A First for First Nations Mothers: Perinatal Nutrition Services from the First Nations Health Authority

Healthy Mothers and Healthy Babies: New Research and Best Practice
February 21st, 2014

Gerry Kasten, RD, MSc, FDC
Rebecca Sovdi, RD, CDE, MPH
Suzanne Johnson, RD
Learning Objectives

Participants will, upon program completion, be able to:

- Specify tools for appropriate growth monitoring of First Nations Infants
- Specify criteria for referral to screening for diabetes in pregnancy
- Itemize issues pertaining to perinatal health arising from colonization and the legacy of residential schools
Why do we routinely track children’s growth?

- **Confirms** healthy growth and development
- **Identifies early** potential nutrition or health problem
- **Respond early**

Disturbances in health and nutrition in infants and young children almost always affect growth
WHO Growth Charts

- WHO Introduced in 2006
- In 2010, they were recommended for use in Canada, in a joint statement, by:
  - Dietitians of Canada
  - Canadian Paediatric Society
  - The College of Family Physicians of Canada
  - Community Health Nurses Association of Canada
- Growth Standards (birth – 5 years) —
  - Represent gold standard (how children should grow vs. how a group of children grew)

**Abstract**

Growth charts are tools used to track the growth and development of children. They are used to assess a child's growth in height, weight, and other parameters. The WHO Growth Charts, introduced in 2006, are based on a large study of children's growth patterns and are designed to be used to assess a child's growth in comparison with the growth patterns of a group of children. The charts are intended to help identify children who may be growing too fast or too slow, and to guide decisions about appropriate nutrition and health care. The WHO Growth Charts are widely used in many countries, including Canada, and are considered the gold standard for assessing children's growth.
WHO Growth Standards
WHO Growth Charts

WHO GROWTH CHARTS FOR CANADA

BIRTH TO 24 MONTHS: GIRLS

Head Circumference and Weight-for-length percentiles

NAME: ___________________________ DOB: ___________ RECORD #: ___________


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www.fnha.ca/growthcharts

WHO GROWTH CHARTS FOR CANADA

BIRTH TO 24 MONTHS: BOYS

Head Circumference and Weight-for-length percentiles

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www.fnha.ca/growthcharts
Development of WHO Growth Standards (Birth – 5 years)

Product of the Multicentre Growth Reference Study, 1997-2003:

- 8,440 children from different ethnic backgrounds – 6 sites
- Children lived in socioeconomic and environmental conditions favourable to growth, geographically stable etc.
Multi-Growth Reference Study

- Singleton term births, 37 to less than 42 weeks
- Absence of significant morbidity in the newborn
- Moms followed health & feeding recommendations:
  - Non-smoking mother
  - Exclusive or predominant breastfeeding in first 4 months or longer
  - Introduce complimentary foods 4-6 months
  - Partial breastfeeding until or longer than 12 months
- Immunizations and routine paediatric care
# Differences Between WHO and CDC Growth Standards

<table>
<thead>
<tr>
<th>WHO Growth Standards – Birth to 5 years of age</th>
<th>CDC Growth Reference – Birth to 5 years</th>
</tr>
</thead>
<tbody>
<tr>
<td>Based on a predominantly breastfed population</td>
<td>Only 50% of infants sampled were breastfed</td>
</tr>
<tr>
<td>Generally a lighter, longer/taller sample of children</td>
<td>Existing children sampled in a population that has issues of overweight/obesity</td>
</tr>
<tr>
<td>Portrays how children “should “grow – longitudinal data collected in a single study, with children raised in optimal environments</td>
<td>Portrays how children “did” grow (descriptive) - cross-sectional data collected from various studies; each child was only measured once.</td>
</tr>
<tr>
<td>Data set is international (Brazil, Ghana, India, Norway, Oman, and USA) – can be used to measure different ethnicities.</td>
<td>Data set is US children only</td>
</tr>
<tr>
<td>Percentiles as follows: 1/10th, 3rd, 15th, 50th, 85th, 97th and 99.9th</td>
<td>Percentiles as follows: 3rd, 5th, 10th, 25th, 50th, 75th, 90th, 95th and 97th</td>
</tr>
</tbody>
</table>
CDC Growth Charts

Birth to 36 months: Boys
Length-for-age and Weight-for-age percentiles

Birth to 36 months: Girls
Length-for-age and Weight-for-age percentiles
WHO Charts & CDC Charts aligned at 50th percentile at birth
Recommendations for Canada:
By: Dietitians of Canada, Canadian Paediatric Society, The College of Family Physicians & Community Health Nurses of Canada)

- Adoption of the WHO growth charts, replacing CDC charts
- Growth monitoring part of routine health care
- *Interpretation should consider various factors*
- Health Professionals teach parents/caregivers how to interpret individual growth patterns & involve them in decision making
- Use for population health surveillance
Findings

Minimal differences in the rates of linear growth observed among the 6 countries

- 70% of variance was due to individuals
- 3% of differences among countries (minimal)

Conclusion

Children of all ethnic backgrounds have similar potential for growth when raised in conditions favourable for growth
Applicability for First Nations, Inuit and Métis infants
Recommendations for Canada:
By: Dietitians of Canada, Canadian Paediatric Society, The College of Family Physicians & Community Health Nurses of Canada

“Interpretation should consider various factors”
Feedback from the Canadian Paediatric Society, FN, Inuit & Métis Health Committee

- Applicable to First Nations, Metis and Inuit population

- Issues to be aware of:
  - Larger number of FN children identified as obese or overweight ("moved up" in the growth curve)
  - May cause problems with the diagnosis of FASD

- The First Nations, Inuit and Métis Health Committee will likely revise or propose a new position statement in 201?
Do the WHO growth charts apply to Canada's First Nations, Inuit and Métis population?

The Canadian Paediatric Society First Nations, Inuit and Métis Health Committee provided feedback on the Collaborative Statement as part of the review process and concluded that the WHO Growth curves are applicable to the First Nations, Métis, and Inuit population for the same reasons that they apply to other cultural groups. The Committee has since retired its past position statement on growth charts for First Nations, Inuit and Métis populations. They have suggested three issues that may arise in the application and interpretation of the growth charts with this population group.

a) Practitioners should recognize that in interpreting the WHO Growth Charts, a larger number of First Nations children will be “moved up” on the growth curve causing them to be classified as obese or overweight, whereas previously they would have been borderline normal in weight or BMI.

b) Secondly, the new WHO curves may cause problems with the diagnosis of Fetal Alcohol Spectrum Disorder [FASD] that is based on growth retardation. The cut-off currently is the 10th percentile line.

c) There will be a need for multiple growth charts in the nursing stations and health centres. Previously only one chart up to 3 years was needed, then another one for 3 years onwards. Having more growth charts may make it more difficult to track growth and require more paper in the medical chart.
### 6.1.7. Descriptive Statistics for First Nations People

<table>
<thead>
<tr>
<th>Weeks of Gestation</th>
<th>Number of Cases</th>
<th>Birth Weight (Grams)</th>
<th>Standard Deviation</th>
<th>Skewness</th>
<th>Percentiles (Raw)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Lower 95% Conf. Limit</td>
<td>Upper 95% Conf. Limit</td>
<td>Mean</td>
<td>3rd</td>
</tr>
<tr>
<td>20</td>
<td>9</td>
<td>204.90</td>
<td>196.00</td>
<td>587.10</td>
<td>222.59</td>
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<td>21</td>
<td>12</td>
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<td>510.67</td>
<td>616.69</td>
<td>304.87</td>
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<tr>
<td>22</td>
<td>27</td>
<td>512.64</td>
<td>607.22</td>
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<td>239.69</td>
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<td>23</td>
<td>24</td>
<td>563.18</td>
<td>607.29</td>
<td>651.41</td>
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<td>24</td>
<td>33</td>
<td>686.77</td>
<td>769.48</td>
<td>832.20</td>
<td>233.28</td>
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<td>25</td>
<td>44</td>
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<td>847.07</td>
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<td>257.14</td>
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<td>26</td>
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<td>790.69</td>
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<td>251.13</td>
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<td>1,143.57</td>
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<td>452.58</td>
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<td>3,517.58</td>
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<td>20,578</td>
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<td>3,913.08</td>
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<td>4,044.48</td>
<td>440.69</td>
</tr>
</tbody>
</table>

* Smoothed * Percentiles for First Nations People, 1981-2000

![Graph showing smoothed percentiles for First Nations People from 1981 to 2000.]

The smoothed percentiles were calculated using a third-order polynomial to fit through points by using the following equation: \( y = b + cx + dx^2 + ex^3 \) where \( b \) and \( c \) are constants.
BC Vital Statistics Birth Data, shown on WHO Charts
BC Vital Statistics Birth Data, shown on WHO Charts
Cut Off Points

(?)
Conventionally recommended cut-off points
*(for further assessment, referral or intervention)*

<table>
<thead>
<tr>
<th>Age</th>
<th>Indicator</th>
<th>Birth to 2</th>
</tr>
</thead>
<tbody>
<tr>
<td>Risk of Overweight</td>
<td>Wt. for length</td>
<td>&gt;85&lt;sup&gt;th&lt;/sup&gt;</td>
</tr>
<tr>
<td>Overweight</td>
<td>Wt. for length</td>
<td>&gt;97&lt;sup&gt;th&lt;/sup&gt;</td>
</tr>
<tr>
<td>Obese</td>
<td>Wt. for length</td>
<td>&gt;99.9&lt;sup&gt;th&lt;/sup&gt;</td>
</tr>
</tbody>
</table>
Conclusion

1. Growth monitoring is important
2. There are important differences to note between the CDC and WHO charts
3. WHO charts are appropriate for First Nations, Inuit and Metis
4. There are many factors to consider in interpreting growth charts, including the applicability of cut-off points.
5. Accurate measuring and weighing are an important component of growth assessment
6. Communicate with parents/caregivers about both growth that maintains trajectories and growth that diverges from prior trajectories.
7. Implement plans to maintain or change current feeding practices
References and Resources


Intergenerational Impacts – Diabetes and Pregnancy in Aboriginal Communities

Healthy Mothers and Healthy Babies: New Research and Best Practice
February 21st, 2014

Rebecca Sovdi, RD, CDE, MPH
A/Nutritionist and Program Manager, Chronic Disease and Injury Prevention
Learning objectives

- Understand diabetes prevalence in Aboriginal women and their offspring
- Understand risk factors for diabetes in Aboriginal women
- Understand the impact of intergenerational effects of diabetes in Aboriginal communities
- Specify criteria for referral to screening for diabetes in pregnancy and gestational diabetes
- Make recommendations for screening and care for Aboriginal women, families, and communities
The context

- The prevalence of Type 2 Diabetes and GDM is higher among Aboriginal women compared to non-Aboriginal women.
- In First Nations, diabetes has become a disease of the young, rather than a disease of the old.

Reported Diabetes Prevalence in Aboriginal Women

![Bar chart showing diabetes prevalence]

Why are there higher rates?

Risk factors for type 2 diabetes

- Age ≥40 years
- First-degree relative with type 2 diabetes
- Member of high-risk population (e.g. Aboriginal, African, Asian, Hispanic or South Asian descent)
- History of prediabetes (IGT, IFG or A1C 6.0%–6.4%)*
- History of gestational diabetes mellitus
- History of delivery of a macrosomic infant
- Presence of end organ damage associated with diabetes:
  - Microvascular (retinopathy, neuropathy, nephropathy)
  - Macrovascular (coronary, cerebrovascular, peripheral)
- Presence of vascular risk factors:
  - HDL cholesterol level <1.0 mmol/L in males, <1.3 mmol/L in females*
  - Triglycerides ≥1.7 mmol/L*
  - Hypertension*
  - Overweight*
  - Abdominal obesity*
- Presence of associated diseases:
  - Polycystic ovary syndrome*
  - Acanthosis nigricans*
  - Psychiatric disorders (bipolar disorder, depression, schizophrenia†)
  - HIV infection‡
  - OSA‡
- Use of drugs associated with diabetes:
  - Glucocorticoids
  - Atypical antipsychotics
  - HAART‡
  - Other (see Appendix 1)
- Other secondary causes (see Appendix 1)
- Poverty\(^1\) and Low Socio-Economic Status
- Decreased rates of physical activity
- Stress
- Dietary acculturation and an unhealthy diet
- Food insecurity
- Obesity/metabolic syndrome
- High rates of diabetes during pregnancy

\(^1\)Chaufan C, Constantino S, and Davis M. (2013) *You Must Not Confuse Poverty with Laziness*. International Journal of Health Services, Volume 43, Number 1, Pages 143–166, 2013
The Cause of DM in Aboriginal Groups is Complex

Genes

Social Stressors ↔ Lifestyle
Short term health consequences of high blood glucose during pregnancy

- **Infant**
  - Macrosomia
  - Birth trauma
  - Shoulder dystocia
  - Neonatal hypoglycaemia
  - Neonatal hyperbilirubinemia
  - Respiratory Distress Syndrome
  - Fetal hyperinsulinaemia

- **Mother**
  - Hypertension
  - Preterm delivery
  - Caesarean delivery

- **Long term health consequences**
  - Higher risk for diabetes
  - Higher risk for obesity
Diabetes in Pregnancy Tele-form Project

➢ Collect new, community-specific data on:
  ▪ Incidence of pre-existing diabetes and gestational diabetes mellitus (GDM)
  ▪ Access to health services on-reserve
  ▪ Implementation of Clinical Practice Guidelines
  ▪ Possible relationships between preconception, prenatal, and postnatal health measures and pregnancy outcomes

➢ Six First Nations communities across Canada participated
**Teleforms**

### Diabetes and Pregnancy TeleForm Project

**FORM FOR PILOT PROJECTS**

**SECTION A: COMPLETE AT INITIAL VISIT OR Initial APPOINTMENT**

<table>
<thead>
<tr>
<th>Field</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Date of first contact</td>
<td>Date of visit or initial appointment</td>
</tr>
<tr>
<td>Gestational Age</td>
<td>Mother’s Age (days of pregnancy)</td>
</tr>
<tr>
<td>Mother’s Age</td>
<td>Mother’s Current Weight (kg)</td>
</tr>
<tr>
<td>Mother’s Weight</td>
<td>Pre-pregnancy weight (kg)</td>
</tr>
<tr>
<td>Pre-pregnancy weight</td>
<td>Diabetic history or gestational diabetes (GDM)</td>
</tr>
<tr>
<td>Has the patient been previously diagnosed with diabetes?</td>
<td>Yes/No/Unknown</td>
</tr>
</tbody>
</table>

**SECTION B: ENTER DATE, WEIGHT, AND SERVICE PROVIDER AT FOLLOW UP VISIT**

<table>
<thead>
<tr>
<th>Field</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Date</td>
<td>Date of visit or follow-up appointment</td>
</tr>
<tr>
<td>Weight</td>
<td>Weight (kg)</td>
</tr>
<tr>
<td>Service provider</td>
<td>Provider’s name</td>
</tr>
</tbody>
</table>

**SECTION C: SUGGLING INFORMATION: Please fill in the following table regarding OGGT screening**

<table>
<thead>
<tr>
<th>Test</th>
<th>Result</th>
<th>Caesarean Section</th>
<th>Delivery Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>1st Screening</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2nd Screening</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3rd Screening</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**LEGEND**

- **Q** = Question
- **Y** = Yes
- **N** = No
- **U** = Unknown

1. Complete the form and return by fax to 1-813-994-9803 or mail to the address provided.

2. **INSTRUCTIONS**

   1. This form is to be completed by a healthcare professional or a client who has a confirmed pregnancy. Keep all forms for your records. They may be necessary in the future to ensure data accuracy.
   2. Fill out the form in pencil or black ink. Ensure that all numbers are clearly written in the appropriate boxes.
   3. Complete SECTION A, answering every question from 1 to 11, as information allows. Enter approximate dates if necessary.
   4. Complete SECTION B by filling out the information each time the client visits the Health Centre or Nursing Station. Check off all the healthcare professionals and community workers who have been involved in the care of the mother-to-be. Use the LEGEND below for key terms.
   5. Completing SECTION C provides information on Gestational Diabetes Mellitus (GDM) screening. Fill out the information on the first screening only if the client received more than one screening test. Use the second and third screening only if the client received more than one screening test. Use the LEGEND below for key terms.
   6. For SECTION D, question 13 to 17 can be completed after the baby is born. Use the LEGEND provided to provide information on the condition of the newborn. Use the LEGEND below for key terms.
   7. Once completed, return the form by fax to 1-813-994-9803. Do NOT include a cover page. Fax the form ONLY ONCE.

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   6. For SECTION D, question 13 to 17 can be completed after the baby is born. Use the LEGEND provided to provide information on the condition of the newborn. Use the LEGEND below for key terms.
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---

Please fill in the following table regarding OGGT screening

<table>
<thead>
<tr>
<th>Test</th>
<th>Result</th>
<th>Caesarean Section</th>
<th>Delivery Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>1st Screening</td>
<td></td>
<td></td>
<td></td>
</tr>
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<td>2nd Screening</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3rd Screening</td>
<td></td>
<td></td>
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New Diabetes (GDM) Diagnosis & Health Outcomes

(All Communities)

<table>
<thead>
<tr>
<th></th>
<th>Percent (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>GDM</strong></td>
<td>38.9%</td>
</tr>
<tr>
<td><strong>No GDM</strong></td>
<td>19.4%</td>
</tr>
<tr>
<td><strong>GDM</strong></td>
<td>47.2%</td>
</tr>
<tr>
<td><strong>No GDM</strong></td>
<td>20.7%</td>
</tr>
</tbody>
</table>

High B.W. vs. Pregnancy Complications
Among Women with Pregnancy Complications, when were they screened for GDM?

- **1st trimester**: 12.7%
- **2nd trimester**: 50.9%
- **3rd trimester**: 36.4%
Results:
Community Based Results
Average Maternal Age at Workup Visit

Age (Years)

<table>
<thead>
<tr>
<th>Community</th>
<th>Average Age</th>
</tr>
</thead>
<tbody>
<tr>
<td>All Communities (n=573)</td>
<td>23.8</td>
</tr>
<tr>
<td>Comm A</td>
<td>23.6</td>
</tr>
<tr>
<td>Comm B</td>
<td>24.1</td>
</tr>
<tr>
<td>Comm C</td>
<td>24.0</td>
</tr>
<tr>
<td>Comm D</td>
<td>22.7</td>
</tr>
<tr>
<td>Comm E</td>
<td>23.9</td>
</tr>
</tbody>
</table>
Average Gestational Age at Workup Visit

<table>
<thead>
<tr>
<th>Weeks</th>
<th>All Communities (n=470)</th>
<th>Comm A</th>
<th>Comm B</th>
<th>Comm C</th>
<th>Comm D</th>
<th>Comm E</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>14.2</td>
<td>15.0</td>
<td>12.7</td>
<td>14.6</td>
<td>18.9</td>
<td>14.3</td>
</tr>
</tbody>
</table>

Communities A to E show varying average gestational ages at workup visits.
Pre-natal Multivitamin Prescription

- **Already Taking**
  - No: 83.0%
  - Yes: 17.0%

No one is already taking the multivitamin.
Average Number of Previous Pregnancies

- All Communities (n=508): 3.3
- Comm A: 3.4
- Comm B: 3.4
- Comm C: 3.7
- Comm D: 2.3
- Comm E: 3.3
Average Pre-pregnancy BMI

<table>
<thead>
<tr>
<th>BMI</th>
<th>All Communities (n=341)</th>
<th>Comm A</th>
<th>Comm B</th>
<th>Comm C</th>
<th>Comm D</th>
<th>Comm E</th>
</tr>
</thead>
<tbody>
<tr>
<td>28.2</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>27.2</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>29.4</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>30.8</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>24.9</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>26.6</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Pre-pregnancy BMI by Weight Category

- Underweight (<18.5): 4.3%
- Normal (<25): 58.5%
- Overweight (25-29.9): 29.4%
- Obese (>30): 17.1%
Average Prenatal Weight Gain

*Community D measures weight at later gestational age compared to all other communities*
Previous Diagnosis of Diabetes

- Never: 13 clients
- Type 1: 0 clients
- Type 2: 0 clients
- GDM: 2 clients
GDMs Screening by Trimester

<table>
<thead>
<tr>
<th>Trimester</th>
<th>All Communities</th>
<th>Seabird</th>
</tr>
</thead>
<tbody>
<tr>
<td>1st Trimester</td>
<td>21.7%</td>
<td>5.71%</td>
</tr>
<tr>
<td>2nd Trimester</td>
<td>40.00%</td>
<td></td>
</tr>
<tr>
<td>3rd Trimester</td>
<td>54.29%</td>
<td>43.0%</td>
</tr>
</tbody>
</table>

Percent Screened (%)
GDM Incidence (Per 100 known screenings)

- All Communities (61% Screened): 13.9%
- Community A (57%): 14.7%
- Community B (64%): 6.1%
- Community C (56%): 10.5%
- Community D (86%): 25.6%
- Community E (55%): 29.4%
Average Birth weight

- All Communities (n=487): 3,420 g
- Comm A: 3,468 g
- Comm B: 3,217 g
- Comm C: 3,649 g
- Comm D: 3,444 g
- Comm E: 3,441 g
Percentage of Birth weights 4000g or higher

- All Communities: 17.3%
- Comm A: 15.9%
- Comm B: 12.9%
- Comm C: 24.5%
- Comm D: 18.6%
- Comm E: 25.0%
Breastfeeding Initiation

- All Communities (n=461)
  - Percent (%): 55.7%

- Comm A
  - Percent (%): 74.5%

- Comm B
  - Percent (%): 37.5%

- Comm C
  - Percent (%): 27.7%

- Comm D
  - Percent (%): 93.0%

- Comm E
  - Percent (%): 87.0%
Pre-pregnancy BMI and Diabetes

![BMI distribution with GDM cases highlighted]
Birth weight and GDM

Birth weight (g)

Participant (#)
Pre-pregnancy BMI and High Birth weight

![Graph showing Pre-pregnancy BMI and High Birth weight](image)
Long Term Health Consequences

“Vicious Cycle”

Diabetes and Pregnancy

INTRA-GENERATIONAL EFFECTS

Increased risk of recurrent Gestational Diabetes and Type 2 Diabetes in Mother

Increased risk of Type 2 Diabetes in Offspring

Prevention and Treatment

- Reducing risk factors, engaging the entire community and being culturally sensitive
- Includes optimal management of diabetes in pregnancy to reduce macrosomia and diabetes risk in offspring
- Local tradition, language and culture should be considered with clinical practice guidelines

Recommendations:
- We need programs to detect pre-gestational and gestational diabetes, provide optimal management of diabetes in pregnancy (1)
- Timely post-partum follow-up should be instituted for all Aboriginal women to improve perinatal outcomes, manage persistent maternal dysglycaemia, and reduce type 2 diabetes rates in their children (1)
Gestational Diabetes (GDM) Diagnosis

- **Universal screening** for GDM @ 24-28 weeks Gestational Age (GA)
- **Screen earlier if risk factors for GDM:**

<table>
<thead>
<tr>
<th>Risk Factor</th>
<th>Diagnosis</th>
</tr>
</thead>
<tbody>
<tr>
<td>Previous GDM</td>
<td>BMI ≥30 kg/m²</td>
</tr>
<tr>
<td>Prediabetes</td>
<td>Polycystic ovarian syndrome</td>
</tr>
<tr>
<td>High risk population (Aboriginal, Hispanic, South Asian, Asian, African)</td>
<td>Current fetal macrosomia or polyhydramnios</td>
</tr>
<tr>
<td>Age ≥35 years</td>
<td>History of macrosomic infant</td>
</tr>
<tr>
<td>Corticosteroid use</td>
<td>Acanthosis nigricans</td>
</tr>
</tbody>
</table>
Postpartum GDM Management Checklist

1. Encourage **Breastfeeding**

2. **75g OGTT between 6 weeks - 6 months** postpartum to detect prediabetes or diabetes (every 1-2 years)

3. **Discuss increased long-term risk of diabetes**

**Screening for all Aboriginal people with >1 additional risk factor should become the norm (every 1-2 years)**
References

Perinatal Health
Impacts of Colonization & Legacy of Residential Schools

Healthy Mothers and Healthy Babies: New Research and Best Practice
February 21st, 2014

Suzanne Johnson, Registered Dietitian
A Birth Story

My first breath of life came with the helpful assistance of a qualified person trained in a Cree culture... [She] was knowledgeable, experienced, and confident in her abilities. For her it was a way of life. It was also spiritual and communal. Babies were not just delivered. Babies were prayed into this world. It was a sacred undertaking. It was a family affair and a community event.”

— Chief Ovide Mercredi, Misipawistik Cree Nation
Residential Schools

It is estimated that about 150,000 aboriginal, Inuit and Métis children were removed from their communities and forced to attend residential schools.
Impacts

- Health
  - Depression & anxiety
  - Psychosomatic ailments
  - Suicidal behaviour
  - Intra-familial conflict
  - Substance abuse
  - Antisocial behaviour
Intergenerational Impact of Residential School

- Generations of people who:
  - Haven’t been able to connect
  - Haven’t had a sense of spirituality
  - Haven’t been able to make firm attachments with caregivers
  - Experience intergenerational trauma
Inter-generational Effects on Professional First Nations Women Whose Mothers are Residential School Survivors

Aboriginal Women's Health

Digital Stories - First Nations Women Explore the Legacy of Residential Schools

PWHCE is pleased to share access to the "digital stories" created by 6 First Nations women in: kiskino mâto tanapanâk: Intergenerational Effects on Professional First Nations Women Whose Mothers are Residential School Survivors.

This project set out to understand better how the residential school legacy passes on between generations. It involved a process of documenting, in First Nations women's own words and "digital stories", their understanding of how they had been impacted by the schools.

A "digital story" is a 2-5 minute video. It is a personal narrative coupled with a collection of still images, video, and music which illustrates an individual's story. Indigenous peoples' stories are intellectual traditions that can disrupt colonial narratives of history, recognize injustice, celebrate resistance, and envision the future. Researchers and communities are increasingly recognizing the healing properties of visual and narrative approaches; thus this project both generated information about the experiences of women whose mothers attended residential schools and served a therapeutic purpose. Digital media can make these concerns more visible to the world and exchange knowledges and sensibilities that support self-representation and self-determination.

http://www.pwhce.ca/program_aboriginal.digitalStories.htm
“Turning it Around”

- understanding the Intergenerational Impacts of Residential School and other impacts of colonization
- healing
- building strength and capacity.
- rebuilding our cultures in contemporary contexts
Tripartite Aboriginal Doula Initiative

http://youtu.be/lZzR1BSHVkg

Aboriginal Midwifery

WORDS IN OUR LANGUAGES FOR ‘MIDWIFE’:

- “She who can do everything” (Nuu-chah-nulth)
- “To watch, to care” (Coast Salish)
- “The one who waits for the birth” (Inuktitut)
- “The helper” (Inuktitut)
- “The one who delivers” (Cree)
- “She’s pulling the baby out of the water, or out of the earth” (Mohawk)

http://www.aboriginalmidwives.ca
References


- National Aboriginal Council of Midwives
  - http://www.aboriginalmidwives.ca
Thank You!