

***Distributing Child Safety Products in Niagara: An evaluation of
an Initiative to Improve Home Safety for Children***

March 29, 2005

Report to: Ministry of Children and Youth Services

Re: Early Childhood Development Injury Prevention Initiatives: Project Evaluation

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Child Safety Products (CSP) Initiative

Executive Summary

Homes represent the most common place for an injury to occur for children ages 0-6. After discussions with The Niagara Region Public Health Department's (NRPHD) Healthy Babies/Healthy Children (HBHC) Public Health Nurses (PHNs) and Family Home Visitors (FHVs), a need/strategy was determined to reduce the number of home injuries in Niagara. The strategy included; providing the community clients on the HBHC visiting caseload with the necessary child safety products (CSP) accompanied by the appropriate safety facts sheets related to the product.

With the Early Childhood Development (ECD) grant provided by the Ministry of Health and Long Term Care (MOHLTC), the Injury Prevention program responded to these needs and purchased various CSP, which were then distributed to the HBHC clients in most need as determined by the HBHC PHNs. The CSP have been distributed in the Niagara community and an evaluation (both qualitative and quantitative) was conducted (November 2004 to January 2005) to determine the effectiveness of the environmental interventions.

The qualitative study consisted of focus group responses from twelve HBHC PHNs. It was identified that PHNs recommend a product to those clients who were currently using an obsolete, outdated and/or unsafe product for their children and could not afford to upgrade their CSP. Additional benefits/outcomes identified by the nurses included:

- An opportunity to provide education about home safety to children for the parents.
- An opportunity to develop and solidify relationships with the parents.
- An increase parents awareness regarding child home safety issues
- The product that had the most significant safety benefit was the crib and mattress set.

The quantitative study consisted of information gathered from CSP recipients to determine the impact of this initiative. While the results cannot be generalized, findings indicated that 83% of the client's (currently on the HBHC visiting caseload) read and used the fact sheets provided with the CSP, 94% were currently using the CSP in their homes, 90% felt the CSP would help reduce falls in the home and 90% of the respondents felt that this initiative made a difference to their children's safety.

In conclusion, the results of the study showed that this initiative provided safer homes for children. In addition, peripheral benefits include increased home safety awareness among parents, improved client PHN/FHV relationships and overall reduction of home injuries to children.

Background

Homes are the most common place for injury in children 0-6 years and it is estimated that two-thirds of childhood injuries occur at home during the first six years of a child's life. The majority of these injuries are related to falls in the home. These injuries contribute to increased emergency room visits and hospitalizations in children 0-6 years of age. In Canada, 40,000 children are rushed to hospital due to an injury occurring within the home (Safe Kids Canada, 2004).

Local Niagara emergency room data (2002/2003) revealed the following causes for visits: (Niagara Region Public Health Department (NRPHD) Provincial Health Planning Database, 2004)

- 2066 unintentional falls in the home
- 32 Accidental Poisonings
- 12 Scalds/Burns
- 8 Choking

There were approximately 67 hospitalizations due to falls in Niagara and it is currently the leading cause of hospital stays. In 1996, Ontario hospital admissions due to falls in children 0-4 numbered 1,114 and cost \$99 327100 (SMARTRISK,1999).

Problem Statement

Prior to initiating the CSP distribution project in the Niagara Region, the Injury Prevention Program discussed with the PHNs and FHVs in the HBHC program what the needs of their clients were in regards to preventing injuries in the home and to identify possible solutions to prevent them from occurring. The PHNs and FHVs who visit a large number of clients throughout Niagara felt that one of the most beneficial strategies to reduce potential home injuries would be to provide families with the necessary CSP to keep their children safe and to provide fact sheets about the CSP. A portion of the clients the PHN are visiting do not have safety products, or are using unsafe and outdated ones.

See Appendix A for Income Status and “Kid’s Report Card” for Niagara

With the ECD grant provided by the (MOHLTC) the NRPHD Injury Prevention Program responded to the need identified by HBHC staff and purchased various types of CSP to be distributed to HBHC clients. The goal was to have these clients use these products and prevent falls or other home-related injuries to children.

Program Goals

- To reduce fall related home injuries for children 0-6 years of age in the Niagara Region.
- To increase parents/caregivers knowledge of home safety practices of children 0-6 years of age.

Program Objectives

- To provide CSP to families in need on the HBHC visiting program to reduce falls in the home.
- To provide an educational CSP fact sheet to each recipient that outlines the product they received along with information on the correct use of the product.
- To evaluate the CSP program's impact on families receiving a safety product.
- To disseminate the findings of the CSP program to relevant stakeholders.

Performance Measures

In 2003, the ECD grant supplied 50 cribs, 48 hardware mounted gates, 76 pressure safety gates, 224 kitchen booster seats, and 160 highchairs to Niagara families in need. Approximately 572 safety product fact sheets on the products were distributed. In 2004, the ECD grant supplied 70 cribs, 44 hardware mounted gates, 59 pressure mounted gates, 116 kitchen booster seats and 92 highchairs. Approximately 400 safety product fact sheets were distributed.

Purpose of Evaluation

To examine if HBHC clients feel having a CSP has made a difference in safety concerns for their child.

To explore HBHC nurses and client's experiences with the CSP program and disseminate findings and determine future sustainability of the CSP program.

To assess whether or not the CSP provided has made a difference in injuries or safety concerns in the home as identified by the HBHC PHNs.

Methodology

The CSP was evaluated using both a qualitative and quantitative method.

The PHN evaluator/ injury prevention project lead for the ECD initiative provided a 30 minute orientation about the CSP evaluation to HBHC nurses and managers on November 15, 2004 for 30 minutes during a team meeting. The rationale and process for the evaluation was explained. During the orientation, 12 PHNs representing all demographic areas in Niagara volunteered to participate in a focus group session. Copies of the client surveys were disseminated to the nurses, with paid postage envelopes for them to take to their clients for completion. The nurses were informed that if they had any questions or concerns they could contact the evaluator at anytime. There was no compensation given to the clients or the nurses for this evaluation.

1) Qualitative Method

The focus group was held for one and a half hours on December 2, 2004 with the 12 HBHC nurses. The focus group consisted of three main questions and statement of purpose/confidentiality was provided. In order to ensure flow of the focus group, certain strategies were implemented. The focus group evaluator (lead on this project) was the facilitator. There were two recorders, one recording responses by flip chart and one by computer method to ensure accurate recordings of ideas and comments.

See Appendix B- Focus Group Questions

Data Analysis of Focus Group

Data was first analyzed for common themes and frequencies. Data was documented in MS Excel for analysis.

Results of Focus Group

Question 1

The first question posed to the PHN was to identify the environmental triggers that led them to recommend a CSP. It is important to note that the data collected from the responses were multi-faceted and are not mutually exclusive. This means that one PHN may have identified more than one trigger that led them to recommend a CSP to their client. The results of this study show which triggers the nurses consistently reported.

The majority of responses from the HBHC PHNs indicated that the main environmental trigger that led them to recommend a CSP for their clients was the current use of an unsafe/outdated product in their home and the need for updated products. Of the 54 different responses from the 12 nurses, 21 were

related to the use of unsafe or outdated products. The nurses were concerned that their client's children could become injured because of the unsafe and outdated products in the home. Some of the responses from the nurses included:

- *“Young teen mothers cannot afford these items when they can't afford food, they will just keep using the unsafe products.”*
- *“Children are being fed on top of kitchen tables because they do not have highchairs or kitchen booster seats.”*
- *“Many stairways do not have gates to prevent child from falling.”*

The second most common response from the PHNs indicated that cost was a significant factor with child safety products. From the 54 responses given by the 12 nurses, 13 comments were related to cost or financial needs of the client. Therefore, costs/financial need were a main trigger to recommend that their client receive a CSP. Some comments included:

- *“Many of our clients are on social assistance, and can barely afford basic needs, never mind safe products for children.”*
- *“Having these larger more expensive products is better than electrical outlet covers or such because if anything they can afford those versus a gate, crib etc.”*

The third most common responses from the PHNs indicate that providing their clients with safety products was an opportunity for educating their clients about safety and it provided a method for health teaching. An opportunity for health teaching was a trigger for recommending a product to their client as identified in seven responses. Here's an example of one comment given by a nurse:

- *“Giving a safety product to a client gave me the chance to talk to them about safety and they were more receptive to make changes in their home.”*

There were other environmental triggers that also led the PHN to recommend a CSP and they included:

- Reports of injuries occurring in the home prior to receiving a product,
- Environmental hazards in the home (clutter, mess) prior to receiving a product.

Question 2

The second question posed to the PHNs was to explain any observations seen in home safety practices as a result of receiving a CSP. Once again, the data collected from the responses were multi-faceted and are not mutually exclusive. This means that one PHN may have identified more than one observation regarding the change in home safety practice since receiving the CSP. The results of this study show which observations the PHNs consistently reported. The most common observation from the PHNs was that they witnessed a change in their relationships with their clients. From the 28 observations made by the 12

nurses, 12 observations (43%) were related to relationship building with their clients. Therefore, by receiving a product, the nurses had been able to significantly improve their relationships with their clients, thus providing open communication lines between the nurses and clients. This was seen to have had a positive effect on improving child home safety. Some observations from nurses included:

- *“Giving a safety product established a positive relationship between the PHN and the client and helped further visits.”*
- *“Building relationships with clients is important and often difficult to establish, it is important so that they do not fear a home visitor as a Family and Child Services (FACS) rep*

The second most common observation from the PHN was an increase in safety awareness/knowledge since their clients received a CSP. The results from the increased awareness indicated that appropriate changes in home safety practice were made in the client’s homes. From the 28 observations made by the 12 nurses, 9 observations (32%) were related to improved awareness and knowledge regarding home safety. Some of the nurse’s comments included:

- *“Giving these products provides a time to teach safety to the client and they are willing to learn.”*
- *“Clients are more aware of hazards in the home now they have a product they are much more cautious.”*
- *“It becomes a teachable moment.”*
- *“Our clients have made changes in rooms since receiving these products, for example cleaning up clutter and mess and removing other hazards from their home.”*

Question 3

The purpose of question 3 was to identify which CSP had the most dramatic impact on child home safety. There were 12 responses from the 12 nurses and therefore these results are mutually exclusive.

The product that had the most significant impact on child home safety based on to the responses from the PHNs was the crib and mattress set. 100% of the respondent’s believed cribs had the most impact on child home safety. However, the results were further amplified: 50% of the nurses believed that cribs were solely the most important product to improving child home safety, while an additional 50% believed that cribs and high chairs had an equally significant impact on child home safety. The consensus was that the reason cribs had the most significant impact was due to their high cost and high demand. The nurses also felt that having a safe and new crib/mattress for their clients could potentially prevent injuries such as falls and suffocations. Comments included:

- *“Many clients are using cribs that still have the S hooks, as well as rails that no longer lock in place.”*

- *“Babies are sleeping in laundry baskets and dresser drawers or in cribs where the rails do not stay up and are old.”*

As mentioned, 50% of the nurses felt that high chairs had a dramatic impact on child home safety (in addition to cribs). The reason for the impact was that highchairs promoted posture, growth/development needs and family interaction during meals. Comments included:

- *“Having a highchair now has prevented the child from being fed while running around and choking as well as decreased the risk of the child falling from the top of the table where they used to be fed.”*
- *“There has been a change in growth and developmental patterns with my families and their children, they used to be slouched down and had poor posture.”*
- *“The child was eating on laps of their parent and in highchairs with no straps and slipping down.”*
- *“Providing highchairs does not only provide safety but helps bring the family together to eat socially and creates family interaction rather than the child eating in a play pen.”*
- *“Highchairs help promote healthier behaviour for the child, prevent choking and keep them secure is so important.”*

While these two products had the most dramatic impact on improving home child safety, all the nurses concluded that this program has helped those who needed it the most; particularly the clients in financial need who could not afford the products due to their costs. The consensus is that these products may have prevented injuries in the home that either have occurred or may have occurred if these products were not being distributed in the community.

See Appendix C- Focus Group Results

2) Quantitative method

A convenience sample of participants was drawn from all areas of Niagara. The participants had to be active clients on the HBHC program visiting caseload and had received a CSP. Implied consent was obtained by participants who filled out and returned surveys in the postage paid envelopes. The voluntary five-question survey was distributed by the HBHC nurses to the clients they visited between November 14, 2004 and January 14, 2005. The deadline date for returned surveys was January 31, 2005.

See Appendix D- Client Survey

Data Analysis of Survey

There were a total of 29 surveys returned. Data was entered into SPSS and descriptive analysis was completed and numbers and frequencies were documented.

Results from Client Survey

Q1: What safety product(s) have you received? Please check all that apply

The chart below illustrates the CSP the client received during the evaluation phase and what product they were referring to when answering questions two through four on the survey.

Type of Product	Percent %
Crib/Mattress	35
High Chair	41
Safety Gate	28
Kitchen Booster	14

Q2: Did you read the fact sheet that was provided with the product?

The responses indicated that (83%) of the clients read the fact sheet that was provided with the product. The majority of clients (17 out of 18) stated they learned safety information from reading the fact sheets.

“Explain what you learned from the fact sheet”. Comments included:

- *“Not to use bumper pads, comforter in cribs.”*
- *“How to use the gate properly, where it needs to go.”*
- *“Use safety straps in the highchair.”*
- *“Not to leave my child unattended in his highchair.”*
- *“I learned not to use a pressure gate at the top of my stairs.”*
- *“Warnings about crib and how to keep my child safer in her crib.”*

Q3: Did you know how to install the safety product and use it safely?

The responses indicated that (94%) of the clients felt that they installed and were using their CSP safely in their home.

Q4: Do you feel having the safety product in your home will reduce falls for your child?

The responses indicated that (90%) of the clients felt that having the CSP in their home would help reduce falls for their child and 25 respondents provided comments on their reasoning. Comments included:

- *(Crib) “Because now I won’t leave him on sofa or bed when he starts rolling it will be safer.”*

- *(Kitchen Booster Seat) “Because I know she’s secure now, it has straps and buckles her in.”*
- *(Gate) “Having a gate will prevent him from falling down the stairs.”*
- *(Crib) “The crib rails will stay up.”*
- *(Highchair) “The highchair I had was old and unsafe.”*
- *(Highchair) “The baby won’t be sitting in our laps anymore while we try to feed her.”*
- *(Crib) “Because my child did fall out of there old crib because it was used and the rails did not lock.”*
- *(Kitchen Booster) “He won’t be falling off chairs.”*
- *(Highchair) “I feel more confident when she is in it.”*
- *(Gate) “Keeps my child out of the kitchen away from the stove.”*

Q5: Has receiving a safety product made a difference in your children’s safety?

The responses indicated that (90%) of the clients felt that having a CSP made a difference to their child’s safety and 29 respondents provided comments on why they felt this way. Comments included:

- *(Kitchen booster) “I know she’s secure she loves to sit in it, and eats more being in the seat and it gives me peace of mind at dinner time.”*
- *(Highchair) “Now he doesn’t have to eat out of his car seat.”*
- *(Crib) “It will stop my child from falling out of a crib again, and it helped me because I could not afford a new one.”*
- *(Crib) “Now he has a place to sleep.”*
- *(Highchair) “I know she is going to be safe now, before I was putting her on my lap to feed her.”*
- *(Gate) “Now I do not need to worry about her falling down or trying to get up the stairs in my house.”*

See Appendix E- Survey results

Conclusion

This survey is not representative and as such we can’t make generalizations; however based on feedback from parents and NRPHD staff we know that this program has made a difference to those who have participated. The comments show that the parents acknowledge that, without receiving a CSP, there was a very strong likelihood that their children would have been injured in the home. Not only has access to a CSP made a difference, but the level of the child safety knowledge has also increased. The impact of this program affects not only the current child, but future children as well within participating families.

The comments from the PHNs during the focus group session revealed a variety of factors that impacted their client’s life due to the CSP initiative:

- promotes overall child safety in the home
- alleviates the financial burden of purchasing these products

- prevents home injuries
- increases awareness of home safety practices
- helps promote child's growth/development
- encourages family social interaction
- fosters relationship building with their clients

Recommendations

1) Dissemination of findings:

The findings from this evaluation will be disseminated to other relevant stakeholders. The results will be presented in a Public Health Services Committee (PHSC) report and the findings will also be shared with the HBHC staff, Central West ECD group and other relevant community partners. In the future, possible investigation around furthering this evaluation with a random sample could be implemented.

2) Sustainability:

Although, the CSP initiative (supported by the ECD funding) is slated to end in 2006, it is highly recommended that provincial funding be maintained beyond that point in time.

3) Ongoing Improvement of CSP Processes:

Based on the focus groups with the PHNs, it was recommended that the safety fact sheets needed revisions due to a slightly high literacy rate and content. It was also recommended that the fact sheets be translated into French, due the Francophone population in Niagara. As of March 20, 2005 both of these recommendations have been initiated.

The HBHC PHNs and the project lead for the CSP program meet regularly to re-evaluate the CSP processes and continually strategize on methods of improving this initiative to reach optimal benefits for all parties.

References

Niagara Region Public Health Department (NRPHD) Provincial Health Planning Database, (2004)

Safe Kids Canada (2004) retrieved from www.safekidscanada.ca retrieved on february 8 2005.

SMARTRISK (1999) Economic burden of unintentional injuries in Ontario

Appendix A- Income Status in Niagara

NIAGARA KID'S REPORT CARD, 2003

Children	Niagara	Ontario
No. of children 0-19	101,645 (24.7%)	3,002,170 (26%)
# of preschoolers (0-4)(% of total)	21,230 (5.2%)	671,250 (5.9%)
# of children (youth 15-24)	50,375 (12.3%)	1,487,840 (13.0%)
Youth in school full-time (15-24 years)	29,190 (58.3%)	883,020 (59.7%)
Number of children < 7 on social assistance (July 2003)	2,347 (13.3%)	
Number of children <7 receiving subsidized care in licensed centres (June 2003)	2,016 (6.4%)	
# of children in care of Family & Children's Services (June 2003)	682	
Total Hospital Separations (1-9 years)	4.90/1,000	3.34/1,000
Hospital Separations from accidental falls (1-9 years)	2.55/1,000	1.42/1,000

September, 2003



NIAGARA KID'S REPORT CARD, 2003

Families	Niagara	Ontario
Total Population	410,575	11,410,054
Median Family Income	\$56,787	\$61,024
Families with income <20,000/year	10,165 (8.7%)	302,270 (9.5%)
Incidence of Low Income	12.7%	14.4%
Government transfer payments	13.2%	9.8%
Percentage of lone parent families of all census families	15.2%	15.2%
Single-parent families (%female head)	17,825 (82.0%)	486,104 (82.5%)
Income of female-led single households	\$30,093	\$31,776
Income of male-led single households	\$46,704	\$44,566

September, 2003

Data sources include:

- 2001 Census
- Regional Niagara Social Services Department
- Regional Niagara Public Health Department
- Family and Children's Services
- 2001 hospitalization database



Appendix B- Focus Group Questions

Statement of Purpose and Confidentiality

Thank you for agreeing to participate in this focus group and provide feedback on the Children's Safety Product Program (CSP). It is important that we collect this data for evaluation purposes, program improvement and to meet the ECD Ministry requirements.

In particular I would like to ask for your feedback in two areas:

- 1) The impact the CSP has made on your clients.
- 2) Potential reduction of injuries in the home.

Your comments are completely confidential. Your name will not be associated with any comments you make during this discussion. This is an opportunity to share your thoughts about the CSP program and I encourage you to speak about your experiences and please be honest with your answers as there is no right or wrong response.

The format of our discussion is informal. I the evaluator will be the facilitator and there are two people recording your responses and our discussion. We will be using flip charts and a computer to capture your answers. We want everyone to have an opportunity to speak and share their thoughts, so as a facilitator I will sometimes call upon you to speak. Please understand that the questions we are asking will be over the course of 1 ½ hours to cover a large topic and want everyone to have opportunities to comment. Are there any questions or concerns before we get started?

Focus Group Questions for HB/HC Nurses and FHV

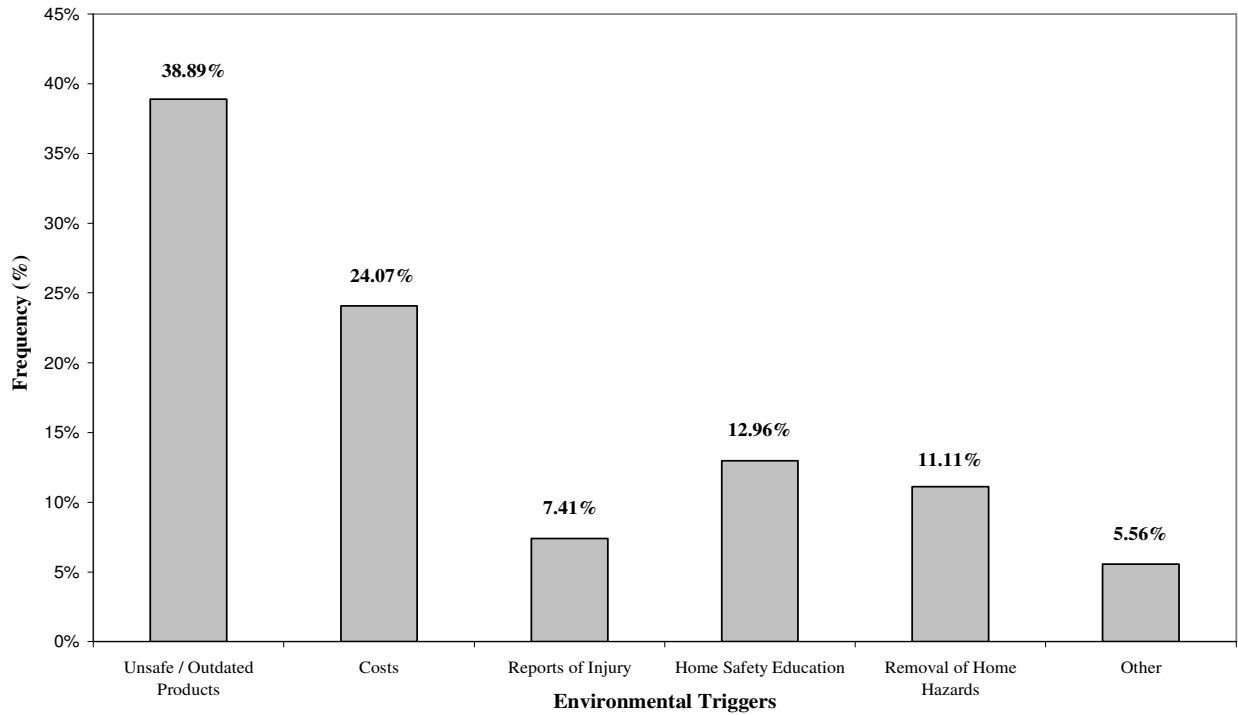
- 1) We know that in order for a family to receive a CSP that there has to be a financial need. We also know that other health units decided to distribute safety kits and we decided to use actual safety products. Tell me a little more about any other environmental triggers that led you to recommend a product for you clients.....
- 2) Since the family has received a CSP have you observed any changes in home safety practices? Tell me about thiswhat is some examples..?
- 3) Has one product had more of an impact on the families and safety than the others? Tell me more about this?

Appendix C- Focus Group Results & Graph, Charts

Q1 What environmental triggers led you to recommend a product to your client?

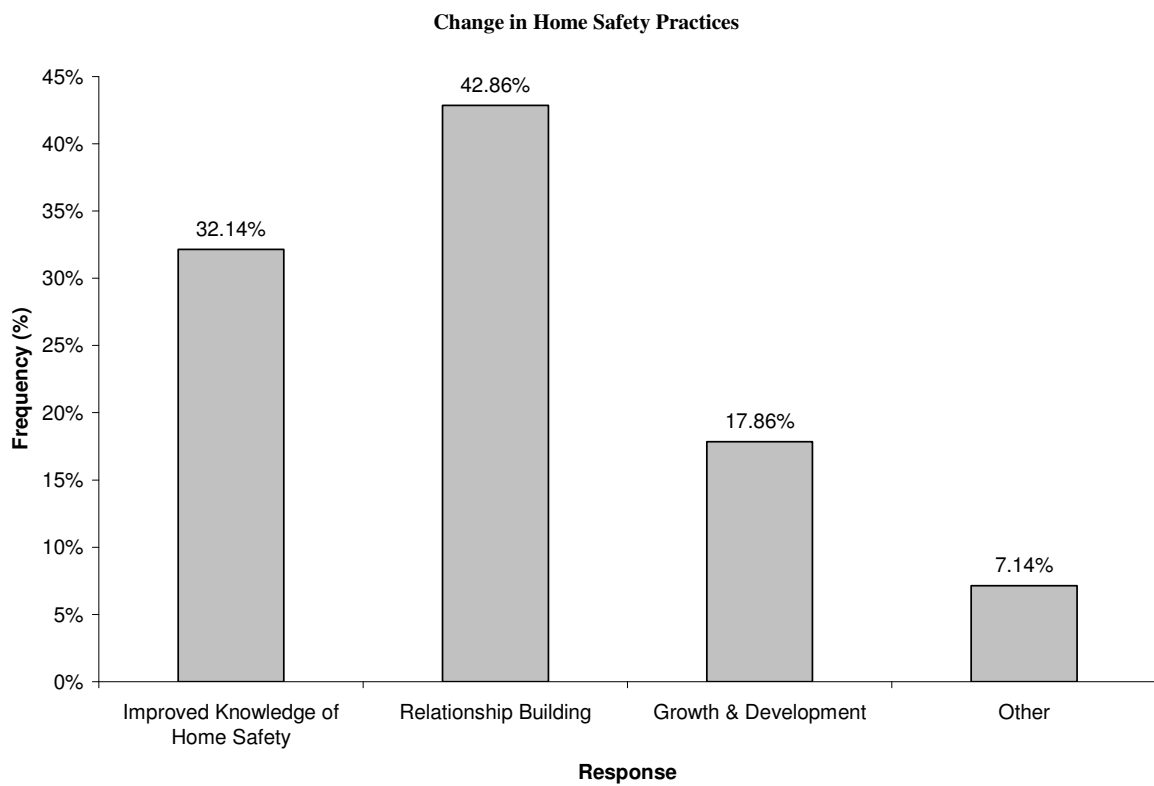
Responses	Frequency
Unsafe/Outdated Products	21
Costs	13
Reports of Injury	4
Home Safety Education	7
Removal of Home Hazards	6
Other	3
Total	54

Q1: Environmental Triggers



Q2 Since the family has received a CSP have you observed any changes in home safety practices? Explain....

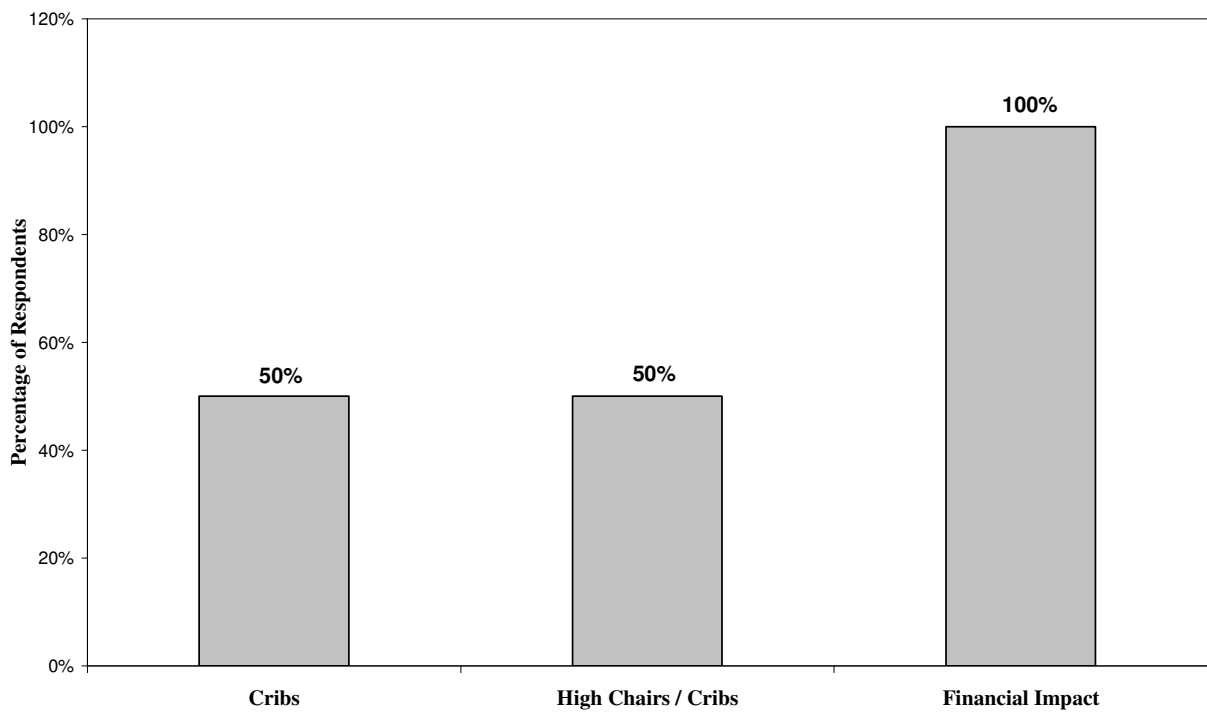
Responses	Frequency
Improved Knowledge of Home Safety	9
Relationship Building	12
Growth & Development	5
Other	2
Total	28



Q3 Has one safety product had more of an impact on the families and on safety than the other? Explain.....

Product	Frequency	% of Respondents
Cribs	6	50%
High Chairs/Cribs	6	50%
Financial Impact	12	100%
Population	12	

Home Safety Products in Need (%)



Appendix D-Client Survey

Children’s Safety Product Program Evaluation

The following survey is about the Children Safety Product you received from the Regional Niagara Public Health Department. Your participation is important as it will provide valuable feedback for the Children Safety Product Program and will be used for decisions about future programming. Your feedback, along with others will be summarized together. All individual input will remain confidential. Please answer all the questions honestly and accurately as you can. Thank you for participating.

1. What safety product(s) have you received? Please check all that apply

- Crib/Mattress
- Highchair
- Safety Gate
- Kitchen Booster Seat

2. Did you read the fact sheet that was provided with the product?

- No
- Yes **If yes, explain what you learned from the fact sheet?**

3. Did you know how to install the safety product and use it safely?

- No
- Yes

4. Do you feel having the safety product in your home will reduce falls for your child?

- No
- Yes **If yes, explain why** _____

5. Has receiving a safety product made a difference in your children’s safety?

- No
- Yes

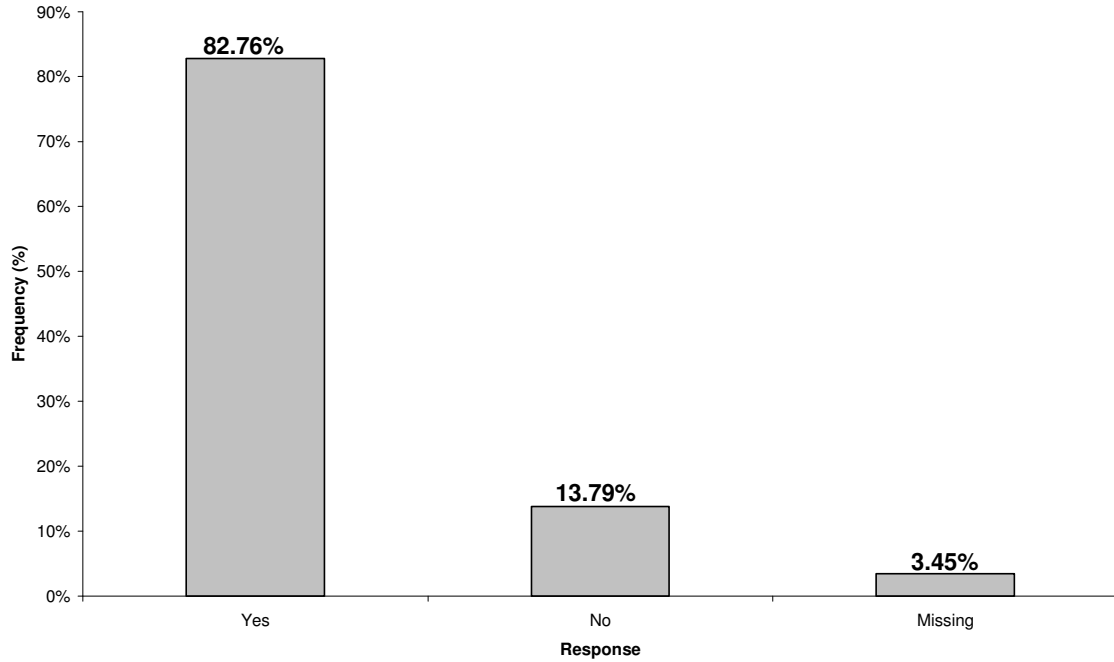
If yes,how? _____

Please return questionnaire in the paid postage envelope and mail it to the address identified or have your visiting nurse or family home visitor return it in the envelope. Once again, thank you for your feedback.

Appendix E-Survey Results

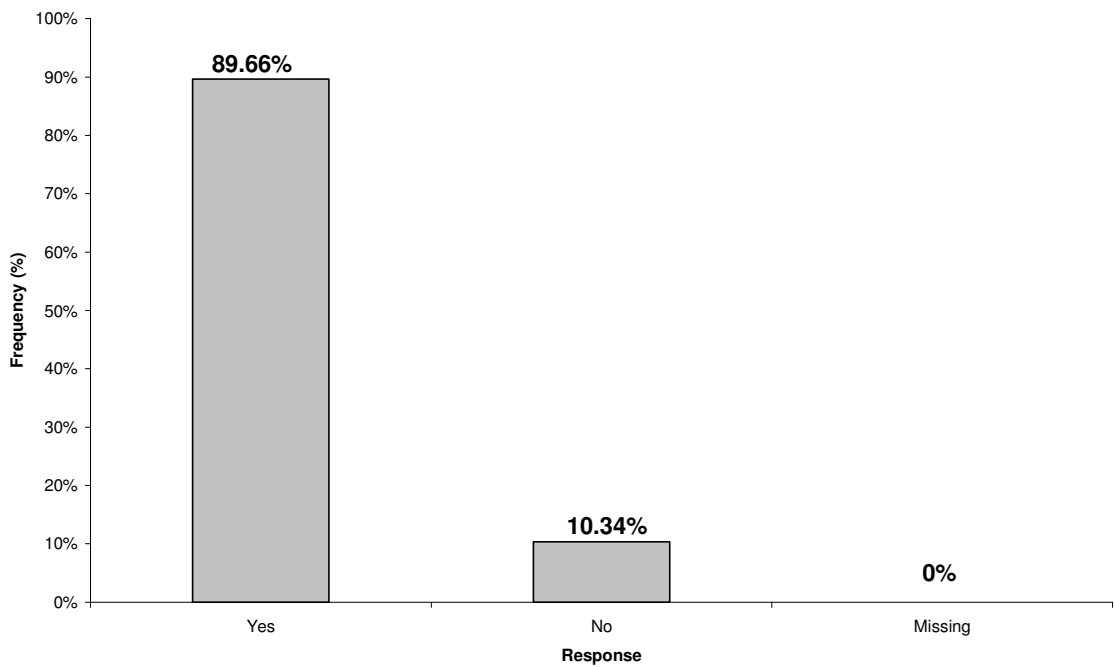
Q2 Did you read the fact sheet provided with the product?

Read Fact Sheet

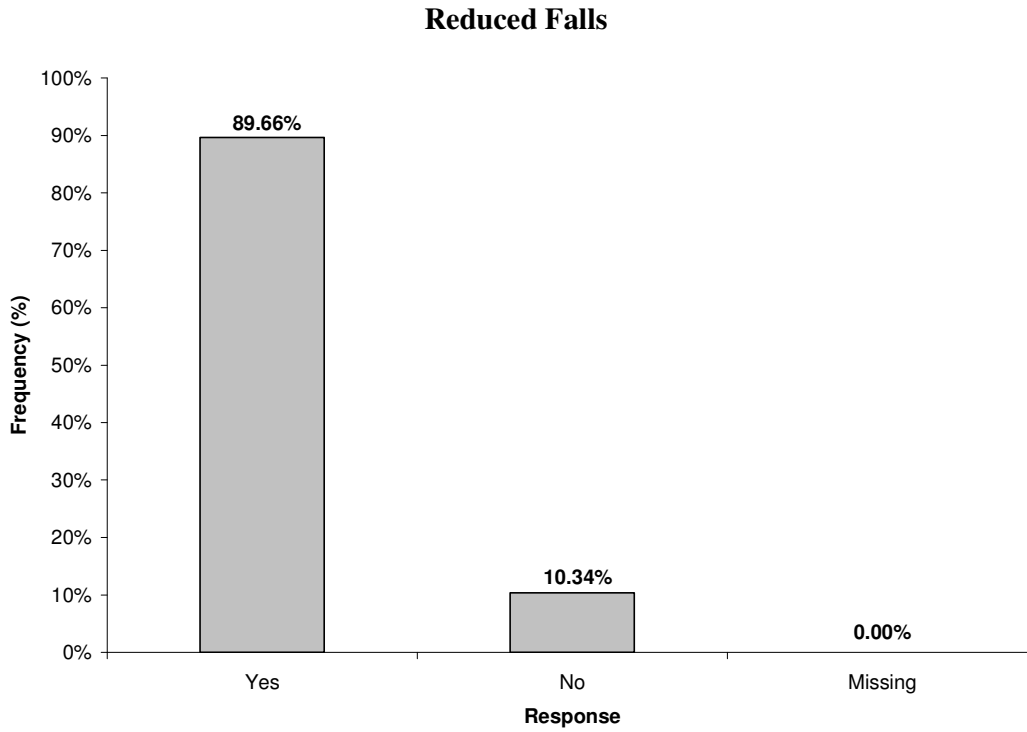


Q3 Did you know how to install the safety product and use it safely?

Install Use Safely



Q4 Do you feel having the safety product in your home will reduce falls for you client?



Q5 Has receiving a safety product made a difference in your children’s safety?

