

**SAFE KIDS WEEK 2002 “KIDS ON WHEELS”  
PROGRAM EVALUATION**

Prepared by:

**B.C. *Injury* Research**  
A N D • P R E V E N T I O N • U N I T

Authors:

Dr. Mariana Brussoni  
Joey Hofmeister  
Kate Turcotte

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## INTRODUCTION

Safe Kids Canada is the national injury prevention program of Toronto's Hospital for Sick Children. The mission of Safe Kids Canada is to prevent injuries by educating the public about injury prevention, and by working to create safer environments.

Safe Kids Canada promotes injury prevention through a range of resources, services and initiatives including Safe Kids Week, an annual national safety campaign. The 2002 Safe Kids Week campaign, "*Got Wheels? Get a Helmet!*" focused on preventing injuries among kids on wheels (bicycles, skateboards, scooters, and in-line skates). The objective was to raise awareness among Canadian parents and change their behavior in relation to safety practices, particularly the use of helmets.

### ***Campaign Components***

The 2002 Safe Kids Week campaign included three main components:

1. **National media campaign:** Two media launches in Toronto and Montreal served as the kick-off for the campaign. A survey of kids aged 11 to 14 years – conducted on the Internet – was released at the launches. A B-roll ("broadcast roll", a videotape package for use by TV stations) was released in English and French. Information was also provided to magazines, and pre-packaged features were provided to community newspapers. Community partners were also encouraged to work with local media. In total, the campaign garnered 46 million media impressions.
2. **National retail program:** Through the work of sponsor Johnson & Johnson, brochures and signage demonstrating proper helmet and equipment use appeared in more than 5,000 stores across Canada. Johnson & Johnson also launched a web site for the campaign, and ran two advertisements (one in a Kraft magazine, one a freestanding insert), both of which were distributed to select Canadian homes.
3. **Community program:** Community partners across Canada implemented local campaigns and/or distributed campaign materials. The majority of community partners were public health units; many formed community coalitions to conduct Safe Kids Week campaigns. A total of 421 community partners participated, representing every province and territory except Nunavut; 360 (88%) conducted local events across Canada, while remaining partners participated by distributing the poster/fact sheets developed by Safe Kids Canada. Activities included poster contests, bike rodeos, helmet inspections and fittings, bike inspections, skill building training, distribution of information and billboard posters. Also, Johnson & Johnson made an additional cash donation which allowed partners to purchase bike helmets for distribution to low income families in their communities; approximately 4,800 helmets were distributed through this program.

## **Campaign Messages**

The campaign promoted the following key messages, outlined in a poster/fact sheet in both English and French. 420,000 copies of the poster/fact sheet were distributed, and the key messages were repeated in the media and retail components of the campaign.

### **Primary messages:**

- t Make sure your child wears a helmet anytime he or she is on wheels.
- t Make sure the helmet fits correctly (details and illustrative drawing were provided).

### **Secondary messages:**

- t Keep your child away from traffic.
- t Make sure your child is the right age for the equipment, and supervised until the appropriate age for him or her to use wheels alone (this varied depending on the activity).
- t Make sure your child wears other protective gear appropriate for the activity.

## **SAFE KIDS 2002 EVALUATION**

The Safe Kids Week 2002 “Kids on Wheels” campaign was run from June 3<sup>rd</sup> to 9<sup>th</sup>. The evaluation of the campaign was undertaken from July to September 2002 to answer the following questions:

- t Did the key campaign messages reach parents of Canadian children 5 to 14 years old?
- t Did parents make a positive behavior change as a result of the campaign?

Specifically:

- t Do Canadian parents of children 5 to 14 years old have a higher level of awareness of the key safety messages with regards to children on wheeled equipment as a result of the Safe Kids Week 2002 campaign?
- t Have parents taken specific action to prevent injuries to their children relating to the campaign’s key messages?

### **Methods**

The evaluation of the Safe Kids Week 2002 “Kids on Wheels” campaign was based on data from a survey conducted by Decima Research Inc. The BC Injury Research and Prevention Unit, in consultation with Safe Kids Canada and Decima, designed the questionnaire used for this survey. To determine campaign exposure, Decima executed a general population survey through national random probability sampling proportionate to the population of Canadians aged 18 years or older who are parents or legal guardians of children aged 5 to 14 years old. Campaign exposure was determined by asking parents: “Do you recall seeing, hearing or reading anything about this safety campaign for children using bicycles, skateboards, in-line skates and scooters in late May or early June of this year?” To determine campaign effectiveness, the knowledge and reported behaviors of parents exposed to the campaign were compared to a comparable sample of non-exposed parents.

Results presented in this report are based on 505 interviews Decima conducted with Canadian parents or guardians of children 5 to 14 years old. Of these, 254 respondents reported seeing, hearing, or reading anything about the safety campaign. Of the remaining 251 respondents, 242 did not recall seeing, hearing, or reading anything about the campaign while nine respondents did not know if they were or were not exposed to the campaign. These remaining nine respondents who answered “Do not know” are included in the tables to display the breakdown of responses but are not included in the analyses, as they constitute a very small portion of the overall sample. Comparison will only be made between those who were exposed to the campaign versus those who were not.

Two samples were required to fill the quota of 250 respondents from each group. Initially, Decima collected 369 completed interviews that consisted of 118 exposed and 251 non-exposed respondents that formed the core sample. Following this general population survey, Decima conducted random purposive sampling to capture the remaining exposed respondents. Decima contacted participants randomly with the purpose of capturing the additional 136 of those who were exposed to the campaign. In all, 254 exposed parents were sampled.

At the 95 percent confidence level, statistical error due to sampling is no more than  $\pm 4.4$  percent for the total sample ( $n=505$ ),  $\pm 6.2$  percent for the non-exposed ( $n=251$ ), and  $\pm 6.1$  percent for the exposed ( $n=254$ ) sub-sets. Results are weighted to ensure representativeness.

Decima weighted the data by first taking the number of completed responses in each region for both the core and purposive sample and calculated weight factors proportional to the actual regional distribution of the Canadian population. The core sample was used to determine that the percent of exposed respondents in the actual population was 32%. A weight factor was then calculated that would weight the number of exposed interviews ( $n=254$ ) down to reflect the actual distribution by region of those exposed in the total population ( $n=118$ ). The regional weight and the exposed weight were then combined to give a total weight that was then applied to the entire data file.

All sampling was conducted among the ten provinces only. The three territories were excluded, as their populations are not sufficient to constitute a region in and of themselves.

Telephone interviews were conducted between July 3rd and July 10th, 2002, in both French and English, and lasted an average of 10 minutes.

Chi-square tests were used to analyze the categorical data. Except where noted, only significant findings are presented, with a minimum of  $p < 0.05$  level of significance. At this level there is only a five percent possibility of the finding occurring by chance.

Questions were both prompted and unaided. Prompted questions asked respondents to choose from a selection of multiple choice answers, whereas unaided questions were

open-ended and allowed the respondents to formulate their own replies (see Questionnaire in Appendix II). Unaided measures were chosen for some questions as they allow for a wider range of answers than prompted ones. As unaided questions rely on respondent's recall of information solely, underreporting of some information may result.

## Findings

### Campaign Coverage/Exposure

Overall, 32 percent (1 in 3) of the target population of parents or guardians of children 5 to 14 years old recalled seeing, hearing or reading about a safety campaign concerning children and bicycles, scooters, in-line skates, and skateboards. Statistically, more females (34%) than males (25%) recalled being exposed ( $X^2 = 5.87$  (1)  $p < 0.05$ ).

Of the 505 respondents in the purposive sample comparing exposed and non-exposed parents, the majority reside in Ontario (37%) and Quebec (26%) followed by the Prairie Provinces (16%), British Columbia (12%), and the Atlantic Provinces (8%). The total breakdown of exposed and non-exposed respondents by province/region is outlined in Table 1.1. There were no significant differences between the exposed and non-exposed groups in terms of the provincial breakdown.

Table 1.1 Campaign exposure by province.

Region	Campaign Exposure		
	Exposed	Non-Exposed	Do not Know
Atlantic Provinces	33 (14)	67 (29)	-
Quebec	30 (39)	70 (93)	-
Ontario	33 (62)	64 (120)	3 (6)
Prairies	33 (27)	62 (51)	5 (4)
British Columbia	32 (20)	63 (39)	5 (3)

\*Does not add up to 505 due to weighting of the sample

Parents living in urban and rural areas were equally likely to be exposed to the campaign. Marital status, parent's age, child's age, and parent level of education did not differ significantly between exposed and non-exposed parents (Appendix I). A total of 77 percent of the interviews were completed in English with the remainder completed in French. Of those interviewed in English, 33 percent were exposed to the campaign while 29 percent of those interviewed in French were exposed. There were no significant differences in exposure between French and English respondents.

Most parents were exposed to the campaign through community/school events (54%), particularly females ( $X^2 = 7.25$  (1)  $p < 0.05$ ) (see Table 5 in Appendix I). Following community/school events, sources of information included newspapers (43%), television (39%), radio (18%), and retail stores (11%). In comparison, Safe Kids Week 2001 campaign rated television (39%) the highest followed by newspapers (37%), daycare/school/community events (34%), retail stores (19%), and radio (14%). Note that

some respondents received the information from one or more sources, therefore percentages do not add to 100.

## Kids on Wheels

### *Type of Activity*

Of the 505 parents or guardians of children 5 to 14 years old surveyed, over 97 percent indicated that their child either rides a bicycle (93%), rides a scooter (49%), uses in-line skates (48%), or rides a skateboard (27%). Of these children, boys ride scooters more often than girls (53% versus 45%), in-line skate (52% versus 44%), and skateboard (39% versus 11%). No significant differences were found between the numbers of boys and girls who are involved in any of the four activities (Table 2.1). Clearly wheeled activities, especially cycling, are very popular among children ages 5 to 14.

Table 2.1 Wheeled activity by child's sex.

Activity	Percent (n)		
	Male	Female	Total
Bicycle	94 (157)	93 (314)	93 (471)
Scooter	53 (82)	45 (167)	49 (249)
In-line skates	52 (83)	44 (161)	48 (244)
Skateboard	39 (47)	11 (87)	27 (134)

### *Frequency of activity*

There were no significant differences between exposed and non-exposed parents in terms of the amount of time their children are involved in wheeled activities during the spring and summer months. The following results are therefore reported with the two groups combined. Riding bicycles was determined to be the most popular activity. Of those with children who ride bicycles, 44 percent of parents indicated that their child rides everyday and 35 percent ride several times a week (Table 2.2). Almost half of all children who skateboard or ride scooters ride everyday or several times a week, while over 35 percent of children who in-line skate do it everyday or several times a week. Although in-line skating is more popular than skateboarding, those who in-line skate do so less frequently on the whole.

Table 2.2 Frequency of child's wheeled activity.

Activity	Frequency of Activity			
	Daily	Several times a week	Weekly	Monthly
Bicycle	44 (208)	35 (166)	16 (76)	4 (19)
Scooter	17 (42)	36 (90)	29 (73)	16 (41)
In-line skates	7 (16)	29 (70)	31 (77)	32 (78)
Skateboard	23 (30)	26 (34)	27 (37)	24 (32)

## Safety Knowledge

### *General Safety Knowledge*

Parents were asked unprompted questions regarding their knowledge of what they can do to protect their children as well as questions referring to helmet and other protective equipment use (see Appendix II). Some respondents indicated more than one response and therefore percentages do not add to 100.

Parents were asked “What specific actions are you aware of that can protect your children from getting hurt while riding their wheeled equipment?” The responses to this open-ended question ascertained the general level of overall safety knowledge (Table 3.1). The majority of respondents (92%) indicated helmets most often as an effective safety precaution for children involved in wheeled activities. The second most frequently mentioned safety precaution was wearing other protective gear (70%). This could include elbow and kneepads and wrist guards used for skateboarding and in-line skating. Those who were exposed to the campaign (76%) were statistically more likely than non-exposed (66%) to indicate that other protective gear should be used ( $X^2=4.64$  (1)  $p<0.05$ ). Teaching their children to ride safely (25%), parental supervision (9%), and keeping their child away from cars (9%) were other safety strategies identified with no significant differences between those exposed and non-exposed.

Table 3.1 General safety precaution knowledge by campaign exposure.

Safety Precautions	Campaign exposure		Total
	Exposed	Non-exposed	
Wears Helmet	92 (148)	92 (315)	92 (463)
Wears Other Gear	76 (123)	66 (228)	70 (351)
Teach to Ride Safe	26 (42)	25 (86)	26 (129)
Supervise Child	10 (16)	8 (29)	9 (44)
Keep away from Cars	9 (15)	8 (29)	9 (44)
Set Family Rules	8 (13)	5 (17)	6 (29)
Stay Alert/Avoid Traffic	4 (6)	6 (21)	5 (27)
Stay on Paths	4 (7)	4 (15)	4 (22)
Wear Proper Footwear	3 (5)	2 (8)	3 (13)
Helmet Fits Properly	2 (4)	2 (8)	2 (12)
Wear Bright Clothing	2 (3)	2 (7)	2 (10)

### *Specific Safety Knowledge: Riding in and among Traffic*

Over 44 percent of parents indicated that age 10 to 13 years was appropriate for their child to ride their bicycle near cars or other vehicles, with no significant difference between exposed and non-exposed. The results also revealed that 17 percent of all parents thought that it was appropriate for children aged 8 to 9 years old to ride their bicycles near cars or vehicles. Overall, a mean age of 10 years old was indicated by exposed and non-exposed parents as an appropriate age for their child to ride their bicycle near cars or other vehicles. Similarly, parents from both groups were most likely to indicate that the age of 10 was appropriate for their child to ride bicycles (23%),

scooters (22%), skateboards (22%), and to in-line skate (21%) without adult supervision, with no significant differences between exposed and non-exposed parents.

*Specific Safety knowledge: Correct Helmet fitting*

To test their overall helmet fitting knowledge, parents were asked “Can you describe how you know if your child is wearing their helmet correctly?” Some parents provided more than one unprompted response. Key campaign messages focussed on ensuring that helmets worn by children fit correctly using established criteria. Specific messages included ensuring the helmet is the correct size, that it fits tightly yet comfortably, the straps form a “V” shape around the child’s ears, and ensuring the helmet is level on the child’s head. Results were mixed. Overall, 37 percent of parents indicated they know the helmet is worn correctly if the straps are snug or tight. Ensuring the helmet does not move once placed on the child’s head was indicated by 22 percent of parents, followed by ensuring that the helmet is level on the child’s head (19%) (Table 3.2). Other responses included ensuring that straps are fastened (18%), helmet covers forehead (15%), and that straps fit in a “V” shape over the child’s ears (11%). Among the previous responses, there were no significant differences between the two groups. On the other hand, those who were exposed to the campaign were statistically more likely to ensure the overall fit in terms of proper helmet size, (12% versus 4%) ( $X^2=10.71$  (1)  $p<0.05$ ). That is, exposed parents were more likely to be aware that the proper size of the helmet is important to the overall fit on their child’s head.

Table 3.2 Parent’s helmet fitting knowledge.

Helmet Wearing	Campaign Exposure		Total
	Exposed	Non-exposed	
Straps are Snug	38 (55)	37 (112)	38 (167)
Helmet does not move	18 (26)	24 (72)	22 (99)
Helmet level on head	18 (27)	24 (72)	19 (84)
Straps Fastened	21 (31)	17 (51)	18 (81)
Covers Forehead	16 (23)	15 (44)	15 (67)
Straps form "V" Shape	11(16)	10 (30)	11(47)
Correct Helmet Size	12 (18)	4 (12)	7 (30)
Parents ensure fit	6 (8)	6 (18)	6 (26)

**Safety Actions**

*Specific Safety Actions: Equipment Worn by Children*

Parents were asked “What if anything, does your child wear to keep him or her from getting hurt while involved in (specify activity)?” Wearing helmets was overwhelmingly indicated for all wheeled activities (94% exposed vs. 90% non-exposed, difference not significant). In terms of other protective gear, the type of activity determined the gear parents indicated their child wears (see Tables 6 and 7 in Appendix I).

Parents exposed to the campaign indicated other types of equipment, such as knee and elbow protection, were important for protecting their children from injury significantly more often than non-exposed. For example, 57 percent of exposed parents indicated that their child uses knee protection for skateboarding as opposed to 36 percent of non-exposed parents ( $X^2=4.09$  (1)  $p<0.05$ ). As well, reported helmet use for scooter riding was significantly different between exposed parents (83%) versus non-exposed (68%) ( $X^2=6.45$  (1)  $p<0.05$ ). Of note, exposed parents (15%) were significantly more likely than non-exposed parents (12%) to indicate that elbow pads should be worn while riding bicycles ( $X^2=4.46$  (1)  $p<0.05$ ).

*Specific Safety Actions: Frequency of Helmet Use*

Parents were prompted specifically to describe how often their child wears a helmet from the categories of “never”, “some of the time”, “most of the time”, “always”, and “do not know”. Over 79 percent of parents surveyed indicated that their child always wears a helmet when riding a bicycle, 79 percent while in-line skating, 63 percent while riding a scooter, and 55 percent while skateboarding. Very few (4%) parents indicated that their child never wears a helmet while involved in any of the four activities. There were no significant differences between those who were exposed to the campaign and those who were not with regards to frequency of helmet use.

*Specific Safety Actions: Checking Helmet Fit*

Parents were asked if they checked the fit of their child’s helmet at any time since June of this year. Statistically more parents exposed to the campaign (74%) indicated that they had checked the fit of their child’s helmet since early June, following the campaign. Only 58 percent of non-exposed parents checked the helmet fit ( $X^2=12.12$  (4)  $p<0.05$ ) (Table 4.1).

Table 4.1 Checked fit of child’s helmet by campaign exposure.

Check Helmet Fit	Campaign Exposure		
	Yes	No	Unknown
Yes	74 (108)	57 (166)	73 (8)
No	26 (38)	42 (122)	27 (3)
Don’t Know	0	*	0
Total	100 (146)	100 (288)	100 (11)

\*Indicates 1 or more yet fewer than 5 cases

Parents who did check the fit of their child’s helmet did so more often for children ages 12 and younger ( $X^2=44.43$  (8)  $p<0.05$ ) (Table 4.2). This relationship between child’s age and helmet fittings was not significantly affected by campaign exposure indicating that there is no difference between the two groups in relation to this safety action.

Table 4.2 Checked fit of child's helmet by age

Check Helmet fit	Age of child				
	age 5-6	Age 7-8	age 9-10	age 11-12	age 13-14
Yes	67 (73)	71 (71)	67 (51)	64 (51)	40 (27)
No	33 (35)	29 (29)	33 (29)	36 (29)	60 (40)
Don't Know	*	0	0	0	0
Total	100 (109)	100 (100)	100 (90)	100 (80)	100 (67)

\* Indicates 1 or more yet fewer than 5 cases

No significant relationship was found between both exposed and non-exposed parents' education and checking the fit of their child's helmet (Table 4.3). As well, there were also no significant differences between all respondents living in urban or rural areas of the country and checking the fit of their child's helmet (Table 4.4).

Table 4.3 Checked fit of child's helmet by parent's education

Helmet fit	Education				
	High school or less	Some college/ university	College/university graduate	Post Graduate	Unknown
Yes	68 (103)	62 (31)	59 (120)	72 (27)	33 (1)
No	32 (48)	38 (19)	41 (83)	28 (11)	67 (2)
Don't Know	*	0	0	0	0
Total	100 (152)	100 (50)	100 (203)	100 (38)	100 (3)

\* Indicates 1 or more yet fewer than 5 cases

Table 4.4 Checked fit of child's helmet by region, urban versus rural.

Helmet Fit	Geographical Area		
	Rural	Urban	Unknown
Yes	62 (117)	66 (157)	40 (8)
No	38 (71)	34 (80)	60 (12)
Don't Know	0	*	0
Total	100 (188)	100 (238)	100 (20)

\* Indicates 1 or more yet fewer than 5 cases

Female parents (68%) reported checking the fit of their child's helmet more often than males (53%) ( $\chi^2 = 10.77$  (2)  $p < 0.01$ ) (Table 4.5 – exposed and non-exposed groups combined). Parents who checked the fit of their child's helmet were equally likely to do so regardless of the sex of their child (Table 4.6).

Table 4.5 Checked fit of child's helmet by sex of parent.

Helmet Fit	Parent's Sex	
	Male	Female
Yes	53 (79)	68 (203)
No	46 (68)	32 (95)
Don't Know	*	*
Total	100 (148)	100 (298)

\* Indicates 1 or more yet fewer than 5 cases

Table 4.6 Checked fit of helmet by child's sex

Helmet Fit	Child's Sex	
	Male	Female
Yes	56 (150)	66 (132)
No	44 (94)	34 (69)
Don't Know	*	0
Total	100 (245)	100 (201)

\* Indicates 1 or more yet fewer than 5 cases

### Parents on wheels

Over 72 percent of all parents indicated that they ride a bicycle. Of these, over 50 percent indicated that they wear a helmet. As well, 20 percent of all parents in-line skate, with 58 percent wearing helmets, about half (51%) wearing wrist protection, followed by knee protection (49%), elbow protection (40%), and no equipment (25%).

### Safety legislation

Most parents (79%) would support legislation that would make it mandatory for both adults and children to wear helmets. Over 84 percent of parents indicated that they would support legislation making helmet use mandatory for children only. Approximately nine percent indicated that their province already has legislation requiring both adults and children to wear helmets. Of those supporting legislation, 74 percent indicated that offenders of such legislation should be required to attend training sessions on bicycle safety, while 67 percent felt that fines are the most appropriate penalty. No significant differences were found between exposed and non-exposed parents for the above results.

## DISCUSSION

The objective of this year's Safe Kids Week 2002 "Kids on Wheels" campaign was to raise awareness among Canadian parents and change their behavior in relation to safety practices concerning their children riding bicycles, scooters, skateboards, and in-line skating.

Overall, the campaign was able to reach over 32 percent or approximately 1/3 of Canadian parents.

Of all the respondents surveyed, the majority reside in Ontario (37%) and Quebec (26%).

No significant differences with campaign exposure were found among regions, between rural and urban residence, parents' age, marital status or level of education, suggesting that the campaign was able to reach a wide audience nationally.

Results indicated that wheeled activities are popular among children ages 5 to 14. For example, over 97 percent of all parents indicated that their child is involved in one of the four wheeled activities with 93 percent of all parents indicating that their child rides a bicycle. Of note, there was no significant differences between both exposed and non-exposed groups in terms of their child's frequency of riding during the spring and summers months which may suggest that safety campaigns such as Safe Kids Week do not discourage physical activity, a concern that has been raised in the past.

This evaluation assessed how effective the primary and secondary messages conveyed by Safe Kids Week 2002 were at increasing safety knowledge and behaviors among parents 18 years and older with children 5 to 14 years of age. The "Kids on Wheels" safety campaign focused on the following key messages:

### **Primary messages:**

- Make sure your child wears a helmet anytime he or she is on wheels. (Campaign slogan was "Got wheels? Get a helmet!")
- t Make sure the helmet fits correctly (details and illustrative drawing were provided).

### **Secondary messages:**

- t Keep your child away from traffic.
- Make sure your child is the right age for the equipment, and supervised until the appropriate age for him or her to use wheels alone (this varied depending on the activity).
- Make sure your child wears other protective gear as appropriate for the activity.

In summary, this evaluation made the following significant findings from the 2002 Safe Kids Week "Kids on Wheels" campaign:

- t 1 in 3 Canadian parents surveyed recalled the campaign, which was over two times the exposure of last year's Safe Kids Week campaign.

Mothers (60%) were more likely than fathers (35%) to recall seeing, hearing or reading about the safety campaign.

Mothers were more likely than fathers to be exposed to the campaign information via community/school events.

Those who were exposed to the campaign (76%) indicated that other protective gear should be used to protect their child from injury more often than those who were not (66%).

More exposed parents (57%) indicated that knee protection should be used to protect their child from injuries while skateboarding than non-exposed parents (36%).

More exposed parents (83%) indicated that helmets are worn by their child when riding a scooter versus non-exposed (68%).

t Those who were exposed to the campaign indicated that they were more likely to know how to check the overall size and fit of their child's helmet (12% versus 4%).

More parents exposed to the campaign (74%) versus non-exposed parents (58%) indicated that they checked the fit of their child's helmet since early June of this year.

All parents checked the fit of the helmet for younger children. As their child enters teenage years, parents checking the fit declines.

t Mothers (68%) were statistically more likely than fathers (53%) to check the fit of their child's helmet.

t Parents who checked the fit of their child's helmet were statistically equally likely to do so regardless of the sex of their child.

### ***Strengths of the campaign***

1. This year's Safe Kids 2002 campaign featured over 46 million media impressions nationally, which was over a 30 percent increase from the previous year. Most of the media coverage occurred in Ontario and Quebec where the majority of those who were exposed to the campaign reside. In addition to the media increase, the 2002 campaign saw a 20 percent increase in community/school events such as bicycle rodeos and helmet fittings. As a result, the majority of those who recalled being exposed to the campaign learned about "Kids on Wheels" from these events. In addition, the campaign was successful in reaching a broad range of parents, as there were no significant differences in terms of living in urban or rural areas, educational attainment, marital status, and age. Mothers were significantly more likely to be exposed to the campaign in general and were also more likely to receive their information from school/community events. This finding reinforces the importance of using community events in communicating key safety messages.
2. A key message that was strongly echoed by parents was the importance of wearing a helmet while riding bicycles, scooters, skateboards, and in-line skating. The majority of parents reported that their child always or most of the time wears a helmet when involved in each of the four activities. Although there were no significant differences between exposed and non-exposed parents on helmet use for bicycles, in-line skating, and skateboarding, there were significantly more exposed

parents that indicated that their child wears a helmet while riding a scooter. As scooters have just recently become popular, parents may not feel that it is necessary for their child to wear a helmet while riding. As such, the campaign was successful at increasing parent's knowledge of the importance of helmet use for activities other than cycling. Findings such as this should be approached with caution as parents may over report their child's helmet wearing behavior when compared to the opinions of children and youth and observational studies.

3. The importance of checking the fit of their child's helmet was strongly received by parents exposed to the campaign. Significantly more parents who were exposed to the campaign indicated that they checked the fit of their child's helmet in the weeks following Safe Kids Week 2002. As this was one of the primary key messages, the campaign proved successful in conveying this to parents of children who are involved in wheeled activities.
4. Parents exposed to the campaign were more likely than non-exposed parents to report that other protective gear was worn by their child to help prevent injuries while riding scooters, skateboarding, and in-line skating. This indicates the success of the campaign at conveying this key secondary message.

#### ***Areas needing improvement***

1. Key messages that were not strongly received concerned overall safety precaution knowledge. Secondary messages such as avoiding traffic and making sure the equipment is the right size were not as strongly emphasized. As a result, few parents indicated the importance of these key messages. In terms of riding in and among traffic, 44 percent of all parents indicated that age 10 to 13 years old was appropriate for children to ride unsupervised and near traffic. This question revealed mixed results as 17 percent of all parents indicated that children age 8 to 9 years are able to ride near traffic.
2. Some parents, particularly those who were exposed to the campaign, indicated that knee and elbow protection could prevent injuries to their child while riding bicycles. This was not however promoted by the campaign and may be a result of providing socially desirable answers or misunderstanding the question.
3. It is difficult to determine whether or not helmet promotion was successful due to the high response rate on helmet wearing frequencies for most wheeled activities. What the results indicate overall is that most parents surveyed understand the importance of their children wearing a helmet especially for bicycle riding. However, there appear to be mixed results when comparing observational studies and parents perceptions of their child's actual helmet wearing behaviors.

## **Limitations**

As the Safe Kids Week 2002 “Kids on Wheels” is a diffuse campaign, not tightly controlled by Safe Kids Canada, measurement difficulties may arise. For example, Alberta was running a helmet promotion campaign this spring following the passage of new helmet legislation. Other communities may have conducted activities that were not associated with Safe Kids Canada and may have affected the results; however, it is difficult to measure what, if any, impact this has had on this evaluation. Parents may recall a helmet or safety campaign but it is difficult to be absolutely certain that their recall is uncontaminated by other promotions.

As well, Safe Kids Week partners such as local police, fire departments, and health units conducted community activities under their own names, in conjunction with the Safe Kids Week name. As a result, some respondents may have not associated a particular safety campaign event occurring in their community with Safe Kids Canada. Although Safe Kids Week is required to be a part of official announcements, individuals that attend an event such as a helmet fitting demonstration may identify the event with the organization hosting it and not Safe Kids Canada. As a result, the present survey may under-report the actual campaign exposure.

Parents may over-report helmet use by their children. This is evident when comparing surveys asking parents about their child’s helmet wearing behaviors, children and youth’s self-report and observational studies. Parent- and self-report surveys can suffer from social desirability and recall biases. However, self-report surveys on helmet use are usually less prone to bias than parent-reports, and observational studies are the most accurate measure (Schieber and Sacks, 2001). An evaluation was conducted of the 1994 Oregon bicycle helmet use law illustrates how different methods produce different results. Reports of “always using” a helmet when riding bicycles ranged from 39 percent for self-report surveys, to over 45 percent community observed, to 76 percent parent-report survey (Schieber and Sacks, 2001).

Results from the Safe Kids Week 2002 evaluation are consistent with the national survey conducted by Canada Safety Council (2002) where 84 percent of parents indicated that their child always wears a helmet while bicycling, in-line skating, riding a scooter, and skateboarding. An observational study conducted by the Alberta Centre for Injury Control (2000) of over 4000 cyclists from all ages in four of Alberta’s metropolitan areas revealed that over 75 percent of children under 13 years of age were wearing a helmet while riding a bicycle. However, the number of youth wearing helmets drastically decreased to just over 29 percent in adolescence (age 13 to 17 years old). Even though the mean age of the child parents are referring to in the Safe Kids evaluation is nine years old, the results from this evaluation indicate that in comparison to the Alberta results, there may be a tendency to over report helmet use.

In sum, the results from this evaluation, as well as other surveys that rely on parent-reports of their child’s helmet use, illustrate the need for more comprehensive observational studies to measure helmet usage more accurately.

## **Conclusion**

This year's Safe Kids Week safety campaign was able to reach a substantial portion (one in three) of Canadian parents aged 18 and older with children ages 5 to 14. Results indicate that there were no significant differences between parent's likelihood of seeing, hearing, or reading about the campaign in terms of their age, education, geographical location or marital status, therefore, reaching a wide audience of Canadian parents. The campaign was effective in communicating one of the key messages: the importance of parents checking the fit of their child's helmet. Reported helmet use was high, with no significant difference between parents exposed or not exposed to the campaign. In terms of other key messages, the campaign was able to reinforce the importance of using other protective gear to protect children from injury while involved in wheeled activities.

Key messages of the campaign that were not strongly received by the target audience included information surrounding correct helmet fitting and age recommendations for safe riding. Few significant differences were found between the two groups in terms of their helmet fitting knowledge. Correct helmet fitting information should be improved to yield more significant results. As well, there were mixed results on parent's knowledge of the correct age that a child could ride without parental supervision and to ride in and around traffic.

Overall, the Safe Kids 2002 "Kids on Wheels" safety campaign was effective in communicating most of the key messages. Results indicate that, following the campaign, parents have increased their knowledge surrounding key issues on safety such as the importance of checking the fit of their child's helmet. In addition, those who were exposed indicated that their child wears a helmet while riding a scooter as well as the importance of wearing other protective gear for all of the activities.

## REFERENCES

Alberta Centre for Injury Control (2000) *Brain? Helmet! Bicycle Helmets: Observational Study Summary*. [www.med.ualberta.ca/download/bikesumm.pdf](http://www.med.ualberta.ca/download/bikesumm.pdf).

Canada Safety Council (2002) *Helmets: Attitudes and Actions*. Ottawa.  
<http://www.safety-council.org/info/sport/helmets.html>.

Schieber, R.A. & Sacks, J.J. (2001) Measuring Community Bicycle Helmet Use among Children. Public Health Reports, 116(2), 113-21.

## APPENDIX I

### TABLES

Table 1 Campaign exposure by geographical area (urban/rural)

Exposure	Geographical area		
	Percent (n)		
	Urban	Rural	Other
Yes	31 (67)	34 (88)	23 (6)
No	67 (145)	64 (166)	77 (20)
Don't know	2 (5)	2 (7)	0
Total	100 (217)	100 (261)	100 (26)

\*\*Total does not equal N=505 due to weighting of the sample

Table 2 Campaign exposure by parent's marital status.

Exposure	Marital Status		
	Percent (n)		
	Married/C. Law	Single Parent	Declined
Yes	32 (128)	32 (31)	75 (3)
No	66 (264)	67 (65)	25 (1)
Don't know	2 (11)	*	0
Total	100 (403)	100 (97)	100 (4)

\*Indicates 1 or more yet fewer than 5 cases

\*\*Total does not equal N=505 due to weighting of the sample

Table 3 Campaign exposure by parent's age.

Exposure	Age (years)					
	Percent (n)					
	Under 20	20 to 29	30 to 39	40 to 49	50 to 59	over 60
Yes	*	37 (14)	33 (75)	28 (54)	33 (11)	*
No	*	61 (23)	66 (152)	68 (130)	67 (22)	*
Don't know	0	*	*	4 (7)	0	*
Total	*	100 (38)	100 (230)	100 (191)	100 (33)	*

\*Indicates 1 or more yet fewer than 5 cases

\*\*Total does not equal N=505 due to weighting of the sample

Table 4 Campaign exposure by parent's education

Campaign Exposure	Educational Attainment			
	Percent (n)			
	High school or less	Some college/ university	College/university graduate	Post Graduate
Yes	33 (60)	42 (24)	27 (58)	37 (17)
No	66 (119)	58 (33)	69 (149)	63 (29)
Don't know	*	0	4 (10)	0
Total	100 (182)	100 (57)	100 (217)	100 (46)

\*Indicates 1 or more yet fewer than 5 cases

\*\*Total does not equal N=505 due to weighting of the sample

Table 5 Sources of campaign information by parent's sex.

Mode	Percent (n)	
	Male	Female
Community/school	35 (15)	60 (73)
Newspaper	37 (14)	46 (55)
Television	42 (18)	38 (46)
Radio	15 (6)	20 (23)
Retail	*	13 (15)
Other	17 (8)	18 (21)

\*Indicates 1 or more yet fewer than 5 cases

Table 6 Protective gear use by activity, exposed.

Protective Gear	Wheeled Activity (Exposed Group)			
	Percent (n)			
	Bicycle	Scooter	In-line skating	Skateboarding
Helmet	92 (137)	83 (68)	86 (70)	81 (33)
Knee Protection	20 (29)	35 (29)	66 (53)	54 (22)
Elbow Protection	22 (32)	27 (22)	60 (49)	46 (18)
Wrist Protection	3 (4)	8 (7)	33 (27)	21 (8)
Other Protection	18 (31)	7 (10)	15 (13)	10 (4)

Table 7 Protective gear use by activity, non-exposed.

Protective Gear	Wheeled Activity (Non-exposed Group)			
	Percent (n)			
	Bicycle	Scooter	In-line skating	Skateboarding
Helmet	89 (287)	68 (113)	84 (138)	75 (71)
Knee Protection	14 (46)	50 (30)	64 (105)	36 (34)
Elbow Protection	12 (39)	25 (41)	60 (98)	33 (31)
Wrist Protection	1 (4)	7 (11)	35 (57)	16 (15)
Other Protection	14(45)	7 (11)	7 (12)	6 (2)

## APPENDIX II

### SAFE KIDS 2002 "KIDS ON WHEELS" QUESTIONNAIRE

Hello. My name is \_\_\_\_\_ calling on behalf of Safe Kids Canada, a national children's safety organization, of the Hospital for Sick Children, Toronto. We are conducting an anonymous and confidential random survey about child safety. Participation is voluntary and the survey will take about 10 minutes to complete. WE ARE NOT SELLING ANYTHING AND WE ARE NOT SEEKING INFORMATION FOR THE PURPOSES OF MARKETING PRODUCTS.

If now is a convenient time, I will begin...?

Yes	0	(Continue)
No time now	1	(Arrange call back)
Refused	2	(Thank and terminate)

1. Are you a parent or guardian of a child or children aged 5-14 years old?

Yes	- 1	(Continue)
No	- 2	(Thank and Terminate)
DK/NS	- 9	(Thank and Terminate)

If yes, ask how many children total? (MUST BE GREATER THAN 0)

Please chose ONE child aged 5-14 years old with a birthday closest to today's date and indicate the age and sex of the child. Throughout the interview, refer to this child you have chosen when asked the questions that follow.

*Safe Kids Week 2002 was run by Safe Kids Canada at the beginning of June this year, and was all about preventing injuries to children on bicycles, skateboards, in-line skates, and scooters.*

2. Do you recall seeing, hearing, or reading anything about this safety campaign for children using bicycles, skateboards, in-line skates, and scooters in late May or early June of this year? PROBE FOR RESPONSE.

Yes	- 1	(Ask all questions)
No	- 2	(Skip to question 4)
Don't know (DK)	- 9	(Skip to question 4)

3. From which of the following sources, if any, did you see, hear, or read this information concerning safety for kids on wheeled equipment?

Television	- 1
Radio	- 2
Newspaper	- 3
Retail store (e.g. Walmart or drugstore)	- 4
Community or school events (e.g. displays or safety demonstrations )	- 4
Other Sources (Specify) _____	- 77
99. DK/NS	- 99

4. Does your child \_\_\_\_\_? CHECK WHICHEVER ACTIVITY APPLIES. TAKE NOTE OF ACTIVITY (S) IN THIS QUESTION AS IT IS IMPORTANT TO QUESTIONS WHICH FOLLOW.

Ride a bicycle	- 1
Use a skateboard	- 2
Use in-line skates	- 3
Ride a scooter	- 4
None of the above	- 5



ASK IF MENTIONED "HELMET" IN Q7.

10. Have you checked the fit or your child's helmet at any time since early June of this year?

Yes -  
No -  
DK/NS -

11. Approximately what age do you think your child can ride a bicycle near cars or other vehicles?

Specify age \_\_\_\_\_  
DK/NS -9

At what age do you think it is appropriate for your child to use a bicycle, skateboard, in-line skates or scooters without adult supervision? IF DIFFERENT FOR EACH, INDICATE EACH ACTIVITY AND APPROPRIATE AGE.

1. Specify age \_\_\_\_\_  
2. Conditional answer? (i.e. "it depends") \_\_\_\_\_  
3. Reasons for conditional answer. Specify \_\_\_\_\_  
4. DK/NS -9

13. As a parent or guardian, do you ride a bicycle?

Yes -1  
No -2  
DK/NS -9

14. As a parent or guardian, do you in-line skate?

Yes -1  
No -2  
DK/NS -9

ASK IF Q13=1

15. Do you wear a helmet when you ride a bicycle?

Yes -1  
No -2  
DK/NS -9

ASK IF Q14=1

16. What protective gear do you wear when you in-line skate? UNPROMPTED BUT INTERVIEWER HAS LIST TO CHECK OFF MATCHES. DO NOT READ LIST.

1. Elbow protection -  
2. Knee protection -  
3. Wrist protection -  
4. Helmet -

17. Would you support legislation in your province requiring all children to wear helmets when they ride a bicycle? INTERVIEWER TO READ LIST.

Yes -1  
No -2  
My province already has such legislation -3  
DK/NS -9

18. Would you support legislation in your province requiring both children AND adults to wear helmets when they ride a bicycle? INTERVIEWER TO READ LIST.

Yes -1  
No -2  
My province already has such legislation -3  
DK/NS -9

ASK IF Q17=1 or 18=1

19. What methods would you support to enforce bicycle helmet laws? READ LIST. (CHECK AS MANY AS APPLY)

- |                                                          |     |
|----------------------------------------------------------|-----|
| Fines                                                    | _ 1 |
| Public education about the risks of not wearing a helmet | _ 2 |
| Training sessions on bicycle safety                      | _ 3 |
| Other [specify]                                          | _ 4 |
| DK/NS                                                    | _ 9 |

## Demographics

### Ask all respondents:

In what year were you born? 19\_\_ (record year)

What is your current marital status?

- |                             |     |
|-----------------------------|-----|
| Married / Living Common Law | _ 1 |
| Single Parent               | _ 2 |
| Do not read: DK/NS          | _ 9 |

3. What is the highest level of school you have ever completed? READ LIST IF NECESSARY, ACCEPT ONE RESPONSE ONLY.

- |                                                |   |
|------------------------------------------------|---|
| 1. Elementary school (less than grade 9)       | _ |
| 2. Some high school (grades 9-13)              | _ |
| 3. Completed high school                       | _ |
| 4. Some college, technical school              | _ |
| 5. Completed college, technical school         | _ |
| 6. Some university                             | _ |
| 7. Completed university (undergraduate degree) | _ |
| 8. Completed university (graduate degree)      | _ |
| 9. DK/NS                                       | _ |

6. The approximate population of the town/city or community where you live is: READ LIST IF NECESSARY, ACCEPT ONLY ONE RESPONSE.

- |                               |     |
|-------------------------------|-----|
| Less than 10,000              | _ 1 |
| Between 10,001 and 100,000    | _ 2 |
| Between 100,001 and 1,000,000 | _ 3 |
| Greater than 1,000,000        | _ 3 |

7. The town/city or community where you live can be best described as:

- Rural  
Urban  
Other (please specify): \_\_\_\_\_

8. Gender (Record by observation)

- |        |     |
|--------|-----|
| Male   | _ 1 |
| Female | _ 2 |

***This is the end of the survey. Thank you very much for participating.***

*If you would like information about child safety, please call Safe Kids Canada at 1-888-SAFETIPS or visit the web site at [www.safekidscanada.ca](http://www.safekidscanada.ca) Thank you again for your time.*