

The societal cost of suicides, trespassing and struck-by-train accidents on the Swedish railway

10. Public Health and community interventions

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Abstract text

Introduction

Trespassing on railway tracks occurs for various reasons, including suicide attempts, leading to fatalities and injuries. But even when no person is struck by the train, the sighting of a trespasser causes stress for train drivers¹ and train traffic delays as trains must slow down or stop until the track area is safe to pass. On the Swedish railway, approximately 80-100 individuals die each year in struck-by-train collisions, of which around 90% are suicides.² Struck-by-train and trespassing incidents often disrupt train services across large areas leading to high societal costs which need to be acknowledged when taking an economic perspective on the problem.

Method

We estimate the yearly societal cost caused by trespassing, including suicides and suicide attempts, and struck-by-train accidents within the Swedish railway system. This is done by calculating both direct (including costs for emergency services, medical costs, and funerals) and indirect costs (including train delays and production losses for both victims and train staff) based on data for 2016-2023, excluding the pandemic years 2020-2021.

Results & conclusions

Preliminary results show that indirect costs represent the main part of costs resulting from suicides, trespassing and struck-by-train accidents on the railway. Information about the different cost components is crucial for economic evaluations of interventions in the infrastructure to reduce the number of suicides. Not including potential savings beyond the direct costs will lead to underestimation of the benefit of the intervention and to misallocation of resources.

References

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