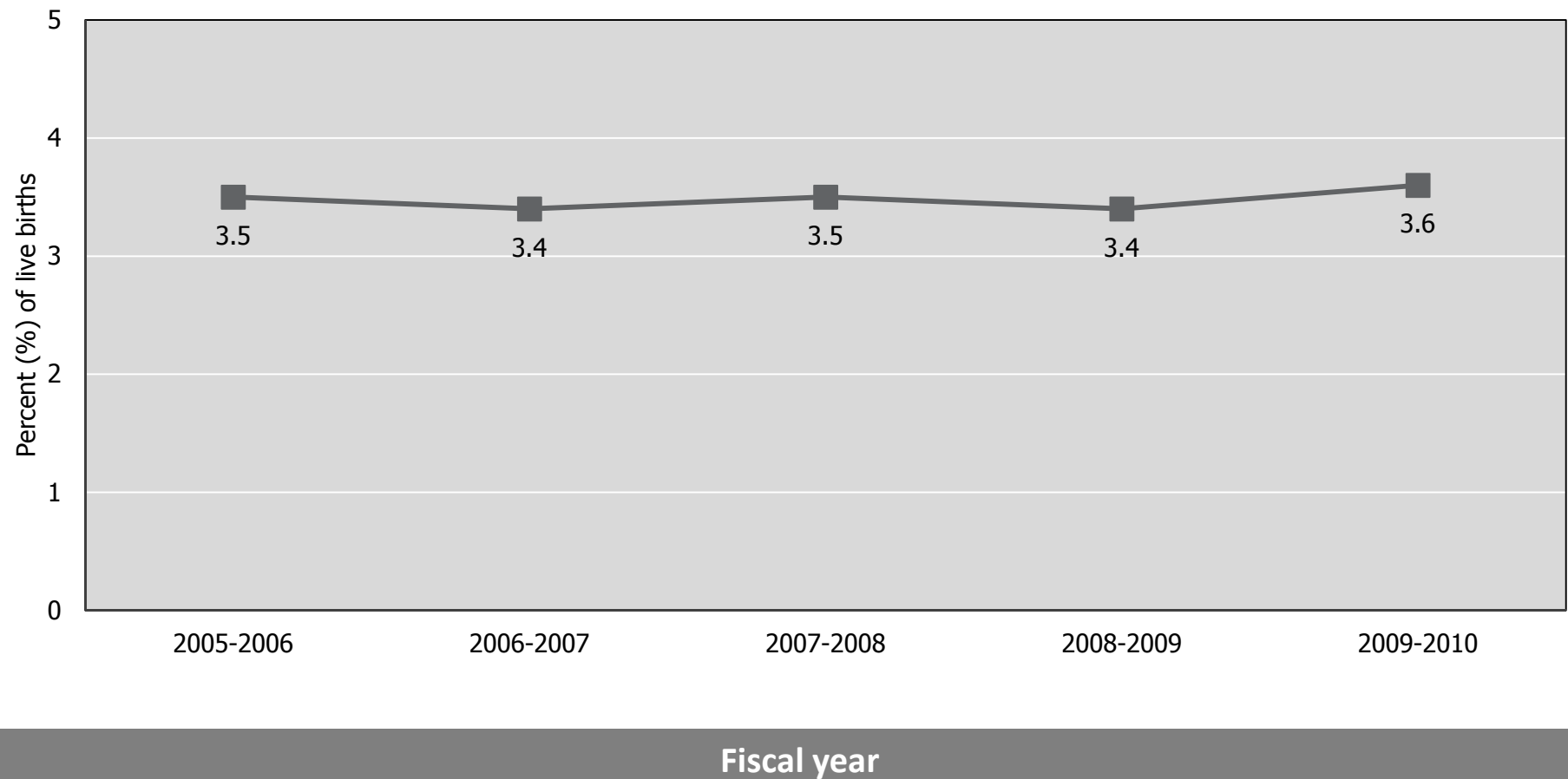
LHIN region of birth

Source – BORN Ontario (Niday Perinatal Database), 2009–2010

† Ontario residents only

Rate of multiple birth

Ontario†, 2005–2006 to 2009–2010



Source – BORN Ontario (Niday Perinatal Database), 2005–2006 to 2009–2010

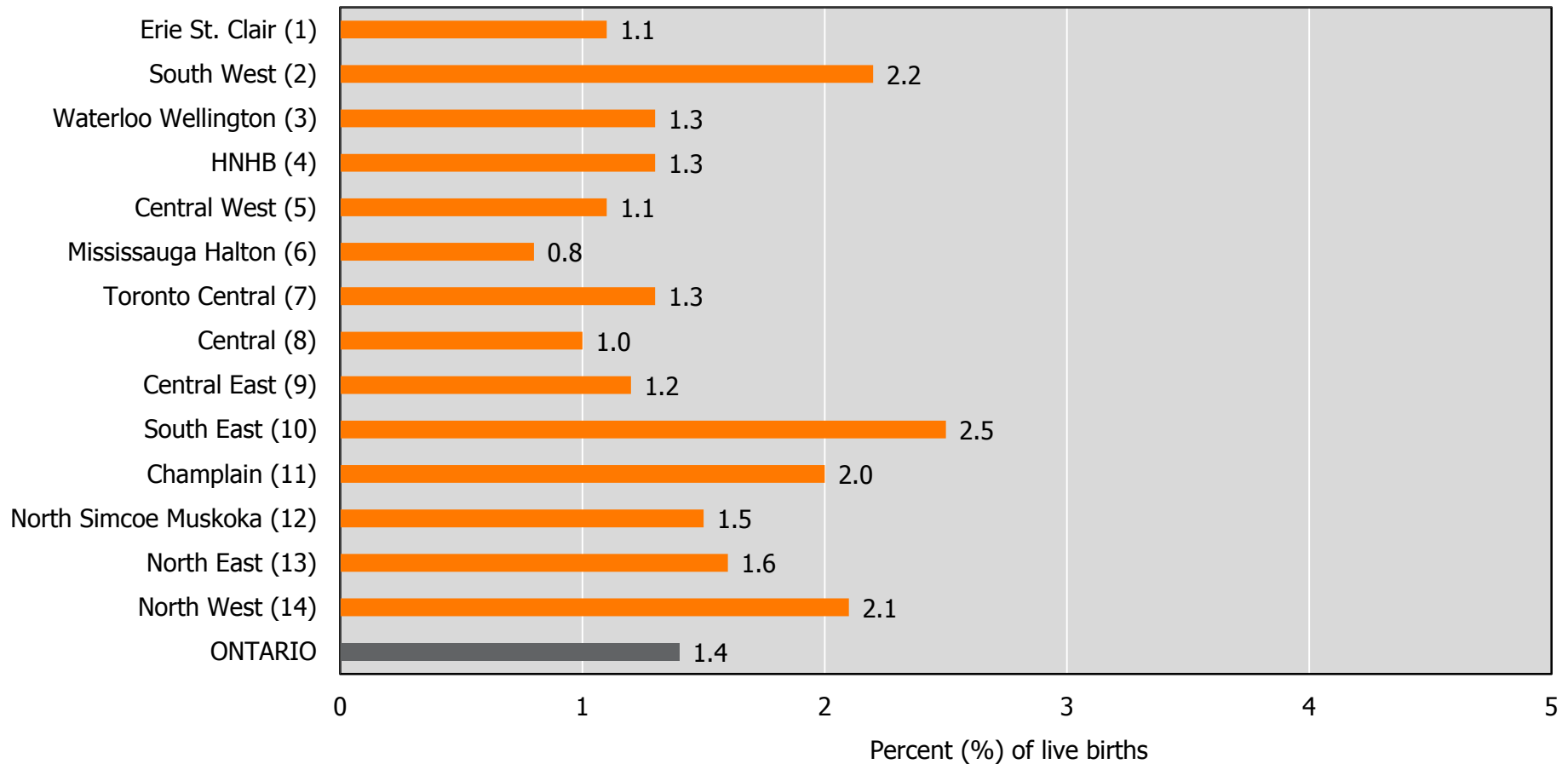
† Ontario residents only

Section V

Postpartum and newborn

Proportion of live births with a 5-minute Apgar score <7, by LHIN of birth

Ontario†, 2009–2010

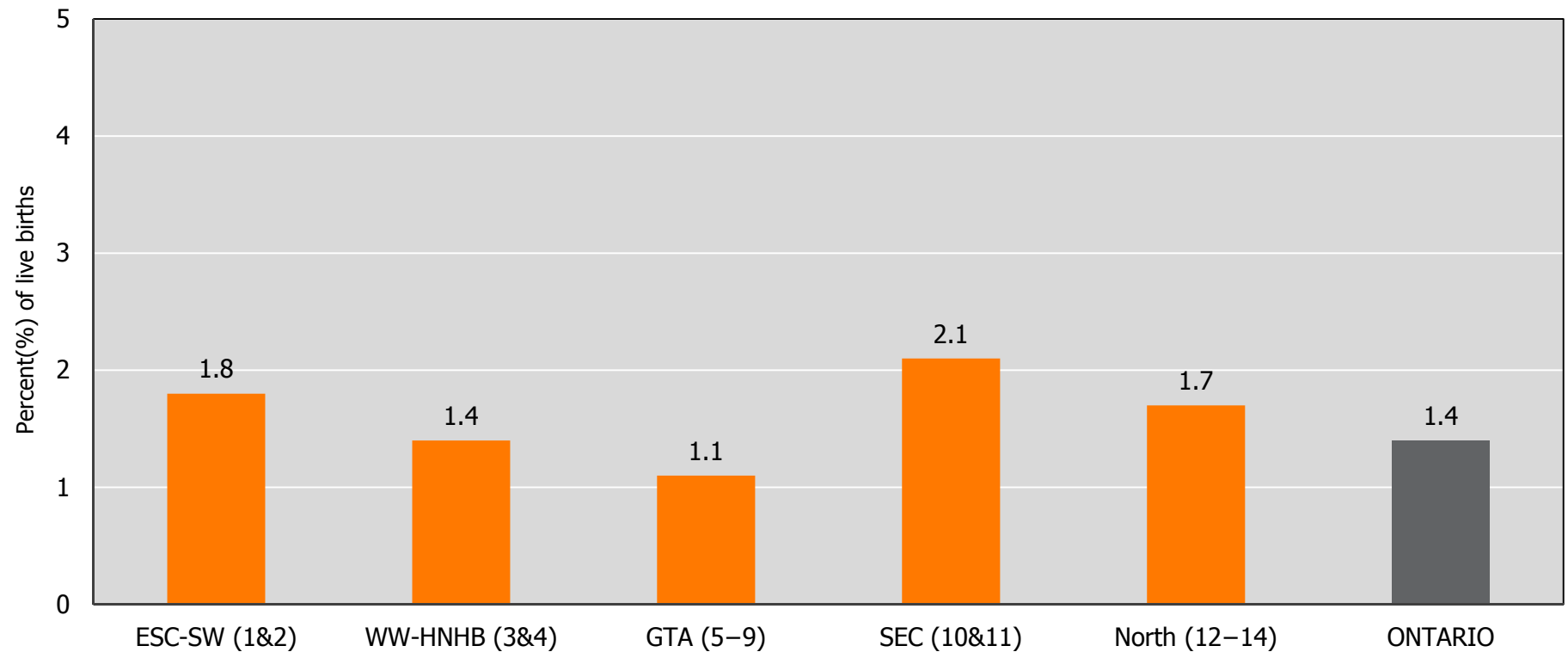


Source – BORN Ontario (Niday Perinatal Database), 2009–2010

† Ontario residents only

Proportion of live births with a 5-minute Apgar score <7

Ontario†, 2009–2010



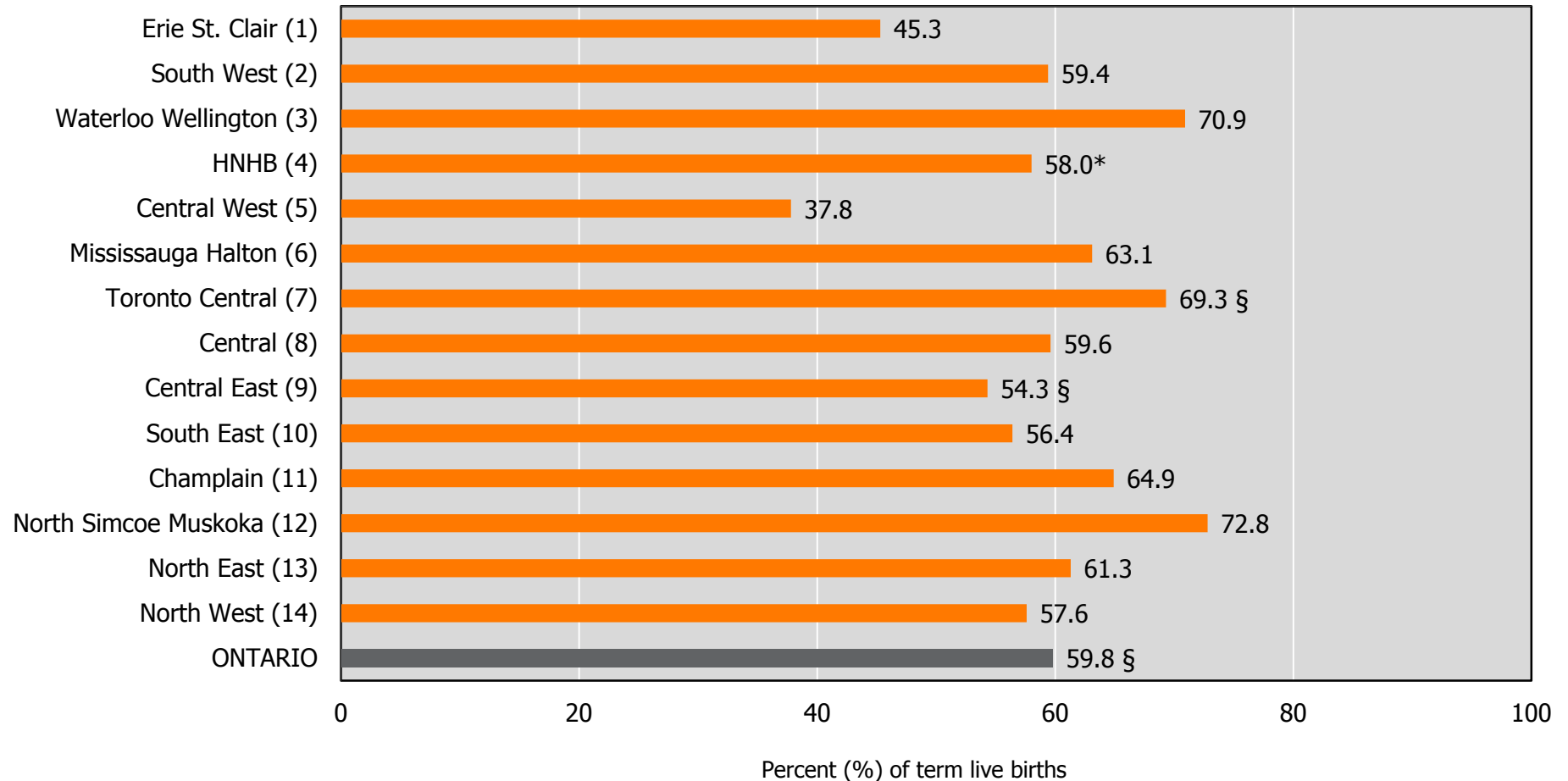
LHIN region of birth

Source – BORN Ontario (Niday Perinatal Database), 2009–2010

† Ontario residents only

Rate of exclusive breastfeeding at discharge among term live births, by LHIN of birth

Ontario†, 2009–2010



Source – BORN Ontario (Niday Perinatal Database), 2009–2010

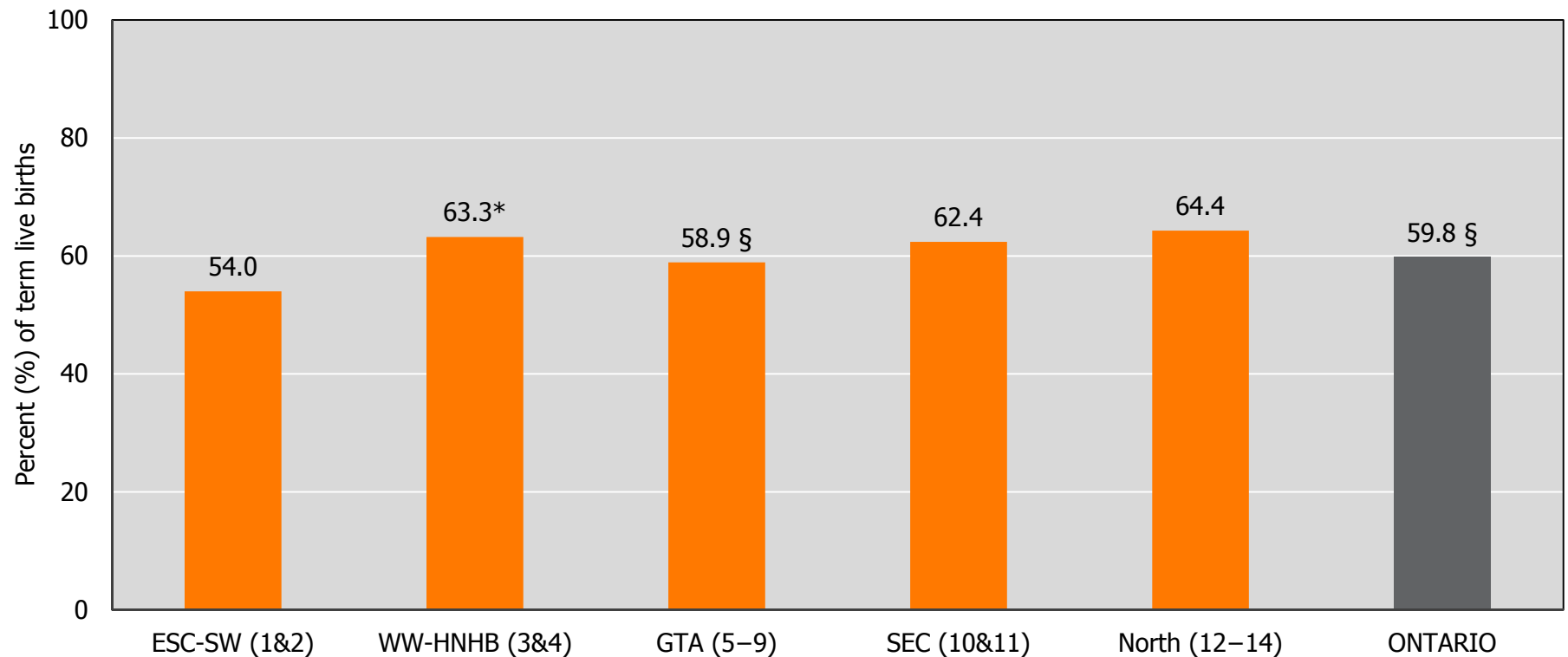
† Ontario residents only

* Between 10% and 30% of records and missing information and were excluded from the calculation of these estimates

§ Individual hospital sites that do not collect information on breastfeeding at discharge from hospital, or that have >30% of records with missing information on this variable have been excluded from the denominator used for these calculations.

Rate of exclusive breastfeeding at discharge among term live births

Ontario†, 2009–2010



LHIN region of birth

Source – BORN Ontario (Niday Perinatal Database), 2009–2010

† Ontario residents only

* Between 10% and 30% of records and missing information and were excluded from the calculation of these estimates

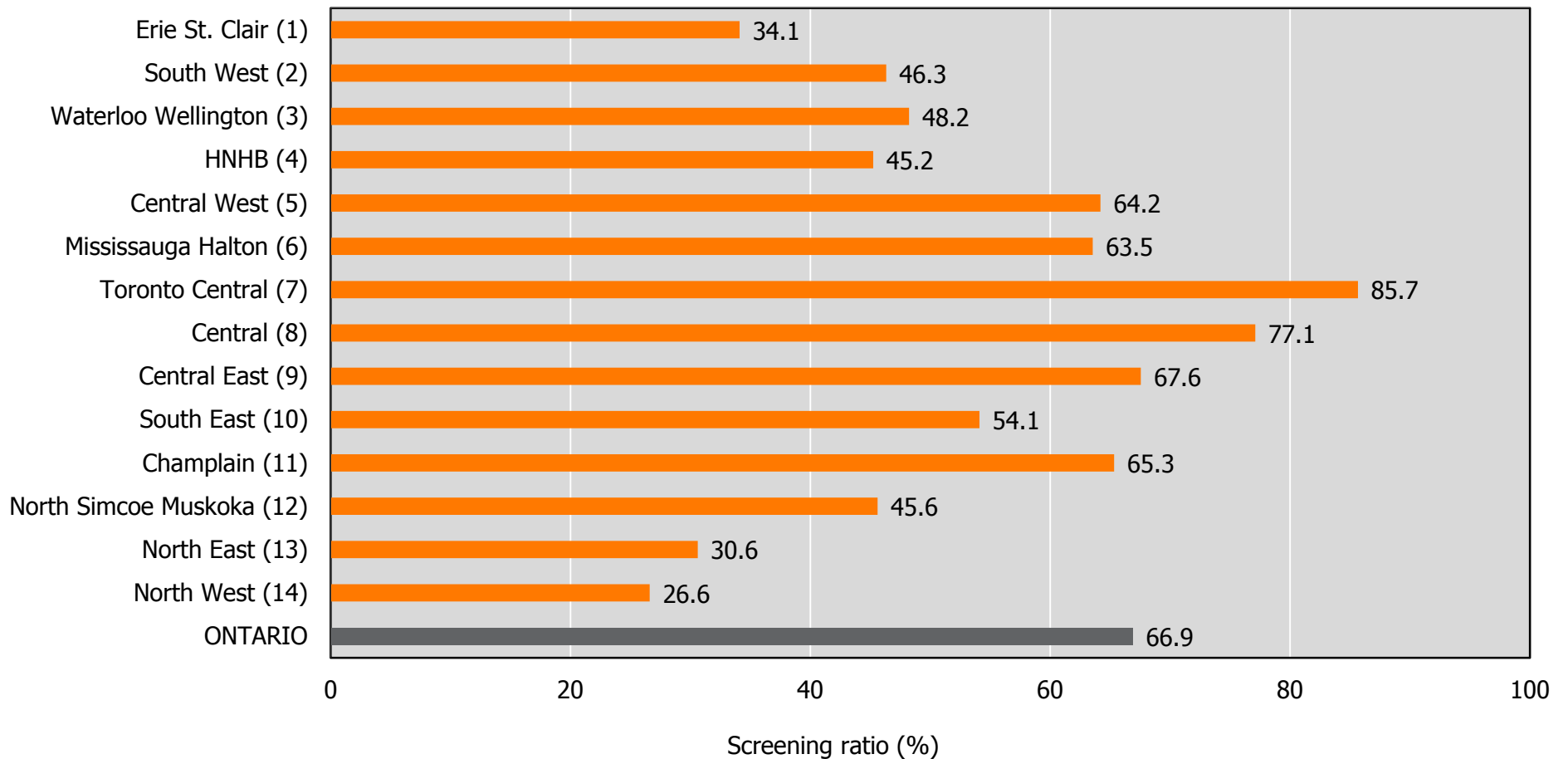
§ Individual hospital sites that do not collect information on breastfeeding at discharge from hospital, or that have >30% of records with missing information on this variable have been excluded from the denominator used for these calculations.

Section VI

Maternal and newborn screening

Ratio of maternal multiple marker screening, by LHIN of residence

Ontario†, 2009–2010

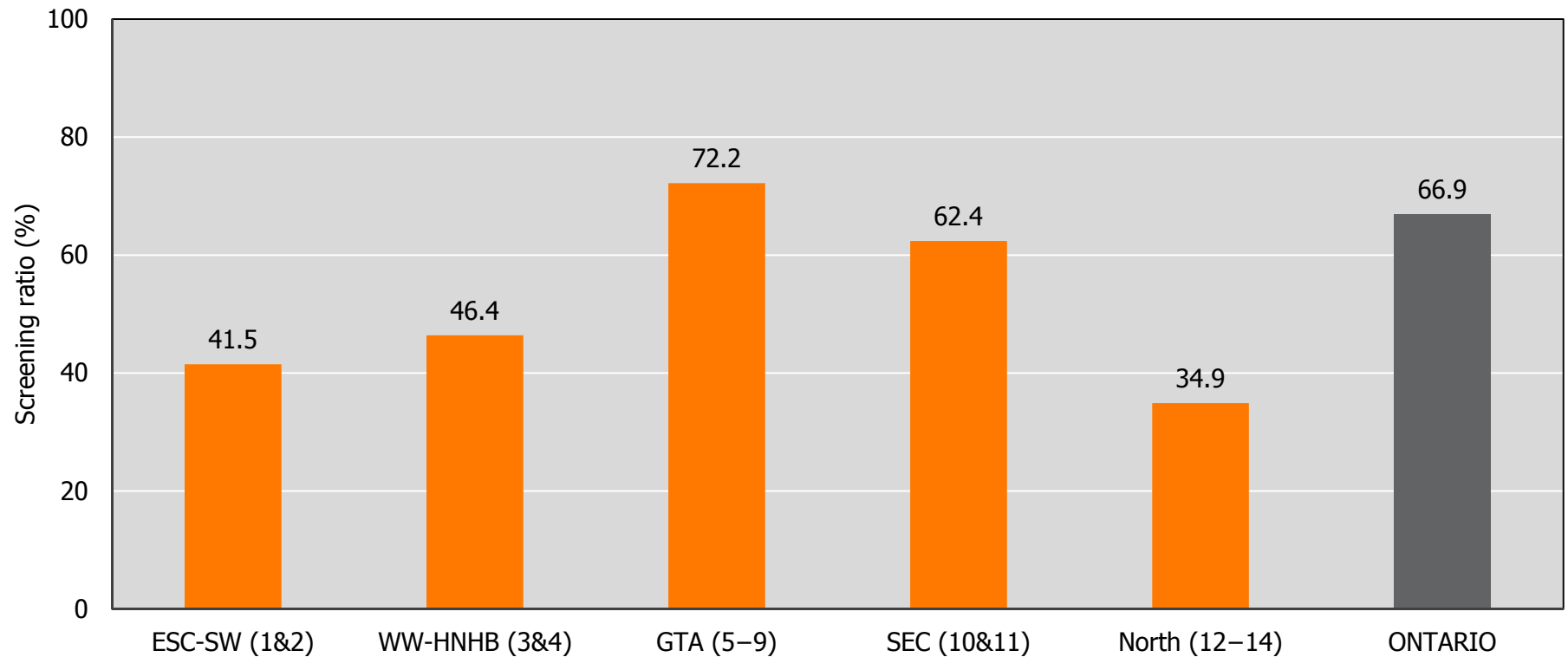


Source – BORN Ontario (Ontario Maternal Multiple Marker Screening Program Database and Niday Perinatal Database), 2009–2010

† Ontario residents only

Ratio of maternal multiple marker screening

Ontario†, 2009–2010



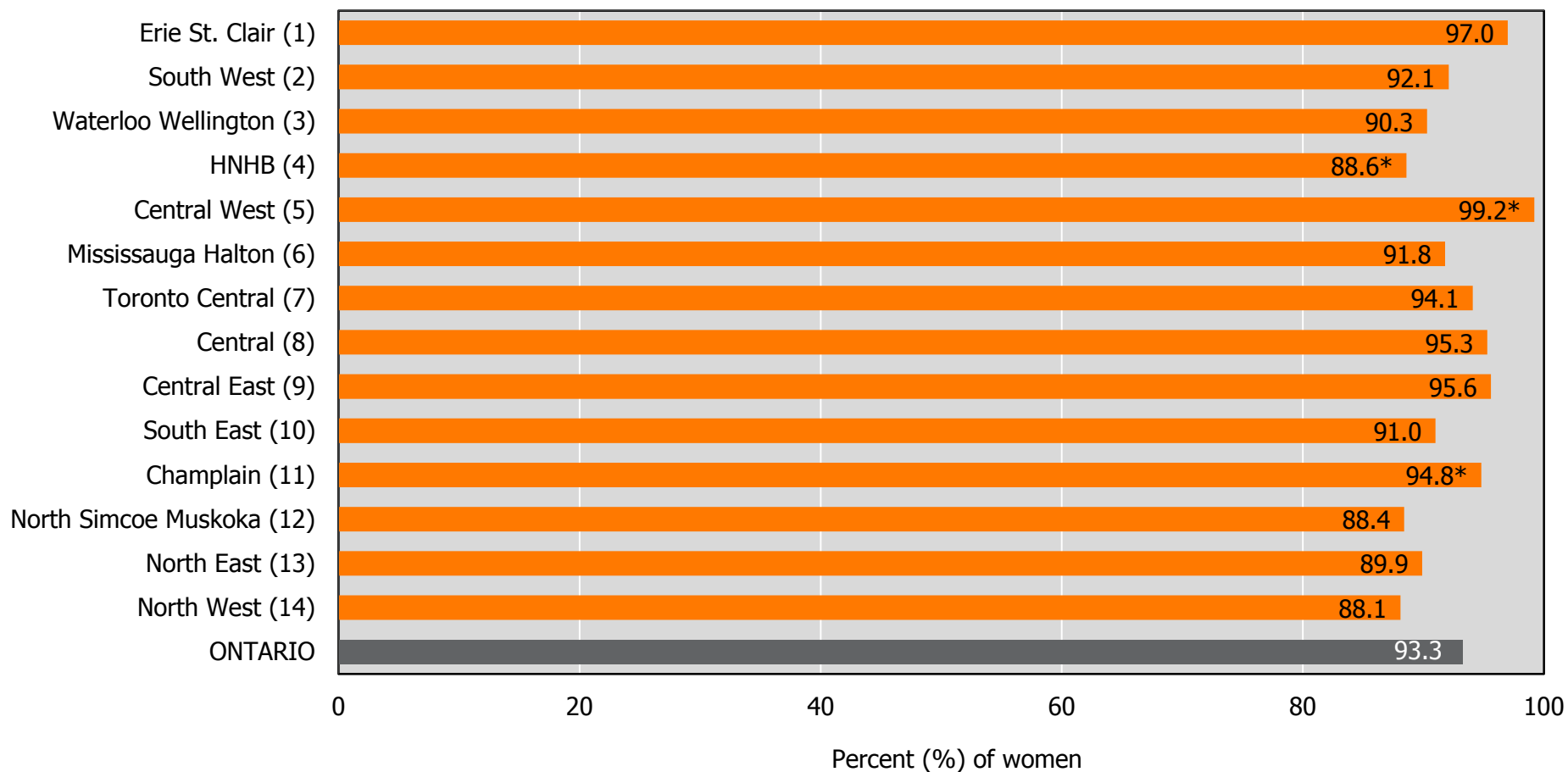
LHIN region of residence

Source – BORN Ontario (Ontario Maternal Multiple Marker Screening Program Database and Niday Perinatal Database), 2009–2010

† Ontario residents only

Proportion of women who were screened for Group B Streptococcus among women who delivered at ≥ 37 weeks, by LHIN of birth

Ontario†, 2009–2010

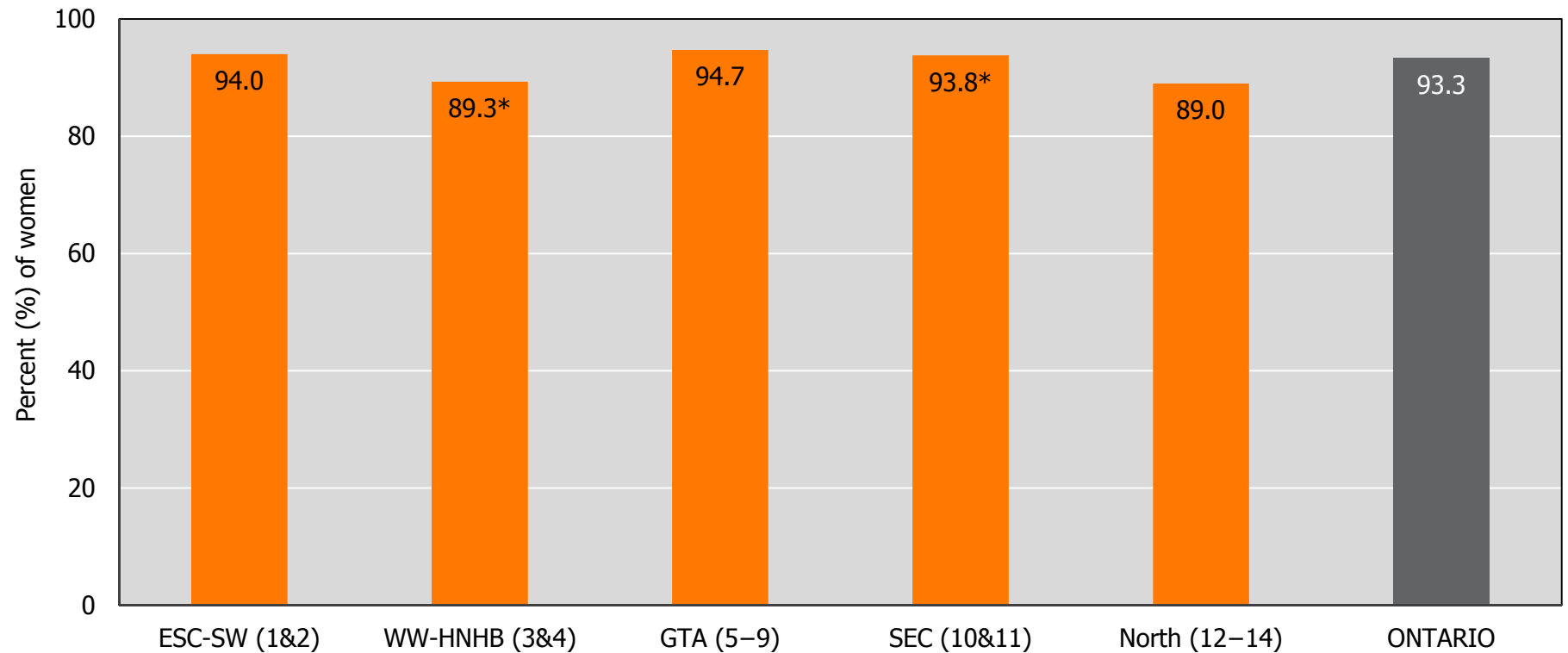


Source – BORN Ontario (Niday Perinatal Database), 2009–2010

† Ontario residents only

* Between 10% and 30% of records and missing information and were excluded from the calculation of these estimates

Proportion of women who were screened for Group B Streptococcus among women who delivered at ≥ 37 weeks *Ontario†, 2009–2010*



LHIN region of birth

Source – BORN Ontario (Niday Perinatal Database), 2009–2010

† Ontario residents only

* Between 10% and 30% of records and missing information and were excluded from the calculation of these estimates

Number of infants with newborn screening completed and proportion who screen positive, by LHIN of residence

Ontario†, 2009–2010

LHIN of residence	Number of infants with newborn screening completed	Number with a positive screen	Proportion of infants with a positive screen
Erie St. Clair (1)	6,208	79	1.27
South West (2)	9,863	85	0.86
Waterloo Wellington (3)	8,333	77	0.92
HNHB (4)	13,353	124	0.93
Central West (5)	10,900	94	0.86
Mississauga Halton (6)	12,036	94	0.78
Toronto Central (7)	12,695	115	0.91
Central (8)	18,331	166	0.91
Central East (9)	15,722	144	0.92
South East (10)	4,425	34	0.77
Champlain (11)	12,869	130	1.01
North Simcoe Muskoka (12)	4,242	37	0.87
North East (13)	5,374	46	0.86
North West (14)	2,383	15	0.63
ONTARIO	142,990	1,312	0.92

Source – BORN Ontario (Niday Perinatal Database), 2009–2010

† Ontario residents only

Number of infants with newborn screening completed and proportion who screen positive, by LHIN region of residence Ontario†, 2009–2010

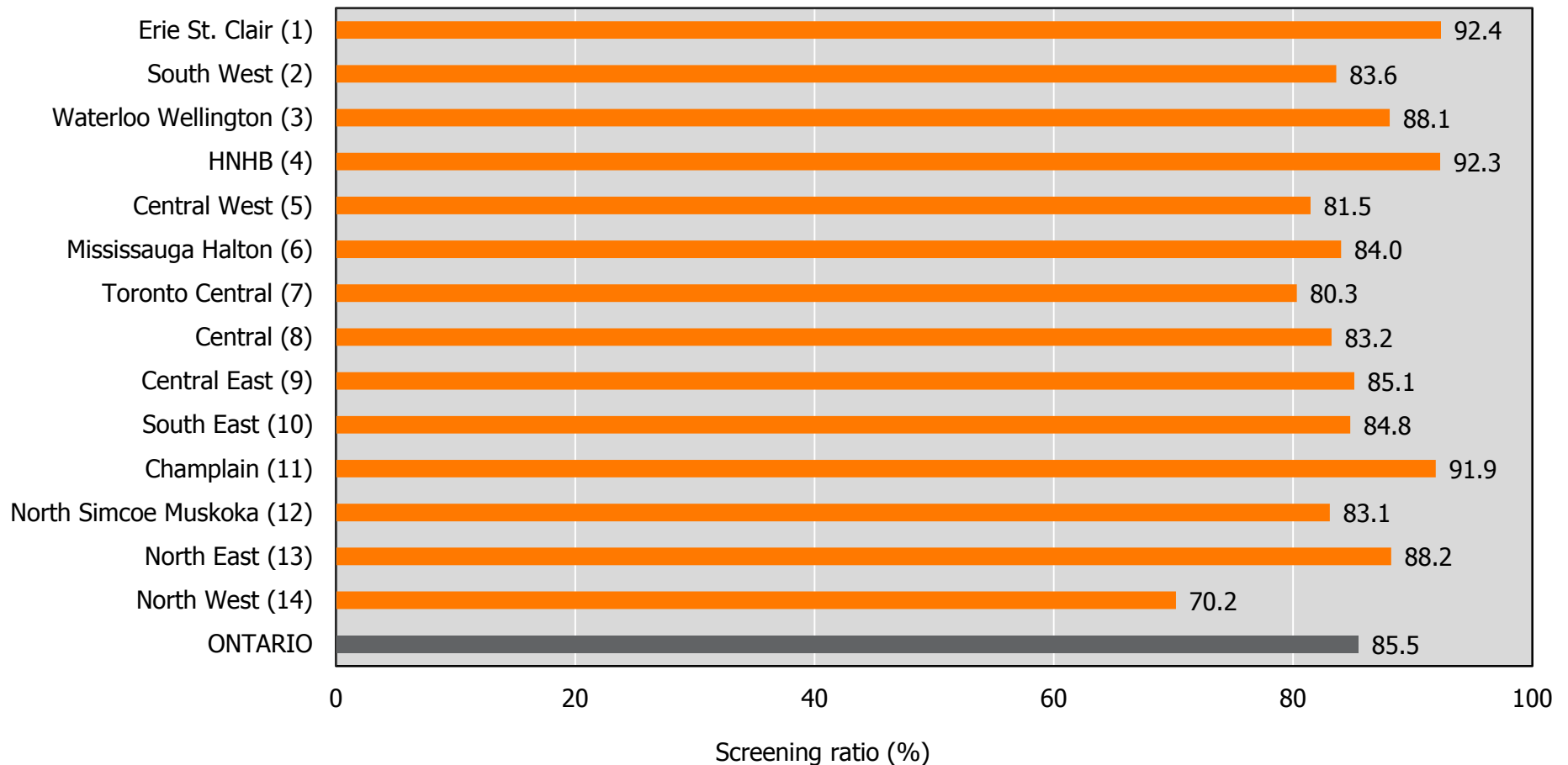
LHIN region of residence	Number of infants with newborn screening completed	Number with a positive screen	Proportion of infants with a positive screen
1&2	16,071	164	1.02
3&4	21,686	201	0.93
5–9	69,684	613	0.88
10&11	17,294	164	0.95
12–14	11,999	98	0.82
ONTARIO	142,990	1,312	0.92

Source – BORN Ontario (Niday Perinatal Database), 2009–2010

† Ontario residents only

Ratio of Parkyn screen completion, by LHIN of residence

Ontario†, 2009–2010

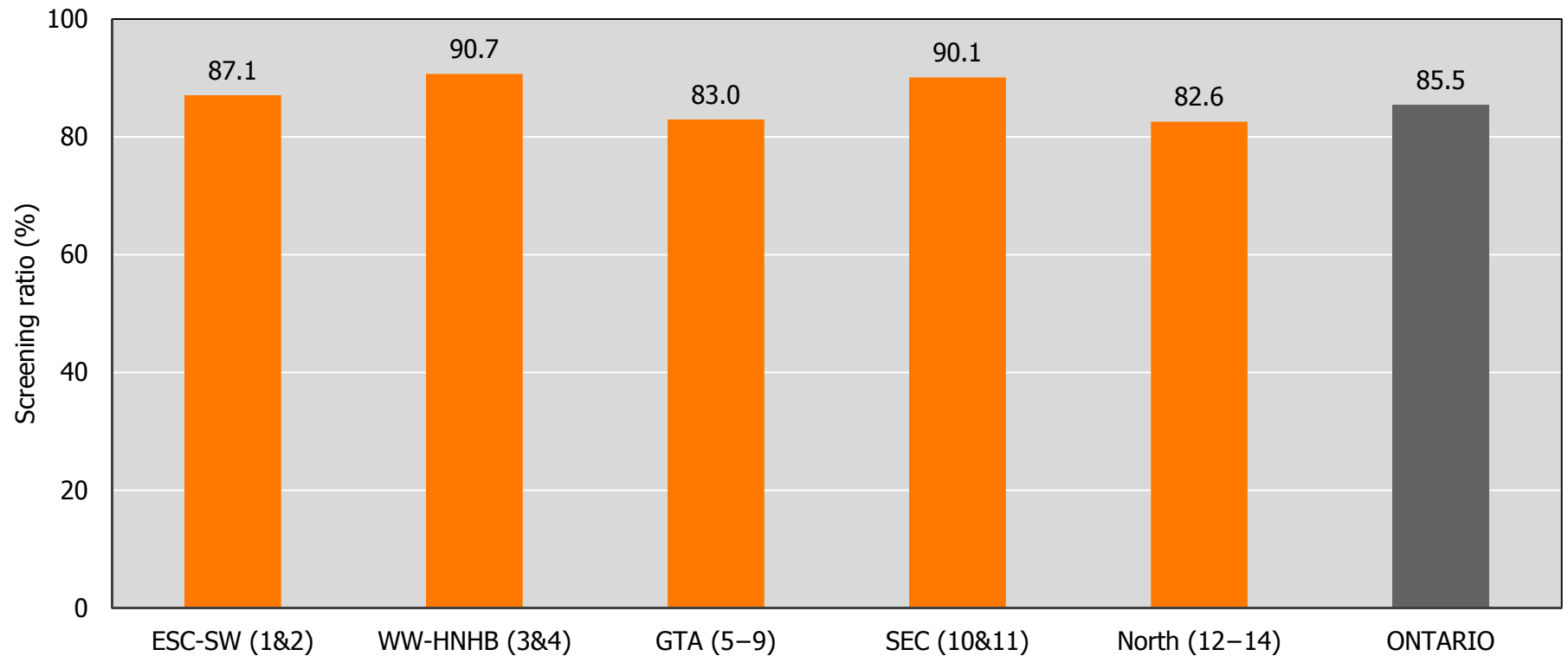


Source – Integrated Services for Children Information System (ISCIS), Ontario Ministry of Children and Youth Services and BORN Ontario (Niday Perinatal Database), 2009–2010

† Ontario residents only

Ratio of Parkyn screen completion

Ontario†, 2009–2010



LHIN region of residence

Source – Integrated Services for Children Information System (ISCIS), Ontario Ministry of Children and Youth Services and BORN Ontario (Niday Perinatal Database), 2009–2010

† Ontario residents only