On the Right Track *for* Rail Safety

Community Resource

Safe Kids CANADA

The Safe Kids Canada Rail Safety Program is generously supported by CN.

CN

Safe Kids Canada would like to acknowledge
the valuable input of Direction 2006, Operation Lifesaver
and the Distress Centres of Toronto.

Safe Kids Canada
Suite 2105-180 Dundas Street West
Toronto, Ontario
M5G 1Z8
1-888-SAFE-TIPS (723-3847)
www.safekidscanada.ca

August 2004

Ce ressource est également disponible en français

Finding What You Need

Each year in Canada, almost 100 people are killed and another 100 are injured in incidents with trains. Most often, incidents involve crossing collisions between motor vehicles and trains, while others involve pedestrians and trains. Railway employees are sometimes injured while at work, and train passengers can be injured in the case of train derailments or collisions with motor vehicles.

This resource will help you and your community understand and address railway safety and become actively involved in the prevention of railway-related deaths and injuries.

Statistics

What Do the Numbers Tell Us?

Across Canada, the number of collisions between motor vehicles and trains at railway crossings and of incidents involving trains and trespassing pedestrians decreased between 1992 and 2001. Despite the decrease in crossing collisions and trespassing incidents, there are still many people who are needlessly killed or injured.

Fact

Freight trains travel up to 105 km/h and can take up to two minutes to come to a complete stop. The average 150-car freight train travelling 100 km/h needs about 2,500 m to stop. An automobile travelling 90 km/h requires about 60 m to stop.[1] Trains can't stop as quickly as automobiles can!

Deaths

The Canadian Situation

- In Canada, there are more crossing collisions than trespassing incidents. However, the number of deaths due to trespassing is greater than the number due to crossing collisions.

- In 2001, 278 crossing collisions were reported, and 41 people were killed.[2] These numbers, provided by the Transportation Safety Board of Canada, include incidences occurring on federally regulated rail lines only.

- Of the 41 people killed, the driver's age was available for 43%, with 20 to 29-year-olds representing 22% of deaths and 30 to 39-year-olds representing 25% of deaths. Where driver gender was indicated, males were three times more likely than females to be involved in collisions.

- In 2001:

Province/Territory	Number of Crossing Collisions	Number of Deaths
British Columbia	28	2
Alberta	54	5
Saskatchewan	29	8
Manitoba	25	3
Ontario	80	17
Quebec	43	4
New Brunswick	8	0
Nova Scotia	10	2
Newfoundland & Labrador	0	0
Northwest Territories/ Yukon/Nunavut	1	0

[1]Direction 2006.
[2]Transportation Safety Board of Canada, "TSB Statistical Summary of Railway Occurrences 2001."

Statistics

- In 2001, the vehicles most often involved in crossing collisions were automobiles or vans as opposed to tractor trailers, trucks, buses, motorcycles, snowmobiles or ATVs.

- The most cited reason for crossing collisions was that vehicles did not stop or drove onto the right-of-way of an oncoming train.

- In 2001, 145 of the 278 crossing collisions occurred at public crossings where there were automated flashing lights and warning bells. Eight collisions occurred at farm crossings.

- There are 22,500 public crossings across Canada and an equal number of private crossings falling within the jurisdiction of 2,500 different road authorities.[3]

- In 2001, there were 79 reported pedestrian trespassing (i.e., illegally accessing railway property) incidents resulting in 56 deaths.[4]

- Deaths due to trespassing on railway property in 2001:

Province/Territory	Number of Deaths
British Columbia	5
Alberta	7
Saskatchewan	3
Manitoba	2
Ontario	29
Quebec	9
New Brunswick	0
Nova Scotia	1
Newfoundland & Labrador	0
Northwest Territories/ Yukon/Nunavut	0

[3]Transport Canada, "Railway Safety Program Strategic Overview."
[4]Transportation Safety Board of Canada, "TSB Statistical Summary of Railway Occurrences 2001."

Statistics

- Of the 79 reported pedestrian trespassing incidents, 59 can be broken down by age categories:

Age (in years)	Number of Incidents
<12	1
13–19	11
20–29	13
30–39	9
40–49	11
50–69	9
70 years +	5

- The most frequently cited method of trespassing was lying or sitting on the tracks, followed by walking on the train right-of-way.

Injuries

- In Canada, the number of injuries due to crossing collisions is greater than the number of injuries due to trespassing incidents. Pedestrians who are struck by trains are less likely to survive.

- In 2001, there were 47 people injured due to crossing collisions between motor vehicles and trains, and 22 people injured due to trespassing incidents across Canada.[5]

- From 1999 to 2000, 119 people were admitted to hospitals across Canada as a result of injuries sustained in railway incidents.[6] Age breakdowns for 117 admissions are as follows:

Age (in years)	Number of Incidents (indicates number of pedestrians)
5–9	1
10–14	5 (3)
15–19	11 (5)
20–34	23 (11)
35–44	28 (14)
45–54	23 (3)
55 years +	26 (5)

Only 1 individual of the 119 was cycling at the time of injury.

[5]Transport Canada, "Railway Safety Program Strategic Overview."
[6]Canadian Institute for Health Information.

Statistics

- Of the 119 individuals admitted to hospital from 1999 to 2000, the types of injury sustained were:

  44% – orthopaedic (e.g., fractures, crushing injuries, amputations)

  29% – superficial (e.g., open wounds)

  13% – head injuries (e.g., fractured skull)

  7% – "other," including burns and nerve damage

  5% – internal injuries (e.g., chest, abdomen and pelvis)

  2% – spinal cord injuries

Three admissions were children under the age of 14 with head injuries.

Suicide

In 1997, 56 of the reported 140 deaths due to suicide in Canada were classified as "jumping or lying before a moving object," and 20 were classified as "crashing of motor vehicle."[7] Although unspecified, it is reasonable to assume that some of these suicide deaths involved trains.

In 2001, of the 79 reported trespassing incidents, 25 were categorized as lying or sitting on the railway tracks. Eleven individuals "walked into path of rolling stock," 4 "jumped on/off rolling stock" and 18 walked on the railway right-of-way.[8]

Between 1993 and 1996, 229 people were killed as a result of railway trespassing. Of those, 89, or 38.9%, died of apparent suicide.[9] Only 25, or 10.7% died as the result of "accidents," or what we would call unintentional injuries. For 50.4% of the trespassing deaths, there was too little information to make a clear determination of the incident type.

[7]Health Canada, ICD-9 Codes, Railway Deaths.
[8]Transportation Safety Board of Canada, "TSB Statistical Summary of Railway Occurrences 2001."
[9]Transportation Safety Board, "Transport Canada Railway Safety Facts 1996."

Background Information

Why Do People Sustain Railway-Related Injuries?

When thinking about injury prevention, we must consider the psychological, socio-cultural and physical contexts that promote both injuries and wellness. The determinants of health approach is useful for thinking about the factors that increase the risk of railway-related deaths and injuries, as well as the protective factors that promote safety and well-being.

Fact

In Canada,[10] the United States,[11] Britain[12] and Australia,[13] males between the ages of 13 and 49 are at the highest risk for involvement in crossing collisions and trespassing incidents. In Canada, drivers between the ages of 25 and 34 committed the highest number of driving infractions at public crossings between 1991 and 1994.[14] Individuals killed in railway incidents are often male, white, have no university experience and have lower than average incomes.[15]

Behaviour, Knowledge and Attitudes

According to Transport Canada,[16] of the fatal crashes that occurred at railway/highway crossings between 1991 and 1994:

- 44% of motor vehicle drivers disobeyed traffic control signals
- 27% failed to yield the right-of-way
- 5% were driving too fast

The remaining 24% committed other or no infractions. It appears that many motorists wilfully disobey traffic regulations around railway crossings and are subsequently injured or killed.

During the same time period, of the drivers involved in fatal collisions, 20% were recorded as being "inattentive/inexperienced," 13% "had been drinking" or were "impaired," while only 1% had a "medical/physical condition." For the remaining deaths, driver condition was not recorded as a contributing factor.

Many of the people who trespassed were injured while engaging in risk-taking behaviours. According to Transport Canada, of the 229 people injured in trespassing incidents between 1993 and 1996:

- 19% attempted to climb aboard a train and fell under it
- 17% attempted to ride or pass between cars of a train and fell off
- 13% attempted to crawl under a moving train

[10]Transportation Safety Board of Canada, "TSB Statistical Summary of Railway Occurrences 2001."
[11]U.S. Department of Transportation.
[12]Safety Performance Report 2001/02, Railway Safety (Britain).
[13]ATSB Rail Safety Statistics/Railway Accident Fatalities.
[14]Transport Canada, "Transport Canada Railway Safety Facts 1996."
[15]Witte and Donohue.
[16]Transport Canada, "Transport Canada Railway Safety Facts 1996."

Background Information

Trains are often closer and are moving faster than most motorists and pedestrians perceive. An approaching train activates flashing light signals and gates approximately 20 seconds before the train reaches the crossing. An eight-car passenger train travelling 100 km/h requires about 1,070 m to stop.[17] The results of one study conducted in the United States[18] suggest that approximately 10% to 20% of motorists engage in risky behaviours around railway crossings, with men being more likely to engage in such behaviours. Risky behaviours, as defined in the study, included beating the odds and outrunning the train.

Risk-taking drivers may become accustomed to high levels of fear due to prior close calls with trains. This experience biases their judgment about their ability to beat trains, resulting in increasingly more risk-taking behaviours around railway crossings. For example, having outrun the train once before may increase the likelihood that a motorist will try it again.

Convenience is frequently cited as a reason for trespasser behaviour.[19] Some individuals choose the shortest and quickest route from point A to B, even if the route entails trespassing on railway property and putting their life in jeopardy.

Physical Environment

There are 73,047 km of railway tracks and approximately 55,000 public, private and pedestrian highway/railway crossings in Canada.[20] Intersections of railways, roadways and pedestrian routes are unavoidable.

Limited sightlines, poor visibility and poor road conditions due to severe weather can contribute to railway/highway collisions at level crossings. In addition, obsolete grade crossings may increase the risk of occurrence of crossing collisions because there is a pronounced angle where the roadway meets the railway. Restricted sightlines due to the angle of approach may impede a motorist's or pedestrian's view of an oncoming train.

As well, urban growth is putting new housing into areas where tracks have been for years. As previously noted, pedestrians will choose convenience and often trespass on railway property to reach their destinations.[21]

Successful pedestrian-safety interventions that alter the environment may be useful as potential models for rail-safety efforts. For example, a reduction in pedestrian injuries due to motor vehicle crashes has been demonstrated when streets are closed, traffic is redirected and residential neighbourhoods are bypassed to reduce pedestrian exposure to traffic.[22]

[17]Direction 2006.
[18]Witte and Donohue.
[19]Lobb, Harre and Terry.
[20]Operation Lifesaver.
[21]Lobb, Harre and Terry.
[22]Towner and Ward.

Background Information

Suicide

Suicide in Canada is a significant social concern and a major public health problem that results in one of the highest rates of potential years of life lost.[23] In Canada in 1997, the suicide rate was 12.3 per 100,000.[24] Among Canadian youth, suicide is the second leading cause of mortality, surpassed only by injury.[25]

- In 1997, there were 51 deaths of children between the ages of 1 and 14 years due to suicide, 39 of the children were male, and 12 were female.
- The suicide rate in 1997 for males was 19.6 per 100,000, whereas for females the rate was 5.1 per 100,000.
- From 1999 to 2000, there were 114 cases of suicide or self-inflicted injury, excluding poisonings.[26]
- The most common means of self-inflicted, non-fatal injury was gunshot wounds (28%), followed by jumping or lying before a moving object (26%).

Fact

The World Health Organization estimated that in the year 2000, approximately 1 million people died from suicide, and 10 to 20 times more people attempted suicide worldwide.[27]

Adolescents and young adults, in particular, may choose to trespass as a means to commit suicide. Reasons for railway-trespassing behaviour may be as simple as convenience or as complex as the contemplation of ending one's life. Awareness of the dangers of railway trespassing, and of how to identify the warning signs displayed by individuals contemplating suicide, is necessary to reduce the number of people killed and injured on railways.

One strategy taken is to reach an agreement with local media to limit or not report on attempted and actual suicide incidents. The way in which someone attempts or commits suicide can attract others. Therefore, keeping actual and attempted suicide reports out of the public eye reduces exposure to this means and should be considered when developing an overall strategy.

[23]Dyck, Mishara and White.
[24]Statistics Canada.
[25]Manion and Davidson.
[26]Canadian Institute for Health Information.
[27]World Health Organization.

Prevention-Planning Matrix

What Can We Do?

A well-known injury prevention and control tool is Haddon's Matrix. William Haddon noted that an injury host ("who"), agent ("what") and environment ("when and where") can be analyzed according to pre-injury, injury and post-injury phases.[28] The pre-injury phase is when primary prevention approaches can be implemented, including education, environmental change and enforcement. Although intervention approaches can be applied during injury and post-injury phases (e.g., the deployment of air bags during the injury phase), the goal of primary prevention approaches is to stop injuries before they occur.

Fact

In 1998, unintentional and intentional injuries cost Canadians $12.7 billion, with $3.2 billion in direct costs and $9.5 billion in indirect costs.[29] By preventing injuries, we can reduce the economic burden of injury and the human cost of lost lives!

Prevention-Planning Matrix

The following prevention-planning matrix incorporates elements of Haddon's Matrix, but focuses on the pre-injury phase and prevention strategies, rather than on the injury and post-injury phases. The prevention-planning matrix (Figure 1) highlights risk factors, education, environment and enforcement strategies to address the prevention of railway-related injuries and deaths. This tool will help you plan railway-injury-prevention strategies for children, youth and/or adults in your community.

Figure 1: Prevention-planning matrix

Strategies		Host	
	Child	Youth	Adult
Risk Factors			
Education			
Environment			
Enforcement			

[28]Christoffel and Scavo Gallagher.
[29]Health Canada, *The Economic Burden of Illness in Canada*, 1998

Prevention-Planning Matrix

Figure 2 provides an example of how the prevention-planning matrix can be used to develop railway-injury-prevention strategies for children, youth and adults given a specific factor that increases the risk of injury.

The prevention strategies described in the matrix address the pre-injury event of an urban, level roadway/railway crossing controlled by automated warning lights. There is a high volume of pedestrian, motor vehicle and railway traffic. Although all the risk factors affect children, youth and adults, the severity of the risks differs depending on the hosts' age and development.

Figure 2: Railway-injury prevention-planning matrix

Strategies	Host		
	Child	Youth	Adult
Risk Factors	Absence of a controlled pedestrian crossing (e.g., children crossing between cars stopped for a train)	Risk-taking behaviour (e.g., jumping between the rail cars of a stopped train)	Risk-taking behaviour (e.g., motorists attempting to outrun the train to avoid waiting for train to cross)
Education	Teach children when and where to wait while a train is crossing and about the dangers of crossing between the stopped cars	Raise awareness about the risks/consequences of trespassing and risk-taking behaviour near railway tracks and trains	Raise awareness of the consequences of disregarding railway-crossing signals and of motor vehicle collisions with trains
Environment	Provide a highly visible, designated and controlled pedestrian crossing	Install fencing to limit access to trains and railway tracks Develop designated pedestrian/bicycle pathways that are physically separated from railway tracks	Install automated gates at crossing and ensure that lights provide ample warnings to motorists of oncoming trains Install visual distractions (e.g., posters, murals, signage) to decrease impatience/boredom of motorists who must wait for crossing train
Enforcement	Crossing guard is available during peak hours and before and after school Advocate for installation of controlled pedestrian crossings	Enforcement officers are on-site intermittently to warn or fine trespassers Advocate for pedestrian and bicycle lanes that youth can utilize	Enforcement officers are on-site to warn or charge motorists caught attempting to outrun the train Advocate for harsher penalties for attempting to outrun the train

Program Profiles

Community Trespass Prevention Guide

Another tool to assist in assessing and undertaking rail-safety issues is "Trespassing on Railway Lines – A Community Problem-Solving Guide." Produced by the Direction 2006 partnership, this excellent resource uses a problem-solving approach to looking at the causes of trespassing on railway lines and the possible solutions.

The guide outlines the C.A.R.E. approach – Community, Analysis, Response and Evaluation – to identify, analyze and address trespassing incidents in a community setting. It provides tools and advice to assess situations, build partnerships, work with the media and hold productive meetings. It offers links to other contacts working in the area of trespass prevention. Of particular note are the tools provided to survey the community about an incident, ensuring that the type of information collected will explain the situation and inform decision making. This practical, hands-on resource can be ordered from Direction 2006 (see the resource directory) or downloaded from its Web site.

What Is Available in My Community?

Many existing rail-safety programs focus on public education. One of the challenges within the field of injury prevention, and health promotion in general, is to develop comprehensive campaigns that focus not only on education but also on developing effective partnerships and coalitions and influencing policy and legislation.[30] Injury prevention campaigns and programs also require ongoing evaluation to measure success and to identify gaps and areas in need of improvement.

Some existing rail-safety strategies are outlined below and are followed by descriptions of programs currently used in Canada. Comprehensive programs that include education, environmental and legislative change, and enforcement strategies are recommended for addressing rail-safety issues within your community. Use of the prevention-planning matrix will help you determine which of the following strategies and programs will best address the rail-safety issues within your own community.

Fact

Within the field of injury prevention, it has been documented that education in combination with environmental modification and legislation is more effective in reducing injuries than education alone.[31]

[30]Cohen and Swift.
[31]Dowswell, Towner, Simpson and Jarvis.

Program Profiles

Education

Direction 2006, formed in 1995, is a partnership between all levels of government, railway companies, public safety organizations, police, unions and community groups. Its objective is to reduce grade crossing collisions and trespassing incidents by 50% by the year 2006.

Direction 2006 is involved in initiatives that reduce crossing collisions and trespasser incidents within key result areas, including education, enforcement, communications, research, legislation and outreach.

As of 2002, Direction 2006 had reached 57% of its goal to reduce crossing collisions by 50% and 86% of its goal to decrease trespassing incidents by 50%.

Operation Lifesaver is a national public education program sponsored by the Railway Association of Canada and Transport Canada, that works in co-operation with the Canada Safety Council, provincial/territorial safety councils/leagues, railway companies, unions, police, public and community groups. Its goal is to reduce the needless loss of life, injuries and damages caused by highway/railway crossing collisions and train/pedestrian incidents.

Operation Lifesaver uses presentations, public service announcements and the Internet to promote public awareness of the dangers of public highway/railway crossings and trespassing on railway property. Across Canada, certified volunteers visit schools, malls and community groups presenting rail-safety messages to adults and children. Resources are also developed for distribution to educators and professionals such as emergency response, truck and bus drivers.

The Suicide Information and Education Centre is a library and resource centre providing information on suicide and suicidal behaviour. Suicide Prevention Training Programs is a non-profit organization offering award-winning training and workshops across Canada and internationally. There are a number of resources available, including a Youth Suicide Awareness Package.

The Canadian Mental Health Association (CMHA) promotes the mental health of all people and serves mental health consumers, their families and friends. Each year, CMHA provides direct service to more than 100,000 Canadians in all provinces and territories. CMHA also acts as a social advocate to encourage public action and commitment to strengthening community mental health services and legislation and policies affecting services.

The Canadian Association for Suicide Prevention (CASP) provides information and resources to the community with a goal to reduce suicide rates and minimize the harmful consequences of suicidal behaviour. It does this by facilitating, advocating, supporting and advising, rather than by providing direct services.

There are also distress centres and telehealth/telecare centres across the country that can be contacted for suicide prevention help and resources. Check your local phone book or community centre for contact information.

Program Profiles

Environment

Transport Canada works to improve safety at railway crossings and monitors Canada's rail infrastructure, including its impact on the environment and sustainable transportation, safety and accessibility. The Transport Canada Grade Crossing Improvement Program contributes an average of $7.5 million a year to improve public safety at highway/railway crossings.

Improvements may include installing flashing lights and gates, adding gates or extra lights, interconnecting crossing signals to nearby traffic lights or adding new operating circuits or timing devices at crossings. Crossings in need of improvement are identified through regular monitoring programs conducted by rail-safety personnel from Transport Canada and the railways.

The **Railway Association of Canada (RAC)**, represents some 60 member freight, tourist, commuter, and intercity Canadian railways, playing a major role in promoting the safety, viability, and growth of the railway industry within Canada. The RAC's dedicated team of professionals coordinates the development of rules and recommended practices pertaining to operations and safety, which have made rail the safest mode of surface transportation. RAC staff conducts the research, policy development and advocacy necessary to lobby all levels of government and transportation-related businesses to promote rail's advantages and ensuring a fair treatment among other modes.

The Federation of Canadian Municipalities (FCM) is dedicated to improving the quality of life in all communities by promoting strong, effective and accountable municipal government. FCM works with the federal government and in consultation with railway companies, public safety organizations, police, unions and community groups to revise regulations aimed at reducing grade crossing collisions and trespassing incidents. FCM is also working to ensure that the financial burden for new safety regulations does not fall unduly on municipal governments.

Program Profiles

Enforcement

CN Police help CN achieve its goals and objectives while ensuring public safety. They work in partnership with government police departments and other organizations to ensure total safety throughout the CN rail network. CN Police are actively involved in efforts to increase awareness among youths and adults of the dangers of trespassing on railway property. Every year, they meet with more than 100,000 students across Canada.

Canadian Pacific Railway (CPR) Police protect their customers' shipments and ensure the security of their employees, the public and company property. The CPR Police Community Services Unit is the front-line connection with communities along the CPR network, both in Canada and the United States. Officers in this unit work closely with municipalities, schools and other police forces to promote railway safety and security. They develop and implement local crime prevention initiatives and education programs about highway crossings and trespassing. In 2001, CPR Police reached more than 30,000 students from kindergarten to grade 12 through public education efforts.

Both CN and CPR Police are actively involved with Operation Lifesaver and Direction 2006.

Local law enforcement partners with Direction 2006 and Operation Lifesaver, CN and CPR Police to promote railway safety. Legislative change requires effective law enforcement.[32] Transportation safety policy makers and advocates work closely with enforcement agencies. Many local efforts are coordinated and supported by the Canadian Association of Chiefs of Police, who are represented on the executive committee of Direction 2006. The Royal Canadian Mounted Police, provincial/territorial and municipal police also support many railway-safety efforts.

To achieve success, partnerships between advocates for legislative change and law enforcement representatives are necessary early on in the process. Local law enforcement committees or representatives are important stakeholders in any injury prevention planning activity. Contact your community police service directly to learn more about its support for rail safety and enforcement.

[32]Farquhar.

Key Messages

What Are the Take-Home Messages?

To promote railway safety, there are a number of key safety messages that should be conveyed to members of your community including children, teens, adults, parents/caregivers and service providers. All community members have a stake in preventing deaths and injuries.

Fact

An approaching train activates flashing light signals and gates approximately 20 seconds before it reaches the crossing.[33]

Priority Messages for Motorists and Pedestrians[34]

- Be prepared to stop at a highway/railway crossing.
- Look for the crossbuck symbol of a highway/railway crossing. Some more-travelled highway/railway crossings have lights, bells and/or gates.
- Listen for warning bells and whistles of an approaching train. Turn off, or turn down, distracting fans, heaters, music/radios. Do not use a cell phone while driving. Ask children to be quiet until the crossing is safely crossed. Opening the window helps you hear.
- Obey the signals. Never attempt to drive under a gate as it is closing or around a closed gate. If the gate begins to close while you're underneath, keep moving ahead until you clear the crossing.
- Never race a train to a crossing. Even if it's a tie, you'll lose.
- If a police officer or a member of the train crew is directing traffic at the crossing, obey their directions.
- Check that second track. If one train passes, make sure that a second train isn't approaching on another track. They can, and they do! A second train could be hidden by the one you stopped for. Make sure it's clear in both directions before you move.
- Cross the tracks in low gear. Do not attempt to change gears while crossing.
- If your vehicle stalls on the tracks, get out quickly and away from the vehicle and tracks. Move in the direction that the train is approaching from to avoid being hit by debris. Your vehicle will be swept forward by the momentum of the train.
- If your view is obstructed for 300 m in either direction, do not attempt to cross the track until you are certain that no train is approaching.

[33]Direction 2006.
[34]Operation Lifesaver.

Key Messages

- Keep moving once you start across. If the warning signals begin to flash, straight ahead is your fastest way to safety.

- Be extra alert and especially careful when driving at night or in bad weather. Watch for the advance warning sign – slow down and be prepared to stop.

- Walking or playing on train tracks is dangerous and illegal. Railway property is private property. Railway tracks may be a tempting shortcut, but they are very dangerous and illegal. The only safe way to cross railway tracks is to use designated crossings and obey all signs and signals.

Children Need to Know

- Playing games around trains or railway crossings can be deadly.

- Playing on railway tracks and bridges is dangerous. Teach them to find safe, supervised and open areas (e.g., neighbourhood parks) in which to have fun.

- The only way to cross is to use designated railway crossings.

- If children must cross railways, for example on their way to and from school, teach them to stop, look, and listen before crossing railway tracks.

- It is against the law to trespass on railway property.

[1]Witte and Donohue.
[2]Transport Canada, "Transport Canada Railway Safety Facts 1996."

Key Messages

If Someone You Know Is Contemplating Suicide [35]

A person contemplating suicide is experiencing a great deal of emotional and psychological pain. When a person experiences this kind of pain, their thinking becomes confused and they can give off warning signs. These warning signs may include:

- Isolation or withdrawal from regular activities
- Depression, unhappiness, prolonged periods of sadness
- Deterioration in work or school performance
- Increased use of alcohol or drugs
- Increased hostility or negativity towards others and/or increased anxiety or restlessness
- Problems with sleeping and appetite (too little or too much)
- Making final arrangements, giving away prized possessions

Suicidal behaviour should not be handled in isolation. Always involve others. Be aware of the phone numbers of the local telephone crisis line, hospital and clinics in your area.

[35]Canadian Association for Suicide Prevention.

Resource Directory

Where Can We Find What We Need?

The following chart provides a listing of railway-safety and injury-prevention resources and programs in addition to contact information and Web sites. It can be used as a tool to learn more about railway safety and to link you to key partners and organizations that can assist with planning and implementing railway injury prevention strategies in your community.

Fact

Railway crossing collisions in 2002 were down 6% from 2001 and down 7% from the 1997–2001 five-year average. Trespasser incidents were down 9% in 2002 and the number of fatalities and serious injuries decreased.[36] There is still much that we can do to further reduce the occurrence of crossing collisions, fatalities and injuries.

Resource/Program	Contact	Telephone	Web site/E-mail
Direction 2006 (English & French)	Transport Canada	613-998-1893	www.direction2006.com
Mental Health Awareness (English & French)	Canadian Mental Health Association	416-484-7750	www.cmha.ca ✉ national@cmha.ca
Operation Lifesaver Canada (English & French)	Operation Lifesaver or provincial safety councils	613-564-8100	www.operationlifesaver.ca ✉ admin@operationlifesaver.ca
Railway Police	CN Police	Emergency: 1-800-465-9239 Public Inquiries: 1-888-888-5909	www.cn.ca ✉ cn@wpq.faneuil.com
	Canadian Pacific Railway (CPR) Police	Emergency: 1-800-716-9132 Public Inquiries: 1-800-766-7912	www.cpr.ca ✉ CPR_Police_Service@cpr.ca

[36]Direction 2006.

Resource Directory

Resource/Program	Contact	Telephone	Web site/E-mail
Railway Fatality and Injury Statistics (English & French)	Transport Canada	613-998-1893	www.tc.gc.ca ✉ webfeedback@tc.gc.ca
Railway Statistics (English & French)	Transportation Safety Board	819-994-3741	www.tsb.gc.ca
Safety at Railway Crossings (English & French)	Transport Canada – Crossing Safety Financial Assistance	613-990-9128	www.tc.gc.ca/railway/en/menu.htm ✉ webfeedback@tc.gc.ca
	Federation of Canadian Municipalities	613-241-5221	www.fcm.ca ✉ federation@fcm.ca
Suicide Resources (English & French)	Health Canada: Healthy Living & Mental Health	613-957-2991	www.hc-sc.gc.ca ✉ info@hc-sc.gc.ca
	Suicide Information and Education Centre	403-254-3900	www.suicideinfo.ca ✉ siec@suicideinfo.ca
	Canadian Association for Suicide Prevention	780-482-0198	www.suicideprevention.ca ✉ casp@suicideprevention.ca
Suicide Statistics (English & French)	Statistics Canada	1-800-263-1136	www.statcan.ca infostats@statcan.ca
Trespassing on Railway Lines (English & French)	Direction 2006	613-998-1893	www.direction2006.com

[1]Witte and Donohue.
[2]Transport Canada, "Transport Canada Railway Safety Facts 1996."

Appendix A

Prevention-Planning Matrix

Strategies		Host	
	Child	Youth	Adult
Risk Factors			
Education			
Environment			
Enforcement			

Bibliography

Australian Transportation Safety Bureau, *Rail Safety Statistics/Railway Accident Fatalities, 1979–1999*. www.atsb.gov.au/rail

Canadian Association for Suicide Prevention, *What can I do? If I suspect someone I know is thinking about suicide?* www.suicideprevention.ca

Canadian Institute for Health Information. *National Trauma Registry 2001 Report: Hospital Injury Admissions*. Ottawa 2001.

Christoffel, T., and S. Scavo Gallagher. *Injury Prevention and Public Health: Practical Skills, Knowledge and Strategies*. Gaithersburg, MD: Aspen Publishers, Inc., 1999.

Cohen, L, and S. Swift. "The Spectrum of Prevention: Developing a Comprehensive Approach to Injury Prevention." *Injury Prevention* 5 (3) (1999): 203–207.

Direction 2006. *Did you know?* www.direction2006.com

Dowswell, T., E. M. Towner, G. Simpson, and S. N. Jarvis. "Preventing Childhood Unintentional Injuries – What Works? A Literature Review." *Injury Prevention* 2 (2) (1996): 140–149.

Dyck, R. J., B. L. Mishara, and J. White. (1996). "Suicide in Children Adolescents, and Seniors: Key Findings and Policy Implications." National Forum on Health: What Determines Health? Ottawa, ON Health Canada 1997.

Farquhar, B. J. "What Makes Regulation Work?" *Injury Prevention* 4 (1998): 253–262.

Health Canada. *The Economic Burden of Illness in Canada*, 1998. Ottawa, ON Policy Research Division, Strategic Policy Directorate, Population and Public Health Branch, 2002.

Health Canada. *ICD-9 Codes-1997 Railway Deaths*, Personal communication with Health Canada staff, 2002.

Lobb, B., N. Harre, and N. Terry. *Report on Boston Road Railway Crossing Safety Project*. Auckland, NZ, University of Auckland, 2001.

Manion, I., and S. Davidson. "Suicidal Behaviour in Youth: Risk and Protective Factors." www.acsa-caah.ca

Operation Lifesaver. *Trains & Safety*. www.operationlifesaver.ca

Rail Safety and Standards Board, *Annual Safety Performance Report 2001/02*. www.railwaysafety.org.uk

Statistics Canada. *Suicide Rates*. www.statcan.ca

Towner, E., and H. Ward. "Prevention of Injuries to Children and Young People: The Way Ahead for the UK." *Injury Prevention* 4. Suppl. (1998): 17–25.

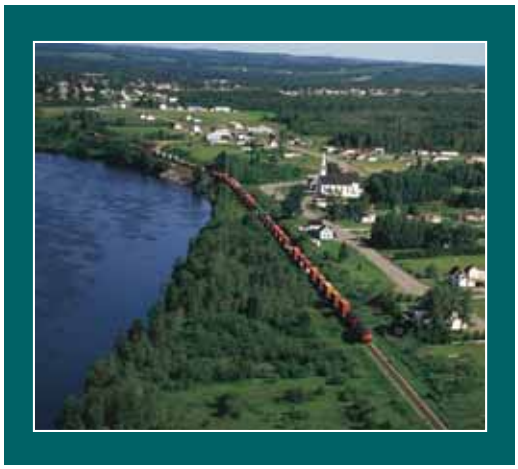
Transport Canada. *Railway Safety Program Strategic Overview*. www.tc.gc.ca/railway/RSSO/RSSO_e.htm

Transport Canada. *Railway Safety Facts 1996*. www.tc.gc.ca/railway/english/trespass/Trespass_1.htm

Transportation Safety Board of Canada. *TSB Statistical Summary of Railway Occurrences 2001*. www.tsb.gc.ca

U.S. Department of Transportation. *Accident/Incident Overview January–July 2002*. www.safetydata.fra.dot.gov/officeofsafety

Witte, K., and W. A. Donohue. "Preventing Vehicle Crashes with Trains at Grade Crossings: The Risk Seeker Challenge." *Accident Analysis & Prevention* 32 (2000): 127–139.



Safe Kids CANADA

The national injury prevention program of
The Hospital for Sick Children

www.safekidscanada.ca