

PLAYGROUND SAFETY REPORT

2005

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Introduction

Each year in Canada, more than 28,500 children are treated for playground related injuries (Safe Kids Canada) and 70% of playground injuries are a result of falls (Durham Region Health Department). Between 1997 and 2000, 2518 children in Ontario were hospitalized due to falls from playground equipment (Ministry of Health & Long-term Care Provincial Health Planning Database, May 7, 2002). Many of these injuries are preventable.

A recent article published in the Canadian Medical Association Journal showed the risk of injury to children was reduced after playgrounds were retrofitted by the Toronto District School Board. Dangerous equipment was replaced with safer equipment that met Canadian Standards Association guidelines. The study concluded that removing or replacing unsafe equipment was an effective strategy for preventing playground injuries.

Children are at risk for playground injuries for several reasons: improper supervision, unsafe equipment, unsafe landing surfaces, and children's growth and development. Given the statistics and risk factors, Public Health is currently looking at a multi-pronged approach on preventing playground injuries.

Public Health's mandate is to prevent, eliminate and decrease the effects of health hazards. The playground safety program has been an excellent opportunity within Public Health to allow protection and promotion professionals to work together for the health and safety of our community's children.

Since 2002, financial support has been provided by the Ministry of Health & Long-term Care Early Childhood Development Injury Prevention Project and in-kind contributions of the Health Protection and Health Promotion departments of Public Health. Funding has been used for public awareness, training and policy development.

The objectives of the playground safety program include:

- Ensure playgrounds meet the CAN/CSA-Z614-03 Standard
- Eliminate potential health hazards
- Reduce the number of injuries and fatalities resulting from unsafe and improper use of playground equipment
- Educate owners/operators of playgrounds
- Educate parents/caregivers on the safe use of playground equipment

Health Protection

Policy and Resource Development

In 2005, a Health Protection Health Hazard Logic Model (Appendix A) for playground inspections was developed along with a policy and procedure (Appendix B). In conducting the inspections, the Canadian Standards Association "Standard for Children's Playspaces and Equipment," CAN/CSA-Z614-03 and the Health Protection and Promotion Act were used to identify potential health hazards including:

- entanglement points
- head and neck entrapments
- protrusion points
- inadequacies in protective surfacing
- pinch, shear and crush points
- other hazards that may have an immediate adverse effect on the health of a person

Inspection forms and several fact sheets were also developed. By spring 2005, four area Public Health Inspectors were certified as playground inspectors through the Canadian Parks and Recreation Association, Canadian Playground Safety Institute (CPSI). This certification provided training in safe quality play environments for children by teaching how to make playspaces and equipment safer through compliance with the CSA-Z614-03 standard.

A one-day Public Health Inspector training session was held at the Grey Bruce Health Unit in May 2005. This session was delivered by a Public Health Inspector experienced in playground inspections from the Durham Region Health Department. The session began with a brief overview of the history of the playground inspection program, educational and promotional materials, policies and procedures, and inspection methods of Durham Region Health Department. In the afternoon, the four Grey Bruce Health Unit playground inspectors had the opportunity to get hands on experience by conducting inspections on four local playgrounds.

Daycares are required to have an annual playground inspection as part of the license requirements from the Ministry of Community and Social Services. Due to the lack of local certified playground inspectors, daycare owners were required to pay up to \$800 for an inspection by private companies from London or Guelph. This was very cost prohibitive to smaller operations and the lack of enforcement meant the same health hazards were reported by private inspectors on subsequent inspections. Therefore, in conjunction with the Ministry of Community and Social Services, the Public Health playground inspection program was developed to focus on daycares. Public Health Inspector's inspection and enforcement ensured that all identified health hazards were eliminated in a timely manner. Routine inspections ensure that Public Health Inspector's playground inspection skills are maintained.

2005 Inspection Program

The first phase of the inspection program began with a letter to all daycares in Grey Bruce to inform them of the availability of certified playground inspectors. An inspection and any necessary re-inspections of daycare playgrounds occurred throughout the summer and fall. All other playgrounds were inspected on a complaint basis. These playgrounds include recreational camps, municipal/public parks, schools, condominiums, co-op housing, and indoor playgrounds. The frequency of inspections of the various settings of playgrounds will be reviewed annually.

The second component of the inspection program was the delivery of educational information to daycare staff and the general public. This was accomplished through a newspaper article in the Owen Sound Sun Times entitled *Playground Safety*. This article identified the three key areas of prevention as active supervision, safe equipment and appropriate surfacing. It also offered tips for parents and care givers on what hazards to look for at a playground. In the fall 2005, the Communicable Disease staff updated the Kid's Health Manual, which included a section on playground safety. These manuals were distributed to all daycares in Grey Bruce and are still being distributed to private home daycares, foster homes and Ontario Early Years Centres.

Outputs & Measures for Inspection Program

In 2005, there were 35 inspections and 10 re-inspections of daycares. The top 3 infractions noted from these inspections are as follows:

1. *Identification and Information*

Under Clause 16 of the CAN/CSA-Z614-03 Standard, all play structures shall have a permanently attached manufacturer's identification label with a means of contacting the manufacturer identified. This facilitates communication to the manufacturer with questions of recalls, repairs and age appropriateness. All play structures are required to have a permanently attached label to indicate the age group for which they have been designed. This information is important to ensure children are using play structures that are age appropriate. According to the CHIRPP Database 1996 (Canadian Hospitals Injury Reporting and Prevention Program), most playground injuries in the 2-9 year old group occurred as children do not understand the level of risk associated with play equipment. It is important to separate play structures into two user age groups: 18 months to 5 years and 5 to 12 years. This infraction was noted in 22 out of 35 daycares.

2. *Appropriate Protective Surfacing Material and Depth*

Under Clause 10 of the CAN/CSA-Z614-03 Standard, all play structures with a fall height above the finished grade shall be located on a protective surface. The Standard lists the characteristics of acceptable surfacing materials. The required depth of the surfacing material is dependent on the type of material used. For loose fill surfacing materials, such as sand or pea gravel, a minimum depth of 300

mm (12 inches) is required. According to the CHIRPP Database 1996, 65-70 % of playground injuries were due to falling off of play equipment. Therefore, it is important to provide an adequate protective surface to reduce the number and severity of these injuries. This infraction was noted in 13 out of 35 daycares.

3. *Adequate Distances Around Play Equipment*

Under Clause 14 of the CAN/CSA-Z614-03 Standard, there shall be an obstacle-free surfacing zone around each play structure. The dimensions and configuration of this zone shall be dependent upon the type of play equipment. This is to ensure the safety of the user on the equipment as well as any others on the playground. This infraction was noted in 12 of 35 daycares.

The following table outlines inspection activities and time spent on playgrounds in 2005.

| ACTIVITY | TIME (HOURS) | # OF INSPECTIONS | NOTES |
|--------------------------|---------------------|-------------------------|---|
| Inspections | 114 ½ | 35 | N/A |
| Re- inspections | 16 | 10 | N/A |
| Complaint Investigations | 0 | N/A | May increase in 2006 as the public becomes more aware of playground safety |
| Support Services | 96 ¾ | N/A | Meetings, professional development, resource development, policy and procedures development |
| TOTAL | 227 ¼ | 45 | N/A |

Health Promotion

2005 Injury Prevention Campaign

An awareness campaign was conducted from June to August to educate parents and caregivers about the importance of supervising children in various situations including the playground. The campaign involved billboards that depicted a cartoon of a mother pushing her children on a swing set with the message, *Supervise. Prevent Childhood Injuries*. These billboards moved around Grey Bruce and included locations in Kincardine, Hanover, Walkerton, Springmount, Southampton, Hepworth, and Owen Sound. The total number of impressions (the number of cars that drive by a billboard) made by the billboard campaign was 1,518,000. An ad showing the billboard image was also placed on the channel listing of the local cable station, Channel 6, for the week of August 14-20, 2005. Along with the billboards, movie theatre ads ran in the Port Elgin and Owen Sound cinemas from June to August. The total ticket sales during these months for Owen Sound was 85, 722. Radio ads on playground safety were also played on The Bull and Country 93. The ads began in late July and continued throughout August.

Educational Seminars

A Playground Information Evening was planned for June 2005 for parents and caregivers to discuss the physical structure of playground equipment and the effect of children's development and type of play in preventing injuries. Flyers were distributed to the Ontario Early Years Learning Centres and advertisements were placed in local newspapers and radio. Unfortunately, the evening was cancelled due to lack of registrants. The possibility of conducting another session in 2006 will be reviewed.

Survey of Playgrounds in Grey Bruce

In 2004, surveys were sent to different playground venues including municipalities, daycares, recreational camps, conservation areas, and campgrounds. There were 123 surveys sent out and 53 returned for a total of 124 playgrounds being recorded. The survey asked about signage, policies, inspections, trained staff, and the need for further staff training. The results indicated a need for playgrounds to have signage describing operator contact information and the age for which the play equipment was designed. Out of all of the returned surveys, 37% (46/123) of playgrounds have operator contact signage and 17% (21/123) have appropriate age user signage. Of the ten municipalities who responded, six have policies on in-house playground inspections. Almost all daycares had some sort of policy in place. Both conservation areas had policies, yet only one of the 10 responding campgrounds had a policy. There were only six operators with trained staff and these were mostly municipalities. There was a strong interest in further staff training and access to a roster of certified playground inspectors, especially from daycare operators.

Partners

The playground safety program has been an excellent opportunity for Public Health to work in conjunction with other professional and governmental organizations with the common objective of ensuring safe play spaces for children. Some key partners have included:

- Durham Region Health Department
- Ministry of Health & Long-term Care Early Childhood Development Injury Prevention Project
- Ministry of Community and Social Services
- Ontario Early Years Learning Centres within Grey and Bruce

Future Directions

Future plans for playground injury prevention include the annual inspection of daycare playgrounds, inspections of all other playgrounds on a complaint basis, increased public awareness, and playground owner/operator training.

Several key areas of promotion may include:

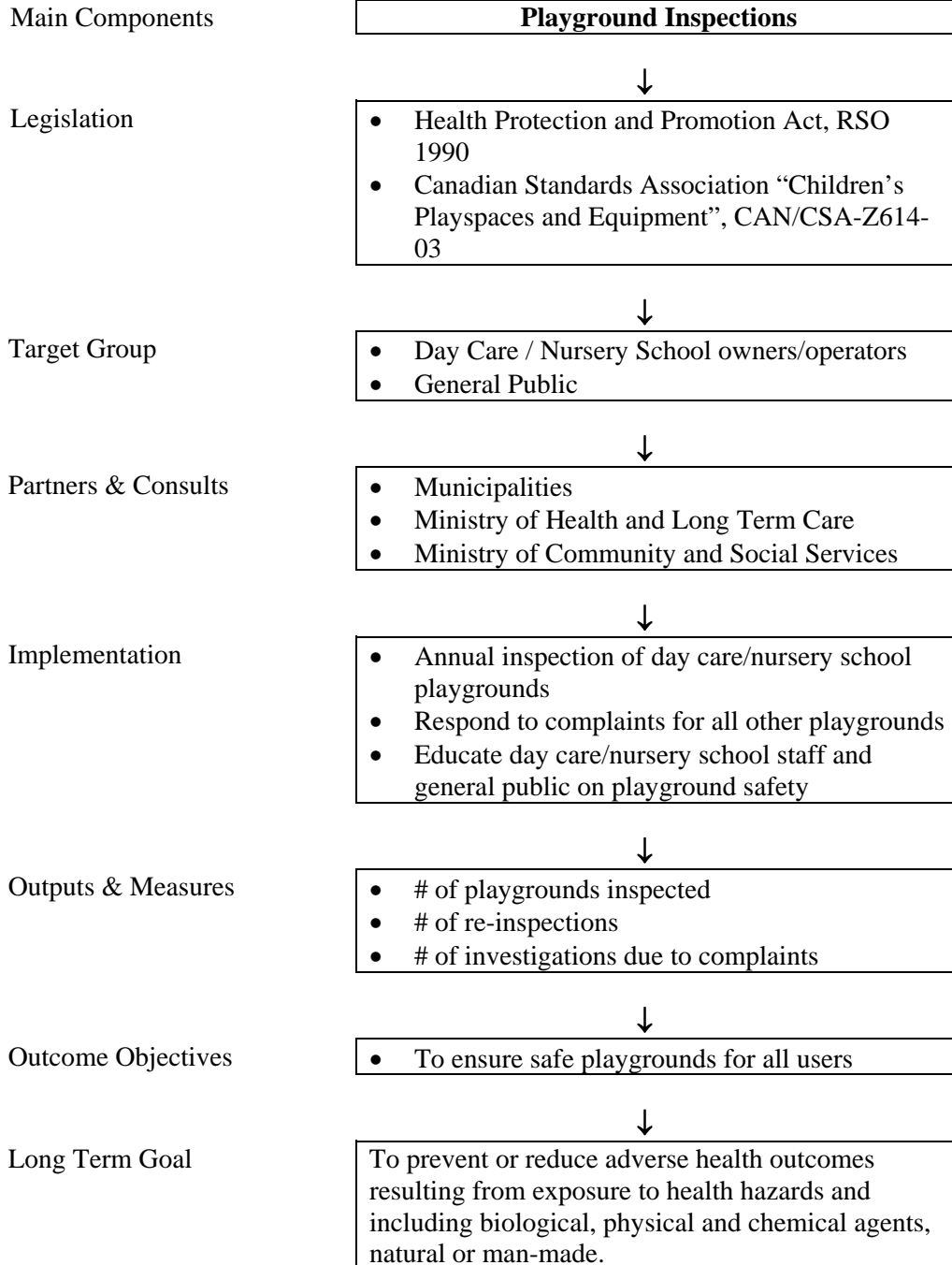
- A media awareness campaign utilizing billboards, radio ads and written information.
- A playground safety section on the Grey Bruce Health Unit website.
- Brochures to help parents and care givers evaluate the safety of playground equipment.
- Leaflets describing safety tips for backyard play structures made available at retail venues that sell backyard play equipment.
- Activity sheets for younger children to be distributed to Ontario Early Years Learning Centres and day camps.
- A training session for playground owners and operators focusing on daily in-house inspections, policy around playgrounds and making their playgrounds safer places to play.

Conclusion

The playground safety program was very successful in 2005. The availability of certified playground inspectors ensured all daycares were inspected at no cost to the operator. The daycare inspections enabled health hazards to be identified and eliminated in a timely manner. Public awareness around playground safety is improving. Safer play structures and increased child supervision should reduce the likelihood of injuries and subsequently reduce health care costs.

Appendix A

HEALTH HAZARD INVESTIGATION – LOGIC MODEL



Appendix B

Playground Safety Policy Grey Bruce Health Unit

| | | | |
|-------------|--|--------------|---------|
| PROGRAM: | Injury Prevention, Playground Safety | NUMBER: | VII-100 |
| POLICY: | Playground Safety Inspections | PAGE: | 1 of 1 |
| REFERENCES: | Health Protection and Promotion Act; Mandatory Health Programs & Services Guidelines, 1997; and CSA "Standard for Children's Playspaces and Equipment" CAN/CSA-Z614-03 | APPROVED BY: | |
| | | DATE: | |

Public Health Inspectors who are certified playground inspectors are to inspect public playgrounds within Grey and Bruce Counties. The Health Unit's mandate is to prevent, eliminate and decrease the effects of health hazards in both counties.

In conducting the inspection, the Canadian Standards Association "Standard for Children's Playspaces and Equipment," CAN/CSA-Z614-03 and the Health Protection and Promotion Act is used to identify items including entanglement points, head and neck entrapments, protrusion points, inadequacies in protective surfacing, pinch, shear and crush and other health hazards that have an immediate adverse effect on the health of the person.

**Playground Safety Procedure
Grey Bruce Health Unit**

| | | | |
|------------|--|--------------|---------|
| PROGRAM: | Injury Prevention, Playground Safety | NUMBER: | VII-101 |
| PROCEDURE: | Playground Safety Inspections | PAGE: | 1 of 3 |
| REFERENCE: | Health Protection and Promotion Act; Mandatory Health Programs and Services Guidelines, 1997; and CSA "Standard for Children's Playspaces and Equipment" CAN/CSA-Z614-03 | APPROVED BY: | |
| | | DATE: | |

1.0 Introduction:

Public Health Inspectors who are certified playground inspectors are to inspect public playgrounds within Grey and Bruce Counties. The Health Unit's mandate is to prevent, eliminate and decrease the effects of health hazards in both counties.

In conducting the inspection, the Canadian Standards Association "Standard for Children's Playspaces and Equipment," CAN/CSA-Z614-03 and the Health Protection and Promotion Act is used to identify items including entanglement points, head and neck entrapments, protrusion points, inadequacies in protective surfacing, pinch, shear and crush and other health hazards that have an immediate adverse effect on the health of the person.

2.0 Frequency:

2.1 In 2005, playground equipment will be inspected as follows:

- | | |
|--------------------------|-----------------|
| • Licensed day nurseries | 1X per year |
| • Recreational camps | Complaint basis |
| • Municipal/Public parks | Complaint basis |
| • Schools | Complaint basis |
| • Condominiums | Complaint basis |
| • Co-op housing | Complaint basis |
| • Indoor playgrounds | Complaint basis |

2.2 Frequency of inspection of the various settings of playgrounds will be reviewed annually.

2.3 Inspections will be performed in the summer.

2.4 Operator logbooks may be audited in the winter.

3.0 Purpose of Inspection:

3.1 The purpose will be to:

- Ensure the playgrounds meet the CAN/CSA-Z614-03 Standard
- Eliminate potential health hazards

- Reduce the number of injuries and fatalities resulting from improper use and inadequate playground equipment
- educate owners/operators

4.0 Prior to Inspection:

4.1 Prior to inspection, the inspector will:

- Review previous inspection report(s) and letter(s)
- Ensure a playground testing kit/probe is available
- Review copy of CAN/CSA-Z614-03
- Use a playground audit form

5.0 Legal Action:

- 5.1 Inspect for requirements of the CAN/CSA-Z614-03. Infractions should be categorized as HIGH, MEDIUM or LOW HAZARDS. The standard is not determinative of whether or not a health hazard exists as consideration must also be given to the Health Protection and Promotion Act.
- 5.2 A HIGH and MEDIUM HAZARD is an area where strangulation, head injury, contusion, amputation and head entrapment can occur.
- Points of entanglement (High Hazard)
 - Head and neck entrapment points (High Hazard)
 - Pinch, shear and crush points (Medium Hazard)
 - Insufficient protective surfacing (Medium to High Hazard)
 - Protrusions (Medium Hazard)
- 5.3 Other non-compliance of the CAN/CSA-Z614-03 is considered LOW HAZARD.
- 5.4 Complete the Playground Safety Inspection Form to document the infractions and areas of compliance.
- 5.5 If there are any infractions observed at the time of inspection, they are to be documented on a "Grey Bruce Health Unit Inspection Report" and a copy given to the owner/operator.
- 5.6 If a high or medium infraction is observed, the equipment in question cannot be used until a re-inspection from this department has been conducted and the infractions have been removed/corrected.
- 5.7 Provide the owner/operator with a copy of the Playground Safety Inspection Form
- 5.8 A copy of all documents is to be filed in the playground safety filing system. A Notice of Playground Inspection Form is to be completed and filed if there is an existing establishment file for the playground in question (e.g. daycare, recreational camp, and campground).
- 5.9 If the playground is owned by a daycare, a copy of the Playground Safety Inspection Form and any letters are to be sent to the Ministry of Community and Social Services.