



**Center for Research and Intervention on Suicide and
Euthanasia**

**Telephones and Signs Along At-Risk Areas
of Tracks to Reduce the Incidence of
Railway Suicide**

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Background to the strategy of telephones and signs

This document describes in detail the implementation of a potential project using telephones and signs to prevent railway suicides in Canada. A separate document available on this web site describes the proposed evaluation of the implementation and the effects of this project. Research has shown that when a person is experiencing a suicidal crisis and help is made immediately available, the suicide may be preventable. We proposed the installation of posters promoting telephone help and help seeking, along with telephones with free direct access to helplines. The present document describes the content, implementation and costs of a pilot project for a “telephones and Signs” railway suicide prevention strategy in Canada.

Research evidence indicates that signs displaying a telephone helpline number near a public telephone may decrease suicides in suicide hot spots. In a project in New Forest, Hampshire, England, the Samaritans (a national volunteer-based helpline) posted signs with their telephone number in selected car parks in an area where there were high numbers of car exhaust suicides. Over three years, there was a significant decrease in both the number of car park suicides and the number of total suicides in the New Forest district (King & Frost, 2005).

Similarly, placing dedicated telephone lines connected to a suicide prevention hotline at a 24-hour Psychiatric Emergency Service on the Mid-Hudson Bridge in New York showed that over a 2 year period, 30 out of 39 persons who went to the bridge to commit suicide used the telephone to call for help and, of these, only one subsequently jumped from the bridge. However, 5 of the 9 who did not use the telephone jumped to their death (Glatt, 1987). In the San Francisco area, Caltrain started a pilot project of new signs with a hotline number on a 10 mile segment of the right of way in September 2010 (Caltrain, 2010).

In the Montreal Urban transit system there have been several publicity campaigns with posters advertising that help is available at the local suicide prevention centre, Suicide Action Montreal. It is evident the people have telephoned telephone help lines and said that they called after seeing a poster or sign in a station or near the rails. However, there is no systematic study of the level of suicide risk of the callers. To date, there are not enough data in the scientific literature to convincingly prove that signage has an impact on reducing suicides, although the findings cited in this section indicate that this may prove to be a potentially effective intervention. However, the effects of signage with helpline numbers needs to be evaluated with a comparison between signed locations and comparable locations without signage, over a long enough period of time to determine if there are statistically significant effects upon the incidence of suicides.



There is evidence that when a poster or sign indicating that help is available and a telephone with immediate access to a helpline is near the sign, suicides may be prevented. The research evidence comes from placing signs and telephones near bridges and in parking areas where suicides occur. Therefore, it would be worth testing if placement of signs and telephones in stations, at crossings and even along areas of open track would have a similar effect. Although this appears promising, the costs to place signs and telephones in enough areas to cover the great number of stations, crossings and areas of open track necessary to test this intervention would exceed the budget available from Transport Canada for a pilot test. Since Canadian data indicate that suicides do not generally occur in train stations, telephones placement in a pilot study should be along track where there is public access, such as at crossings. If the means could be found to place telephones at all crossings on an extended area of track covering several hundred kilometres, it would be worthwhile testing this preventive measure. It is possible that providing telephones next to signs may become less important as widespread use of cellular telephones becomes available. However, research indicates that at the present time, persons who are at risk of suicide do not generally have a cellular telephone with them at the time of their death. The majority have a mental health problem, and persons with mental health problems are less likely to have a steady income and be able to afford a cellular telephone than the population in general.



Developing and implementing a telephones and signs strategy

In order to implement such a railway suicide prevention strategy, several steps have to be taken. You will find below a description of these steps and a timeline for guidance on the length of the project.

Intervention characteristics

There are three components to this intervention, the signage, the dedicated telephones and the helplines who will answer calls.

Nature of the messages on signs

Included are examples of telephone messages used on signs in various areas of the world. A simple message indicating that help is available and a telephone number appears to be the most appropriate approach.



Selecting locations to implement the strategy

We identified approximately 800 miles of tracks in 8 sections of subdivisions that could be good sites for the implementation of the telephones and signs strategy. Because this information is confidential, we do not include any specifics in this document. For additional information regarding at-risk areas of tracks, suicides, existing telephones, and additional telephones needed, as identified by our study, please contact: railway_suicides@uqam.ca . We can discuss your needs and provide you with adequate information

One of the difficulties in selecting areas to implement telephone access is that we cannot place telephones just anywhere. They cannot be installed on the railway company's property, since they might attract suicidal people to get very close to the tracks. They cannot be installed in remote areas because of high costs and low incidence of suicides there, nor on private or public land without specific authorisations.

Identifying and selecting telephone equipment

We first identified existing telephones booths in the areas of interest, since use of existing telephones would save on the costs of installing new telephones. There is an average of 50 existing telephone booths per area of track on which we could install the direct call system, which amounts to approximately 400 existing installations throughout the experimental areas. The advantage of using existing telephones is that we would not have to pay for new installations and monthly fees. However, these public telephones may be withdrawn if Bell or the owners of the land they are on decide so. If we wish to keep functional a telephone which is designated as non-profitable, we would have to pay a monthly fee or convince the telephone company or land owners to continue the telephone service for the potential benefits in suicide prevention.



Telephone prevention lines on bridges in USA

Next we identified areas where there were no telephones along at-risk stretches of track. This analysis allowed us to determine the need for 151 additional telephones to be installed. However, because of the risk that existing telephones will be decommissioned, we also explored the option of having only dedicated telephones installed along the tracks.

Obtaining authorizations

In order to install a telephone, a permit must be obtained from the municipality. It is difficult to anticipate costs relates to permits and authorisations, since municipalities differ in their fees. It is possible that municipalities would waive the installation fees because of the goal of suicide prevention in installing new telephones.

Collaboration of telephone helplines

There will be a need to inform helpline staff members of the implementation of the dedicated telephone line. However, they will answer these calls as they do with any other suicidal caller. We have been in contact with Distress Centres Ontario, the British Columbia Distress Centre and Suicide Prevention Centres in Quebec. All have enthusiastically endorsed this initiative and would be willing to participate in this project.



Timeline to implementation

The intensity of the intervention is a key factor to success. This means that all equipment should be installed in a small period of time and maintenance should be made regularly during the pilot project

Implementation process – telephones and signs

Timeline	Phases of Implementation
Month 1-3	Identify contractors for telephones and signs Identify precise areas of installation of equipment Establish a protocol with local helplines
Month 3- 5	Installation of equipment along the 8 areas of track selected
Month 13	Survey of equipment for adjustments, data on use and calls to helplines
Month 25	Survey of equipment for adjustments, data on use and calls to helplines
Month 37	Survey of equipment for adjustments, data on use and calls to helplines
Month 49-50	Evaluation and decision about the continuation of the service



Costs

We analyzed the costs of the implementation of telephones and signs based upon the 2 strategies described above (using existing phones or not).

Option 1: costs for combining new and existing telephones

Mixed strategy includes a mix of existing telephone booths to be adapted and new dedicated booths. Price is estimated on the basis of 300 installations, according to Bell Canada.

Item	Unit price	Quantity	Total price
Installation of a dedicated telephone (material and work)	2500\$ (+ 500\$ par telephone if no wall can be used)	151	377 500 \$+tax
Connexion for telephone booth	600\$ per year	151 times 4 years	600 X 151 = 90 600\$+tx /year 362 400\$+tax / 4 years
Maintenance of equipment	90\$/hr 2 hours per telephone per year	180\$ times 151	27 180 \$+tax /year 108 720 \$+tax/4 years
Total for telephones			495 280 \$ +tax /year 848 620 \$+tax /4 years
Installation of a direct call system on existing telephones	installation : 40 000/300 = 133\$ Equipment : 10 000/300 = 33\$/button Connexion: already connected Maintenance: 40 000/300 = 133\$/year	271	installation: 133\$ X 271 = 3 6043 \$ +tax Equipment : 33\$ X 271 = 8 943\$ +tax Maintenance : 133\$ X 271 = 36 043 \$+tax/year = 144 172 \$+tax/4 years
Total for existing telephones			81 029 \$+tax /year 189 158 \$+tax /4 years
Design of post - ReproUQAM	500\$		500\$

Item	Unit price	Quantity	Total price
Signs Metallic sign	700\$ (production) 140\$ (installation) 20\$ (Authorisations)	2 per telephone (total of 422 telephones in the project) = 844 signs	725 840\$=Tax
Total price			Dedicated telephones + direct call system = 1 762 118\$ +tax /4 years

Option 2: Costs for the installation of new telephones only

Item	Unit price	Quantity	Total price
Installation of a dedicated telephones (material and work)	2500\$ (+ 500 par telephone if no wall can be used)	422	1 055 000\$ +tax
Connexion for telephones	600 per year	422 times 4 years	253200\$ +tax/ year 1 012 800 \$+tax/ 4 years
Maintenance of equipment	90\$ /hour 2 hours per booth per year : 180\$	180\$ times 422	75960\$ +tax/ year 303 840 \$ +tax/4 years
Design of poster - Repro UQAM	500\$		500\$
Signs Metallic sign	700\$ (production) 140\$ (installation) 20\$ (Authorisations)	2 per telephone (total of 422 telephones in the project) = 844 signs	725 840\$+Tax
Total			3 097 980\$

Possible partners to share costs

The cost of the telephones assumes that there is no income from the pay telephones from other use. Pay telephones will generate some revenue to offset costs. However, use of pay telephones is declining in Canada as cellular phones are becoming more popular. During our recent contacts with Bell Canada, they indicated that they may be willing to negotiate overall installation costs and share them since this is a community project. This would have to be further explored, should the project be continued. Also, some preliminary contacts with municipalities indicate that they may be open to the idea of waiving fees for permits and authorizations to install telephones. Also, please note that the cost of signs is based upon metal signs installed independently on poles which we must purchase and install. It is possible that there are alternative lower cost signs available (e.g. plastic materiel) and it may be possible to identify and obtain permission to install some signs on existing poles, thus saving substantially in costs. It may be possible to have local or regional organizations (e.g. Rotary clubs) sponsor signs or telephones.

Potential negative effects of the intervention

We have planned the location of the installation of telephones so that we would limit the risk of increased trespassing. Telephones will be installed at street corners, in car parks or public pathways more than 50 meters from tracks and signs will be placed to lead people away from the tracks. However, we will monitor the presence of trespassers during the project.



Overall assessment of feasibility, costs and potential to prevent suicides of telephone and sign intervention

	Advantages	difficulties
Technical feasibility	Public telephone and signage technologies are well established throughout all concerned provinces	<p>The maintenance of telephones equipment might be a challenge</p> <p>Vandalism on telephones and signs may be an issue that would reduce access to help. It may also be a problem for the telephone service provider who might be reluctant to be associated with a suicide prevention project if a suicidal person died after trying to use a damaged telephone to call for help</p> <p>Public telephones are currently being withdrawn everywhere. Therefore, the use of existing telephones to implement a direct line may prove ineffective</p>
Financial feasibility	Public telephone companies seem willing to help share costs of installing dedicated telephones through their community involvement programmes	<p>The costs are very high and maintenance costs very difficult to anticipate</p> <p>It is financially not possible to install telephones in more remote rural areas.</p>
Potential to prevent railway suicides	Direct and easy access to help has proved to be a good means to prevent suicide attempts, when distressed persons in proximity to a means to kill themselves. By placing telephones in strategic places along the tracks, it is possible to increase help seeking behaviour and reduce the number of attempts	It is not possible to install telephones at every access point to tracks, therefore, the effect will necessarily be limited, especially outside of urban areas.
Potential effects in other areas	The signs and telephones may increase overall public access to a helpline, not just potential rail suicide victims. This may increase help seeking by distressed people in general and reduce global rates of suicides and suicide attempts by other means than trains	

The telephones and signs project is financially costly but it has the potential to be maintained for a long time when it is in place. It requires more technical than human implication and can be maintained from a distance with local agents. A separate document available on this web site describes the evaluation of the implementation and the effects of this project.

