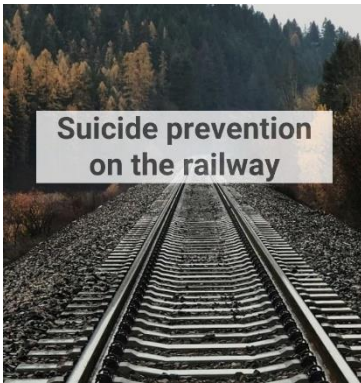




SUICIDE PREVENTION ON THE RAILWAY

Elisabet Garcia Rull / School of Prevention and Integral Safety and Security / 2024

Abstract



Suicide is defined as death caused by harming oneself with the intention of dying. One in 100 deaths is by suicide, according to the WHO. Suicides are recognized as a major public health problem. "More than 700,000 people die by suicide each year. Furthermore, for each suicide there are more than 20 suicide attempts" according to the WHO. Suicides are preventable. Moreover, often occur in railways across Europe causing transportation concerns, as well. Therefore, the prevention of suicides must focus on suicides that occur in railways, and this requires an effort from all private and public organizations and institutions involved. We will apply the guidelines of the WHO, experts and the ISO 31000 to create a general prevention guide as a basis for generating safety risk management in this area.

1. Introduction

"Among young people aged 15-29, suicide was the fourth leading cause of death after road traffic injuries, tuberculosis and interpersonal violence. In Catalonia, there has been a decrease in the average age at first episode of suicidal behavior.

According to the WHO, more than twice as many men as women die by suicide.

For decades, suicide was silenced by institutions and the media. Today, however, suicide is recognized as a **public and global health problem**. Most importantly, the WHO and experts recognize that these deaths are preventable.

Many suicide attempts and effective suicides take place on railways throughout Europe and the world. Despite this, there is a great lack of data on suicide attempts on Spanish railways and there are no statistics at all.

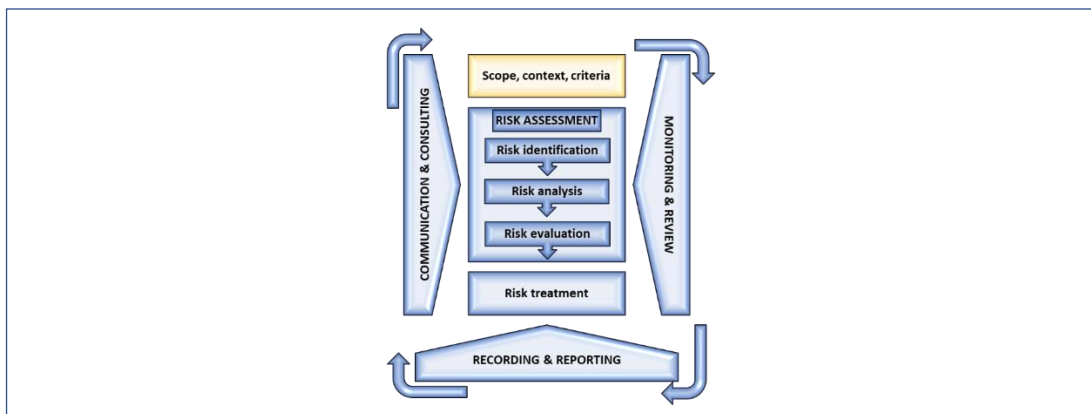


Figure no. 1. Risk management process (adapted from ISO 31000:2018), Scope, Context, criteria.



2. Case

The causes of suicide are many and often related to mental health problems, but remain unclear as a whole. The risk factors are classified in systemic and social, community, relational factors and individuals.

Risk factors include mental disorders, especially depression; personality disorders; addictive behaviours; exposure to family violence, including physical or sexual abuse; social dislocation or loneliness; recent release from prison or jail; stressful life events and chronic pain; direct or indirect exposure to the suicidal behavior of others; and previous suicide attempts.

Suicide has continued to be socially stigmatized. The exact number of suicides on the railways is unclear due to lack of statistics, but that type of suicide does exist.

The consequences are multiple and very varied:

- The loss of a person
- Serious injuries in the attempt
- The suicide leaves the loved ones of the suicide victim with difficult grief.
- Trauma to those who witness the event and all those who are directly or indirectly involved in a suicide can suffer trauma: from the train driver to the dispatcher and the staff involved in maintenance and cleaning up after the event.

Economically, suicides are also negative for the state: the dead person doesn't work anymore; the costs of burial and funeral can be covered by the state; possible liability of public authorities; those close to the suicide may need medical help and leave from work; if the person was the breadwinner, the state will also have to offer economic help to the family, such as orphan's pensions; the workers involved may also suffer and need medical help and even leave from work.

When the suicide is committed on the railways, it produces delays and some workers may need psychological support, leaves, and even job changes after such events.

It is therefore a must to prevent suicides, both for human rights reasons relating to life and health, and for economic reasons.



3. Best practices

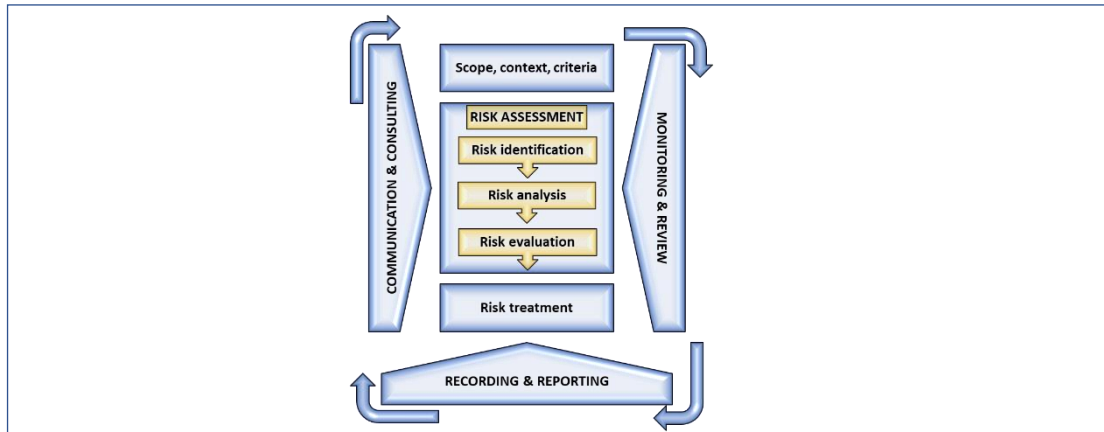


Figure no. 2. Risk management process (adapted from ISO 31000:2018), Risk assessment.

The foundation of the WHO are situation analysis, multisectoral collaboration, awareness raising, capacity building, financing and, as well, surveillance, monitoring and evaluation.

RISK ASSESSMENT

Risk assessment participants:

- Operational director of the organization
- Future staff member involved in the Suicides Prevention programme of the organization
- Media officer of the organization
- Train drivers' representative
- Train dispatchers' representative
- People who have attempted suicide on the railways
- Specialist psychiatrist

The views of people who have actual experience of trying to commit suicide on the railways, also called survivors or suicide loss survivors, will be heard, and valued to design the prevention plan.

RISK ANALYSIS, EVALUATION, AND TREATMENT

Impossibility of access to the means of suicide (the railways) decreases the number of suicides.

IDENTIFY THE RISK

Risk assessment includes identifying the risk:

From a psychosocial approach:

- Where a person is more likely to commit suicide
- Who is more likely to commit suicide, to find out about the "who", whether there are more men than women, whether there is an age pattern,
- Whether the suicidal person has been under the influence of drugs
- Whether there have been previous suicide attempts.



- When it is more likely to happen, whether there are certain months/dates of the year with more suicides
- To identify the previous behavior of people who are about to commit suicide and whether they can be divided into 2 groups: those who go straight to the point of action and those who spend time and hesitate before the attempt.

From a technical approach:

- Where suicides and suicide attempts occur: to identify where the suicides and attempted suicides have been occurring and where there is a high likelihood of it happening. It will be very different for the metro than for the trains. The risk control is to identify which are the black points such as stations near hospitals, and which are the places where a person can commit suicide and where the investigation will come from.
- By observing the places where a person might commit suicide. New technologies such as drones can be very useful.

The organization should gather the information from the participants, their data records and video-surveillance, working jointly with public authorities. There will be a system to guarantee the anonymity of the people who have committed suicide.

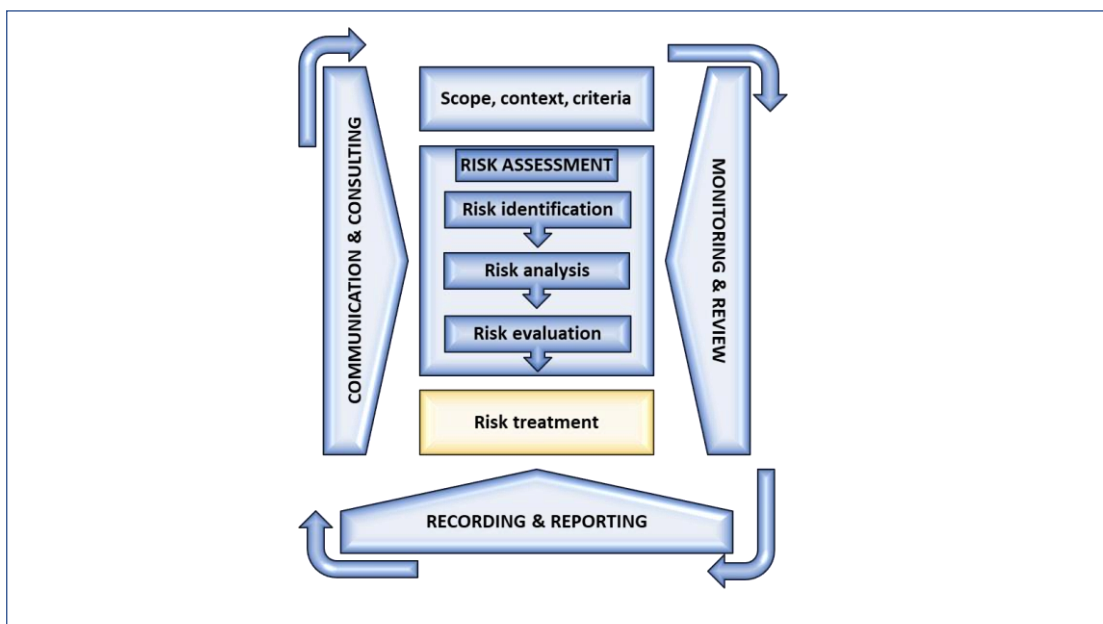


Figure no. 3. Risk management process (adapted from ISO 31000:2018), Risk treatment.

TECHNICAL APPROACH PREVENTION

A. DISCOURAGING OF TRESPASSING

- a) Adequate lighting, decoration and spaces with music and social activity in all stations



- b) Use of lighting to dissuade entry to the track.

B. PREVENTING SUICIDE IMPACTS

Means of preventing access to the tracks

- a) Physical barriers: once these have been analyzed, the organization needs to consider whether there are physical barriers to prevent the person from attempting suicide or methods to minimize the risk. If there are physical barriers, are they effective? If not, are these places easily accessible to the citizens? If it is possible to add/improve the physical barriers, the organization should do so. If this is not possible, for example because the area is too large, the organization will need to prevent access by other means, such as:
 - b) Partial physical barriers as a minimum to be installed at all stations on railway lines that have high-speed trains passing by
 - c) Vegetation
 - d) People detectors
 - e) Monitoring of track trespassing

C. PREVENTING SUICIDE INJURIES

- a) Installing of anti-suicide pits in the new train stations and, according to the budget, installing these at those stations where relatively more suicides and accidents occur

PSYCHOSOCIAL APPROACH.

A. TARGETED PREVENTION: TOWARDS THE PERSON WHO WANTS TO COMMIT SUICIDE

This type of prevention will be carried out by the public health system, following WHO guidelines.

- However, the organization should display signs with the number for the Suicide and Crisis Lifeline and phrases of hope, in coordination with the regional health department.
- There might be specific active awareness campaigns during the months/dates with the highest rate of suicides.

B. PREVENTION BY A THIRD PERSON

- a) By the staff

The organization shall train its whole staff who come into contact with passengers to recognize a life crisis and to contact the emergency services if they recognize a vulnerable person who is in distress and may be contemplating suicide.

The organization should train and have staff specialized in recognizing life crises and providing comfort until the emergency services arrive.

- b) By relatives and friends

The organization will facilitate a telephone number or e-mail address where relatives and friends of passengers who often go by that transport can communicate that someone may commit suicide.

- c) By passengers and citizens



Both passengers and other citizens can help prevent suicide. The Suicide and Crisis Lifeline (in Spain number 024, created in 2022) will also be useful for anyone to provide information regarding a person who may be about to attempt suicide and receive an immediate and prompt response. The passengers/citizens will also be able to inform any staff member who will:

- 1- Immediately contact the emergency services,
- 2- Immediately contact the internal suicide prevention hotline
- 3- Activate private security if necessary to protect the person

The organization will also provide a safety button to stop the train if someone is already on the track.

MEDIA COMMUNICATION

The Ministry of Health and the Ministry of Transport should communicate the number of suicides and attempted suicides that have occurred on the railways in a coordinated manner in a public act every year, reporting them as a public health issue, including helpful resources and messages of hope and recovery.

The communication of each suicide will follow the responsible guidelines on reporting suicides.

Financing: the prevention plan will need to be well funded, with the various budgets established.

In each train/underground station there should be a suicide prevention officer who will be especially trained and who will have maximum responsibility for implementing and monitoring the protocol.

The effectiveness of the risk management process requires full coordination between health and transport departments/ministries.

Finally, the effectiveness of the risk management process will be continuously monitored, and the prevention plan will be reviewed.

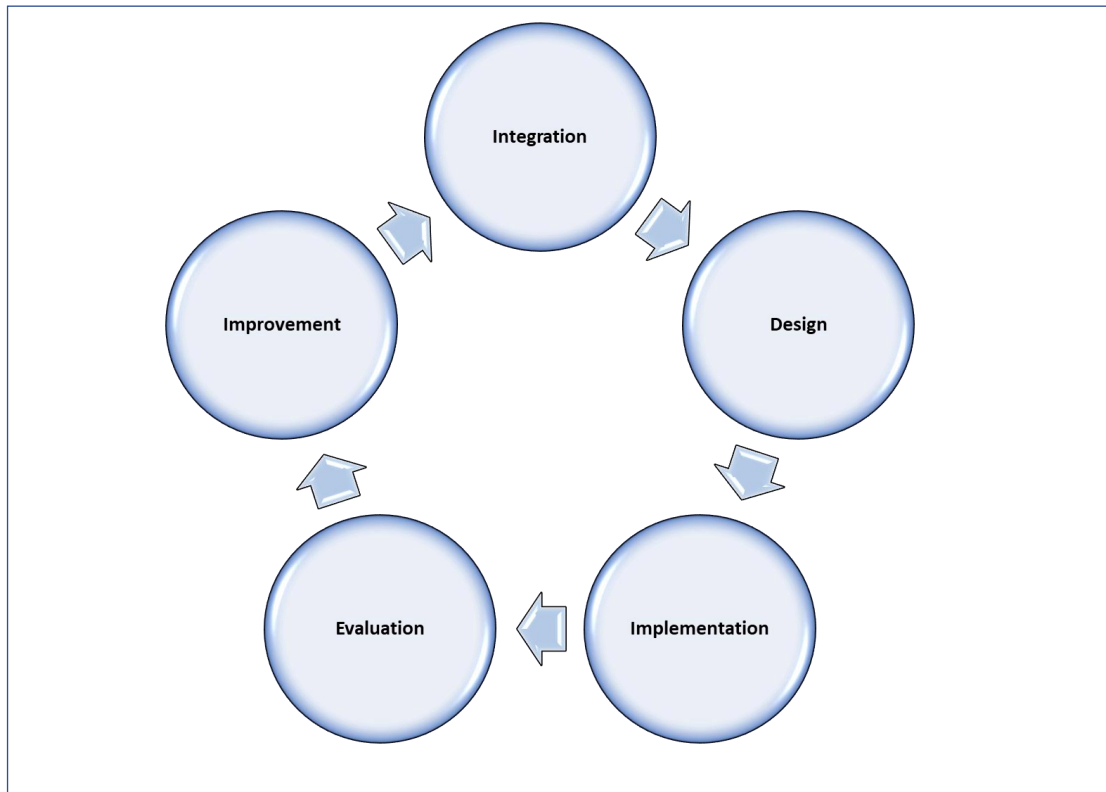


Figure no. 4 Risk management framework (from ISO 31000:2018).

**ASK FOR HELP!
CALL 112**

Do not hesitate, every life is important, suicide is preventable and has a devastating impact on loved ones.

**IN A CRISIS OR
CONCERNED FOR
SOMEONE?**



References

1. AI and Suicide Prevention. Mishara B, Chavarriaga R, Till B, Sinyor M, Kirtley O, Mörch C. Accessed 30.10.2023
<https://aiforgood.itu.int/event/ai-and-suicide-prevention/>
<https://www.youtube.com/watch?v=SdOjLLZp3xs>
2. Association of Survivals. After the suicide. Accessed 12.7.2023
<https://www.despresdelsuicidi.org/es/inicio/>
3. Connecting for life. Accessed 20.7.2023
<https://www.hse.ie/eng/services/list/4/mental-health-services/connecting-for-life/>
4. Cristino Sanchez, I. (2023). *Psychosocial risk factors and their impact on reliability. Psychosociological study of the train dispatcher position*. Unpublished final Degree Thesis, School of Prevention and Integral Safety and Security
5. Erazo N, Baumert JJ, Ladwig K-H. Factors associated with failed and completed railway suicides. *Journal of Affective Disorders* 2005; 88: 137–143
6. Health Department of Catalonia. Suicide prevention plan in Catalonia 2021-2025. Accessed 20.7.2023 <https://scientiasalut.gencat.cat/handle/11351/6319>
7. Hallowell MJ, Ryan B, Hughes N, Coad N. Conceptualising innovative lighting interventions for suicide, trespass and risky behaviour on the railway. *Lighting Res. Technol.* 2023; 55: 79–99
8. Improving Suicide Prevention. Program CRS. Accessed 9.4.2024
<https://codirisc.org/home>
9. LifeSpan lived experience framework. Black Dog Institute (Australia). Accessed 20.7.2023
https://www.blackdoginstitute.org.au/wp-content/uploads/2020/04/bdi_lived-experience-summit-2018_final.pdf
10. National Institute of Mental Health. NIH Publication No. 23-MH-6389. (2023). Frequently Asked Questions About Suicide. Accessed 20.7.2023
<https://www.nimh.nih.gov/health/publications/suicide-faq>
11. Railway Suicide Prevention and reduction of negative consequence. Accessed 30.10.2023
<https://railwaysuicideprevention.com/prevention-of-railway-suicide/overview.html>
12. Reporting On Suicide. Recommendations for Reporting on Suicide. Accessed 12.7.2023
<https://reportingonsuicide.org/>
13. Spanish Foundation for the Prevention of Suicide. <https://www.fsme.es/> Accessed 19.7.2023
14. Spanish National Statistics Institute. Accessed 19.7.2023
<https://www.ine.es/en/index.htm>
15. Suicide prevention on the railway. Accessed 21.7.2023
<https://www.networkrail.co.uk/communities/safety-in-the-community/suicide-prevention-on-the-railway/>
16. Timms, K. 10 October 2018. Train driver describes the harrowing reality of rail suicide. PlymouthLive. Accessed 20.7.2023
<https://www.plymouthherald.co.uk/news/local-news/rail-suicide-train-driver-interview-2074583>
17. 024. Suicidal Behaviour Hotline. Accessed 19.7.2023
<https://www.sanidad.gob.es/linea024/home.htm>
<https://www.ine.es/>



18. U.S. DOT Volpe Center. Rail Suicide Prevention Resource Page. Last updated: Thursday, March 23, 2023. Accessed 20.7.2023
<https://www.volpe.dot.gov/rail-suicide-prevention>
19. World Health Organization. 17 June 2021. LIVE LIFE: An implementation guide for suicide prevention in countries. Accessed 19.7.2023
<https://www.who.int/publications/i/item/9789240026629>
20. World Health Organization. One in 100 deaths is by suicide. World Health Organization. Guidance to help the world reach the target of reducing suicide rate by 1/3 by 2030. Accessed 19.7.2023
<https://www.who.int/news/item/17-06-2021-one-in-100-deaths-is-by-suicide>