Program Example - Playground Safety

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. These follow the steps of Lesson 6 in the on-line course, Introduction to Child Injury Prevention. They are designed for people who want to develop programs that can be evaluated, or for people who need samples of Action Plans and Evaluation Plans for funding proposals. Other program examples, without this level of detail, but dealing with the same stories (for the most part), are available on the Parachute site, associated with Lesson 5 of the course.

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 is playground safety important? Less than 5 children 0-9 die from playground injuries each year. However, three hundred and twenty nine (329) children age 0-4 and nine hundred and fifty-four (954) children age 5-9 were admitted to hospital as a result of a playground injury (2010/11). Playground injuries are the second leading cause of injury hospital admissions, after falls in general. As stated in Lesson 1, Introduction to Child Injury Prevention, these admissions are just the tip of the iceberg as many of these children are only seen in an emergency room or at a clinic, and are not admitted to hospital.

Playground injuries are preventable.

Story:

A recently elected municipal counselor from a rural community of 3400 people was playing with his two young children at the neighbourhood playground. A mother came up to him and complained that the playground was old and run down. Her own 5 year old child had broken her arm falling from the rings. She also said that older children found it boring and were now playing in the vacant lot across the road that had some piles of construction materials that had been dumped there. The councilor promised to look into the situation.

Problem Statement: To begin a plan to address this injury, you need a short statement of the problem. For this story, it could be: Our community playground is unsafe.

Next you need a goal:

Goal: to increase safe play space options for 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, municipal councillors, recreation staff, Public Health, hospitals, health board, schools, caregivers¹ and other community members – service clubs.

You need 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 on a playground that is not well maintained.
- They can do something to ensure their children have safe places to play.

Often caregivers believe that an injury won’t happen to their child. 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 playground injury – 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 in Lesson 6, Program Planning and Evaluation. It shows all the potential areas that you could address.

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

Haddon’s Matrix for Playground Safety

<table>
<thead>
<tr>
<th>Person (Host)</th>
<th>Agent &amp; Carrier</th>
<th>Environment: Physical</th>
<th>Environment: Social</th>
</tr>
</thead>
<tbody>
<tr>
<td><em>Five year old child</em></td>
<td><em>Mechanical energy</em>&lt;br&gt; <em>Fall from height (rings) onto hard surface</em></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Pre-Event**<br> *Will the child fall?*
- Age, height and health of child<br>- Physical development and strength of child<br>- Surface type and depth<br>- Surface maintenance<br>- Is the structure appropriate for the age, height and development of the child?<br>- Can the child access equipment that is meant for an older child?<br>- Is the equipment well maintained?<br>- Are there adequate barriers, guard rails in place to prevent falls?<br>- Are safer play alternatives available in the neighbourhood?<br>- What is the caregiver’s understanding of age-appropriate play equipment?<br>- What is the caregiver’s attitude to supervision and to risky play?<br>- Was the playground designed and maintained according to the CSA standard?<br>- Is the CSA standard mandatory for this playground (e.g. by local policy or legislation)?

**Event**<br> *Will injury occur as a result of the fall?*
- Age<br>- Health of child<br>- Physical size<br>- Body part that first contacts the surface (feet, head, arm)<br>- How far was the fall?<br>- Will the surfacing absorb the fall?<br>- Did something reduce the impact of the fall (e.g. contact with stairs, barrier, guard rail during the fall)?<br>- Is anything else in the fall zone that could add to injury (rock, post, fencing)?<br>- Does the playground meet current standards for surfacing and fall prevention (CSA standard)?<br>- Is the CSA standard mandatory for this playground (e.g. by local policy or legislation)?

**Post-Event**<br> *What will the outcome be?*
- Age<br>- Health of child<br>- Physical size<br>- Proximity of medical care<br>- EMS response time<br>- Access to telephone<br>- Access to acute care<br>- Medical staff knowledge<br>- What is the caregiver’s ability to follow through on treatment instructions – short and long term.

Adapted by Parachute from the Canadian Injury Prevention Curriculum for the on-line course, Introduction to Child Injury Prevention found at [www.parachutecanada.org](http://www.parachutecanada.org).
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 – the physical playground and the community's and caregivers' knowledge about what makes a safe, but fun, playground.

**Best practices:** The Child Safety Good Practice Guide has identified that having well maintained surfacing of sand or wood chips or pea gravel to a depth of 23-31 cm, as well as a 1.5 m height limit of play equipment reduces injuries (particularly head injuries). Enforcing these standards, along with an educational program, is also effective in reducing playground injuries. 

**Objectives:**

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

<table>
<thead>
<tr>
<th>Increase or decrease ...</th>
<th>By what amount</th>
<th>In what timeframe</th>
<th>With whom</th>
<th>What</th>
</tr>
</thead>
</table>

**Objectives:**

1) To increase by 50% over the next year, the knowledge of caregivers on how to prevent playground injuries.
2) To increase within the next year, access of children in our community to safe, creative play structures.

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:**

The municipal counselor brought up the concerns around the playground at council and a committee was struck. The committee included municipal counselors, staff, service club representative, local business, and interested caregivers. At the first meeting, one member brought information from the Parachute website on playground safety, including information about the CSA standards for playgrounds. Another person brought information around the latest thinking about playgrounds – how they needed to be creative and challenge children, otherwise children will get bored doing the same thing over and over again.
The committee found out that their playground had not been inspected for years and was only cleaned up once a year. It also had no equipment for younger children. The equipment there was for children 8 and over. No plan was in place for inspection or maintenance. The committee decided to consult with the community as to what should be done. After a number of community meetings and presentations at various service clubs and the Chamber of Commerce, it was decided that a new, creative playground, with sections for different age groups should be built. The committee applied for provincial (both wellness and tourism funding) as well as through the Let Them Be Kids organization (www.ltbk.ca). Local businesses and service clubs were also approached and many caregivers became engaged in the project through many fundraising events. When it came time to build the structures, over one hundred community members participated, including staff from the local CAPC/CPNP. The opening of the playground was a major community event – 400 adults and children attended. The community is proud of what it accomplished and there are children playing on the structures every day – on average 60 per day over the fall. The municipality has cleaned up the vacant lot. The municipal committee has set up a process to have the playground maintained regularly and inspected once a year by a trained playground inspector. They are trying to have one of the municipal staff be certified as a playground inspector. Committee members attended the playground all fall and taught the kids (and parents) how to safely use the more challenging equipment, emphasizing that supervision by parents and caregivers is key. The Family Resource Centre is planning to integrate playground safety into its injury prevention activities using the new Parachute playground safety images and messages that talk about supervision.

Since the opening of the playground last fall, plans are now underway to clean up the near by ballpark and add a splash pad area to the play space. Finally, a new committee has been set up to look at positive change for youth in the area.

Note: Lesson 7 on Influencing Public Policy will give you ideas as to how to gain support and commitment for a project like this.

*The E's* that they decided to address were:

- **Education** – assist caregivers and children in gaining the knowledge and enabling the behaviour change needed to ensure they did not suffer injuries on the new playground. Educate playground operators about the importance of safe design and maintenance, compliance with the CSA standard.
- **Environment/Engineering** – replace the old playground with new play structure and surfacing; use creative playground designs that have lower maximum fall height and lower fall risks.
- **Enforcement** – develop and implement a playground inspection and maintenance plan.
## Program Example - Playground Safety

### Activities:
**Playground Safety Project Logic Model:**

<table>
<thead>
<tr>
<th>Goal</th>
<th>Objectives</th>
<th>Activities</th>
<th>Outputs</th>
<th>Short Term Outcome</th>
<th>Intermediate Outcome</th>
<th>Long Term Outcome</th>
</tr>
</thead>
<tbody>
<tr>
<td>To increase safe play space options for children in our region</td>
<td>Increase by 50% in the next 12 months, the knowledge of caregivers on how to prevent playground injuries</td>
<td>Create committee educates staff educate caregivers using resources from Parachute create interactive displays</td>
<td>Committee is meeting and providing direction number of caregivers educated</td>
<td>Increase in knowledge about how to prevent playground injuries</td>
<td>Caregivers report they are more consistent in their age appropriate supervision at the playground</td>
<td>Reduction in the number of playgrounds</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>To increase within the next year, access of children in our community to safe, creative play structures.</td>
<td></td>
<td></td>
<td></td>
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</tr>
</tbody>
</table>

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 result.

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Program Example - Playground Safety

Playground Safety Action Plan:

<table>
<thead>
<tr>
<th>Actions/ Activities What we will do and how will we do it</th>
<th>Target Group Who are we trying to influence</th>
<th>Responsibilities and Timeline Who will do it and when will it be completed</th>
<th>Resources What will we need to do it</th>
<th>Success Indicators How will we know if we have done it</th>
</tr>
</thead>
<tbody>
<tr>
<td>Identify the key people to be on the committee. Create committee to oversee project (all objectives) Identify a playground inspector that can be part of the committee from the beginning.</td>
<td>Internal and external partners</td>
<td>Manager/counsellor Week 1 - 3</td>
<td>Time</td>
<td>A committee is in place including Centre key community people as identified – particularly a playground inspector.</td>
</tr>
<tr>
<td>Find funding to pay new playground</td>
<td>Local businesses and funders</td>
<td>Staff/committee Month 1 - 4</td>
<td>Staff Time,</td>
<td>Funding secured</td>
</tr>
<tr>
<td>Prevention images and messages downloaded and delivered in parenting program (obj 1) Create visual displays and interactive activities demonstrating the height and surfacing issues for use with caregivers and at public meetings and presentations (obj 1)</td>
<td>Caregivers</td>
<td>Staff Month1-6</td>
<td>Time, print copies of images</td>
<td>Number of caregivers attending, increase in knowledge measured pre and post attending</td>
</tr>
<tr>
<td>Create process for public consultation and presentations to key organizations and</td>
<td>Public – caregivers Potential funders</td>
<td>Staff/committee Month 1-3</td>
<td>Staff time</td>
<td>Process in place and meetings have been held</td>
</tr>
</tbody>
</table>

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<table>
<thead>
<tr>
<th>Implement process (obj 2)</th>
<th>Design new playground and order components (obj 2)</th>
<th>Caregivers, municipality, play equipment suppliers</th>
<th>Staff/committee Month 6-9</th>
<th>Staff time Cost of new equipment</th>
<th>Playground designed and equipment ordered</th>
</tr>
</thead>
<tbody>
<tr>
<td>Site prepared and playground build day organized and completed (obj 2)</td>
<td>The public</td>
<td>Municipal staff Month 9-11</td>
<td>Municipal staff time, committee time</td>
<td>New play structures in place</td>
<td></td>
</tr>
<tr>
<td>Inspection and Maintenance policy developed and implemented (obj 2)</td>
<td>Municipal council</td>
<td>Committee and municipal staff Month 9-12</td>
<td>Municipal staff time, committee time</td>
<td>Policy approved by Council. Policy implemented by Council. Certified inspector is on staff.</td>
<td></td>
</tr>
</tbody>
</table>

**Evaluation:**

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 playground injury prevention? Yes, every year children are injured on playgrounds.

**Developmental evaluation:** **identifying best practices**

Q: Are there programs already in existence for this target audience that increase the knowledge of caregivers and the public on how to prevent playground injuries? Yes – there are a number of programs across Canada that target this issue. See resource list below for some.

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

Q: Do caregivers understand how seriously a child can be injured on a playground? There are resources/messages available through Parachute and other organizations that help caregivers understand what to do to prevent playground injuries.

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**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 ensuring their children have safe places to play. Is the community engaged in the project to replace the playground? The public is attending meetings and participated in the build.

**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/decision-makers 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 playground injuries in this population? That would be the intent and we know that fewer injuries occur on playgrounds that meet CSA standards and are well maintained.

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). Observations at the new playground will demonstrate supervision as well as the behavior of children. The playground inspection policy will generate the number/proportion of playgrounds in the community with appropriate surfacing type and depth and the number/proportion of playgrounds that are inspected by a certified playground inspector and comply with the CSA standard.

**Collecting the information:**

Track numbers of caregivers attending sessions, and number of people attending public meetings. 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](http://www.parachutecanada.org/child-injury-prevention). Staff delivering the program will do the tracking and conduct the pre/post surveys. Ideally, you would like to be able to know how many children used the old playground and what the injuries were, and compare those numbers to the numbers for the new playground. This is not feasible unless you were able to set up a research study well in advance of deciding to replace your playground.

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:**

<table>
<thead>
<tr>
<th>Objective</th>
<th>Activities</th>
<th>Outputs</th>
<th>Measurement Tool</th>
<th>Outcomes</th>
<th>Success</th>
</tr>
</thead>
</table>

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## Program Example - Playground Safety

<table>
<thead>
<tr>
<th>Indicators/Results</th>
<th>To increase by 50% over the next year, the knowledge of caregivers around how to prevent playground injuries.</th>
<th>Identify the people to be on the committee and Create committee to oversee project</th>
<th>Committee formed and operational</th>
<th>Notes from meetings</th>
<th>Committee has undertaken all activities of the project</th>
<th>Program has been delivered to caregivers</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Prevention images and messages downloaded and delivered in parenting program and other venues</td>
<td></td>
<td>Playground images printed and topic integrated into the parenting program schedule</td>
<td>Pre and post knowledge quiz</td>
<td>Caregivers more knowledgeable</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Displays and interactive activities created and conducted.</td>
<td></td>
<td>Public meetings held</td>
<td></td>
<td>Public, businesses and service clubs more knowledgeable</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Presentations to key organizations delivered</td>
<td></td>
<td>50% increase in the knowledge of caregivers regarding what makes a safe creative playground</td>
<td></td>
</tr>
<tr>
<td></td>
<td>To increase within the next year, access of children in our community to safe, creative play structures.</td>
<td>Process for public input Create process for seeking funding</td>
<td>Processes are working Funding opportunities have been identified and applications made</td>
<td>Number of presentations made, number attending</td>
<td>All funds needed to replace the old equipment and surfacing with the new equipment and surfacing were secured</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Create process for designing new</td>
<td></td>
<td>Design has been created</td>
<td>Number of applications made, and number that were successful</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>The design has been accepted by the committee and Council</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

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### Program Example - Playground Safety

<table>
<thead>
<tr>
<th>Playground Safety</th>
<th>Policy has been approved by Council</th>
<th>Policy has been implemented</th>
<th>Staff member has become a certified playground inspector</th>
</tr>
</thead>
<tbody>
<tr>
<td>Create policy and implementation plan for regular inspection and maintenance.</td>
<td>Policy and implementation plan has been created</td>
<td>Playground is being regularly inspected and maintained. Playground meets CSA standards for surfacing and heights.</td>
<td></td>
</tr>
</tbody>
</table>

### Other resources:

- Canadian Playground Safety Institute [http://www.cpsionline.ca](http://www.cpsionline.ca)
- Other tips and resources around playground safety: [http://www.preventfalls.ca/children/information-for-professionals/](http://www.preventfalls.ca/children/information-for-professionals/)
- Playground funding opportunities:  Google “playground funding opportunities in Canada” A number of sites are listed including Let Them Be Kids ([www.ltbk.ca](http://www.ltbk.ca)).
- Preventable.ca is always increasing it range of injury topics. Check them out at [www.preventable.ca](http://www.preventable.ca)

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