

Program example - Falls



Note: We have created program examples for a number of injury issues that affect children 0-6. These examples are based on best practice and are either activities that groups have undertaken somewhere in the country, or based on programs that groups could undertake. Should you decide to work on this issue in your community, share your experience through our new child injury prevention listserv. You can subscribe by sending an email to: cipg-subscribe@lists.parachutecanada.org.

Introduction:

Why are falls important? Five children age 0-4 and less than 5 age 5-9 died from falls in Canada in 2009. (When the number of deaths is under 5, Statistics Canada cannot report the actual number, to protect privacy.) Two thousand, five hundred and sixteen (2516) children age 0-4 and two thousand four hundred and two (2402) children age 5-9 were admitted to hospital as a result of a fall (2010/11). It is by far the leading cause for hospital admissions from injury for those 0-9 – more than all other injuries combined. As stated in Lesson 1, Introduction to Child Injury Prevention, these admissions are just the tip of the iceberg as most of these children are only seen in the emergency room or at a clinic, and are not admitted to hospital.

Falls are preventable.

Story:

A young family had just recently moved into a larger rental unit – one that had the bedrooms upstairs. All the family was upstairs and the father hastily put up a spring-loaded gate at the top of the stairs. As they were unpacking a bedroom, the 9 month old crawled away to explore, pushed on the gate and fell down the stairs. His mouth was bleeding and it looked like he had put a tooth through his lip. He seemed OK otherwise, but he was crying hysterically. The mother took the child to the nearest hospital to make sure he was OK, while the father looked after the rest of the children.

Problem statement:

To begin a plan to address this injury, you need a short statement of the problem. For this story, it could be: In our region, young children are being injured from falls at home.

Next, you need a goal:

Goal: to reduce the incidence of in-home falls to children in our region.

Next, you need to start to identify the key people who can help address this situation in your community.

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Potential partners: injury prevention organization, Public Health, Red Cross, caregivers¹ and other community members.

You will want to discuss with the caregivers in your programs, whether they see this as an issue and what their thoughts are in ways to prevent the injury from happening. They need to “buy into” the idea that:

- Their children could be seriously injured from a fall.
- They can do something about preventing falls from happening.

Often caregivers believe that an injury won't happen to their child and they just need to tell a child not to do something and he will listen. They also don't realize how serious these injuries can be when they do happen. In fact we know that there are lots of things that influence whether that injury happens, and some of those things are in a caregiver's control and some are not. A man named Haddon, from the United States, developed a process that illustrates all the factors that influence whether an injury will happen and how severe the impact of that injury could be. The approach captures all these ideas in the Haddon's Matrix. It is helpful for program planners to complete a Haddon's Matrix to make sure they have thought of all the possible ways an injury could have been prevented, before they choose the approach they are going to take in their own setting.

The following table shows the risk and protective factors before, during and after a fall at home – note the table below is a more complete example than what was described in Lesson 5 of the Introduction to Child Injury Prevention course, but follows the approach of Lesson 6, Program Planning and Evaluation. It shows all the potential areas that you could address.

¹ We are using the term caregiver to include parents, grandparents, foster parents and anyone else responsible for the care of a child.

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Haddon's Matrix for Falls

	Person (Host) <i>Nine month old child</i>	Agent & Carrier <i>Mechanical energy stairs</i>	Environment: Physical	Environment: Social
Pre-Event <i>Will the fall occur?</i>	Age and mobility of the child Active, fast moving but lacks coordination and strength, curious, impulsive, unpredictable, Does not understand the dangers	Are there hazards in the home that could cause a fall – i.e. unprotected stairs, improperly mounted safety gates? (for other falls mechanisms: access to bureaus, bookcases or other unstable items that could be climbed, access to second floor [or higher] windows)	Are safety gates securely in place? Does the child have access to stairs or other climbing hazards (i.e. bookcases, bureaus), windows that can fully open? Are bureaus/bookcases/TVs secured to the wall? Are there guards on the upper story windows?	What are caregiver's attitudes toward safety and supervision? What is caregiver's awareness of the potential for a fall and how to prevent it? What is caregiver's access and commitment to using safety gates and other safety devices? What is caregiver's understanding of child's ability to understand danger? What is caregiver's understanding of child's developmental stage? Are there public health programs on home safety and falls prevention? Is there funding for stair gates and window guards? Building codes (stair design, hand rails, spacing of openings in barriers/guard rails)
Event <i>Will injury occur as a result of the fall?</i>	Age Health of child Physical size Stage of development Body parts striking the surface (head, face, feet, arms) Child's clothing	How far did the child fall? What type of surface did he land on?	Are the stairs carpeted? What could he hit on the way down (i.e. uncarpeted edge of stairs) or what could hit him? (i.e. TV) Use of baby walker or wheeled device	Proximity to the child. Stair design (shorter strings, lower overall length, landings) Home safety guidelines for fall surfacing, stair carpet etc.)
Post-Event <i>What will the outcome be?</i>	Age Health of child Physical size		Proximity of medical care EMS response time Access to telephone Access to acute care Medical staff knowledge of how to assess potential concussion or brain injury	Knowledge caregiver has on what to do after the fall has happened. Caregiver's ability to follow through on first aid and treatment instructions – short and long term.

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Once you have looked at all the risk and protective factors that could be involved in the injury event, choose which factors you have the capacity to influence and decide what changes you want to make with your program. Identify what best or promising practices are known to work with this injury situation and incorporate those into your approach.

Risk and Protective factors that you have the potential to change: physical and social environment – caregivers’ knowledge about how to prevent falls; caregiver’s access to equipment to minimize the risk for falls.

Best practice: The Child Safety Good Practice Guide has identified that stair gates at the top of stairs are effective and using window guards/safety mechanisms can prevent falls out high windows. Educational programs that promote the use of safety equipment, and easy access to that equipment, reduces the risk of falls. <http://www.parachutecanada.org/downloads/research/reports/ChildSafetyGoodPracticeGuide-CanadianEdition.pdf>.

Objectives:

The changes you want to make are then written as objectives, following this formula:

Increase or decrease ...	By what amount	In what timeframe	With whom	What
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Objectives:

- 1) To increase by 50% over the next six months, the knowledge of caregivers in our parenting program, regarding how to prevent injuries from in-home falls.
- 2) To increase by 50% over the next year, the number of families in our programs that use permanently mounted safety gates at the top of stairs.

Once you have decided your objectives, then you need, with your committee, to decide what activities you will undertake in order for your changes to happen. You also need to decide how you will know if the change(s) happened (success indicators).

Here is a sample story of what a group could decide to do:

During a parenting session, a caregiver shared the story of her recent move and immediate trip to the Emergency department when her 9 month old pushed over the safety gate and fell down the stairs. This started a discussion around spring-loaded versus permanently mounted gates. Several caregivers mentioned that the cost of permanently mounted gates was too high for their budgets and they used spring-loaded ones, if any. The staff member asked the group if they wanted to learn more about how to prevent falls. She also promised to look into the cost of permanently mounted gates and whether funding was available to purchase some gates for families. She approached her regional Safe Communities group through their falls prevention working group. Together they worked on an application to United Way to fund a pilot program to supply a number of permanently mounted gates to families that needed them. They obtained funding and were able to set up a system to give away gates to families

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who came to the Centre. Each family was given information on falls prevention as well as information on how to install the gate. Families were so pleased with the gates that additional funding from United Way was obtained and more gates have been distributed. Each family fills out an evaluation of their experience. Falls prevention was also integrated into their parenting program as well as into informal caregiver gatherings.

The E's that they decided to address were:

Education – assist caregivers in gaining the knowledge and enabling the behaviour change needed to reduce risk of in-home falls.

Environment/Engineering – enable use of permanently mounted gates at the top of stairs.

Your objectives and activities can then be laid out in a project logic model format, or whatever template you currently use for program planning.

Activities:

Falls Prevention Project Logic Model:

Goal	Objectives	Activities	Outputs	Short Term Outcome	Intermediate Outcome	Long Term Outcome
To reduce the incidence of in-home falls to children in our region	Increase by 50% in the next 12 months, the knowledge of caregivers in our programs regarding how to prevent injuries from in-home falls.	Create committee Educate caregivers using resources from Parachute Create interactive displays (safety gates, window guards/locks)	Committee is meeting and providing direction Number of caregivers educated	Increase in knowledge about how to prevent falls	Caregivers report using safety gates and window guards	Reduction in the number of injuries from in-home falls
	To increase by 50% over the next year, the number of families in our programs that use permanently mounted safety gates at the top of stairs.	Find sponsor for safety gates Give safety gates, with instructions on installation	Sponsor found Number of gates distributed	Some families are using permanently mounted gates at the top of stairs	More families are using permanently mounted gates at the top of stairs	Reduction in the number of injuries from in-home falls.

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Here are their activities, written in an “action plan” format, with more detail, that could be used in a funding proposal. In this approach, the group has indicated their success indicators – the things they will measure to show their results.

Falls Prevention Project Action Plan:

Actions/ Activities What we will do and how will we do it	Target Group Who are we trying to influence	Responsibilities and Timeline Who will do it and when will it be completed	Resources What will we need to do it	Success Indicators How will we know if we have done it
Identify the key people to be on the committee. Create committee to oversee project (all objectives)	Internal and external partners	Manager Week 1	Time	A committee is in place including Centre staff, And key community people
Find funding to pay for safety gates	Local businesses and funders	Staff Month 1	Staff Time,	Funding secured
Prevention images and messages downloaded and delivered in parenting program (obj 1) Create visual displays and interactive activities demonstrating how to use/install safety gates, window guards etc.	Caregivers Caregivers	Staff Month1-6 Staff Month 1-6	Time, print copies of images Time, cost of sample gates, window guards	Number of caregivers attending, increase in knowledge measured pre and post attending Self reports regarding changes in behaviour.
Process developed for storage and distribution of gates	Caregivers	Month 2-12	Safety gates	Number of gates given out If possible: number of gates installed.

Evaluation:

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Finally, you need to think about how you are evaluating what you are doing. This is very important because too often you know something is working (or not working) but haven't built in a way to measure the success (or pinpoint the problem). If we don't have concrete evaluations of programs, it is harder to share your learning with colleagues. There are different types of evaluations and the list below shows how you use each of them in your planning process.

Evaluation Plan

Needs Assessment: *establishing a need*

Q: Is there a need for falls prevention? Yes, every year children are needlessly injured from falls. Falls cause more injuries to this age group than all other injuries combined.

Developmental evaluation: *identifying best practices*

Q: Are there programs already in existence for this target audience that increase the knowledge of caregivers about falls prevention? Yes – the use of permanently mounted gates at the top of stairs and the use of window guards on windows above the first floor reduce the risk of falls.

Formative evaluation: *testing program plans, messages, materials, modifications, strengths or weaknesses before they are put into effect.*

Q: Do caregivers understand how quickly a child can fall and what they can do to prevent this from happening? There are resources/messages available through Parachute and other organizations that help caregivers understand what to do to prevent falls.

Process evaluation: *tests whether the program's procedures for reaching the target are working as planned.*

Q: Are the caregivers still attending the program? – tracking attendance. Caregivers are participating in the discussion/problems solving around barriers to reducing the chance of their child falling from a height, and changing their behavior around ensuring their child's environment is safe for each developmental stage, and they are close by.

Impact evaluation: *assess the program's progress towards its goal i.e. measuring changes in target audience's knowledge, attitudes and beliefs that may lead to injury-prevention behaviour.*

Q: Do the caregivers retain the knowledge? The pre/post tests will show any change.

Outcome evaluation: *measures changes in preventive behaviours and injury-related morbidity and death.*

Q: Will this program ultimately reduce falls injuries in this population? That would be the intent but the program would have to be on a large scale in order to be confident that any reduction in falls injuries could be attributed to your program.

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Q: Do the caregivers self-report changes in their behaviour? Is there any way to verify these changes? Self-reports alone are unreliable as caregivers may just tell you what they think you want to hear (and what they would like to be true). If home visitors or public health nurses visit the home, they may be able to observe these changes.

Collecting the information:

Since you have already thought about how you would measure success through your success indicators, you now can design a plan to make sure the information is collected in a way that works for your program. For instance, track numbers of caregivers attending sessions, and number of gates given out. Conduct a simple pre-test to find out caregivers' current knowledge and behaviour, conduct a post after the program is finished. Sample pre and post questionnaires are downloadable from www.parachutecanada.org/child-injury-prevention. Staff delivering the program will do the tracking and conduct the pre/post surveys. If in-home visits for follow-up are possible, have these visitors see if the gate is installed.

Share the results of your evaluation with others working with caregivers. Even if you find that your program did not make any change, this is good information to know and you can work with your committee to figure out why the program did not work, and make changes to future programs.

Evaluation Plan:

Objective	Activities	Outputs	Measurement Tool	Outcomes	Success Indicators/Results
To increase by 50% over the next six months, the knowledge of caregivers in your parenting program, regarding how to prevent in-home fall injuries.	Identify the people to be on the committee and	Committee formed and operational	Notes from meetings	Committee has undertaken all activities of the project	Program has been delivered to caregivers
	Create committee to oversee project				
	Prevention images and messages downloaded and delivered in parenting program	Falls images printed and topic integrated into the parenting program schedule	Pre and post knowledge quiz	Caregivers more knowledgeable about falls and what to do to prevent these injuries.	50% increase in the knowledge of caregivers regarding how to prevent in-home falls
	Displays and interactive activities created and				

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	conducted.				
To increase by 50% over the next year, the number of families in your programs that have installed permanently mounted safety gates in their homes.	Gates purchased and families made aware of their availability.	Gates distributed	Number of gates distributed. Number of self/reports or observations of installation.	Caregivers consistently using safety gate at top of stairs.	50% increase in the number of families who indicate they are using permanently mounted safety gates at the top of stairs.

Other resources:

- Child safety Link: <http://professional.childsafetylink.ca/falls-prevention.html>
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- Parachute website – child injury prevention resources www.parachutecanada.org/child-injury-prevention
- BC. Ambulance Service falls from windows program: <http://www.bcas.ca/portfolio/window-screens-dont-stop-kids-from-falling-out-2/>
- Information on a range of injury topics can be found in A Million Messages: <http://www.albertahealthservices.ca/7607.asp> Check with your province/territory, to see if they have adapted these messages for your region.
- Preventable.ca is always increasing its range of topics. Check it out at www.preventable.ca .
- At the website <http://www.alterforchildsafety.ca>, you will find information for caregivers on assessing falls risk and the supervision needs of their children.