

Suicide prevention in railbound traffic

Karolinska Institutet, Stockholm

4 of December 2023

Organizer:

National Centre for Suicide Research and Prevention (NASP) at
Region Stockholm & Karolinska Institutet



Karolinska
Institutet

 Region Stockholm

International Union of Railways (UIC) and the “Trespass and Suicide Prevention Network

Isabelle Fonverne

Senior Advisor Safety and Interoperability

UIC

Ann Mills

Deputy Director System Safety & Health

RSSB





INTERNATIONAL UNION
OF RAILWAYS

UIC

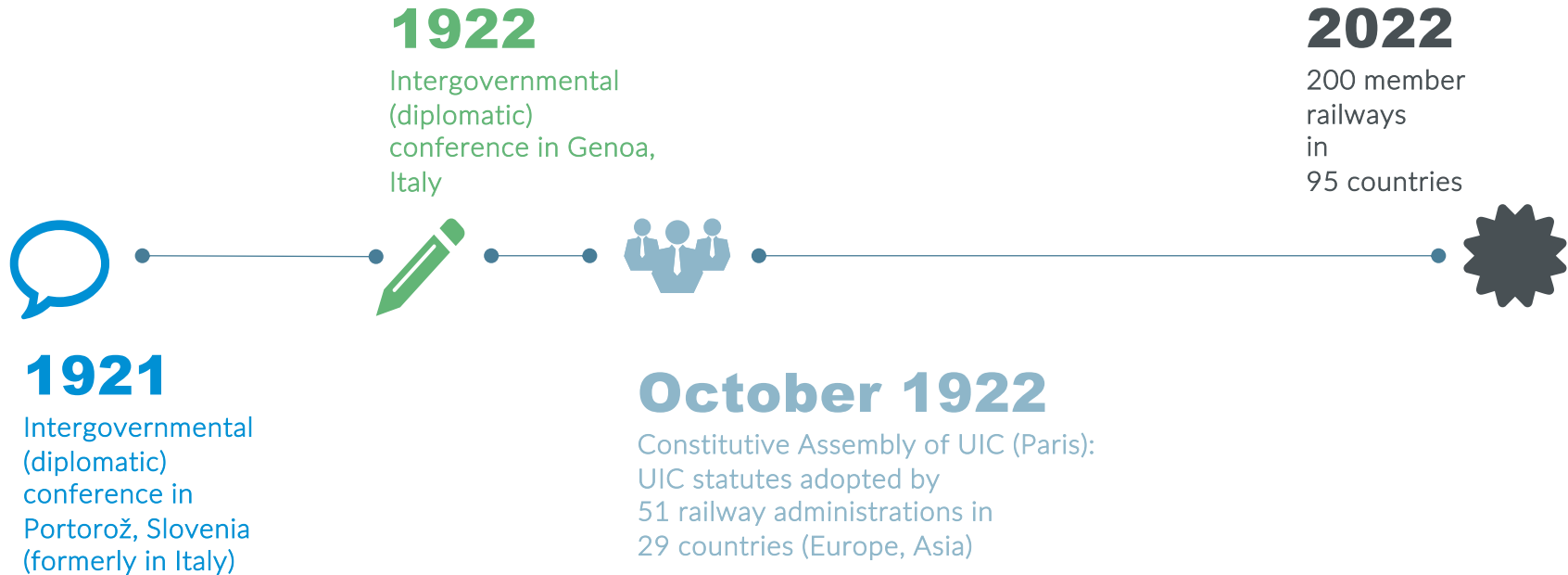
TRESP NETWORK / TRESPAD

Dr. Ann Mills, RSSB, TreSP-Network Chair

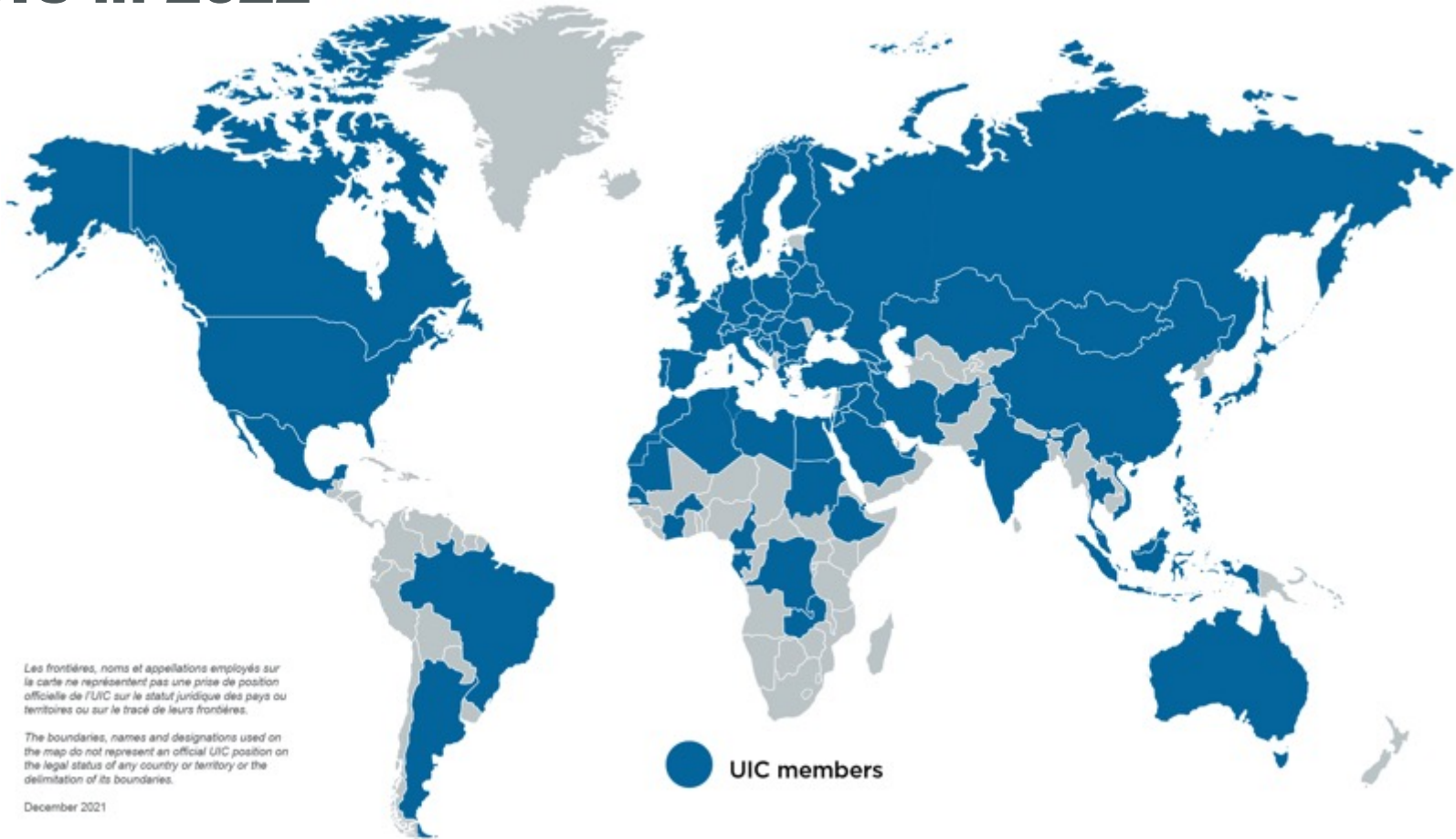
Isabelle FONVERNE, UIC Senior Advisor Safety & Interoperability

5 December 2023

UIC: A LONG HISTORY OF SERVING MEMBER RAILWAYS AND FACILITATING INTERNATIONAL RAILWAY COOPERATION



UIC in 2022



Les frontières, noms et appellations employés sur la carte ne représentent pas une prise de position officielle de l'UIC sur le statut juridique des pays ou territoires ou sur le tracé de leurs frontières.

The boundaries, names and designations used on the map do not represent an official UIC position on the legal status of any country or territory or the delimitation of its boundaries.

December 2021

 UIC members

6 UIC FOCUS AREAS FOR GLOBAL COOPERATION SERVING THE ENTIRE RAILWAY COMMUNITY



**Environment &
Sustainable Development**



Safety & Security



**Freight/Intercontinental
corridors**



**Railway Signalling &
Control Command**



**Specifications and
Standardisation**
UIC leaflets, IRSs



**Research
& Expertise Development**



Operations & Safety at UIC



Frédéric Hénon,
Head of Operations & Safety



Francisco Cabrera Jeronimo
Deputy - Head of Operations & Safety



Giancarlo De Marco Telese
Deputy - Head of Operations & Safety



Isabelle Fonverne,
Senior Advisor Safety & Interoperability



Iryna Polzikova,
Safety Database Manager




Virginie Papillaut, Human and Organisational
Factors & Safety Culture expert

“Operations & Safety”
encompass all the processes
and responsibilities required to
operate a train with passengers
or freight, from “service design”
to “return of experience”.

SAFETY

- Human and Organisational Factors
- Occupational Health & Safety
 - UIC accidents at work database
- Global Level Crossing Network / ILCAD 
- International Railway Safety Network 
- Safety Performance Group / Safety Database
- System Safety Management 
- Trespass and Suicide Prevention 
- UIMC

UIC Safety platform 

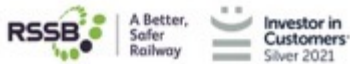
<https://uic.org/safety/#events>
<https://uic.org/safety/#projects>
<https://uic.org/safety/#publications>

Trespass and suicide prevention Network



TreSP!
Trespass & Suicide
Prevention Network

8



Chair: Dr. Ann Mills,
RSSB



Nils La Cour,
DSB, Vice-
Chair



Coordinator at UIC:
Isabelle Fonverne



- 54 members: mainly railway infrastructure managers but also many academics specialised in suicide prevention
- Kick off meeting : 28 June 2021 <https://uic.org/safety/trespass-and-suicide-prevention>
- Work programme: mainly review of RESTRAIL toolbox : <https://restrail.eu/toolbox>
- **REduction of Suicides and Trespasses on RAILway property**
- After ILCAD born in 2009 (www.ilcad.org); 2nd UIC global railway safety awareness campaign on trespass prevention: TRESPAD
- 1st edition launched through an international conference on 8 June in Denver, USA.
- 2nd edition took launched on 14 June 2023 in a conference in Warsaw.
- Videos et posters shared will all participating countries: [Trespass Prevention youtube playlist](#)



150 delegates from 28 countries to exchange on best practices on railway trespass and suicide prevention [Link to the UIC e-news article](#)



TRESPAD 2023 campaign: Posters



TRACKS ARE FOR TRAINS

TRESPASSING IS EXTREMELY DANGEROUS!



TRACKS ARE FOR TRAINS

TRESPASSING IS EXTREMELY DANGEROUS!



TRACKS ARE FOR TRAINS

TRESPASSING IS EXTREMELY DANGEROUS!



TRACKS ARE FOR TRAINS

TRESPASSING IS EXTREMELY DANGEROUS!



Some examples of activities carried out in during ILCAD / TRESPAD

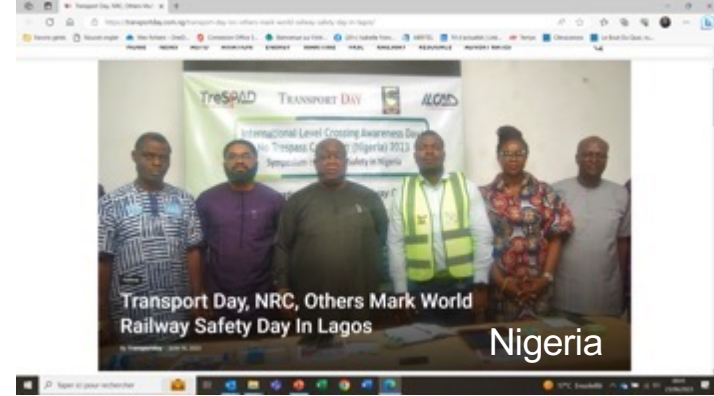
For other countries read [UIC e-news article June 2023](#) or visit www.ilcad.org



Argentina



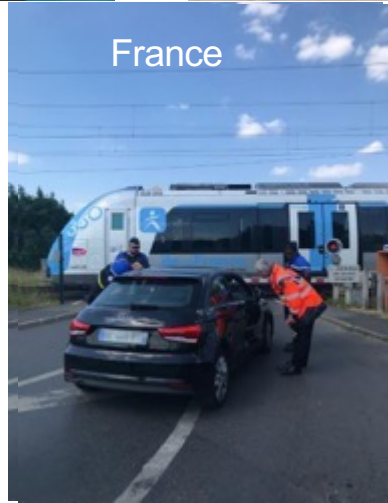
Cameroon



Nigeria



Luxembur



France



Pakistan



South Africa

SAVE THE DATE

TreSPAD
Tracks are for trains

5 June 2024
Buenos Aires, Argentina

Logos for UIC (International Union of Railways), TreSP (Tramway & Subway Prevention Network), JST (Seguridad en el Transporte), and the Ministerio de Transporte Argentina.



www.ilcad.org

Public to target in 2024:
Vulnerable Persons

SAVE THE DATE

ILCAD
Act safely at level crossings

6 June 2024
Buenos Aires, Argentina

Logos for UIC (International Union of Railways), Global Level Crossing Network, JST (Seguridad en el Transporte), and the Ministerio de Transporte Argentina.



www.ilcad.org

SAVE THE DATE

TECHNICAL VISIT

7 June 2024
Buenos Aires, Argentina

Logos for UIC (International Union of Railways), Global Level Crossing Network, TreSP (Tramway & Subway Prevention Network), JST (Seguridad en el Transporte), and the Ministerio de Transporte Argentina.



www.ilcad.org

www.ilcad.org



#ilcad

fonverne@uic.org

www.ilcad.org ; <https://twitter.com/ilcad> ; <https://www.facebook.com/ILCAD/>

[ILCAD 2023 VIDEO](#)

[TRESPAD 2023 VIDEO](#)



INTERNATIONAL UNION
OF RAILWAYS

Stay in touch with UIC:

www.uic.org



#UICrail

Thank you for your attention.



Karolinska
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Region Stockholm

Suicidal contagion, Werther- and Papageno effects; the relation to railbound suicides

Lola Barre

Suicide Prevention Consultant in Public Places

Charles-Edouard Notredame

Psychiatrist & Scientific-Referent



Papageno Programme



LE SUICIDE, PARLONS-EN

**SUICIDE,
LET'S TALK ABOUT IT**

Papa•eno
PROGRAMME

**INTERNATIONAL UNION OF RAILWAYS
NASP at KAROLINSKA INSTITUTE
THE SWEDISH CONFERENCE ON
SUICIDE PREVENTION IN RAIL BOUND TRAFFIC**

Suicide hot-spots : issues and prevention of suicide contagion in public places

Dr Charles-Edouard Notredame, psychiatrist and scientific referent
Lola Barre, suicidal contagion consultant in public places

4th of December, 2023



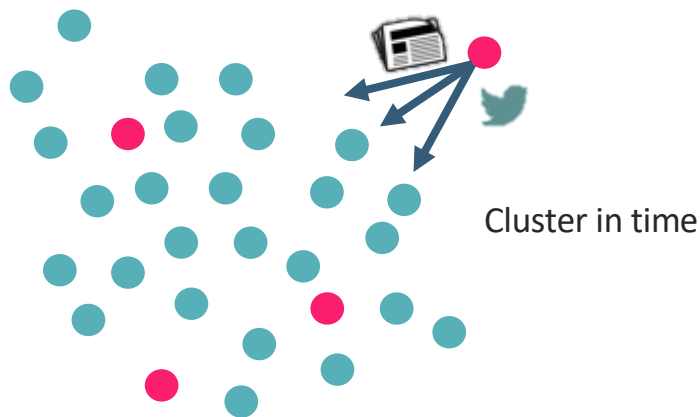
SUICIDAL CONTAGION

1

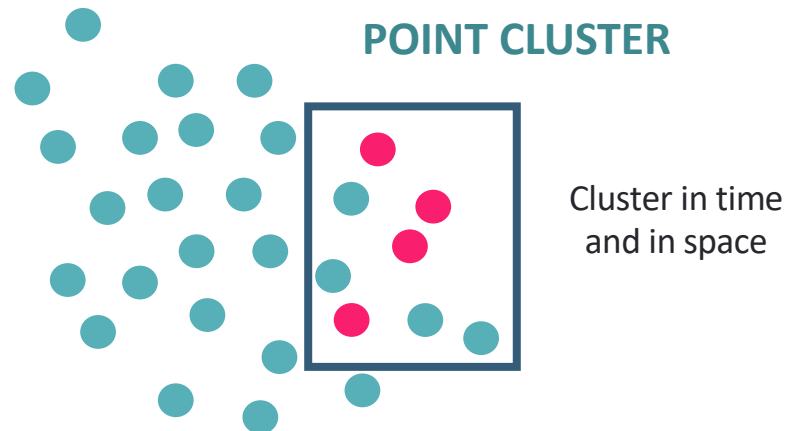
THE ISSUE

TYPOLOGIE : MODE DE TRANSMISSION

MASS CLUSTER



POINT CLUSTER



2014 : Robin Williams death
+ 10% of S among men aged
from 30 to 44 years old, USA
Among +32% by asphyxiation

Fink el al., 2018



Teenagers : 2 to 4 times more
suicidal risk if direct exposure
Direct exposure : 70% of suicides
attempts

Nicolas, C., Notredame, C.-E., Séguin,
M. (2017) ; Mars et al., 2015

Werther effect VS Papageno effect

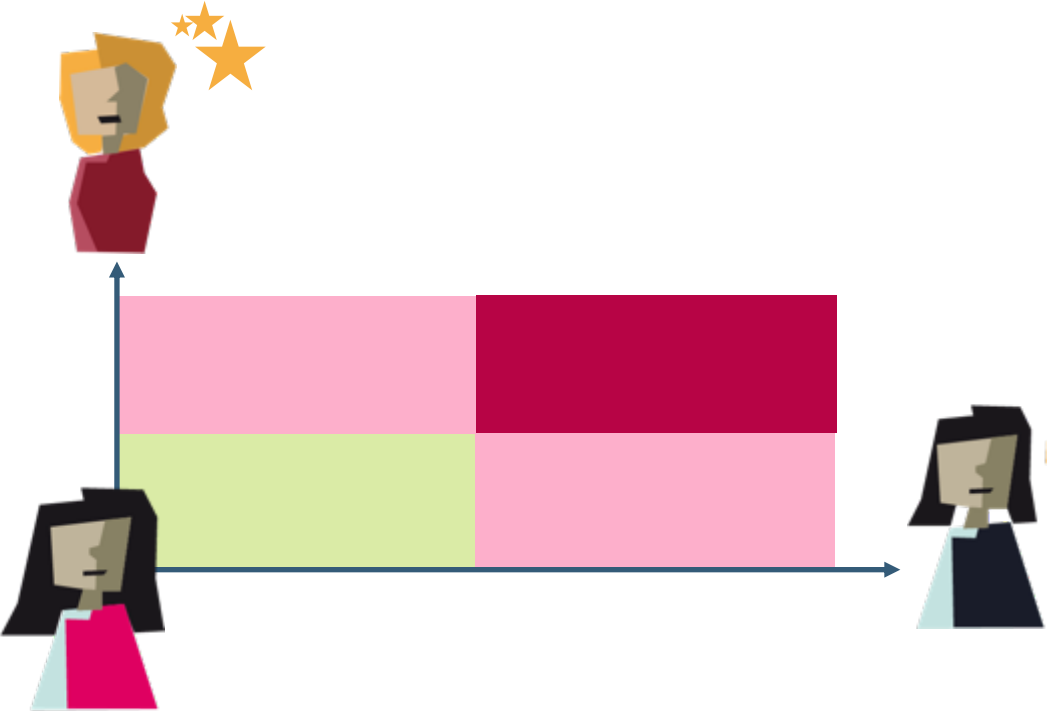


Motto, 1967
Phillips, 1975



Niederkrotenthaler et al.,
2010

Social proof model





PAPAGENO PROGRAM

Partnership



F2RSM Psy

Association reconnue de recherche
en psychologie et santé mentale en France

GEPS

GROUPEMENT D'ETUDES ET
DE PREVENTION DU SUICIDE

Public Sector
Undertaking



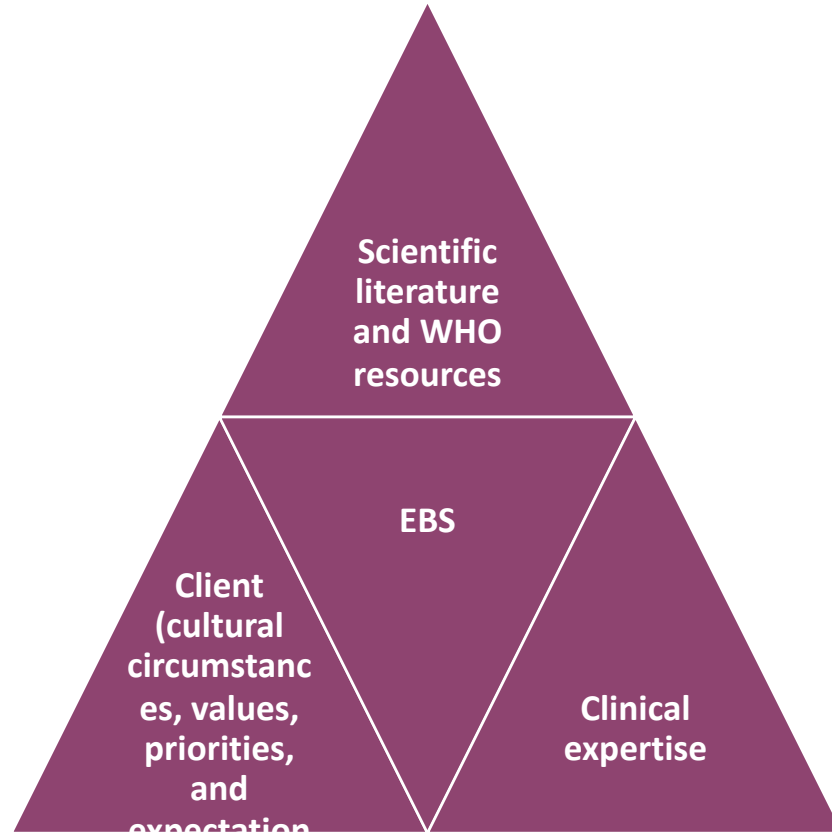
MINISTÈRE
DE LA SANTÉ
ET DE LA PRÉVENTION

Éclair
Égalité
Proximité

1

ACTION-RESEARCH PROGRAM

EVIDENCE-BASED STRATEGY



Papageno PROGRAMME



JOURNALISTS AND STUDENTS

AWARENESS
SUPPORTING
MEDIAS ALERT



SUICIDE PREVENTION STAKEHOLDERS

MEDIA TRAINING



WEB CONTRIBUTORS AND FICTIONNALS AUTHORS

AWARENESS
SUPPORTING AND
RESSOURCES DIFFUSIONS



INSTITUTIONS

AWARENESS
SUPPORTING TO DEPLOY SUICIDE
PREVENTION PLAN



SUICIDE HOT-SPOTS

DIAGNOSTIC ON SITE
SUPPORTING TO DEPLOY SUICIDE
PREVENTION MEASURE

A man wearing a grey knit beanie and a brown jacket is looking at a map. The map is partially visible, showing a grid and some lines. The background is a soft, light blue and white gradient.

SUICIDE ON HOT-SPOT : FRENCH RAILSWAY

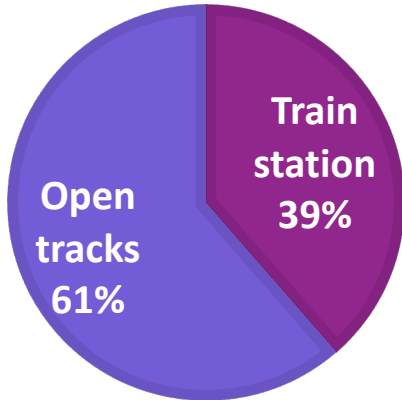
3

MAPPING
SUPPORTING

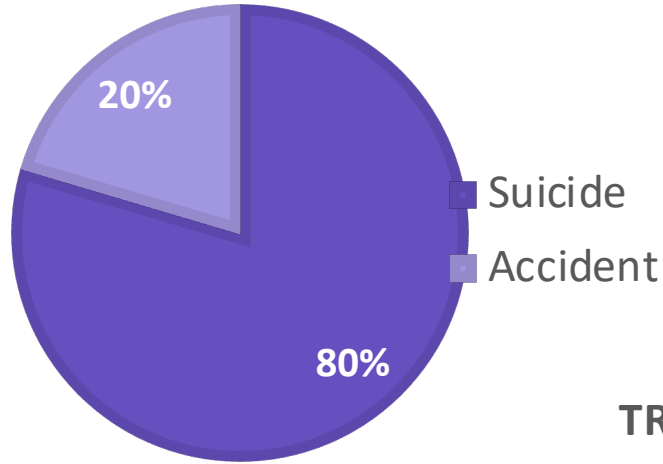
LOCATION TYPE (01/21 to 09/23)

SUICIDE AND ACCIDENTS

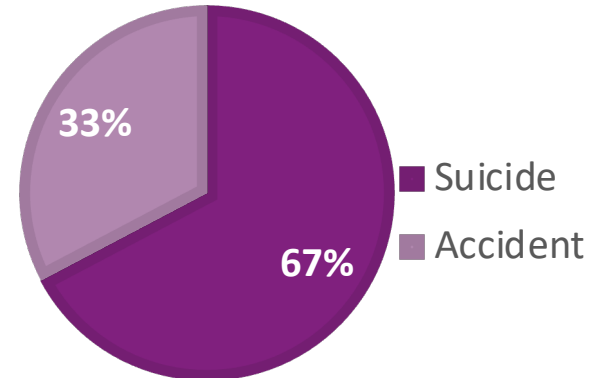
■ Train station ■ Open tracks



OPEN TRACKS

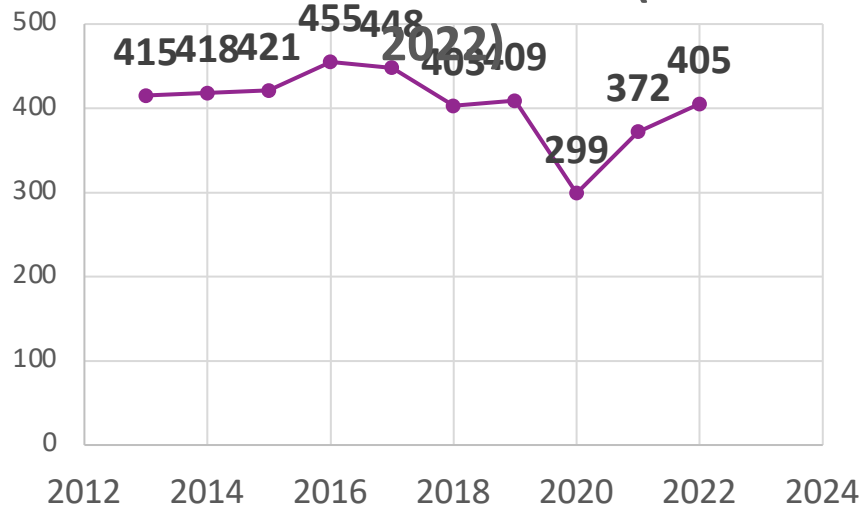


TRAIN STATION

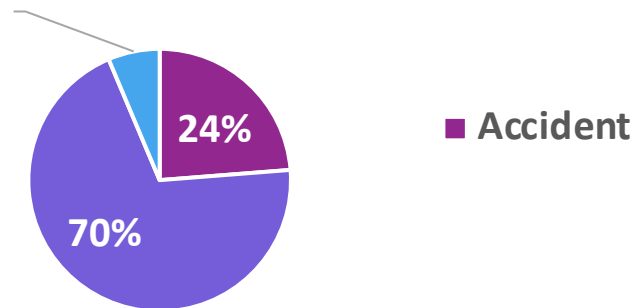


INCIDENTS ON FRENCH RAILWAYS

ACCIDENTS AND SUICIDE ON THE FRENCH RAILWAYS (2013-2022)



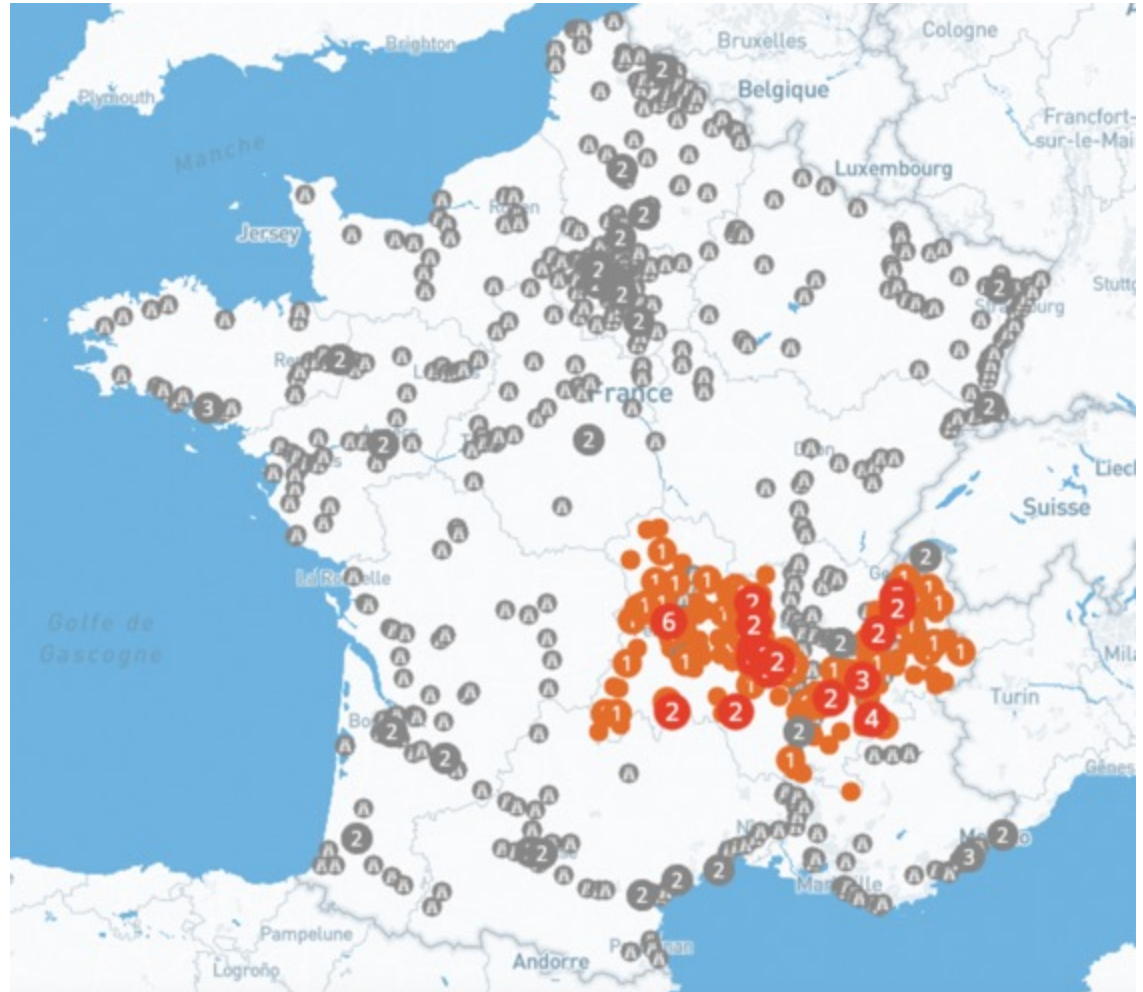
PROPORTION ACCIDENTS/SUICIDES (January 2021 to September 2023)

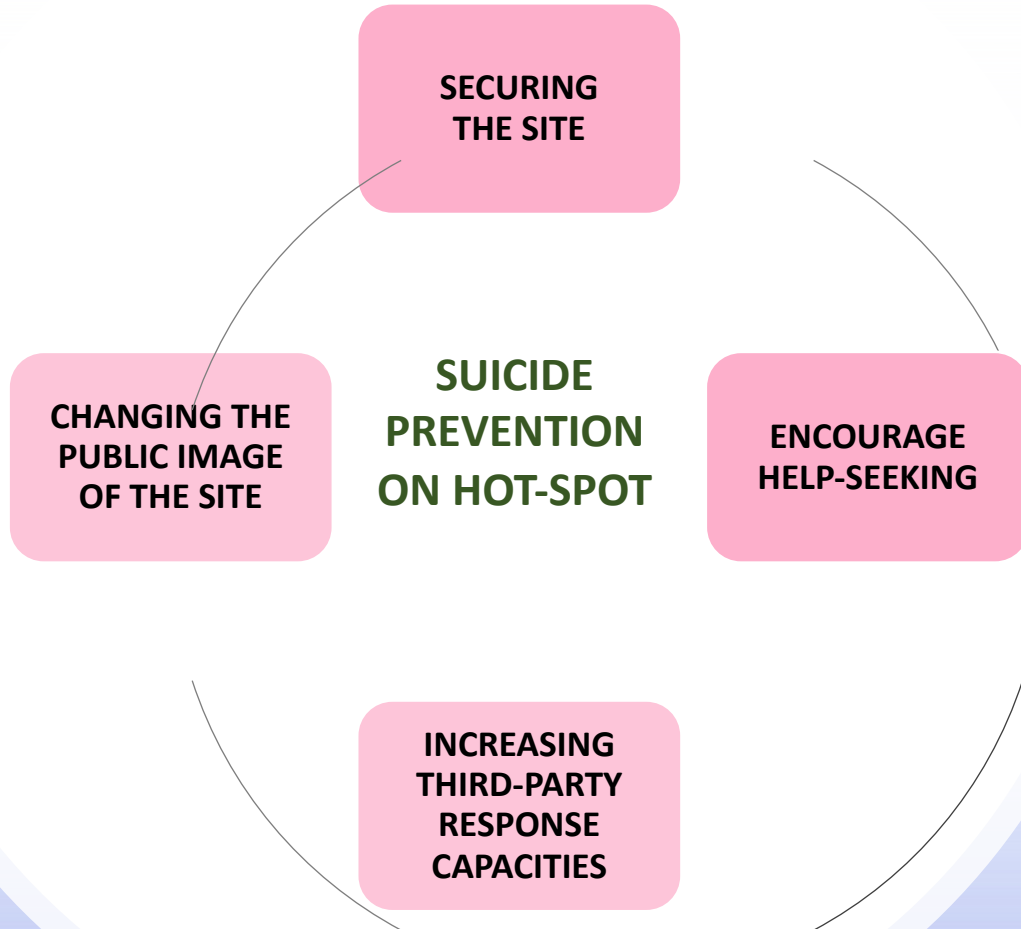


MAP OF RAIL SUICIDES (01/21 to 09/23)



MAP OF SUICIDES HOT-SPOTS (AUVERGNE RHONE ALPES REGION)





LE SUICIDE, PARLONS-EN

SUICIDE,
LET'S TALK ABOUT IT

Papageno
PROGRAMME

THANKS FOR YOUR ATTENTION

Charles-Edouard Notredame

Psychiatrist CHU Lille and scientific referent
for Papageno Program

Lola Barre

Suicide prevention on public places
Programme Papageno

✉ lola.barre@f2rsmpsy.fr

🐦 📘 📷 @PapagenoSuicide

🌐 www.papageno-suicide.com



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Institutet

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Railway Suicide Prevention in the Netherlands

Marjolein Snel

Suicide Prevention Manager

ProRail



SUICIDE PREVENTION ON THE DUTCH RAILWAYS

Marjolein Snel
Stockholm conference, 4th December 2023

CONTENTS

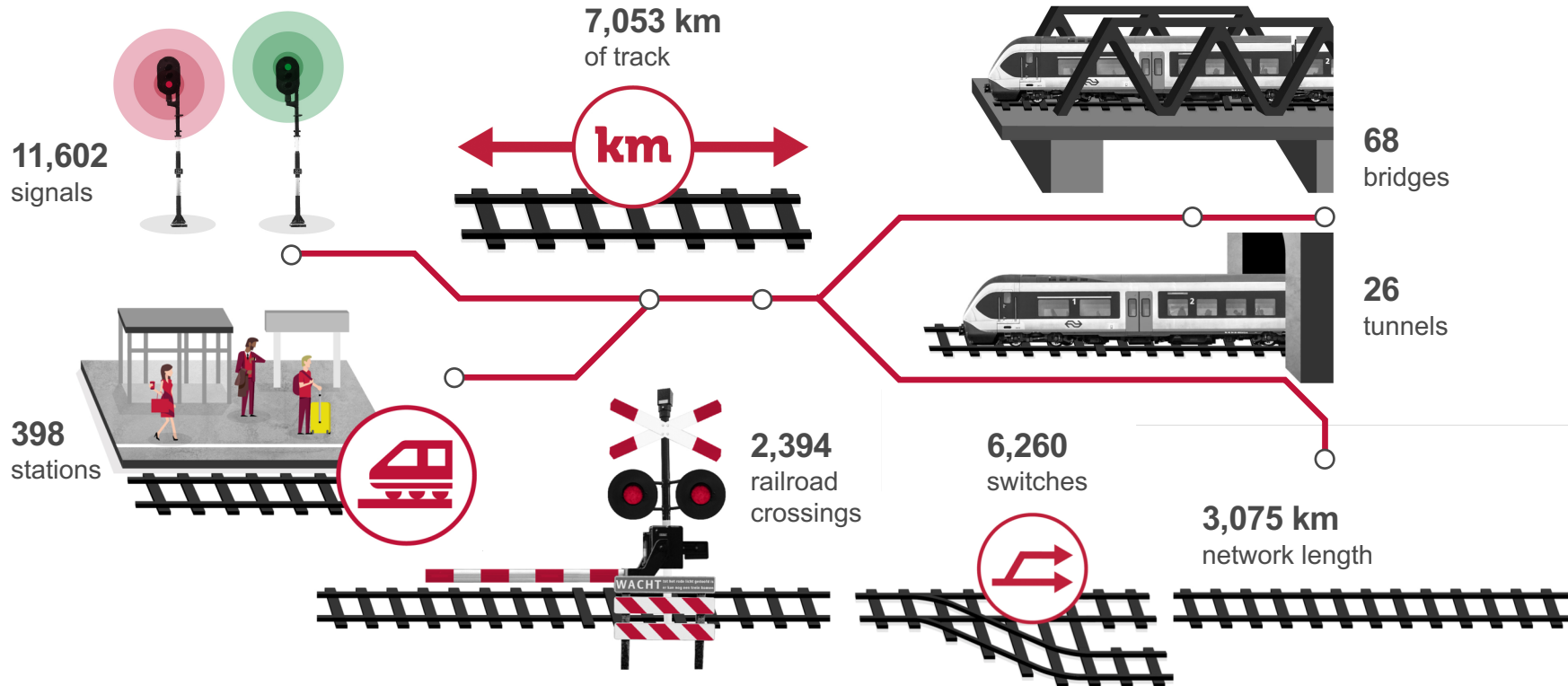
1. ProRail and the Dutch rail infrastructure
2. Figures
3. Prevention approach
4. Summary
5. Questions

PRORAIL

- Maintenance, renewal, expansion and safety of the Dutch railroad network.
- Allocation rail capacity
- Regulation train traffic



Infrastructure

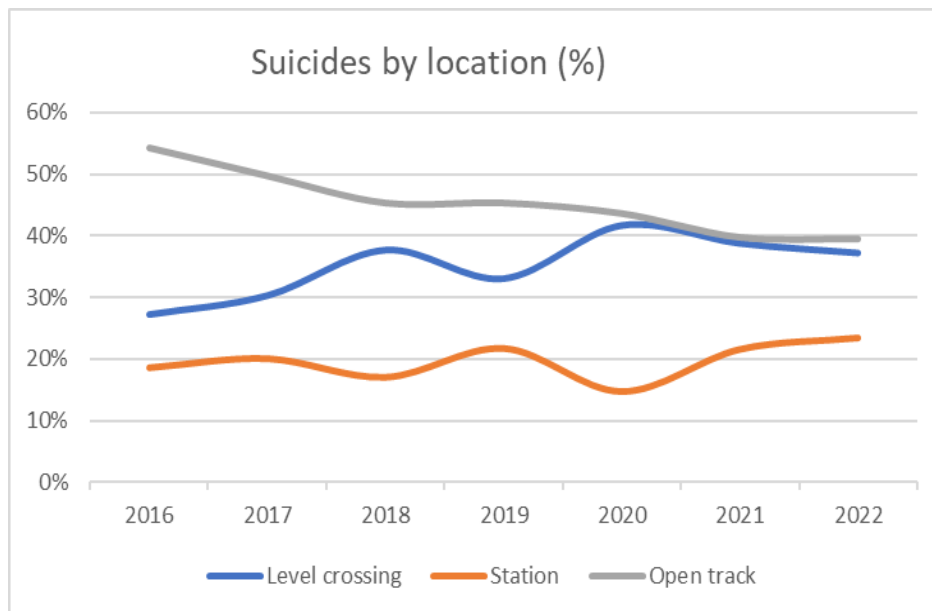


SUICIDES, ATTEMPTS AND INTENTIONS AVERAGE PER YEAR BETWEEN 2018 UNTIL 2022

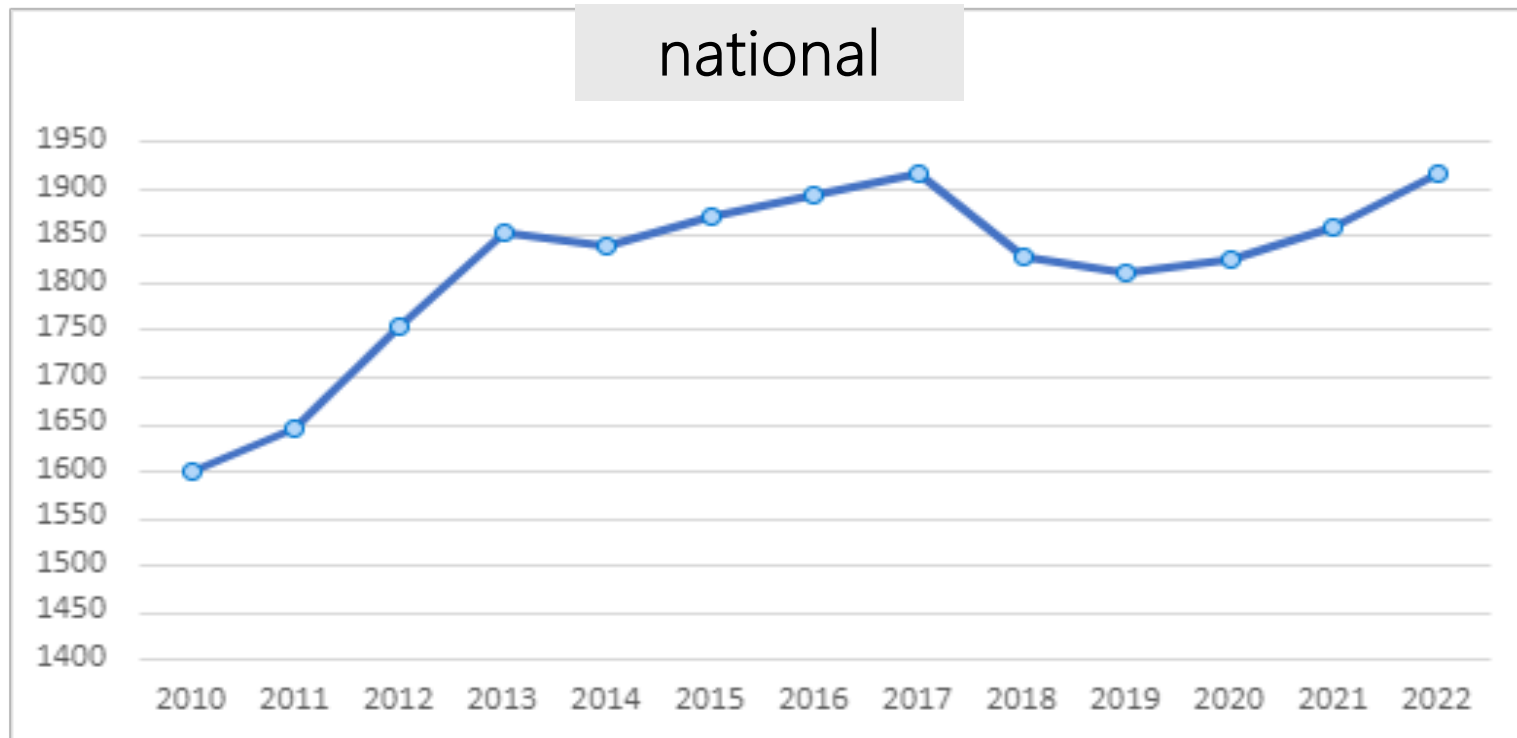
Suicides	Attempts	Intentions	Total
193	202	291	686
28%	29%	43%	100%

SUICIDES BY LOCATION

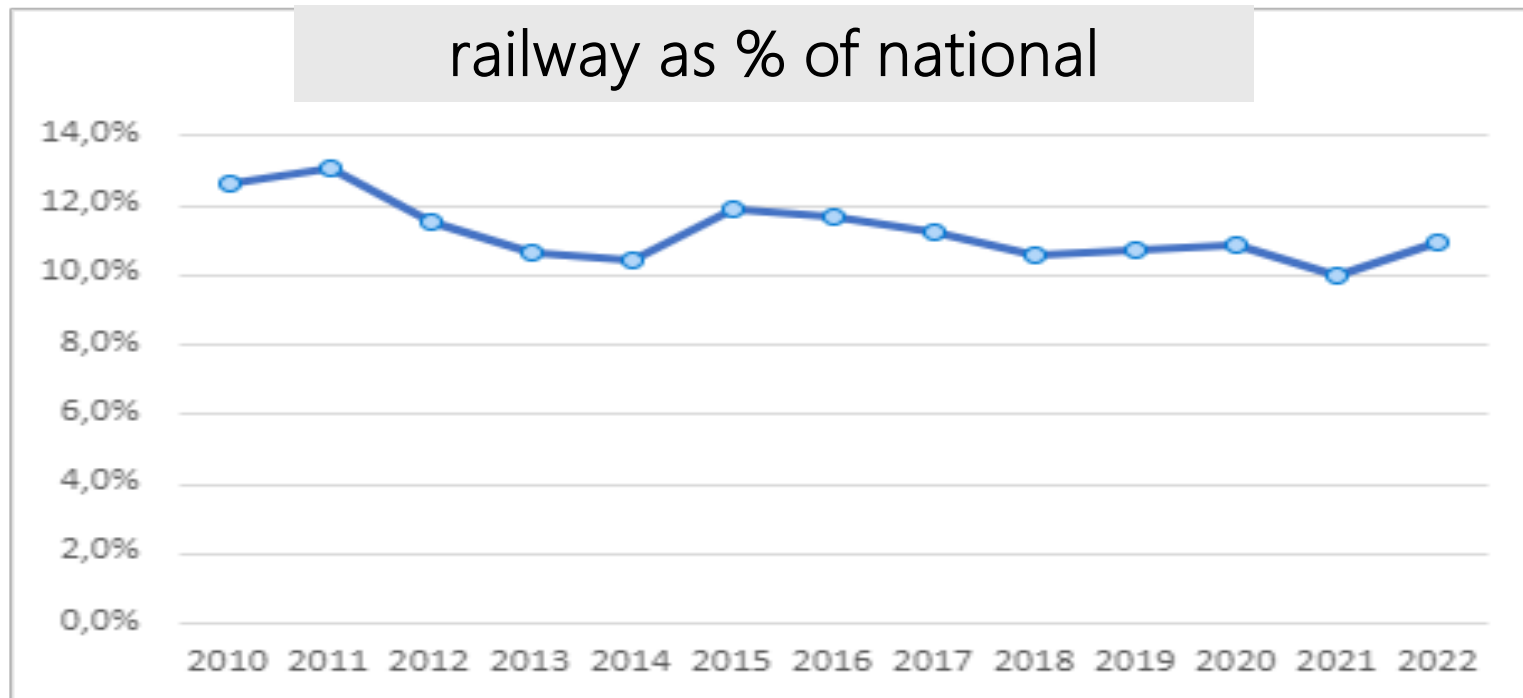
Level crossings	40%
Open track	40%
Stations	20%



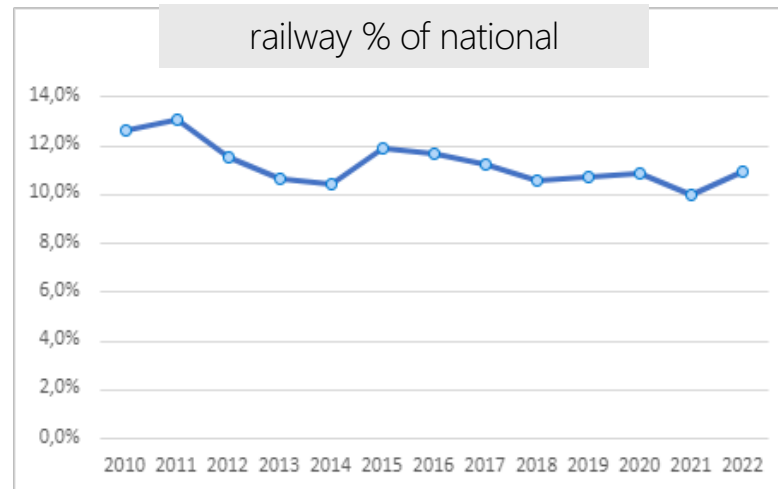
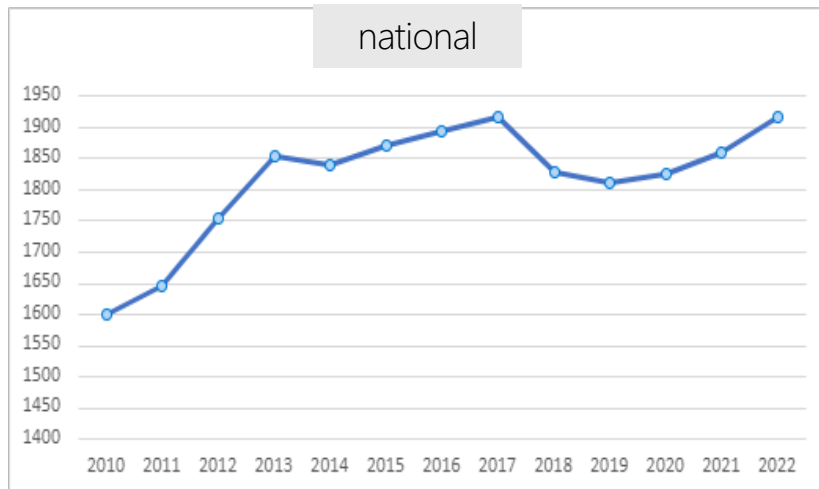
NUMBER OF SUICIDES: NATIONAL



NUMBER OF INCIDENTS: RAILWAY AS % OF NATIONAL



NUMBER OF INCIDENTS



The number of suicides on the railway has decreased as a percentage of the total number of suicides

SUICIDE PREVENTION HELPS

Conclusion scientific research*, May 2021

"...preventive measures were effective, preventing approximately 85 railway suicides annually, a reduction of 30%."

* Railway Suicide in The Netherlands Lower Than Expected Are Preventive Measures Effective? Cornelis A. J. van Houwelingen, Alessandro Di Bucchianico, Domien G. M. Beersma, and Ad J. F. M. Kerkhof, Published Online: May 18, 2021 <https://doi.org/10.1027/0227-5910/a000792>

PREVENTION APPROACH

1. Restricting access and innovation
2. Intervening
3. Influencing society

Research, knowledge sharing and international network



RESTRICTING ACCESS

Securing high-risk locations

- Fencing, anti-trespassing mats, smart cameras, 113-signs
- New: guideline Suicide Prevention Stations
- Develop guideline for level crossings



INNOVATION

- Blue light pilot
- Smart camera software
 - Testing new software
 - Research suicidal behaviour



INTERVENING



- Gatekeeper training for staff
- Cooperation with mental health services: 'protocol for missing patients'
- Speed up the procedures for small technical interventions
- Approach for 'repeaters'

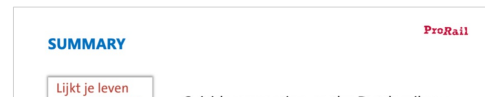
INFLUENCING SOCIETY

- Public campaigns
- Cooperation with 113
- Media guidelines
- Support for the bereaved



RESEARCH, KNOWLEDGE SHARING AND INTERNATIONAL NETWORK

- (Scientific) research
- Participation in international platform UIC TreSP



SUMMARY

Lijkt je leven
uitzichtloos?

Bel me,
ik luister

Wat je verhaal ook is.

Bel 0800-0113
Chat 113.nl

Anoniem en gratis

113

- Suicide prevention on the Dutch railway is effective
- Next years: improving with a focus on swift intervention, innovation and research

Thank You
For Your Attention!

Any Questions





Karolinska
Institutet

 Region Stockholm

Research on railway suicide prevention measures in the Netherlands

Bart Hoogcarspel

Data Specialist & PhD Student

ProRail & Amsterdam UMC





Research on prevention measures suicide on railways in The Netherlands

Bart Hoogcarspel

Suicide prevention in rail bound traffic, Stockholm, Dec 4th 2023

ProRail

veilig reizen, werken & leven



Contents

- People, suicide and railways in the Netherlands
- Effect of changes in infrastructure:
 - Closure of level crossings: 1991-1998
 - Visibility measures: 2006-2007
 - Electronic entrance gates: 2014-2016
- Conclusions



People, suicide and railways in the Netherlands

- People:
 - Population: 17.8 M
 - Suicides: 1.916 (suicide rate = 11 per 100.000)
 - Off which 210 on the railways (11 %)
- Network and trains:
 - Network length: 3.000 km
 - Train kilometers: 157 Mkm
 - Train traffic intensity: 143 per day or 8 per hour or 7 ½ min waiting time
- Access-points:
 - Train stations: 400
 - Level crossings 2.250
 - Other locations
 - >1.5 “easy” access points per km network





BELGIË



BELGIË



BELGIË



People, suicide and railways in the Netherlands

2010-2012



2015-2017



2020-2022



Closure of level crossings: 1991-1998

Question:

1. Does closure have an effect on suicides?
2. Is there displacement to nearby tracks?

Three groups:

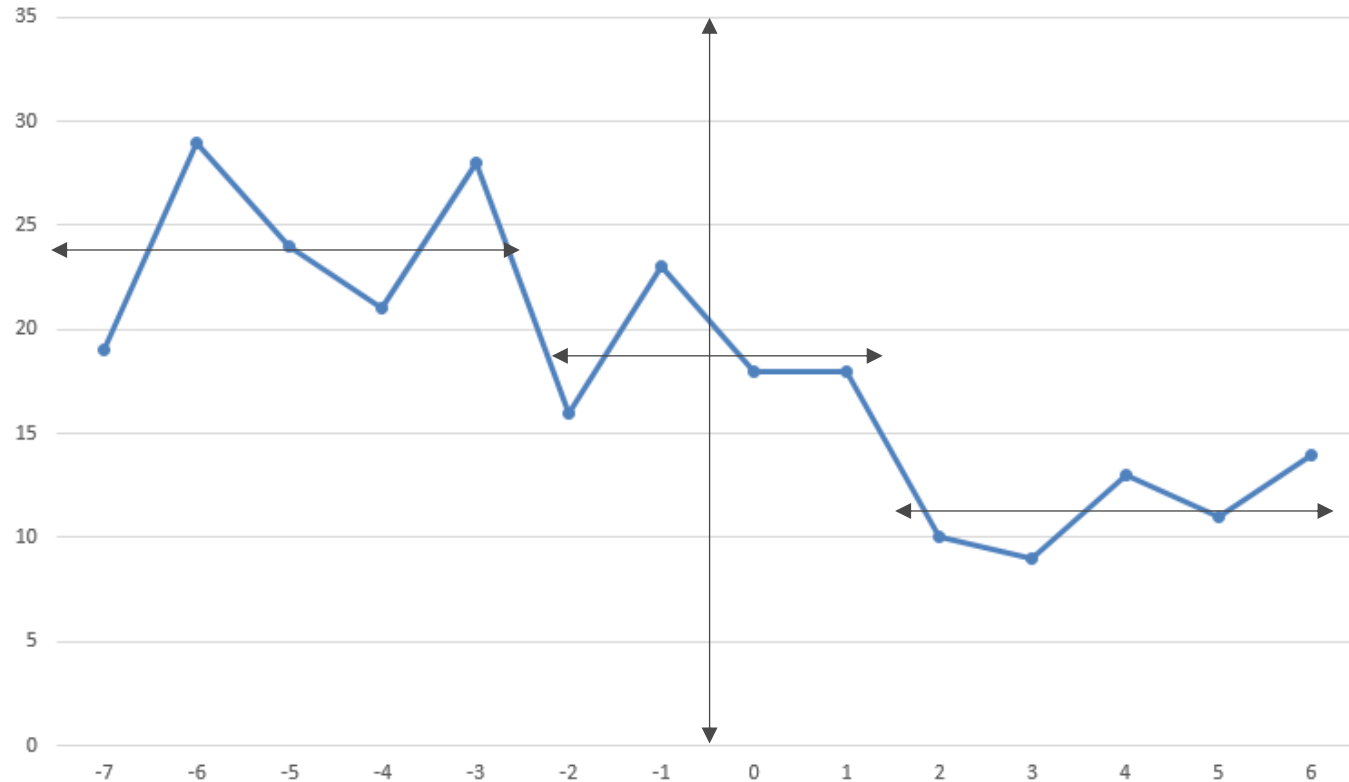
1. Influence: within 500 meters of a closed level crossing
2. Adjacent: next 1000 meters of tracks on both sides
3. Control: all level crossing that have not been closed

Before-after analysis depending on date of closure. For the control group a virtual date was chosen on 1-1-1995.



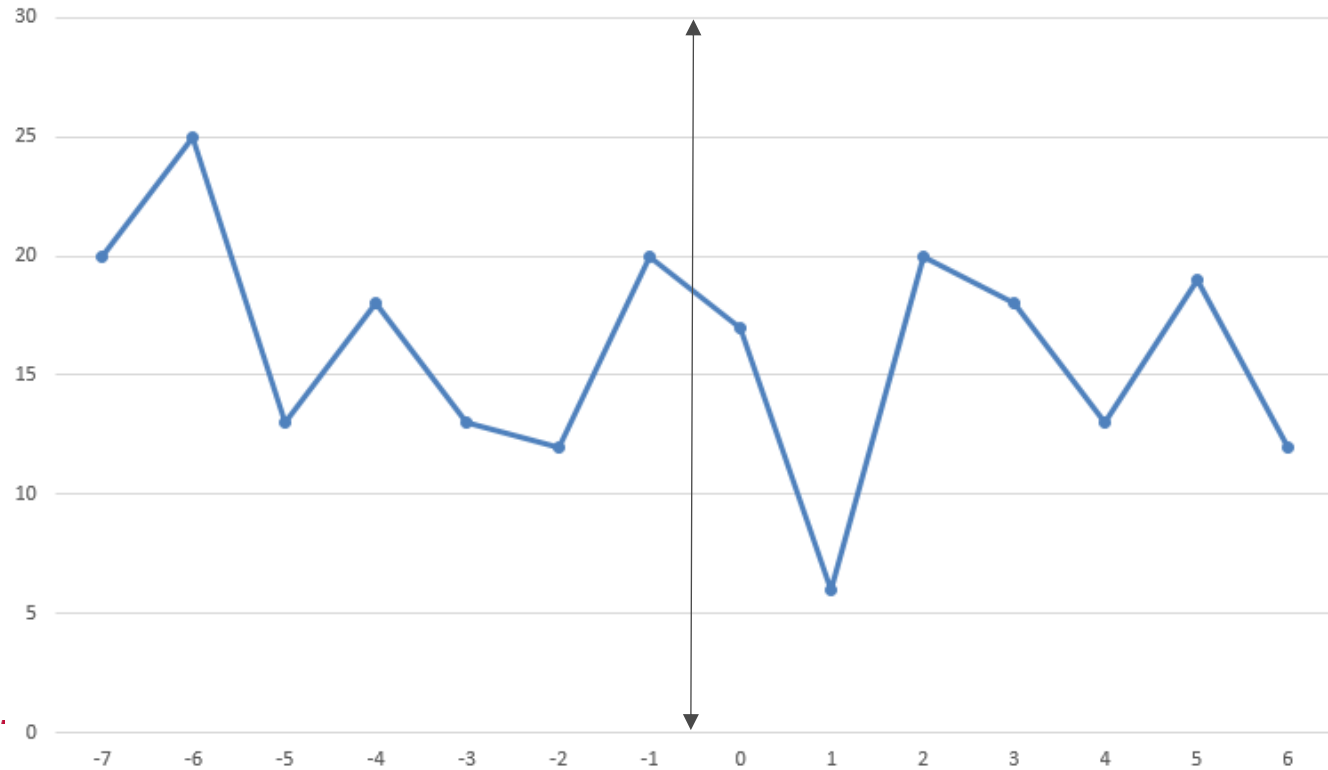
Closure of level crossings: 1991-1998

- Influence area within 500 meters of closed level crossings:
- **Drop of 42%**
- **Possibly 3 stages:** 24,2 to 18,8 to 11,4
- **Drop of 53%**



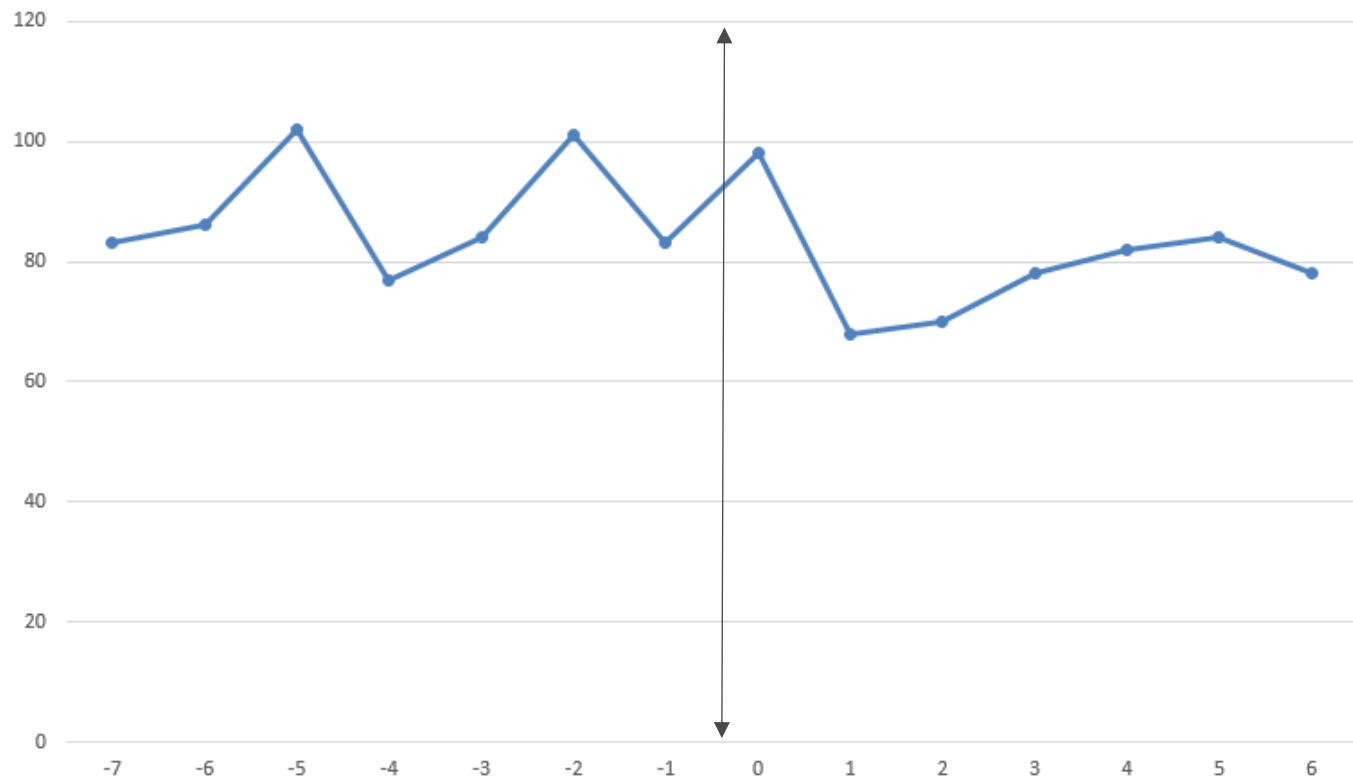
Closure of level crossings: 1991-1998

- Adjacent km of tracks:
 - No displacement
 - No breakpoint at $T=0$
 - A statistical drop of 13%



Closure of level crossings: 1991-1998

- Control group of level crossing not closed:
- Drop of 10%



Visibility measures: 2006-2007

To test the feasibility of intervention by railway companies 30 locations were selected spread over the country and with a history of higher suicide numbers.

Intervention:

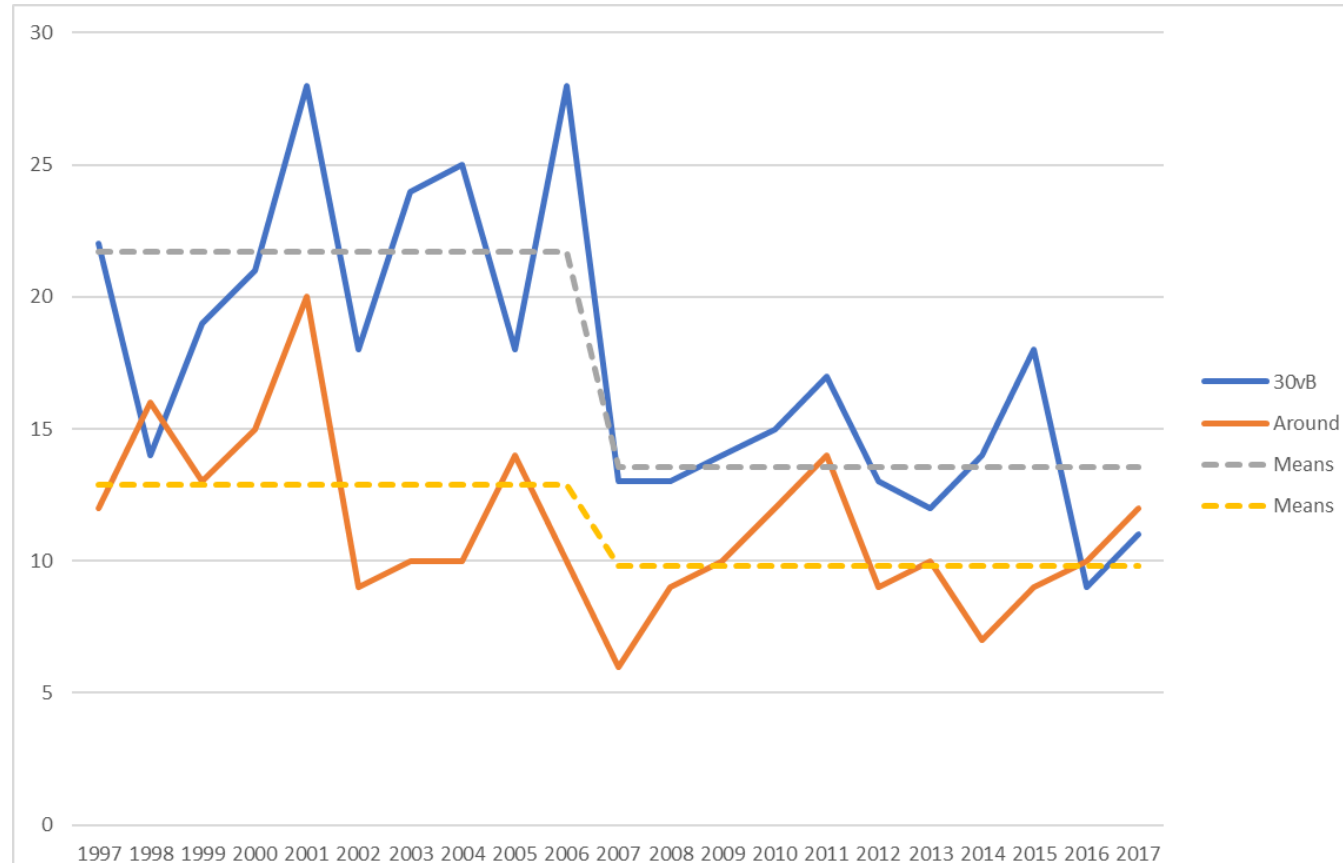
- Fence the track area by approximately 100 meters (or more depending on the local situation) and
- Between those fences and the tracks:
 - Reduce hiding places, by removing objects and vegetation
- Improve lighting conditions (streetlamps)

Fences used were typically 1,50 meters high and consisted of the wire mesh type.



Visibility measures: 2006-2007

- Intervention locations:
 - Drop from 21.7 to 13.5 (-38%)
- Adjacent km of tracks:
 - No displacement
 - Unexpected drop from 12.9 to 9.8 (-24%)



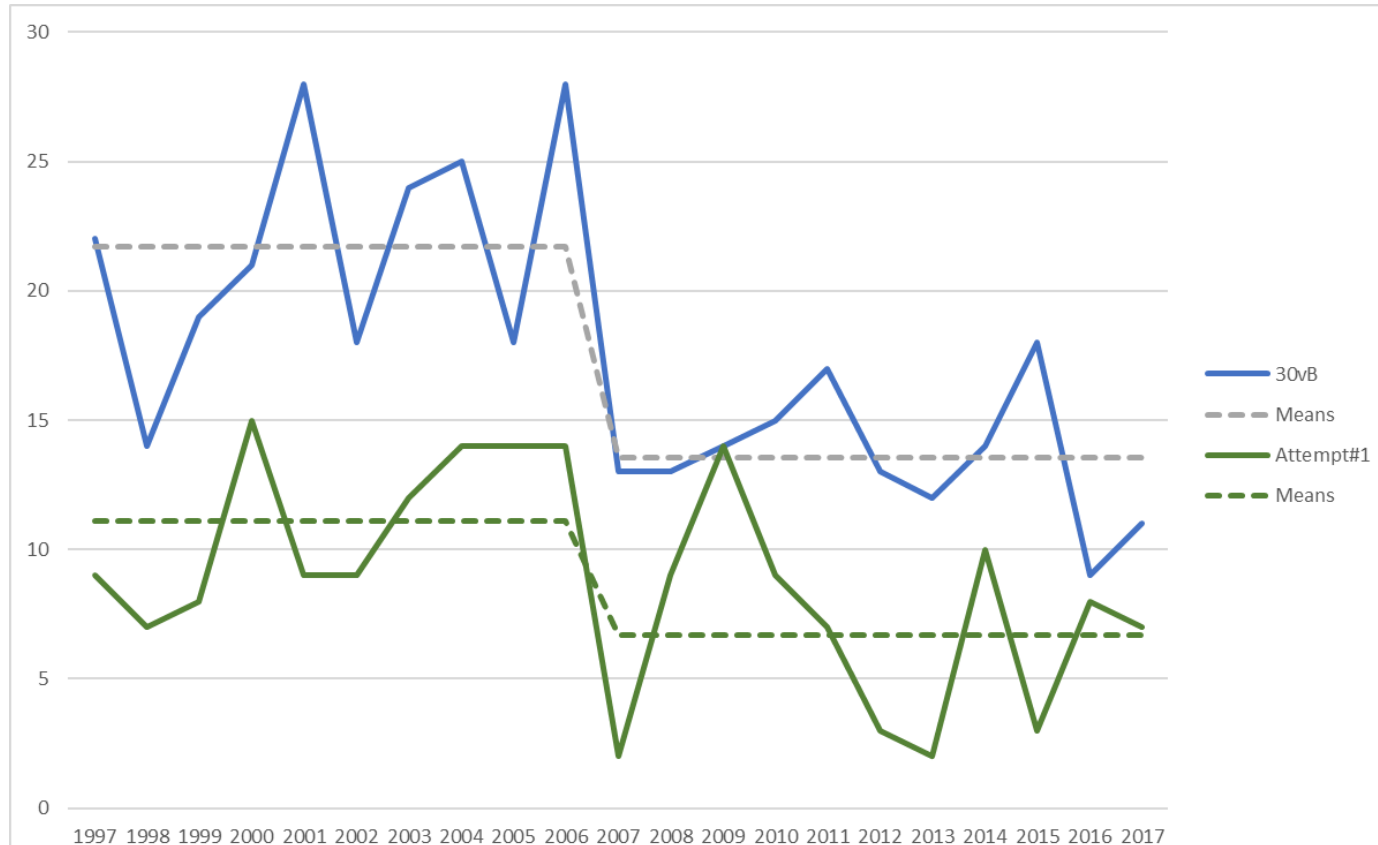
The quest for a robust control group

- 38% drop is the result for the intervention group of 30 locations
- Evidence would be stronger with a comparison with a group where no intervention has taken place: control group
- Attempt #1:
 - Select all locations outside the intervention group of 30 locations with a similar number of suicides per year
 - 23 locations



Control group Attempt #1

- Intervention group:
 - drop from 21.7 to 13.5 (-38%)
- Control group:
 - An unexpected drop from 11.1 to 6.7 (-39%)
- What can be the reason?



What else happened in the meantime?

- 2009-2020: Fencing program against events “with high impact on train traffic”: copper theft, trespassers, and ...
also: suicide events that have an impact of 3 hours interrupted train traffic!
- 2011: Second group of 13 locations
- 2014: Third group of 10 locations and 2 complete tracks with 38 locations
- All these interventions targetted locations with high numbers of events
- This means that: there is a larger intervention group!



Attempt #2 and 3

- Can we find data to detect which locations with a “similar number of suicides” where no intervention has taken place?
- Attempt #2:
 - Find old administration on infrastructure changes
 - No result, only aggregated info found: X km of fences in region A
- Attempt #3:
 - Analyze yearly 360° photos of locations
 - No usefull result: Only available when roads are on the location; oldest photos start in 2007 (after the first intervention)
- Conclusion: Criterium of “similar number of suicides” is not possible



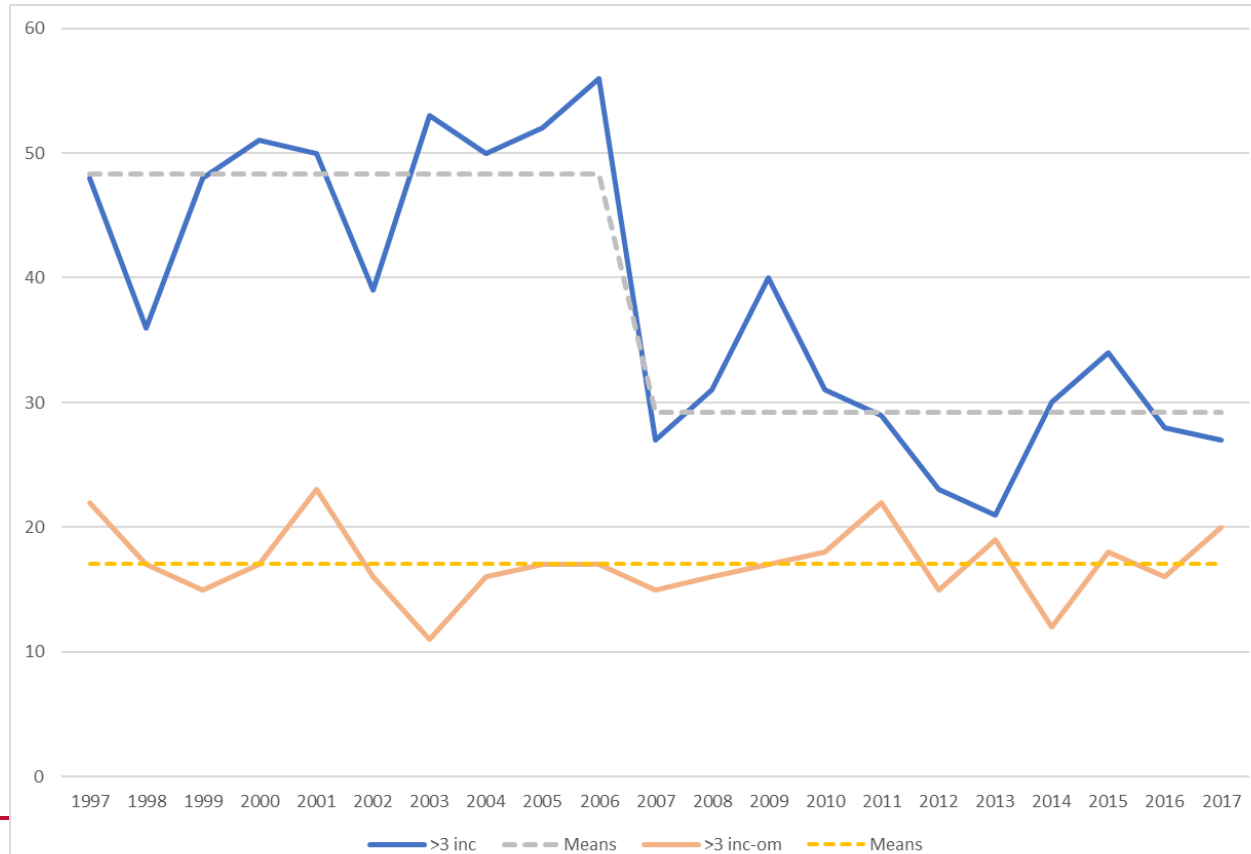
Attempt #4

- Intervention group:
All locations with 4 or more suicides in 1997-2006: 96 locations
- Surroundings group: 1 km of track on both sides of the intervention locations
- Control group: all other locations with 3 or less suicides in 1997-2006



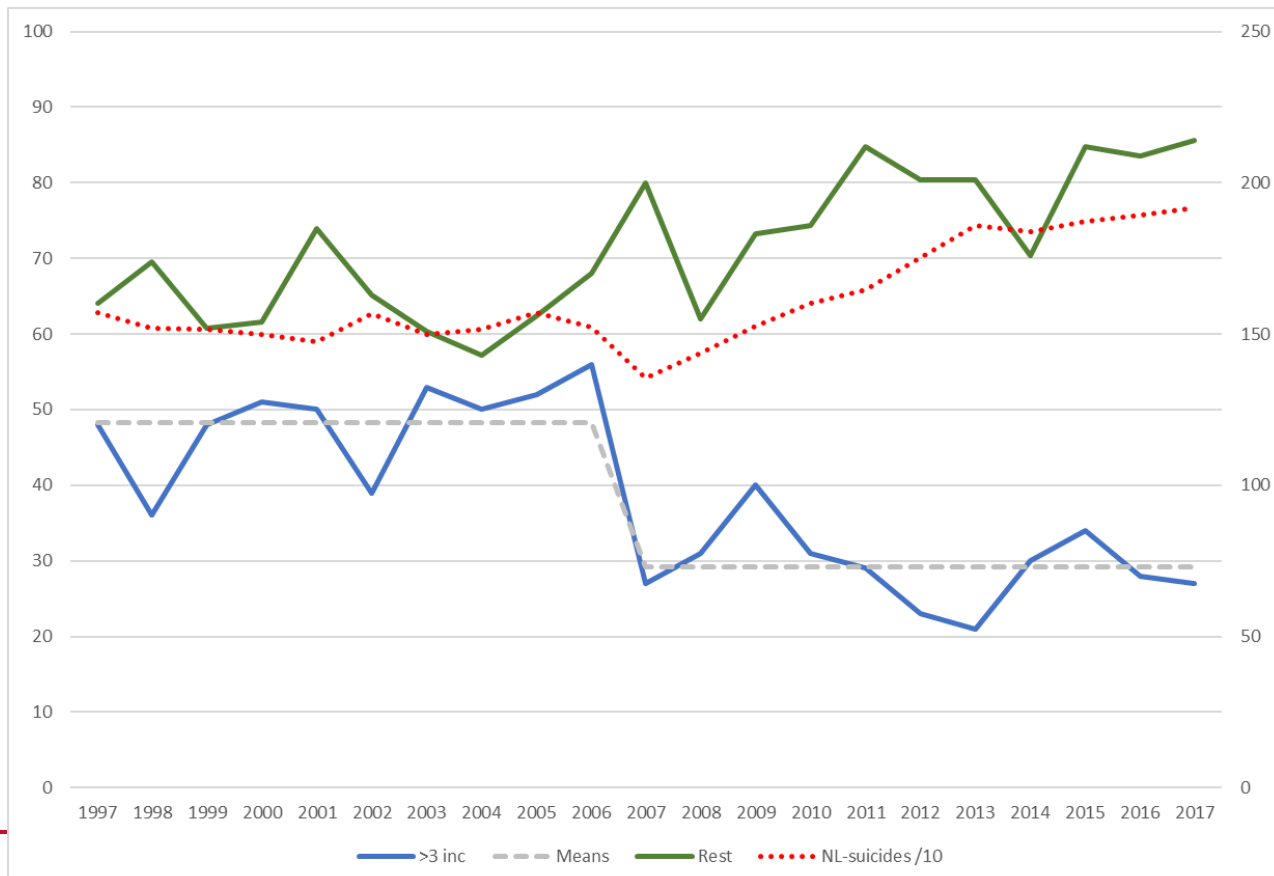
New intervention group with 4 or more suicides

- Intervention group:
 - drop from 48.3 to 29.2 (-40%)
- Surroundings group:
 - Stable at 17.1
 - No displacement



Control group Attempt #4

- Intervention group:
 - drop from 21.7 to 13.5 (-38%)
- Control group:
 - An unexpected slow rise after 2008
 - In line with the increase of the general suicide rate



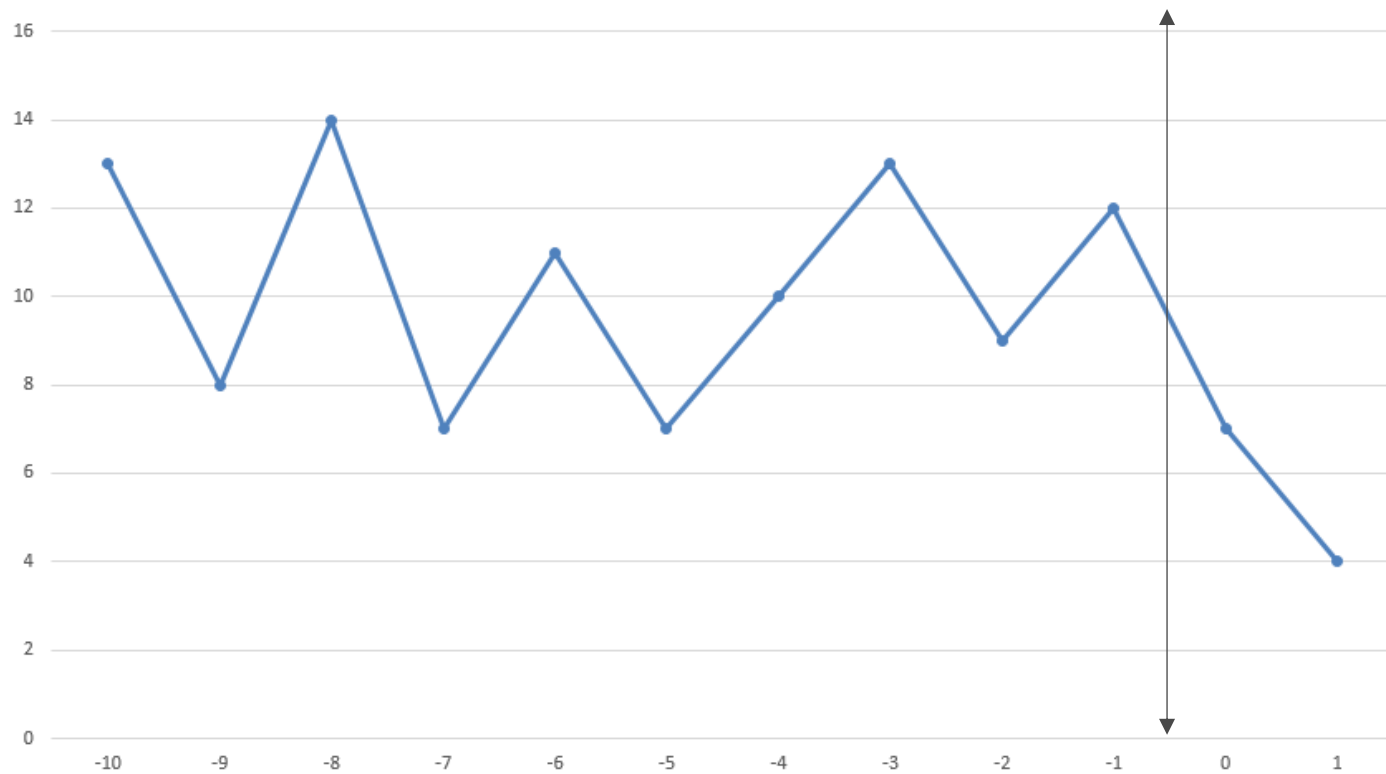
Entrance gates in stations: 2014-2016

- Activation of gates starting 2014
- Camera-surveillance on the gates
- Select stations with suicides events
- 52 stations with gates one or more suicides
- 112 stations without gates



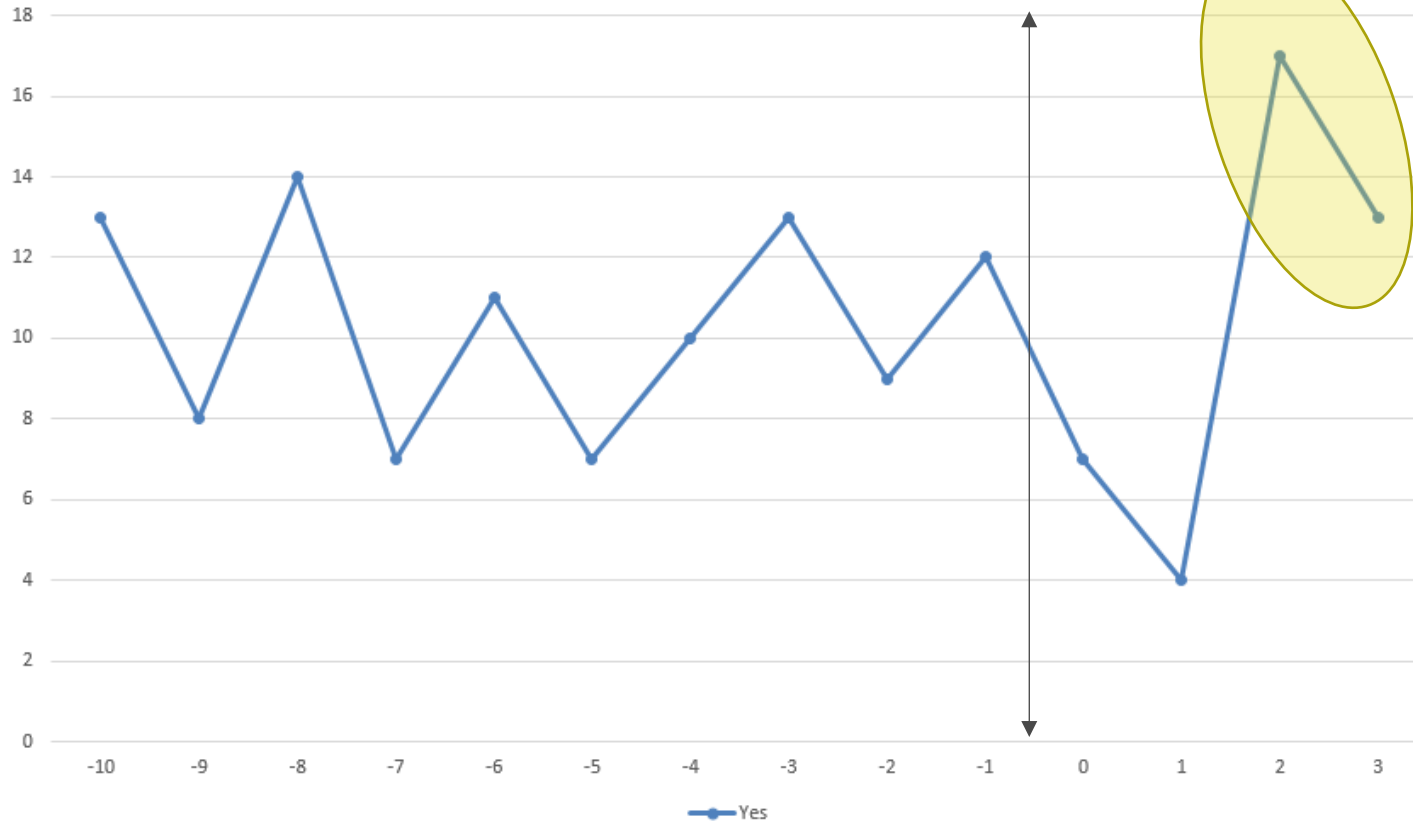
Entrance gates in stations: 2014-2016

- First two years looked promising!



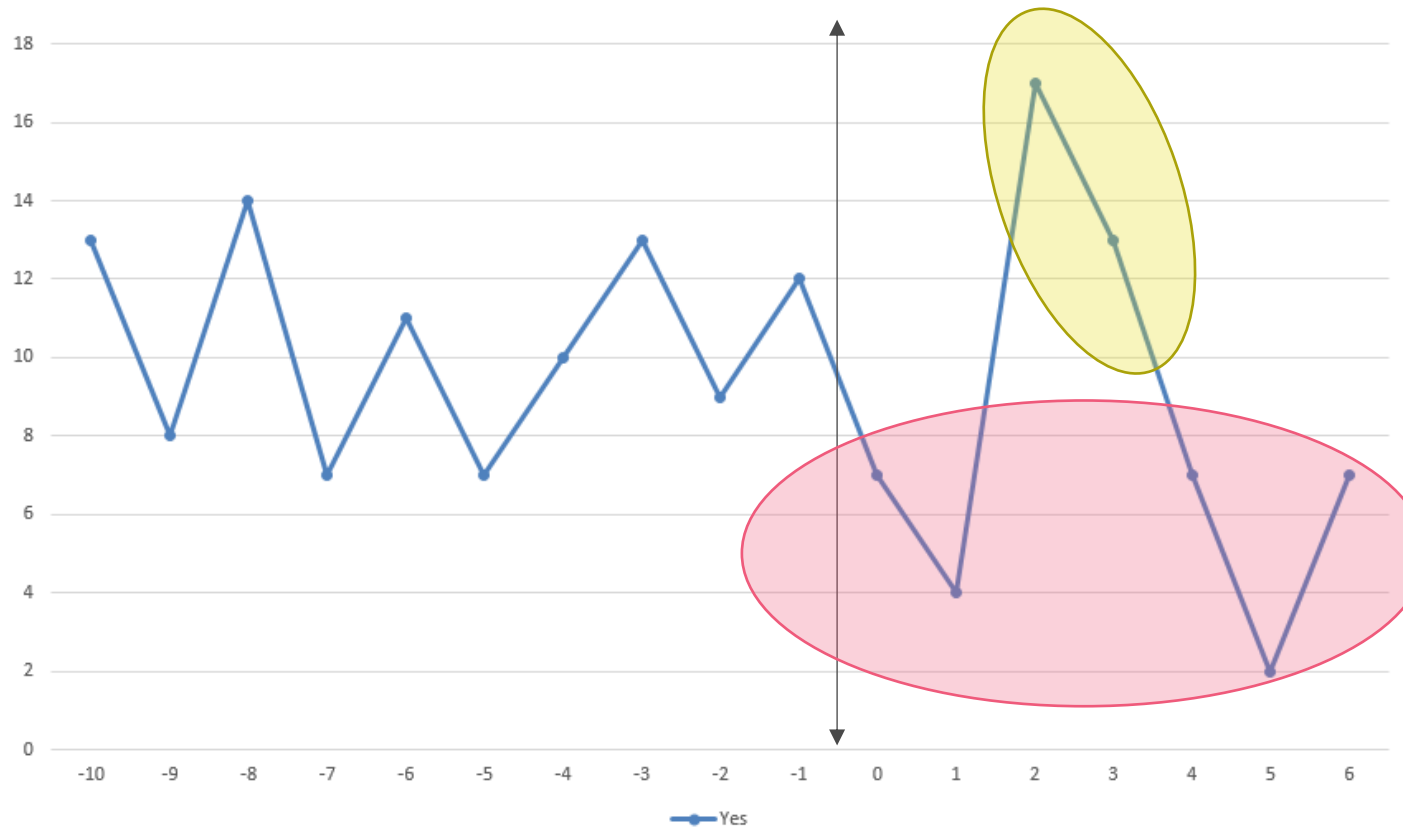
Entrance gates in stations: 2014-2016

- First two years looked promising!
- Then: two different years



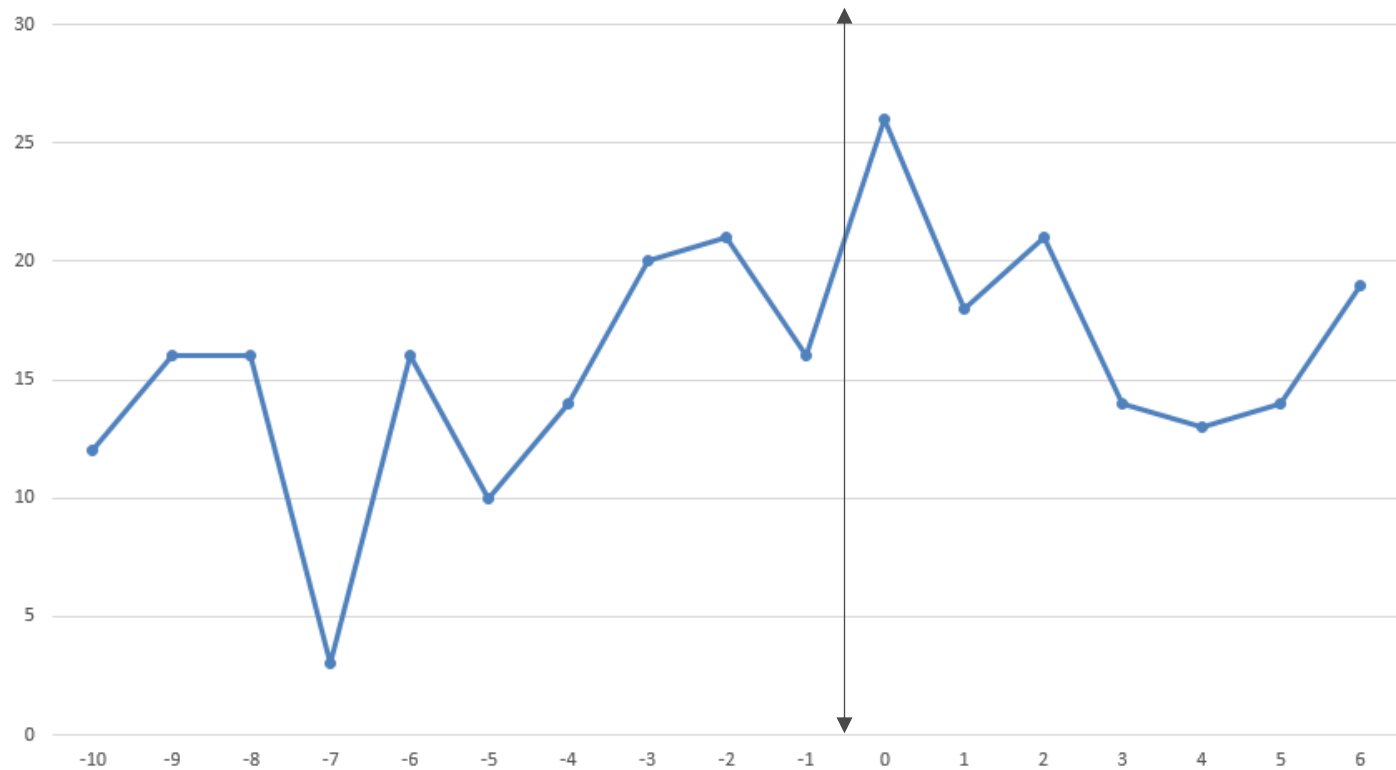
Entrance gates in stations: 2014-2016

- First two years looked promising
- Then: two different years
- Followed by three low years!
- When discarded drop from 10,4 to 5,4 (-48%)



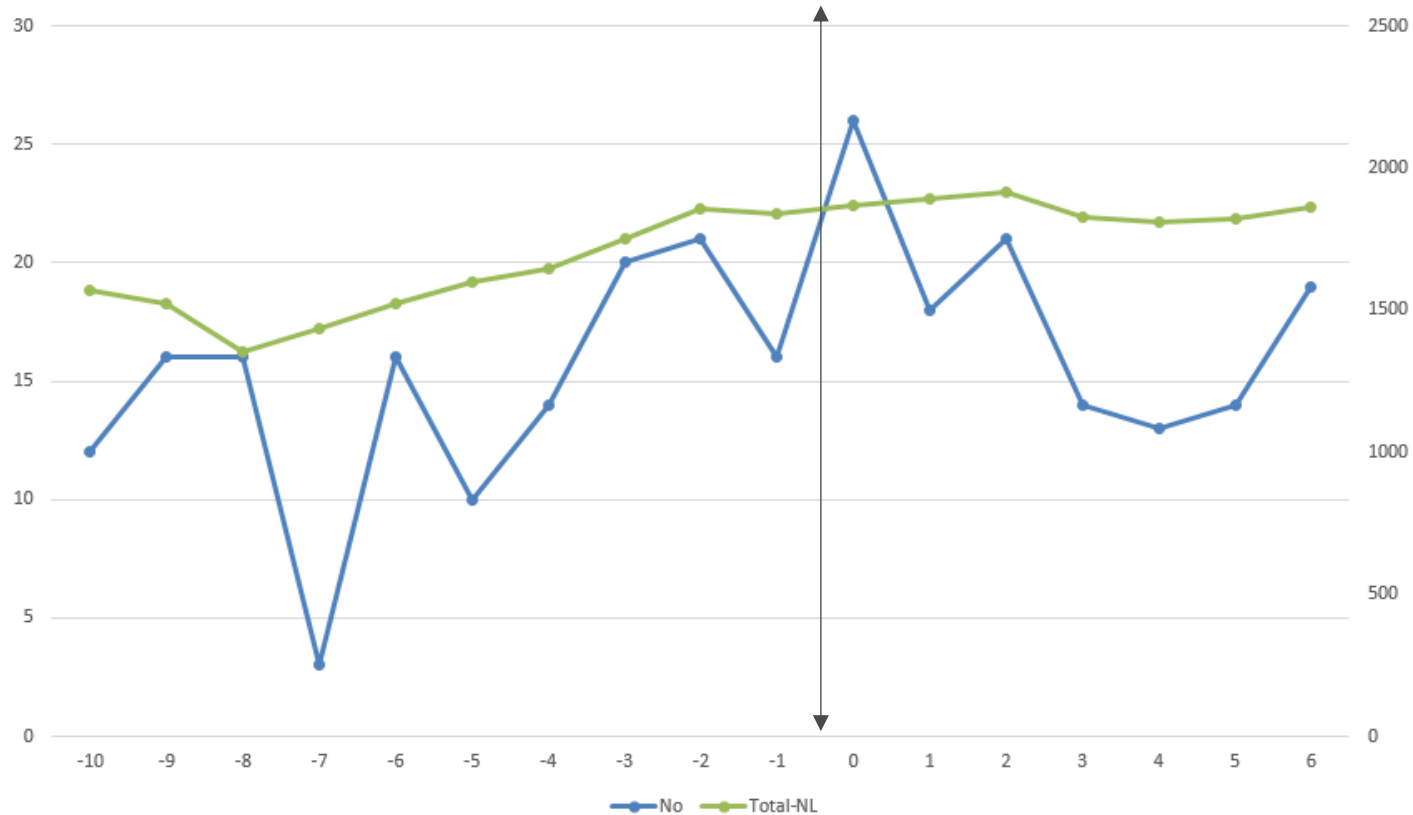
Entrance gates in stations: 2014-2016

- Control-group without gates



Entrance gates in stations: 2014-2016

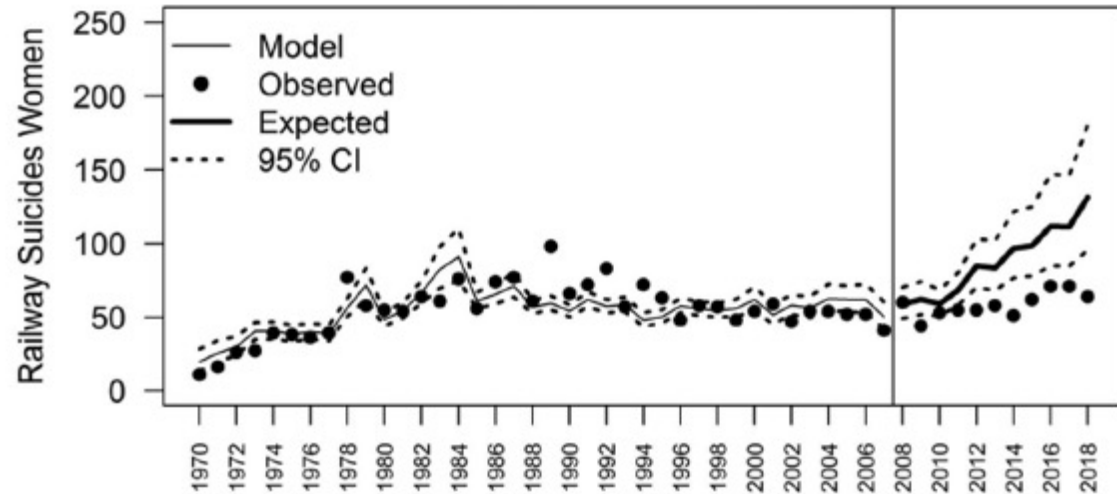
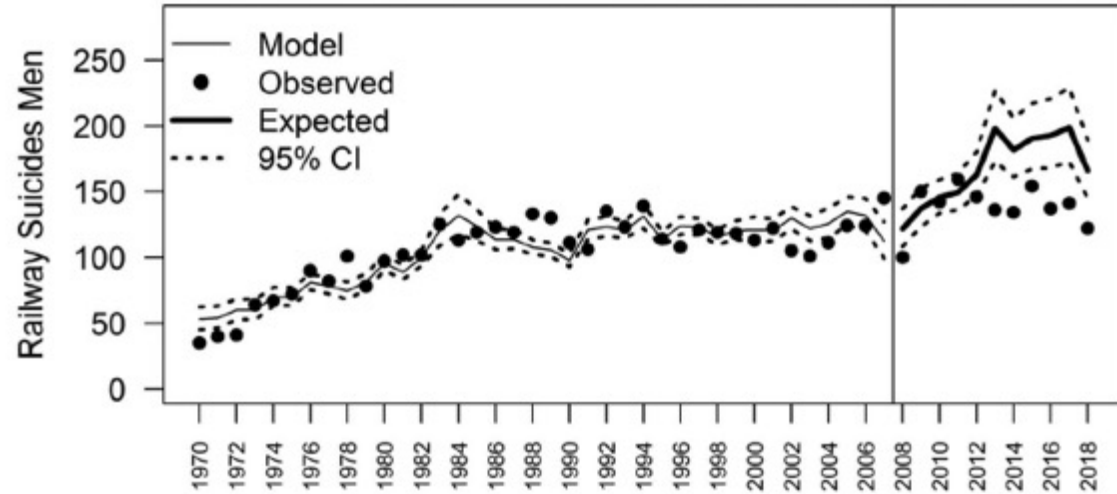
- Control-group without gates
- Maybe follows the general suicide rate?



Van Houwelingen et al 2021

- Model introduced: suicide on railways depends on:
 - General suicide rate
 - Train traffic
- Model works till 2008
- After 2008 lower numbers
- Could indeed interventions be the explanation?

<https://econtent.hogrefe.com/doi/pdf/10.1027/0227-5910/a000792>



Conclusions

- Closure of **level crossings**: 42% reduction (10% in control group)
- **Visibility measures** lead to 40% reduction of the suicides in the intervention group (no effect in control group)
- No displacement to 1 km track on both sides
- **Entrance gates**: problematic analysis, reduction of 48%?
- All results are related to the status of the infrastructure before the intervention!





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Research about help-seeking signs in railbound traffic

Jette Larsen

PhD Student

Danish Research Institute for Suicide Prevention





Ambivalence and help-seeking signs at railway stations

Jette Larsen, PhD-student

Collaborators: Merete Nordentoft, Nils la Cour, Susanne S Karlsen, Keith Hawton, Morton Silverman & Annette Erlangsen

Danish Research Institute for Suicide Prevention

- Some pages are removed due to preliminary results.
- Link to published pilot study about encouraging signs:
<https://econtent.hogrefe.com/doi/10.1027/0227-5910/a000827>

Pilot station: Valby station

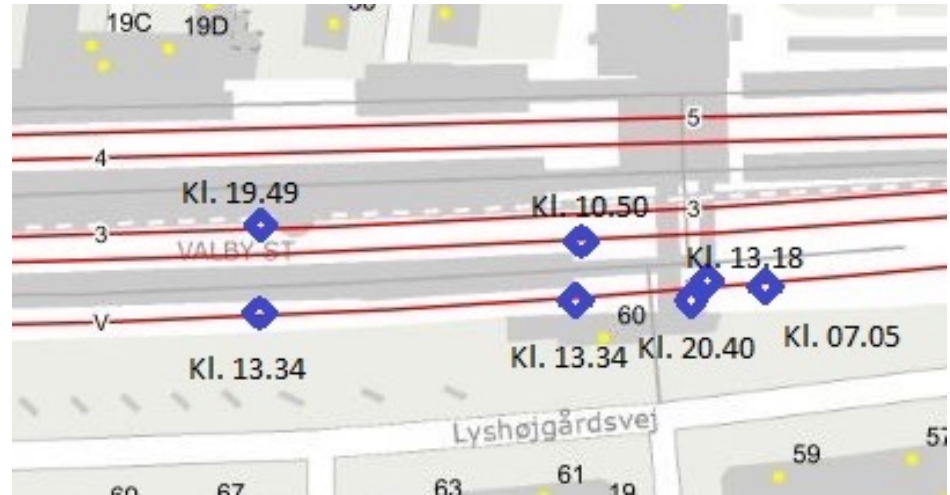


Platforms	3
Tracks	5 (3 for short-distance and 2 high speed trains)

From 2012-2018 Valby station experienced 11 suicide.

Step 1: Audit review

- ➔ A panel:
 - BaneDK (railway network)
 - DSB (train and station)
 - RHP (mental health service)
 - Livslinien (Helpline)
 - DRISP
- ➔ Reviewed the suicide incidences at Valby Station in Denmark during 2012-2018



Step 2: Installation of signs

- ➔ 12 encouraging sign were installed
- ➔ Physical barriers and motion-sensitive lights were installed



”Is life difficult?
We are here to
help you

Livslinien
70 201 201

Or call 112”



Step 3: Monitoring

- ➔ Since jan. 2020 Livslinien counts the numbers of callers mentioning the signs
- ➔ BaneDK and DSB counts the numbers of incidents



”Is life difficult?
We are here to help you

Livslinien
70 201 201

Or call 112”

Incidents at Valby station

Suicides

2012-2018: 1.5 per year

2020-2023: 0

Suicide attempts

2015-2019: 0.8 per year

2020-2023: 0.3 per year

Calls to the Lifeline 2020-2022

Sex	8 women, 9 men
Mean age	41 years (min: 16, max: 66)
Number of call / duration of talk	18 calls / 33 minutter
Risk assessment	no risk: 6, low-mid risk: 5, mid risk: 3 high risk: 2, acute risk: 1

Conclusion: pilot study

- Promising findings
- The signs reach the target group
- Inexpensive and uncomplicated intervention



Thanks!



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Railway suicide prevention in England

Becky Bray

Suicide Prevention Manager

Network Rail





Suicide Prevention on the UK Rail Network



Why do people take their life on the railway?

A suicide takes place on the UK railway network around every 36 hours.

These events are devastating for the bereaved friends and family, railway staff and passengers who witness the incident and the emergency workers who deal with its aftermath.

Although these incidents may seem frequent, they represent only approximately 4.3% of the total number of suicides that take place.

Research commissioned by the industry to discover why people choose to end their life on the railway found that:

- There is a **perceived lethality** to the method (in reality approximately 20% of people survive the attempt, often with life changing injuries)
- It offers a '**quick death**' (in reality this is not always the case)
- It's **affordable** as nothing needs to be purchased or procured in order to carry out the act
- It's easily **accessible**
- The **belief is that it is a common occurrence**

Are people ever stopped from taking their life on the railway?

Between April 2022 – April 2023, BTP officers alone carried out 2034 **lifesaving** interventions. This is an event whereby had it not been for the BTP officers' actions, an individual was at real risk of death or serious physical harm.

We also have many 'contact with a vulnerable person' reports. This is where someone has been identified as being vulnerable but are not thought to be in immediate danger. These take place thousands of times each year.

We only know about the incidents that are reported and recorded.

What kind of person ends their life on the railway?

Researchers at Middlesex University examined the files of 436 people who had taken their life on the railway between April 2019 and April 2021



- 78% of suicides involve males
- The average age of males is 42.1 and females are a few months older at 42.8
- Young people aged 10 – 24 make up 10% of all method suicides but 24% of deaths on the railway



- 60% of individuals were single (this includes separated and divorced people)
- 23% were living alone and 11% were homeless, living with strangers or in an institution
- 24% were unemployed



- | | |
|---------------------------|-----|
| • Station | 43% |
| • Trackside - not station | 34% |
| • Foot crossing | 8% |
| • Level Crossing | 7% |
| • Trackside - at station | 4% |
| • Footbridge over track | 2% |
| • Road bridge over track | 2% |

Four Risk Factors for rail suicide

Suicide came as a shock to 19% of the deceased relatives, with no indicators prior to their loved ones' death. However, 24% of individuals had expressed suicidal ideation or intent shortly before their death. 38% had made previous attempts (36% of these previous attempts has been on the railway).

1. Young People

- Less likely to have known/diagnosed mental health conditions
- More likely to have had a work, school or interpersonal issue or issues in the six months prior to death with 33% of them experiencing an interpersonal issue in the 48 hours before their death (against 13% of the older population who ended their lives)
- Drink or drug use in the 48 hours before death is far more frequent than in older persons

2. Physical Health Issues

- 34% of individuals were known or suspected to have a physical health complaint, most commonly in the older age bracket with the highest proportion being retired
- 81% of those with a physical health complaint also had MH issues
- Most frequent conditions were musculoskeletal (18%), neurological (17%), cancer (14%), oral and gastrointestinal (16%) and respiratory illnesses (11%)

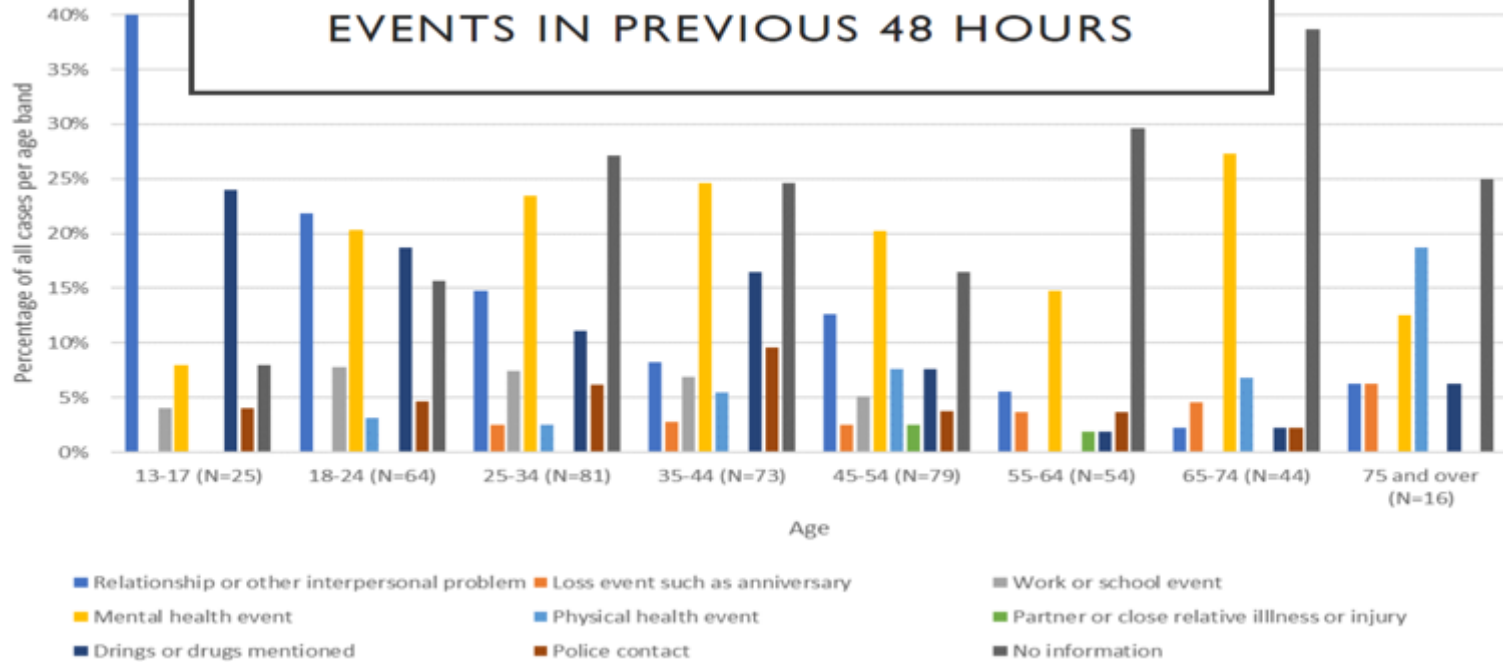
3. Mental Health Conditions

- At least 21% of individuals had contact with a MH service in the week before their suicide.
- 77% of individuals had MH conditions - 57% were diagnosed conditions and 14% were suspected by friends or family.
- 11% of individuals had received a MH assessment in the last month.
- 22% of family, friends, police or coroners expressed a view that 'failure of care' contributed to an individual's death.

4. Criminal activity

- 20% of individuals were known to the police and had a 'suicide risk' marker in their PNC report.
- 12% were subject to a current criminal investigation and 25% of these related to sexual offences and 17% were public order offences.
- 37% of individuals had historic offences on the PNC – (22% of these were convictions, 17% were cautions/penalties and 23% were non-convictions).

EVENTS IN PREVIOUS 48 HOURS



Where known, in the 48 hours before their suicide –

26.6% of individuals experienced a mental health event,
 14.4% consumed drink or drugs,
 6.3% experienced a school, work or finance issue
 2.3% experienced a loss event or anniversary of a death

17.4% had a relationship or interpersonal event
 6.6% had a criminal/court event, or police contact
 6% suffered with physical illness or injury event

What do we do to prevent suicides?

After every suicide, a report is completed within 72 hours. This examines access points, signposting and support signage, tries to identify any physical measures, such as fencing or closing off hiding places that can be identified and made less accessible to vulnerable people.

Every week, the Network Central Suicide Prevention Tea, BTP, Samaritans and Transport for London hold a meeting to discuss the previous weeks events – this allows the Central Team to trigger the **Escalation Process**

Tier 1 – 2 fatalities/injurious attempts within a rolling 12 month period

Tier 2 – 3 fatalities/injurious attempts within a rolling 12 month period

Tier 3 – 4+ fatalities/injurious attempts within a rolling 12 month period

Each tier will involve different activities and stakeholder involvement – this includes ethnography reports, working collaboratively with local authorities, businesses and local charity partners, holding community events, providing signposting materials to relevant parties and organisations



Partnerships with Samaritans, The Hub of Hope (Chasing the Stigma), SHOUT! text service

GP mail outs

- GP surgeries, pain clinics, chemists, prison re-settlement teams, criminal defence law firms are provided with signposting materials to hand out to vulnerable people, or display in their toilets/waiting area

Geo-targeting

- Subtle signposting on social media in a five miles radius of an incident within 24 hours of a suicide with a follow up advert 12 days later

Ripple

- An online suicide prevention tool in all managed stations so people searching for self-harm or suicide info on station WiFi get signposted to support services

Focus Groups

-Lived experience groups for scoping out project ideas and campaigns (including the data sharing project)

National Suicide Meetings

- Six times a year the rail industry, BTP, Samaritans and other suicide prevention stakeholders meet to share ideas, knowledge and best practice, think of new campaigns and raise concerns

Education and Training

-To date over 30,000 frontline rail staff have been trained to recognise and approach people who may be in crisis

Mend the Gap – Cov/Warks NHS and community group events

Campaigns – Various campaigns and promotional activities involving mental health and suicide awareness - Small Talk Saves Lives and Brighter Journeys being the most recent public-facing ones

HART – BTP Harm Reduction Team

The Objectives for the Harm Reduction Team are to:

- Provide a clear support structure for those repeat high frequency presenters to the railway during crisis
- To reduce the number of avoidable section 136 MHA detentions made by officers
- Educate Repeat High Frequency Presenters about the dangers of the railway environment and the impact of their presentations
- Be a conduit between British Transport Police, Mental Health services, other support agencies and the presenting individual, assisting with any interagency support requirements.
- Provide support to operational officers by supplying up to date intelligence, guidance and contact information to afford the presenting individual the most appropriate support and police management at the time of crisis.
- Reduce the number of presentations by repeat high frequency presenters, reducing the risk to them and others around them and reducing disruption to the rail network and associated costs.

A Proactive response to the next presentation, not a reactive one to the last

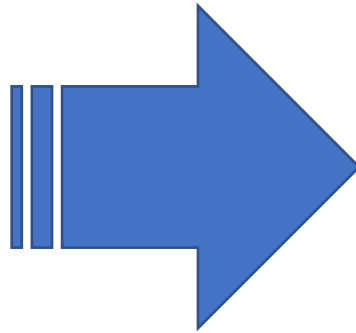
2 methods simultaneously

Identify partners:

- MH and Social care
- Consent for direct work
- Local Policing Teams
- Probation
- Housing
- Charitable Organisations

Direct work with the individual:

- Consent
- Education
- Influence
- Identify solutions
- Divert appropriately



- A positive interaction with Police to build trust and understanding (often the first positive interaction)
- Fast time multi agency meetings and shared decision making
- SPOC for individual & agencies
- Briefing / Trigger / Safety plans for Organisational memory and guidance
- Links to charity services & Local initiatives such as AA, DAT, Princes Trust, Counselling services
- Influence and support current criminal investigations or ASB activity by local policing units.

**Most people presenting in crisis suffer from EUPD
(Emotionally unstable personality disorder)**
> Understand why > Problem solve > Divert appropriately

* Empathy* Active listening skills* Ability to negotiate*

The 'All On Board' project

All on Board is a collaboration between the ELFT and NR, bringing a Mental Health Specialist Lead nurse in to work with the Central Suicide Prevention Team. We also have nurses on Anglia, in the North West and on Western routes. Merseyrail, a Train Operator Company, also employ a nurse as part of a triage car service.

The mental health nurse does a mix of community activity, educating the public about mental health and suicide at specialist All On Board events, as well as being involved with dealing with high frequency presenters and providing triage support.





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Experiences of a psychiatric nurse working at the London railway network

Arifa Wadiwala

Psychiatric Nurse

NHS England



All on Board Suicide Prevention on the Anglia route





Introduction

All on Board is a partnership between Network Rail and the NHS, embedding a Mental Health Nurse within the Anglia Route to work in communities to:

1. Reduce the demands crisis incidents place upon the railway, emergency services/police and 136 Mental Health Act Assessments
2. Encourage recognition of the signs of poor mental health and contributing risk factors
3. Improve community and staff confidence to intervene
4. Promote and signpost to local and national services and organisations, and support those who are experiencing poor mental health both at stations and in the wider community, reducing suicide and suicidal behaviours

Our vision is to lead in the delivery of a service that works within our communities and with a wide range of partners to reduce suicide and promote help seeking **before** a person reaches crisis as we know that on average, 259 people lose their lives through suicide on the rail network each year, which is around 4.5% nationally.

'All On Board – When the East London NHS Foundation Trust met Network Rail' was selected as a FINALIST for The Innovate Awards in the following category: Outstanding Collaboration with Industry. This is a significant achievement for Network Rail, ELFT and all those involved!

What are we doing to raise mental health awareness, reduce suicides and minimise trauma to members of the public, and staff?

- Regularly reviewing our suicide prevention action plan which focuses on hot spots, reducing access to means, measuring effectiveness of mitigations put into place and trialling new initiatives/equipment
- Providing Suicide Prevention training for staff working at train stations across Anglia
- Engaging with local authorities, councils and mental health trusts and developing a service that works within our communities, and with a wide range of partners to promote support for individuals that are at risk of suicide
- Holding regular meetings with care professionals to discuss and improve safety/care plans
- Improved community recognition, intervention and signposting to services for those experiencing poor mental health or contemplating suicide (i.e., using signposting directories)
- Providing improved communication with the British Transport Police Vulnerability Unit, to ensure that at risk individuals have Suicide Prevention Plans

Improved community recognition, intervention and signposting to services for those experiencing poor mental health or contemplating suicide

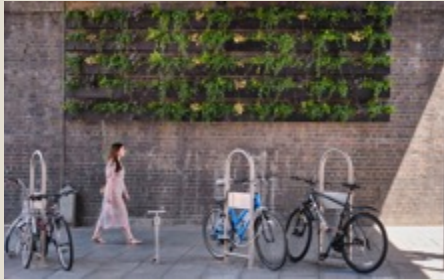


Since the introduction of the Embedded Mental Health Nurse Role in April 2020, multiple events have been held at local stations, community areas, shopping centres in order to raise awareness around mental health, suicide prevention and support available to those whom may be struggling.

The aim of these events is to create opportunities for conversations around mental health in settings where 'hard to reach' groups are more comfortable.



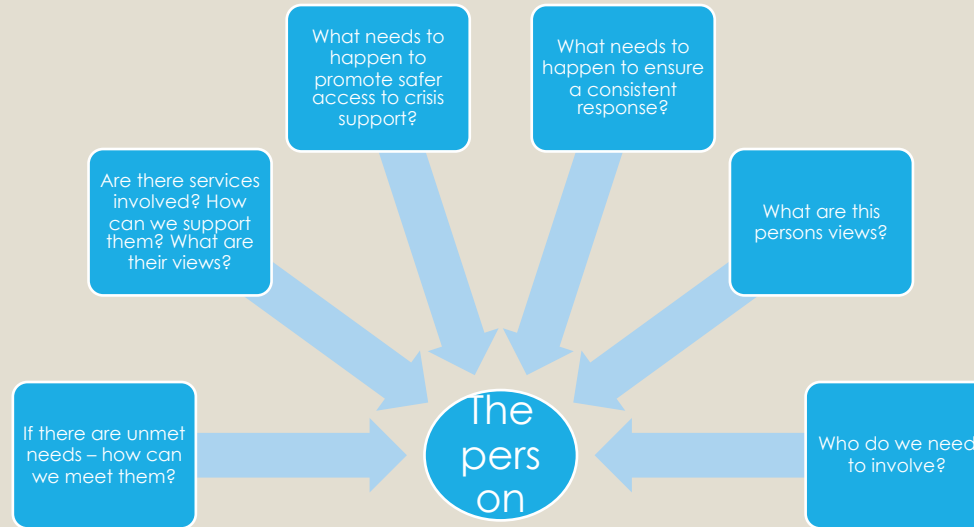
Improved dissuasion messaging & ambience at the stations for those that may be contemplating ending their life at the railway



Improved communication between NHS Trusts, British Transport Police, Network Rail and stakeholders to share intelligence around suicide.

- Data sharing agreements between East London NHS Foundation Trust and British Transport Police
- Close working relationships with Train Operating Companies and sharing of proportionate, and necessary information
- Strengthening relationships, supporting and advising NHS, Clinical Commissioning Groups and Public Health teams on the suicide prevention strategies; thus aiding in improving practices and mental health support available in local areas
- Improving process around criminal proceedings for those who may have presented across the route

Individualised support for those that are high frequency/high risk including the development of multi agency care planning



Safety Planning

When an individual is brought to the attention of the Embedded Mental Health Nurse, a **safety plan** is often then formulated with the support of all those involved in an individual's care and with the individuals themselves.

Key contacts:

- Details for any individuals and/or professionals involved in a person's care

Suggestions:

- Guidance for officers should a vulnerable individual come to their attention and be at risk of harm at a train station, aiding them in decision making, ensuring that the least restrictive interventions are used and the individual is supported

Background:

- Information of the individual's mental health problems and risk behaviours (i.e., current support in place, potential concerns, protective factors)

Plan:

- Course of action for the individual and all individual's involved in their care (i.e., referral/signposting to other services, sharing further information with the Vulnerability Unit/Local Stations, suggestions for professionals involved in the individual's care etc.)

Safety Planning Continued...

At Risk Individual

PHOTO

Mr B is known to mental health services and British Transport Police. He has a history of trespass. He recently trespassed at London Bridge and put himself in front of a stopped train, touching the third rail.

He was discharged from hospital today (07/11/2022). He currently reports being well and has not expressed any thoughts to harm himself and/or others.

Staff are not to intervene unless there is a reason to believe that there are safety concerns. Mr B should be supported to use our services as any other passenger would.

He has agreed to the circulation of this picture to support his recovery. Please follow internal process for at risk passengers, should an intervention take place.

NOT TO BE DISPLAYED IN PUBLIC PLACES.

Sharing must be on a proportionate and necessary basis.

Please remove by 09/01/2023

Sanitised Information Sharing

- Sanitised information in the form of flashcards is sometimes shared with rail providers, land sheriffs and station managers
- This document contains a picture of the individual and some information on them regarding their risks
- This will normally be used for high risk individuals or individuals with multiple presentations to the network



The poster features the British Transport Police logo in the top left corner. The background is blue with a white graphic of a staircase on the right side. The text is white and black, providing contact information for the Suicide Prevention Hotline and non-urgent cases.

**BRITISH
TRANSPORT
POLICE**

We work with the Rail, Health
and Voluntary sector to prevent people
from taking their lives on the railway.

BTP has a dedicated
Suicide Prevention Hotline
This enables us all to fulfil our duty to share
information in order to protect life.

**If you have an immediate concern
that a person may harm themselves
on the railway call:**
0300 123 9101
(Not for general public use)
This number will be answered by emergency controllers
who can arrange immediate police deployment.

In all **non urgent** cases call:
0800 40 50 40
This number will be answered by controllers
who can put you in touch with BTP specialist units
dealing with mental health and suicide prevention.

Or **e-mail** the Vulnerability Units direct:
London and the South East:
vulnerabilityunitlondon@btp.police.uk
Rest of England and Wales:
vulnerabilityunitbirmingham@btp.police.uk
Scotland:
vulnerabilityunitscotland@btp.police.uk
(Please note these are not 24hr monitored)

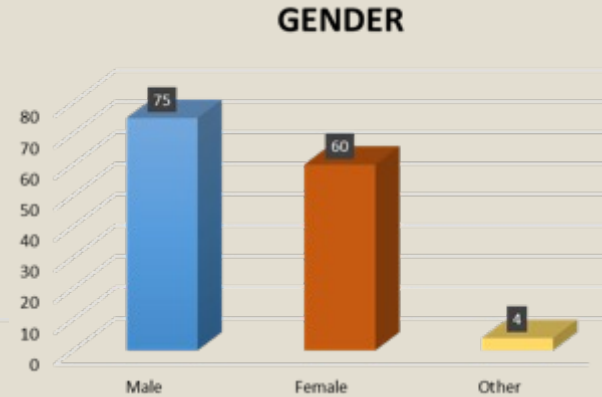
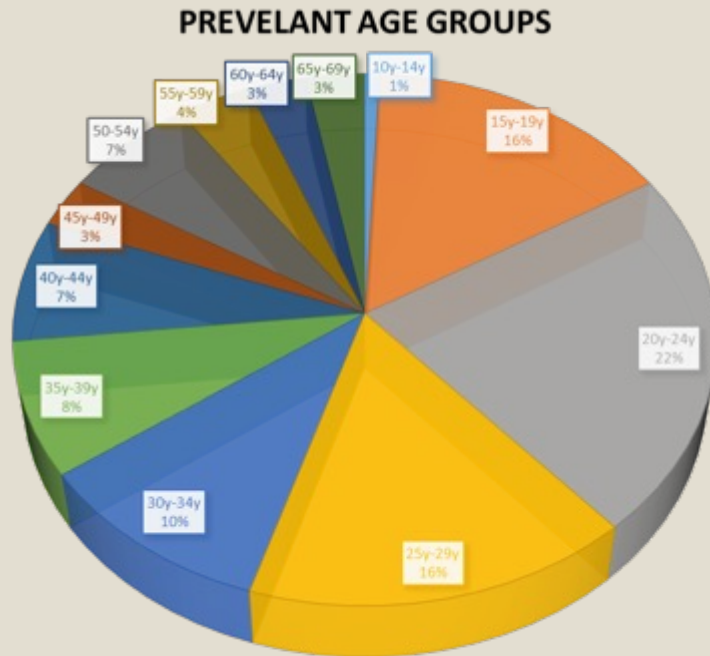
Promoting the British Transport Police Suicide Prevention Hotline Number

- This number is shared with all Care Professionals (i.e., community mental health teams, inpatient services) and documented in safety plans, and patient notes
- The BTP Suicide Prevention Hotline number should be used by care professionals when there are concerns that someone may present to a railway station

Anglia Route - Embedded Mental Health Nurse Data

Anglia saw a number of presentations between 01/08/2022 and 23/10/2023, with 139 individuals being referred to the Embedded Mental Health Nurse.

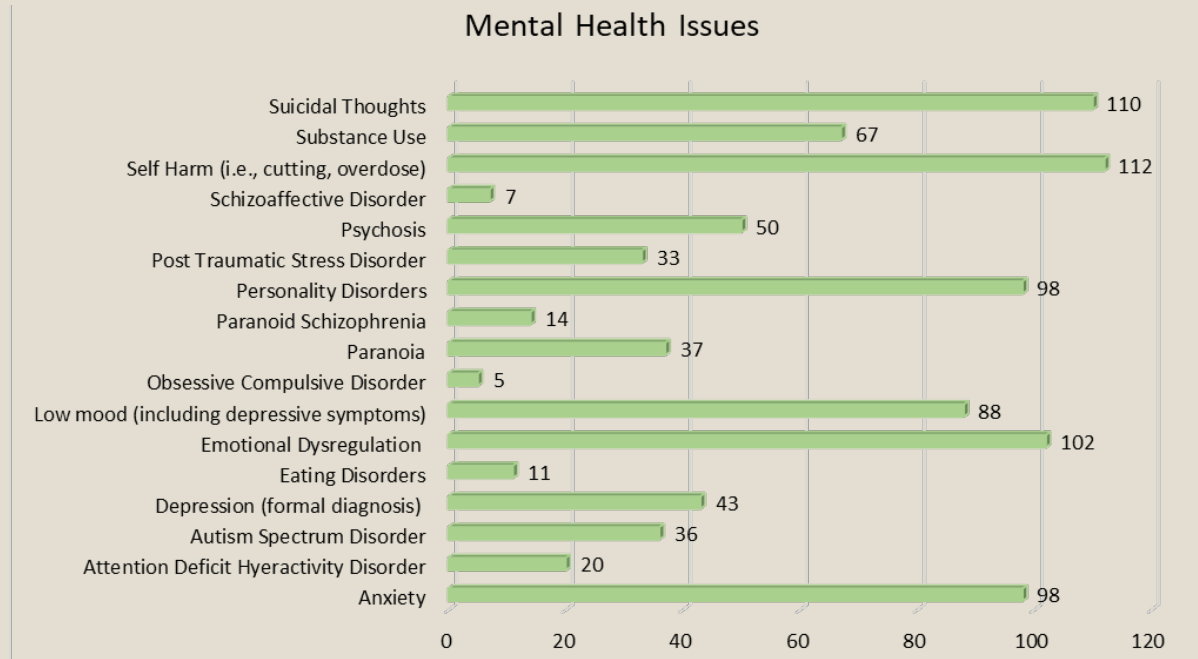
6 out of 139 individuals were physically hit by a train and survived, 3 with life changing injuries.



54% of individuals were male, highlighting no specific variations between genders.

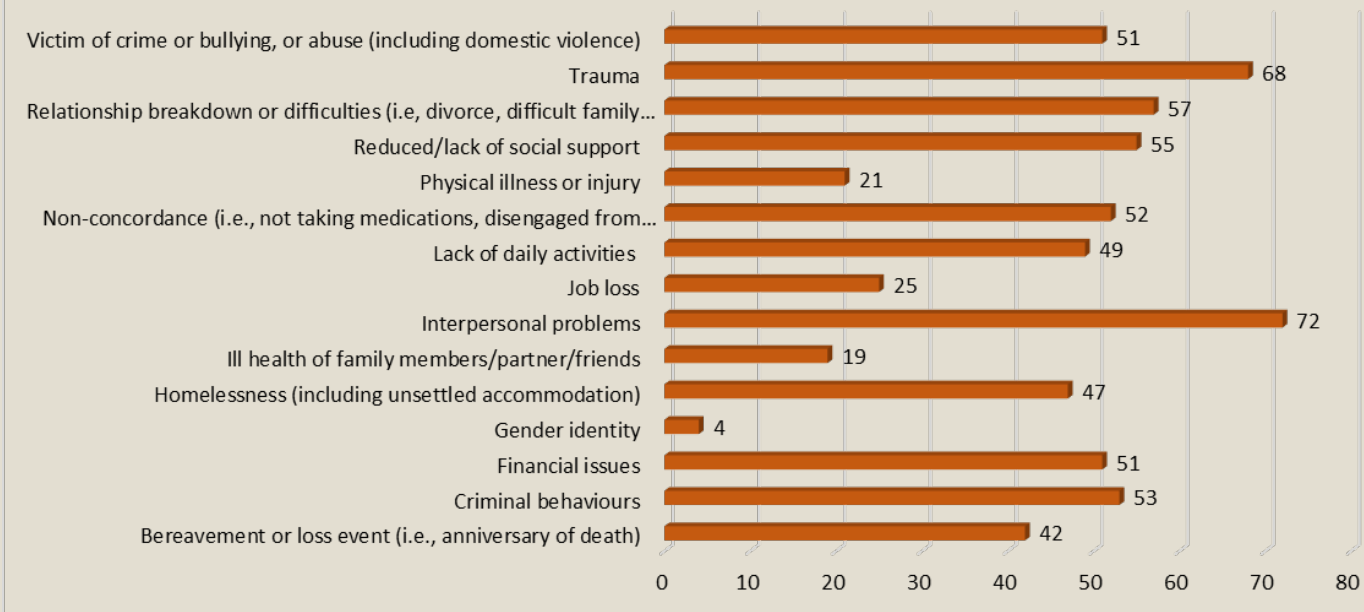
The most common age category identified for presentations to the Anglia route was 20-24. with 25-29 following.

17% of individuals who presented to the route were under the age of 19, with 13% being under the age of 16.



- The most common mental health issues observed were self-harm, suicidal thoughts, emotional dysregulation and anxiety
- 70% of individuals have been diagnosed with a form of a Personality Disorder
- 89% of individuals were known to their GP or secondary mental health services with a history of mental health problems, 11% were not known and had no formal diagnosis

Other Risk Factors



*Data above is for individuals who have presented between 1st August 2022 and 31st October 2023

Meetings with Professionals	268
Visits to Individual	97
Briefing Documents	180
Safety Plans	139
Further Presentations	8

Further Actions Carried Out:

- 11 Acceptable Behaviour Contracts
- 6 Community Behaviour Orders
- 3 Community Protection Notice
- 2 Drug & Alcohol Course for 2 individuals
- A number of individuals have also been prosecuted for criminal related behaviours

Final Words

Although society is changing rapidly and is progressing, with increased awareness around mental health, stigma around mental health difficulties still remains; work needs to continue to be done to de-stigmatise mental health and suicide which is something we at Anglia strive for!

Our aim and priority is to make sure that we can enable members of the public to travel normally whilst also keeping people/vulnerable individuals safe in the community; this means helping individuals access the care and support that they deserve, and need.

***“The right train of thought can take you to a better station in life”
- Unknown***





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Suicide prevention in the London Underground

Nicola Brady

Senior Operational Manager

Transport for London



SAFEGUARDING AND SUICIDE PREVENTION

Transport for London Suicide Prevention



Established Safeguarding workstreams



- Protecting our most vulnerable customers including children and adults at risk from harm or exploitation when using or seeking refuge on our networks.
 - all children under the age of 18 are at risk of harm and abuse because of their age
 - an adult at risk is someone who has support needs and who is unable to protect themselves because of those needs.
- Different circumstances can also create vulnerability and customers in those situations need to be safeguarded as well. For example, someone sleeping rough, an intoxicated woman travelling on her own late at night, someone under the influence of drugs and cannot travel independently at that time



Suicide Prevention- Across the network



Suicide Prevention- what do we record?

All intervention at a location- and celebrate our life savers



In depth CCTV review and partnership working with the police allows us to understand:

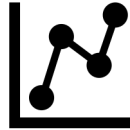
- Behaviours
- Time spent at a location
- Distance travelled
- Ethnicity
- Age
- Gender
- Any known medical factors



Suicide Prevention- what do we do now, and developments for the future



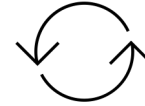
Training



Data and Analysis



Location review



Benchmarking



Partnership approach



Technology



Post Incident support



Communication and visibility





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Institutet

 Region Stockholm

Panel discussion

Claes Tingvall

Professor

Chalmers University of Technology



Helena Rådbo

Senior Advisor

Trafikverket



Gergö Hadlaczky

Assistant Professor

Karolinska Institute



Tobias Lindberg

Head of Traffic Safety Railway

Trafikverket



Madonna Reinel

Project lead

*Region Stockholm
Trafikförvaltningen*



Britt-Marie Olsson

Executive Lead

TTT (Swedish Railway Industri) & SJ





Thank you!

People involved in organizing the conference

Johan Fredin-Knutzén, Danielle Stone, Gergö Hadlaczky, Vladimir Carli, Leticia Okabayashi, Gabriella Jansson, Beatrice Johansson, Anna-Lena Andersson, Marcus Sokolowski, Martin Aras, Madonna Reinel, Tobias Lindberg, Helena Rådbo

The lecturers and panel

Claes Tingvall, Gergö Hadlaczky, Johan Fredin-Knutzén, Helena Rådbo, Madonna Reinel, Anna-Lena Andersson, Isabelle Fonverne, Ann Mills, Lola Barre, Charles-Edouard Notredame, Marjolein Snel, Bart Hoogcarspel, Jette Larsen, Becky Bray, Arifa Wadiwala, Nicola Brady, Tobias Lindberg, Britt-Marie Olsson, Danielle Stone

Funders

Region Stockholm (Hälsa- och sjukvårdsförvaltningen/Stockholms läns sjukvårdsområde),
Karolinska Institutet & Trafikverket



Karolinska
Institutet

 Region Stockholm

Contact us

<https://ki.se/nasp/suicid-i-transportsystemet>

Johan.fredin.2@ki.se



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