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REPORT TITLE: **BORN IN PEEL: EXAMINING MATERNAL AND INFANT HEALTH IN PEEL**

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## OBJECTIVE

To provide an overview of the report "Born in Peel: Examining Maternal and Infant Health in Peel".

### REPORT HIGHLIGHTS

- Key findings included in this report are:
  - The vast majority of babies in Peel are born at full-term and with a birth weight within the healthy range.
  - There has been a shift in the demographic profile of mothers in Peel and across all of Canada, with women choosing to delay pregnancy and childrearing until later in life. This shift has led to increases in the rate of preterm birth and multiple birth.
  - The majority of births in Peel occurred among immigrant mothers. In addition, mothers born outside of Canada were shown to have babies with lower birth weight compared to babies of Canadian born mothers. The combination of these two factors results in higher low-birth-weight and small-for-gestational-age rates in Peel compared to the rest of the Greater Toronto Area (GTA) and Ontario.
  - Twenty-eight per cent of births in Peel were by Caesarean section, a procedure which has been associated with longer hospital stays, higher risk for complications after delivery and a lower rate of exclusive breastfeeding.
- This report provides baseline data for our population which can be used to gauge changes in maternal and infant health in Peel. This report will be used to support the Strategic Plan Term of Council Priority, Optimize early child development in Peel.

## DISCUSSION

### 1. Background

In 2006, almost 16,000 babies were born in Peel. Peel has a population which is very ethno-culturally diverse, with many residents in their childbearing years. These factors combine to make issues related to maternal and child health of high importance to residents, public health practitioners, health care providers and planners in Peel. Peel Public Health has developed a report which examines a wide variety of health issues related to maternal and child health from the period prior to pregnancy through the first year of the infant's life. Two versions of this report have been developed: a short summary of the key findings

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(available in hard copy) and a full electronic version which can be found at [www.peelregion.ca/health/resources/reports.htm#health](http://www.peelregion.ca/health/resources/reports.htm#health).

### 2. Findings

In general, mothers and infants in Peel are healthy compared to those in the rest of the Greater Toronto Area (GTA) and Ontario. The vast majority of babies in Peel are born at full-term (37 weeks of gestation or more) and within the healthy birth weight range (2,500 to 4,499 grams). A small minority of mothers smoke during their pregnancy. Maternal and infant deaths are extremely rare. Most mothers report seeing a health care provider within the first trimester of their pregnancy.

There has been a shift in the demographic profile of mothers across all of Canada, including in Peel, with women choosing to delay pregnancy and childrearing until later in life. As new mothers have become older, there has been an increase in the rate of preterm birth which can be attributed to a higher number of multiple births. Older mothers are more likely to naturally conceive multiples, as well as being more likely to use assisted reproduction technologies which are also associated with a higher risk of multiples. Older mothers are more likely to have chronic health conditions prior to pregnancy (e.g., hypertension) and they are more likely to develop health conditions during their pregnancy (e.g., gestational diabetes).

The majority of births in Peel occurred among immigrant women (65 per cent of births in 2006), with 30 per cent of births in Peel occurring among South Asian born mothers. Mothers born outside of Canada were shown to give birth to babies who had a significantly lower birth weight at each gestational age compared to babies born to Canadian born mothers. As a result of these two factors, the low-birth-weight rate and small-for-gestational-age rate in Peel was higher than the rest of the GTA and the province as a whole. An infant is defined as small-for-gestational-age when they have a birth weight lower than 90 per cent of infants of the same sex and gestational age. The preterm birth rate in Peel was similar to the preterm birth rate in the rest of the GTA and Ontario.

In the past there has been concern amongst public health practitioners about the stillbirth rate in Peel, which has been shown to be higher than in the rest of the GTA and Ontario. The findings in this report show that this higher rate in Peel is the result of a higher proportion of registered stillbirths with a birth weight of less than 500 grams. There are two possible reasons for this finding: stillbirths with a birth weight less than 500 grams may occur more often in Peel or Peel physicians may be more likely to correctly register these stillbirths when they occur. It is reasonable to assume that stillbirths with a birth weight of less than 500 grams occur more often in Peel because of the lower birth weights seen among infants of immigrant mothers.

In relation to labour and delivery in Peel, labour was induced through medical means for almost one quarter of mothers and almost 40 per cent required augmentation of their labour (e.g., artificial rupture of membranes, oxytocin). The majority of women who had a vaginal birth received some form of maternal pain relief (e.g., epidural, narcotics). Twenty-eight per cent of births in Peel were by Caesarean section, a procedure which has been associated with longer hospital stays, higher risk for complications after delivery and a lower rate of exclusive breastfeeding.

There are a number of challenges for Peel Public Health identified in this report. Only 31 per cent of first-time mothers in Peel report attending prenatal education classes. Also, although the vast majority of mothers express the intent to breastfeed their newborns, just over one

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third of infants were exclusively breastfed at the time of discharge from hospital. In addition, a number of data quality issues and data gaps were identified which have an impact on the ability to assess maternal and infant health in Ontario.

**3. Implications**

This report provides baseline data for our population which can be used to gauge changes in the maternal and infant health status of the population. It will also be used to support the "Nurturing the Next Generation" strategic priority outlined in Peel Public Health's 10-Year Strategic Plan tabled with Council in May 2009 and the Region's Strategic Plan Term of Council Priority, Optimize early child development in Peel.

**CONCLUSION**


In general, the health of mothers and infants in Peel is very good when compared to the rest of the GTA and Ontario. Given that Peel's population is relatively young, there are a large number of babies born each year in Peel. The majority of new mothers in Peel were born outside of Canada. The high proportion of immigrant mothers in Peel has had important impacts on reproductive health indicators such as low birth weight, small-for-gestational-age and stillbirth. The preterm birth rate in Peel is similar to the rest of the GTA and the province. There are a number of challenges for Peel Public Health identified in this report, which may be used to inform the strategic priority of Peel Public Health to lay a solid foundation for early child development.



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**Approved for Submission:**


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