Preliminary Findings of the First Nations Regional Longitudinal Health Survey (RHS) 2002-03

Children’s Survey

July 4, 2005

Prepared by the First Nations Centre
National Aboriginal Health Organization
on behalf of the First Nations Information Governance Committee
Preliminary Findings of the First Nations Regional Longitudinal Health Survey (RHS) 2002-03: Children’s Survey

This report provides selected results for First Nations children living in their communities. Measures of our children’s health and some of the factors that influence it are highlighted. Preliminary adult results from the same source—the First Nations Regional Longitudinal Health Survey (RHS)—were made available prior to the First Ministers’ Meeting on Health, held in September 2004.1 Another brief chapter on youth is forthcoming and major national reports will be released in November 2005.

Overview of sample and methods

Data collection was conducted between August 2002 and November 2003 in 238 First Nations communities across Canada. A total of 22,602 surveys were administered. Three age-specific questionnaires were completed by:

- 10,962 adults, 18 years of age and over;
- 4,983 adolescents, 12 to 17 years of age; and
- 6,657 children, 0 to 11 years of age (the parent or guardian responded).

Communities in different size categories were selected representing all First Nations ‘sub-regions’ (e.g. Nations, Tribal Councils) in order to provide a representative sample for Canada. Overall, the national sample represents 6 percent of First Nations children, 10 percent of First Nations adolescents and 4.9 percent of First Nations adults living in First Nations communities. The higher proportions of children and youth allow for statistical precision similar to the level possible with the adult data.

Interviews were coordinated by First Nations regional organizations and administered by First Nations interviewers using laptop computers. Data were encrypted and ‘uploaded’ directly from the communities to secure servers. The three questionnaires address a wide range of health and other priorities from a holistic perspective.

The statistics presented in the following pages are based on the 6,657 questionnaires completed for children under 12 (50.1% girls, 49.9% boys), unless otherwise specified. Responses for each child were provided by someone who knew them well: birth parents (92.2%), grandparents (3.7%), and other family members (4.1%). All results have been weighted (statistically adjusted) to reflect the population distribution. Analyses were carried out by the First Nations Centre at the National Aboriginal Health Organization under the direction of the First Nations Information Governance Committee. Additional information is available at http://www.naho.ca/firstnations/english/regional_health.php.

One-way frequencies and descriptive statistics are reported along with the 95% confidence interval if the coefficient of variation is greater than 0.33. Differences involving groups within crosstabulations are considered significant if the associated 95% confidence intervals do not overlap.

Unless otherwise specified, all results pertain to First Nations children living in First Nations communities. To simplify the text, we may simply refer to First Nations children.
Introduction

This report presents a selection of high-level statistics from the 2002-03 RHS Children’s Survey related to the following areas:

- Early childhood health;
- General health and related factors;
- Health conditions;
- Injuries; and
- First Nations culture and languages.

Early Childhood Health

Low birth weight (under 2.5 kg) is associated with more infections and illnesses, higher mortality and greater risk in later life of various conditions including learning and vision difficulties, cerebral palsy, respiratory problems, coronary heart disease and type 2 diabetes.²,³,⁴,⁵,⁶ Contributors to low birth weight include mother’s health, age, education, employment status, smoking and substance abuse.⁵,⁷ High birth weight (4.0 kg and over) has been associated with maternal glucose disorders (e.g. diabetes) and increased risk of birth injury.⁸

As seen in Figure 1, 5.6 percent of children were reported to have had a low birth weight, similar to the 6.0 percent reported from birth records.⁹ The finding is also comparable to the 1997 RHS (5.4%)¹⁰ as well as the rate for Canadian children overall in 1998-1999 (5.6%).¹¹

Meanwhile, 21.1 percent of First Nations children were born with a high birth weight in 2002-03, which is significantly higher than the average for Canadian children in general (13.1% in 1998-99).¹¹

Figure 1. Distribution of low, normal and high birth weights
As documented for other populations, the average birth weight for boys was higher than for girls (3.60 kg vs. 3.49 kg in this case). Similarly, Figure 2 shows that one in four (25.1%) boys had a high birth weight compared with only about one in six (16.8%) girls. There were no significant gender differences, however, in the rate of low birth weight.

**Figure 2. Low and high birth weight, by gender**

![Birth weight chart](image)

*significant gender difference

**Maternal Smoking**

Smoking during pregnancy can increase a woman’s chance of miscarriage, stillbirth, and premature births.12 The majority (51.8%) of mothers of surveyed children did not smoke during that pregnancy. About one-third (35.8%) did smoke and another 12.5 percent started out smoking but quit before the end of their pregnancy (Figure 3).

**Figure 3. Mother’s smoking status during pregnancy**

![Smoking status chart](image)

Maternal smoking was found to be statistically unrelated to the mother’s residential school attendance, living in a crowded household (greater than one person per room), the degree of isolation of the child’s community, and the health transfer status of the community.
As seen in Figure 4, mothers who smoked throughout their pregnancy were less likely to bear high birth weight babies and more likely to have normal birth weight babies than other mothers. Low birth weight was not significantly related to maternal smoking status, contrary to findings elsewhere.

**Figure 4. Birth weight by maternal smoking status**

Breastfeeding is recognized by the World Health Organization as a secure, environmentally sound source of food for developing infants.\(^{13}\) It has also been shown to be beneficial to mothers in reducing the risk of breast and ovarian cancers, as well as, improving bonding between mother and newborn.\(^{14}\)

Although the proportion of babies that were breastfed increased from 50 to 60.3 percent between 1997\(^{10}\) and 2002-03, the First Nations rate remains lower than the overall 1998-99 Canadian average of 79.9 percent.\(^{11}\) Among First Nations children that were breastfed, more than half (54.5%) stopped within the first three months compared with about one in three (32.5%)\(^{11}\) for Canadian children overall. Age at the time of weaning did not differ significantly by gender or child’s age at the time of the survey.
General Health and Related Factors

As shown in Figure 6, over two-thirds of all First Nations children were reported to be in ‘very good’ or ‘excellent’ health by the adult responding on their behalf. Approximately one in three were in ‘fair’ or ‘good’ health. Boys were more likely than girls to be reported in ‘poor’ health (2.4% vs. 0.3%). There were no significant differences in reported health between children in different age groups.

Figure 6. Child’s reported health overall, by gender

*significant gender difference
Factors related to ‘very good’ or ‘excellent’ health

Figure 7 presents those factors related to reporting ‘very good’ or ‘excellent’ health. From the chart, it can be seen that children are more likely to be reported in ‘very good’ or ‘excellent’ health if the child was living with one or more parents, always or almost always consumed a nutritious and balanced diet, had a mother who obtained a university degree, and lived in a non-crowded household (one person per room or less). Overall, 32.1 percent of First Nations children were reported to be living in overcrowded households.

Figure 7. Factors associated with ‘very good’ or ‘excellent’ health

<table>
<thead>
<tr>
<th>Child lives with:</th>
<th>Proportion of children with ‘very good’ or ‘excellent’ health</th>
</tr>
</thead>
<tbody>
<tr>
<td>One or more parents</td>
<td>70.8%</td>
</tr>
<tr>
<td>Non-parent</td>
<td>54.7%</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Child eats a nutritious balanced diet:</th>
<th>Proportion of children with ‘very good’ or ‘excellent’ health</th>
</tr>
</thead>
<tbody>
<tr>
<td>Always or almost always</td>
<td>76.8%</td>
</tr>
<tr>
<td>Rarely</td>
<td>60.5%</td>
</tr>
<tr>
<td>Sometimes</td>
<td>61.3%</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Mother’s educational attainment</th>
<th>Proportion of children with ‘very good’ or ‘excellent’ health</th>
</tr>
</thead>
<tbody>
<tr>
<td>University degree</td>
<td>82.4%</td>
</tr>
<tr>
<td>Did not graduate high school</td>
<td>68.4%</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Crowding status of child’s home</th>
<th>Proportion of children with ‘very good’ or ‘excellent’ health</th>
</tr>
</thead>
<tbody>
<tr>
<td>Not Crowded</td>
<td>74.3%</td>
</tr>
<tr>
<td>Crowded</td>
<td>60.6%</td>
</tr>
</tbody>
</table>

Note: Only those response categories with significant differences are shown.

Very good’ or ‘excellent’ health was found not to be statistically associated (in bivariate analyses) with the following measures:

- community size
- health transfer status of the community
- isolation status of the community
- maternal age
- father’s education
- residential school attendance by one or more parent or grandparent
- availability and use of childcare (formal or informal)
- breastfeeding duration
- birth weight.
Health Conditions

Body mass index (BMI) was calculated from reported height and weight, then classified based on age-specific international definitions. Of those surveyed, 41.5 percent of First Nations children were normal or underweight, 22.3 percent overweight, and 36.2 percent obese. Combined, over half (55.2%) of First Nations children are either overweight or obese.

Although there were no statistical differences between boys and girls, a complex relationship was observed among different age groups. Compared to 3 to 5 year olds, older children (9 to 11 years) are twice as likely overweight (28.8% vs. 13.1%). Younger children, however, are more likely to be obese (48.7% vs. 26.4%).

Figure 8. Proportion of children considered overweight or obese, by age

Of the 18 health conditions addressed in the RHS children’s questionnaire, the seven most common are shown in figure 9. Asthma and allergies each affected more than 1 in 10 children. The following conditions were statistically more common among boys: chronic bronchitis, learning disabilities, attention deficit disorder or attention deficit hyperactivity disorder (ADD/ADHD) and fetal alcohol syndrome/fetal alcohol effects (FAS/FAE).
Injuries

First Nations children were 70 percent more likely than Canadian children to report one or more injuries in the previous year (17.2% vs. 10.2%).\(^{16}\) Although no gender differences were observed, the likelihood of injury generally increased with age up to 22.3 percent for 9 to 11 year olds.

Figure 10 presents the most commonly reported types of injury. Major cuts, scrapes, and bruises were reported most often (9.8%), followed by broken or fractured bones (4.0%). The most commonly reported causes were falls/trips (7.6%), bicycle and bicycle/motor-vehicle accidents (3.9%), and sports injuries (2.1%).

Figure 9. Most common chronic conditions, by gender

Figure 10. Top 5 injury types experienced in the previous year
First Nations Culture and Languages

Traditional cultural events were considered to be ‘somewhat important’ or ‘very important’ in the lives of 83.2 percent of First Nations children. Moreover, almost all (94.8%) First Nations children had one or more people who helped them understand their culture. As shown in Figure 11, the two primary sources of help were parents (66.9%) and grandparents (62.0%).

**Figure 11. People identified as helping children understand their culture**

![Bar chart showing percentages of help sources]

Note: Excludes those indicating “no one”. Multiple responses permitted.

Language

About one in four (24.1%) of 5 to 8 year olds and nearly one in three (31.2%) of 9 to 11 year olds understood one or more First Nations languages ‘fluentl y’ or ‘relatively well’. The figure is similar (32.8%) for 12 to 17 year olds who completed the youth survey. There were no gender differences observed in either understanding or speaking at least one First Nations language.

The most commonly understood First Nations languages reported were Cree, Ojibway, Attikamekw, Oji-Cree, Mi’Maq, and Montagnais.
Summary

- The proportion of First Nations children with a low birth weight is comparable to the figure for Canada overall (5.6%). High birth weight, however, is more common among First Nations (22.1% vs. 13.1%).

- The proportion of First Nations children who were breastfed increased from 50% to 60.3% between 1997 and 2002-03 but remained below the Canadian average of 79.9%.

- Over two-thirds of First Nations children are reported in ‘very good’ or ‘excellent’ health. The following factors are associated with those better ratings: living with parent(s), always or almost always eating a nutritious and balanced diet, having a mother with a university degree, and living in a non-crowded home.

- Over half of on-reserve First Nations children are either overweight (22.3%) or obese (36.2%).

- Asthma and allergies are the most commonly reported chronic conditions, each affecting over 10% of First Nations children.

- Chronic bronchitis, learning disabilities, attention deficit disorder or attention deficit hyperactivity disorder (ADD/ADHD) and fetal alcohol syndrome/fetal alcohol effects (FAS/FAE) are all more common among boys.

- First Nations children were 70% more likely than Canadian children to report one or more injuries in the previous year (17.2% vs. 10.2%). The most common causes were falls/trips (7.6%), bicycle and bicycle/motor-vehicle accidents (3.9%), and sports injuries (2.1%).

- Traditional cultural events were considered to be ‘somewhat important’ or ‘very important’ for 83.2% of First Nations children.

- Nearly one in three (31.2%) of 9 to 11 year olds understood one or more First Nations languages ‘fluently’ or ‘relatively well’.
Endnotes


5 Canadian Institute of Child Health, “Low Birth Weight,” The Health of Canada’s Children: A CICH Profile. Available at: [http://www.eich.ca/PDFFiles/ProfileFactSheets/English/LBWEng.pdf](http://www.eich.ca/PDFFiles/ProfileFactSheets/English/LBWEng.pdf)


12 “Smoking and women’s health issues,” Canadian Cancer Society website. Available at: [http://www.cancer.ca/ccs/internet/standard/0,3182,3490_367563_259694_langId-en,00.html](http://www.cancer.ca/ccs/internet/standard/0,3182,3490_367563_259694_langId-en,00.html)

13 World Health Organization, the Department of Child and Adolescent Health and Development website. Available at: [http://www.who.int/child-adolescent-health/NUTRITION/infant_exclusive.htm](http://www.who.int/child-adolescent-health/NUTRITION/infant_exclusive.htm)


For more information, please contact:
First Nations Centre
National Aboriginal Health Organization
220 Laurier Ave., West, Ottawa, ON K1P 5Z9
Tel.: (613) 237-9462

2002-03 RHS Preliminary Findings for Children p. 12