

The Health Index

Childhood Injury Prevention: Differences in Awareness and Attitudes

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Key Points

- Half of adults in Middlesex-London correctly identify injuries as the leading cause of death in young children. Awareness is higher among females and those with children at home.
- About 40% of adults perceive that childhood injuries are only "somewhat preventable".
- Over 80% of residents understand the important role that parents play in preventing injuries through active supervision.
- Awareness of injury prevention is lower in specific subgroups, such as those with less formal education and lower household incomes. Future educational campaigns could build community awareness by targeting these sub-groups.

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BACKGROUND

As the leading cause of death and a major cause of hospitalization in young children in Canada¹, injury presents a major public health challenge that has enormous social and economic consequences. The importance of injury prevention in protecting public health, however, has been under-recognized, in part because of a generalized, but mistaken perception that injuries are unavoidable "accidents".² Yet many injuries are preventable and many others can be reduced in severity. Injuries incur a range of significant personal, social and economic costs that can be substantially reduced through injury prevention and safety promotion efforts. A recent

economic analysis of unintentional injury³ estimates that falls in children aged 0-9 cost the citizens of Ontario \$220 million annually and that a 20% reduction in such falls would yield annual net savings of \$44 million.

Injury prevention in infants and young children has been the focus of a number of local initiatives. In 2002, the Ministry of Health and Long-Term Care (MOHLTC), using Government of Canada dollars, provided funding to health units for a four-year Early Childhood Injury Prevention Project (ECIPP). The focus of this four-year program is to promote safer child-care settings and communities in order to reduce injuries, disability and death in children six years and under. Locally, multiple community partners have implemented the program through membership in the London Safe Communities' Child Safety Committee (LSCCSC). LSCCSC partners meet monthly to plan and implement a variety of initiatives that raise injury prevention awareness through education and provide resources and training to both families and service providers.

In 2002 the Middlesex-London Health Unit (MLHU) undertook a process of community consultation to better understand local child

safety and injury prevention needs. One component of the ECIPP involved the development of a comprehensive media campaign in partnership with four other health units:

- Elgin-St. Thomas
- Lambton
- Oxford and
- Perth.

In 2003, a media campaign entitled "Safe Adventures Start at Home" was implemented across most of the Southwest Region. Building on the initial campaign, a second regional initiative ("Little Climbers Take Big Risks"), which focused on the prevention of falls, was developed in 2004. Huron County Health Unit joined the original Health Units to further broaden the reach of the campaign.

A previous *Health Index*⁴ reports efforts by the Middlesex-London Health Unit to track population awareness and perceptions of childhood injuries and their prevention in two surveys conducted in 2003. The first survey involved the development of four questions on childhood injury for the Rapid Risk Factor Surveillance System (RRFSS). RRFSS is an on-going monthly telephone survey of the adult population in Ontario. Preliminary results, based on a sample of 314 households

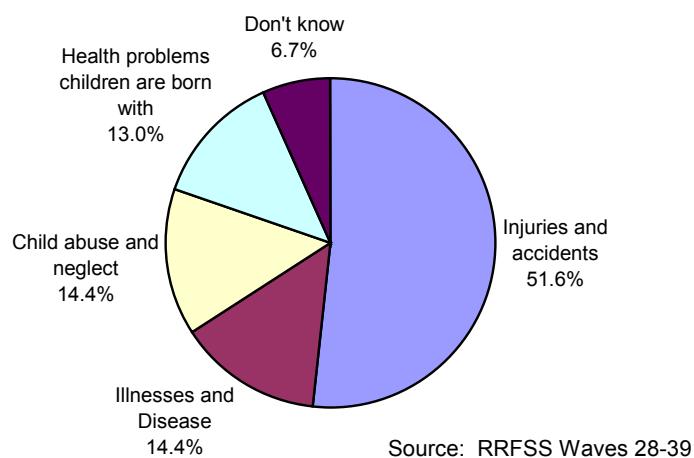
interviewed over the period April 10, 2003 through July 10, 2003, have been reported previously⁴. The second, a written "Parent Attitude Survey", was developed in conjunction with the LSCCSC and distributed to caregivers and parents by day care centers and local School Boards. The Survey included the four child injury questions developed for the RRFSS and several additional questions about child injury prevention. Complete results from the Parent Attitude Survey data are also available in the previous report⁴.

This *Health Index* provides an in depth analysis of the RRFSS child injury perceptions and beliefs data collected from 1207 households between April 10, 2003 and April 11, 2004.

KNOWLEDGE OF THE LEADING CAUSE OF DEATH

Just over half, or 51.6% ($\pm 2.8\%$), of the Middlesex-London population is aware that injuries are the leading cause of death in children from 1 to 6 years of age. Approximately four in ten respondents provided an incorrect response and another 6.7% ($\pm 1.4\%$) reported that they did not know (see Figure 1).

Figure 1: Perceptions of the Leading Cause of Death in Children Aged 1- 6 Years
Middlesex-London Health Unit Area, Ages 18+, 2003-04



Knowledge of the leading cause of death in young children (1-6 years) varied significantly on a number of key demographic characteristics.

- **Gender:** Females ($60.3\% \pm 3.7\%$) were significantly more likely than males ($40.3\% \pm 4.2\%$) to identify injuries. Males were more likely than females to incorrectly select illness and disease ($18.1\% \pm 3.3\%$ vs. $11.4\% \pm 2.4\%$ respectively) and congenital health problems ($20.6\% \pm 3.4\%$ vs. $7.1\% \pm 1.9\%$ respectively).
- **Children in the Household:** Respondents with children in their household ($59\% \pm 4.7\%$) were more knowledgeable about the leading cause of death in young children than those without children (0-17 years) at home ($47.5\% \pm 3.5\%$).
- **Education:** Awareness of the leading cause of death in young children increased significantly in higher education categories. Awareness was greatest among college/university graduates ($60.6\% \pm 3.8\%$), less prevalent among respondents with a high school diploma or some post-high school training ($45.4\% \pm 4.7\%$) and lowest among respondents who had not graduated from high school ($30.2\% \pm 7.9\%$).

Individuals without a high school diploma ($26.4\% \pm 7.6\%$) were more likely to select child abuse and neglect as the leading cause of death than high school graduates and individuals with some post-high school education ($14.8\% \pm 3.3\%$) or post-secondary graduates ($11.3\% \pm 2.5\%$).

- **Age:** Respondents aged 65 and older ($34.9\% \pm 7.1\%$) were less knowledgeable about the leading cause of death than younger respondents aged 25-44 ($55.4\% \pm 4.7\%$) or 45-64 ($57.6\% \pm 5\%$).
- **Household Income:** Individuals reporting annual household incomes of less than \$30,000 ($40\% \pm 6.2\%$) were significantly less likely to select injuries than individuals

with higher annual household incomes: \$30-69,999 ($54.7\% \pm 4.8\%$); \$70 to \$100,000 ($63.3\% \pm 7.3\%$); and greater than \$100,000 ($61.9\% \pm 8.1\%$).

PERCEPTIONS REGARDING INJURY PREVENTION

Respondents were asked to consider the extent to which injuries in young children (0-6 years) were preventable. While just under half indicated that injuries were “very preventable” ($44.7 \pm 2.8\%$), an almost equivalent percentage perceived that injuries were only “somewhat preventable” ($41.1\% \pm 2.8\%$). Significantly fewer respondents believed that injuries were “completely preventable” ($12.1\% \pm 1.8\%$).

- **Children in the household:** Respondents living with children six years and under ($56.6\% \pm 8.8\%$) were more likely than those without children currently in the home ($42.6\% \pm 3.5\%$) to view injuries as “very preventable”. Respondents with older (7-17 years) children ($41.7\% \pm 5.7\%$) or no children ($42.9\% \pm 3.5\%$) in the home were more likely to perceive injuries as “somewhat preventable” than those living with younger (0-6 years) children ($27.9\% \pm 8\%$).
- **Education:** High school (includes some post-high school) ($42.8\% \pm 4.7\%$) and post-secondary graduates ($49.3\% \pm 3.9\%$) were more likely than individuals without a high school diploma ($30\% \pm 7.9\%$) to report that injuries are “very preventable”.
- **Age:** Respondents aged 65 and older ($37.1\% \pm 7.3\%$) were less likely than respondents aged 25-44 ($49.2\% \pm 4.7\%$) to see injuries as “very preventable”.
- **Income:** Individuals reporting annual household incomes of less than \$30,000 ($36.3 \pm 6.1\%$) were less likely than individuals in households reporting higher incomes of \$30,000 to \$69,999 ($47.9\% \pm 4.8\%$) and \$70,000 to \$100,000 ($53.8\% \pm 5.1\%$).

7.5%) to perceive injuries as “very preventable”.

PREVENTION OF INJURIES

When asked about the most likely means of preventing injury in infants and young children, most respondents correctly selected “active supervision by a parent” ($83.4\% \pm 2.1\%$). A minority selected “safe toys and furniture” ($6.5\% \pm 1.4\%$) or “special products to keep children safe” ($5.5\% \pm 1.3\%$).

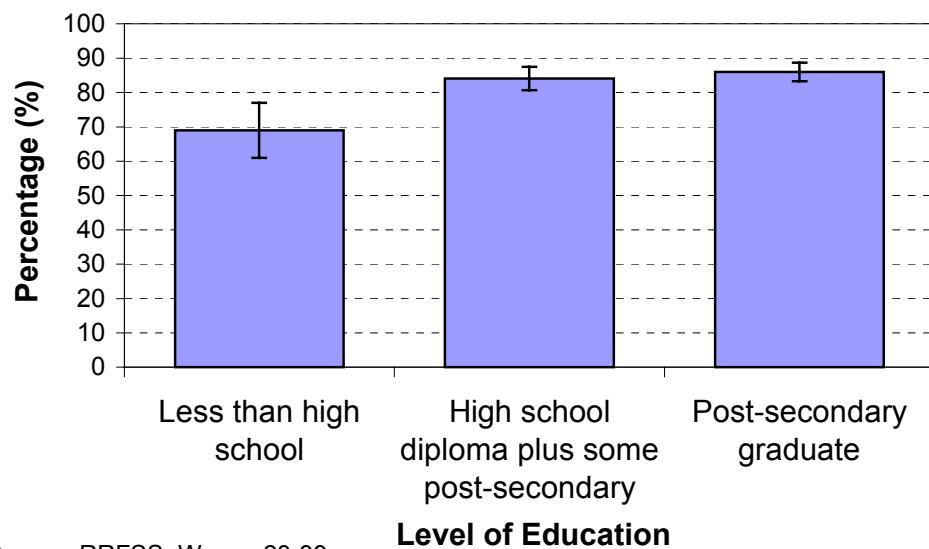
- **Children in the Household:** Respondents with young children (0 – 6 years) at home ($90.2\% \pm 5.3\%$) were more likely than those with no children at home ($81.4\% \pm 2.7\%$) to select “active supervision” as the optimum means of preventing injury in young children.
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Education: Individuals who did not graduate from high school were significantly less likely ($69\% \pm 8\%$) to identify “active supervision” as the most effective injury prevention strategy than either high school graduates (includes respondents with some post-high school) ($84.1\% \pm 3.4\%$) or college/university graduates ($86\% \pm 2.7\%$) (Figure 2).

- **Household Income:** Respondents reporting annual household incomes of \$70,000 to \$100,000 were more likely ($92.9\% \pm 3.9\%$) to select “active supervision by a parent” than those reporting annual household incomes of either less than \$30,000 ($77.2\% \pm 5.3\%$) or \$30,000 to \$69,999 ($85.2\% \pm 3.4\%$).

Figure 2: Selected "Active supervision by a parent" by Education Level

Middlesex-London Health Unit Area, Age 18+, 2003-04



Source: RRFSS, Waves 28-39

PERCEPTIONS OF THE PARENTAL/ CAREGIVER ROLE IN INJURY PREVENTION.

A large majority of respondents ($83.2\% \pm 2.1\%$) believe that parents/caregivers can make “a lot of difference” in preventing childhood injuries. An additional $12.3\% \pm 1.9\%$ indicated that parents/caregivers can make “some difference” in injury prevention.

- **Children in the Household:** Respondents with no children ($80.9\% \pm 2.7\%$) currently residing in their households were less likely than those with young children (0-6 years) at home ($90.3\% \pm 5.2\%$) to see parents making “a lot of difference” in injury prevention. Similarly, respondents with no children ($81\% \pm 2.7\%$) were less likely than respondents with children (0-17 years) at home ($87.2\% \pm 3.2\%$) to perceive that parents can make “a lot of difference” in preventing injuries.
- **Education:** College and university graduates were more likely ($87.9\% \pm 2.5\%$) than respondents without a high school diploma ($64.3\% \pm 8.3\%$) to report that parent/caregivers can make “a lot of difference” in injury prevention.
- **Age:** Age also appears to influence perceptions of the parental/caregiver role in injury prevention. Respondents in the youngest age group (18-24) were less likely ($74.6\% \pm 6.1\%$) than respondents aged 25-44 ($87.1\% \pm 3.2\%$) and 45-64 ($85.6\% \pm 3.5\%$) to report that parents/caregivers can make “a lot of difference” in child injury prevention.
- **Household Income:** Respondents reporting annual household incomes under \$30,000 ($72.3\% \pm 5.7\%$) were less likely than respondents in higher income categories (\$30-\$69,999, $87.4\% \pm 3.2\%$; \$70-\$99,999, $88.2\% \pm 4.8\%$; \$100,000 and above, $88.5\% \pm 5.3\%$) to report that parent/caregivers can make “a lot of difference” in injury prevention.

SUMMARY AND IMPLICATIONS

Almost half of the population could not identify injuries as the leading cause of death in children 1-6 years. Awareness was even lower in males, respondents who had no children in the household, individuals 65 and over, and among those with less formal education and annual household incomes under \$30,000. Understanding the factors that contribute to a more restricted awareness among these individuals and designing initiatives that can overcome barriers to awareness could improve the effectiveness of future educational campaigns.

Most respondents perceived injuries in infants and young children as either “very” or “completely preventable”. Again perceptions varied by population sub-groups. Respondents who reported no children in their household, who were older (65+), less formally educated (no high school diploma), and from lower income households (less than \$30,000 annually) were less likely to perceive injuries as “very preventable”. A substantial proportion of respondents indicated that injuries were only “somewhat preventable”, a perception that may have significant implications for caregiver/parental behaviour. Individuals of this view, for example, may be less inclined to take steps to actively prevent injuries through closer supervision or other means. Further educational efforts directed towards sub-populations with less formal education, lower household incomes, and grandparents as child caregivers, may increase the general awareness of the preventability of injuries.

A large majority of respondents recognize that supervision by parents and caregivers can play a critical role in preventing childhood injuries. Similarly, most respondents perceived that parents/caregivers can make a lot of difference in preventing injuries. Responses again varied across demographic groups. No significant differences were observed between residents of the City of London and the County for any of the questions.

To build awareness of childhood injuries and their prevention, local media campaigns and other educational initiatives may wish to target the sub-groups identified in this analysis.

Although awareness is a critical component in injury prevention, other factors that shape parental/caregiver safety practices also need to be identified and addressed. Understanding the relationship between parental injury prevention knowledge/attitudes and injury prevention practices is one important consideration. The need for research and programming in the area of child safety is clearly substantial and ongoing.

The findings contained in this report (RRFSS, waves 28-39) are similar to those presented in

a more preliminary analysis (RRFSS, waves 28-30) conducted in 2003⁴. Selected results from the two analyses are set out in Table 1. The Table also presents data from the Parent Attitude Survey indicating that parents are substantially more knowledgeable about the leading cause of death in young children and less likely to see injuries as only “somewhat preventable” than members of the general population. RRFSS data (waves 28-39) for respondents with children under 17 at home—a proxy for parents—are also presented for comparison. Results from the Parent Attitude Survey point to significant differences in injury awareness and injury prevention attitudes by level of formal education, a finding that is supported in this report.

Table 1: Comparison of Population (Waves 28-30 vs. 28-39) and Parental Attitudes (Parent Attitude Survey (2003) vs. RRFSS parental attitudes, (waves 28-39) on four common childhood injury indicators (Percentage estimates and 95% Confidence Intervals).

Question/Response Category	General Population		Parents/Caregivers	
	RRFSS Waves 28-30	RRFSS Waves 28-39*	Parent Attitude Survey	RRFSS Waves 28-39*+
Percentage of respondents who:				
...correctly indicated injuries as the leading cause of death in children 1 to 6 years of age	48.1% ± 5.8%	51.6% ± 2.8%	77.1% ± 3.5	59% ± 4.7%
... indicated that injuries in young children were “somewhat preventable”	43.8% ± 5.6	41.1% ± 2.8	31.6% ± 3.9	37.4% ± 4.6%
...selected “active supervision by a parent” as the most likely means of preventing injuries in young children	85.8% ± 3.9%	83.4% ± 2.1%	90.3% ± 2.5%	86.7% ± 3.2%
...indicated that parents/caregivers can make “a lot of difference” in preventing injuries in young children	83.4% ± 4.2%	83.2% ± 2.1%	84.0% ± 3.1%	87.2% ± 3.2%

*Consistent with the recently revised RRFSS analysis guidelines, the “Don’t know” and “Refused” responses were retained in the denominator for all calculations. While only a very small percentage of cases selected either of these response categories (with the exception of the question pertaining to the leading cause of death in young children), some caution should be exercised when making comparisons.

+ The RRFSS survey asks respondents to indicate whether there is a child 17 years of age or under currently residing in the household. This variable was used to identify parents vs. non-parents in sub-group analyses.

METHODS

The results presented in this *Health Index* are drawn from responses to four questions that comprise one module of the Rapid Risk Factor Surveillance System (RRFSS), a large public health surveillance survey in Ontario. The questions are multiple choice and are intended to capture:

- Public awareness of the leading cause of death in young children (one to six years of age)
- Public perceptions regarding the preventability of injuries in infants and young children (birth to six years)
- Public opinion on optimum strategies for preventing injuries in infants and young children, and
- Perceptions of the parent/caregiver role in infant and child injury prevention.

Each question is analysed by gender, presence and age of a child in the household, education, age, annual household income and geography (Middlesex County or City of London household). Age, income and education categories were derived using syntax provided by Philippa Holowaty in 2000. Only comparisons that are statistically significant are reported.

RRFSS is an on-going telephone survey conducted by the Institute for Social Research (ISR) at York University on behalf of the Middlesex-London Health Unit (MLHU). The purpose of the survey is to monitor public awareness of a range of public health issues.

Households are selected at random from a list of households with telephones in the city of London and Middlesex County. Data were gathered in a series of monthly telephone surveys or waves, with approximately 100 Middlesex-London respondents interviewed per month. The selection of respondents within each household is made systematically and based on two criteria: age and next birthday. Household members who are at least 18 years of age are initially identified and the individual with the next birthday is then selected as the respondent. Every effort is made to interview the identified respondent. On average, five calls are required to complete the interview, though as many as 14 calls is standard practice.

Data from 1207 households were collected as part of waves 28 to 39, over the period April 10, 2003 through April 11, 2004. Cases were weighted to adjust for household size and differences in the selection probabilities for individual respondents. To provide information on the precision of the results, all percentage estimates are presented with 95% confidence intervals. Differences between groups were considered significant when confidence intervals did not overlap. Consistent with recently revised RRFSS analysis guidelines, "Don't know" and "Refused" responses were retained in the denominator for all calculations.

Further technical details and a copy of the complete questionnaire are available at www.cehip.org/rrfss.

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