

Global Railway Alliance for Suicide Prevention: 2021 Meeting Notes

November 2021

On November 19, 2021, the Volpe Center (US) hosted the 10th meeting of the Global Railway Alliance for Suicide Prevention (GRASP). On November 22, 2021, the Volpe Center hosted a smaller meeting to accommodate members from a variety of time zones. The GRASP working group began in January 2014 and meets yearly to share information about their experiences in preventing railroad trespass and suicide incidents and ways to mitigate the consequences of these events.

ATTENDEES:

Alexa D'Adamo, US

Anne Silla, FI

Andy Martin, US

Anjum Naweed, AU*

Ann Mills, UK, UIC

Bart Hoogcarspel, NL

Becky Bray, UK

Crystal Gitchell, US

Dan Blais, CA

Danielle Hiltunen, US*

Gus Draper, UK

Heather Neil, AU*

Ian Stevens, UK*

Jason Rochon, CA

Jeff Moller, US

Johanne Penington, CA

Matteo Paciletti, UK

Michail Grizkewitsch, US

Monica Shaw, US

Scott Gabree, US*

Shala Blue, US

Shelley Brunskill-Matson, NZ*

Stephanie Chase, US

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Tore Dyhaug Mo, NO

Will Steep, CA

*Participated in a second call on November 22, 2021

MEETING NOTES

Updates from member countries are presented in alphabetical order, not necessarily in the order presented.

Australia, Central Queensland University

Update provided by Anjum Naweed.

- Anjum is working with the Australasian Centre for Rail Innovation (ACRI).
 - Their research addressed the question, “What measures are being applied to address rail trespass and suicide?” This July 2019 reports with summaries is available on the [ACRI website](#). The goal of this report was to share findings around the country and engage directly with individuals in the railroad industry to learn more about what is working to prevent rail suicide and what is not.
 - They also sought to understand how information flows within an organization. We often see the output of a study or a countermeasure implementation, but how information moves through an organization is often not clear.
- Three research tracks came out of the above effort:
 - Train driver and frontline worker impacts
 - Language and nomenclature surrounding suicide

- Taboo and stigma about suicide
- While Anjum worked across the three efforts listed above, for this GRASP meeting he focused on discussing outcomes related to the taboo and stigma about suicide research track.
 - The goal of this effort was to explore the extent to which this stigma can permeate into organizations.
 - A grounded theory approach was used to identify what root causes drive taboo and stigma related to suicide. A grounded theory approach looks at social relationships and behaviors of groups to generate a theory, based on data that was systematically collected and reviewed, about why certain outcomes occur.
 - 97 people from rail industry across various jurisdictions in Australia and New Zealand were contacted and interviewed as a part of a series of focus groups. Through these focus groups, they found that taboo and stigma regarding suicide was an issue. They noted a number of potential issues that are being written up for publication and will be made available publicly at a later date.
 - The grounded theory generated by this research posits that taboo and stigma perpetuate societal myths and attitudes surrounding suicide, which creates a barrier for effectively preventing suicide in the rail environment.
 - There is a need to think through the systems dynamics within rail organizations.

Australia, TrackSAFE

Update provided by Heather Neil.

- The core issues that TrackSAFE AU focuses on are:
 - Suicide, including attempts
 - Workforce mental health
 - Trauma and cumulative impact
 - Near hits
 - Other fatalities and injury
- Australia, as a whole, experiences 109 fatalities each year on their rail network, with 76 being suicides.
 - For rail suicide, and overall suicides, males are most common (3 out of 4); however, rail suicides typical involve more younger males (49% of rail suicide incidents involve individuals under 34yrs) than the overall suicide rate.
 - The rate per 100,000 is going down nationally.
 - The rail suicide curve is moving away from the national suicide curve (they hope that this is because of the implementation of preventative measures).
 - This decline for rail suicide is true in every state except Victoria, which has been stable throughout this period.
 - The rail network in Victoria is more open than in other states, which this may account for the stable rate.
- Safe Work Australia is a government agency responsible for worker safety. They found that work related mental disorders are higher for train drivers. Factors that contribute to these elevated rates of mental disorders include:
 - Predominantly male workforce
 - Stigma in seeking help

- Isolated workforce
- Sedentary
- More abuse from customers, an increase in recent years
- Published Work from Jane Pirkis looks at what is effective for preventing rail suicide. At a high level, she found the following:
 - Restricting access to means (91-93% reduction)
 - Encouraging help seeking (51-61% reduction)
 - Increasing likelihood of third-party interventions (47% reduction)
- Most incidents in AU happen on open track, so they cannot only rely on station staff as a deterrent or to intervene. Instead, there is a need to engage the public to help with this issue. Increasing the number of people capable of identifying someone at risk for suicide by engaging the public will expand reach outside stations.
- TrackSAFE now has a rail safety ambassador; she is a Paralympian who lost both of her legs in a rail accident. She approached TrackSAFE to be a part of their efforts to increase safety and how speaks for them about railroad safety.
- Rail R U OK? Day, a day encouraging the railroad industry employees to reach out to their colleagues to ask if they are ok, is still a big part of TrackSAFE's AU efforts. The campaign seeks to inspire rail workers to include that principle into their daily life. They found that this makes employees more willing to help a colleague and seek help themselves.
- There is a new effort to reduce abuse of frontline workers. They are interested in finding out whether anyone else is doing work in this area.
- Partners are critical to TrackSAFE AU work. They work collaboratively with universities, NGOs, and rail partners to address these issues.
- Research with artificial intelligence and drones are underway with Sydney Trains, but there is not much to share about this effort at this time.
- A feedback loop is helpful for staff. It is important for staff to hear that the rate of rail suicide is coming down, and about what is working. When employees understand the value of what they're doing and are kept in the loop about the impact they're having, they're more likely to want to contribute.
 - Response: Ian Stevens noted that for Network Rail, it was helpful for staff to realize that by preventing a suicide they were directly helping their colleagues (i.e., not having to witness an incident or respond to a scene). That started an attitude shift within the industry as a whole.

International Union of Railways (UIC)

Update provided by Ann Mills.

- Ann Mills is the Vice Chair of the UICs Trespass and Suicide Prevention Network (TreSP Network) working group.
- TreSP Network has met twice as of November 2021. Between the first and second meeting of the TreSP Network, a survey went out to members for gathering input from the TreSP Network members about their respective trespass and suicide prevention programs. Ann presented the findings from that survey.
 - TreSP Network is a group with members from many countries around the world (38 members)
 - The first formal meeting took place in October 2021 with a few presentations from members and discussion of survey results. The group continues to meet quarterly.

- TreSP Network conducted a high-level survey to understand what actions to prevent or mitigate suicide and trespass on the railway within each member country.
 - All but one country is separating trespass and suicide data
 - Most do so with police authorities (75%)
 - Many collecting data about demographics, environment, and timing
 - 14 of 17 have trespass prevention programs
 - 13 of 17 have suicide prevention programs
 - TreSP Network asked about what specific types of efforts are typically being undertaken:
 - Data collection to know the number of countries who had implemented various strategies as a part of their prevention programs. The various strategies fell into three separate categories: Organizational/Procedural; Physical/Technological; and Awareness Raising/Educational/Engagement.
 - Generally, the results showed that there is a significant amount of activity across the range of categories for both trespass and suicide.
- The International Level Crossing Awareness Day ([ILCAD](#)) conference in 2022 will take place in Colorado. A half-day event dedicated to trespass and suicide will occur the day before and encourage all who are able to attend!
- Question: Were there any trends between allocating resources addressing trespass vs. suicide across the three categories of strategy types?
 - Response: This is not something that TreSP has looked at yet, but it would be interesting to explore.

Netherlands, ProRail

Update provided by Bart Hoogcarspel.

- The Netherlands has small, densely populated areas with lots of trains operating with very limited fencing along the tracks.
- Rail suicides and overall suicides by all means, in Netherlands roughly follow the same trend. Since 2008, suicide rates have been increasing overall while rail suicides have been more stable, as shown in the figure below.

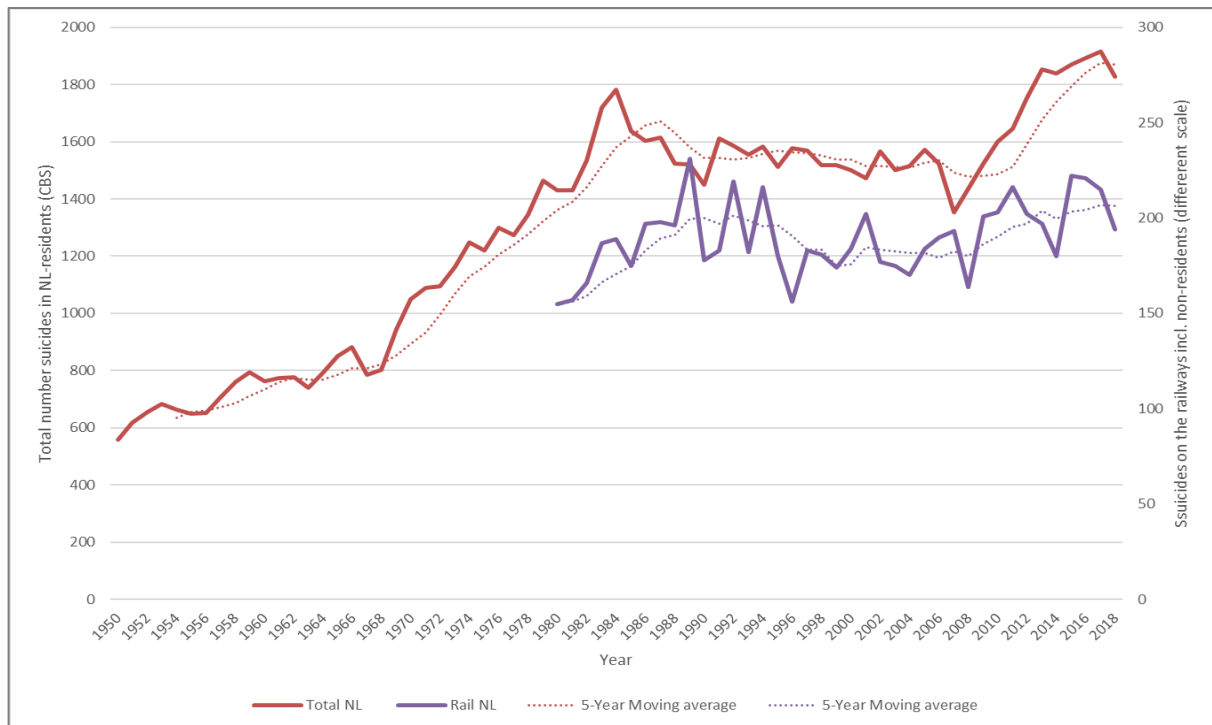


Figure 1. Netherlands Annual Suicide Rates 1950-2018

- ProRail investigated the effect of electronic gates at station entrances, and found it makes it harder for people to get into the station compared to the stations without electronic gates. Stations with electronic gates require passengers to present a ticket to enter the premises, rather than free entry to the station and tickets collected later.
 - Electronic gates are at 74 stations.
 - Since 2006, there have been suicide events at 61 stations throughout the country.
 - They compared the number of suicides at stations with and without electronic gates before and after 2014. For the primary analysis, they excluded stations with staff presence since staff acts as a deterrent and this may influence suicide numbers.
 - Stations without electronic gates saw suicide events increase by 20%. Stations with electronic gates saw a decrease of 13%.
 - This is more evident when looking at stations without a level crossing.
 - As a secondary analysis, they also looked at stations with staff present at the station.
 - The 10 staffed stations saw a 57% reduction in suicide as compared to the 51 stations without staff.
 - Overall, it was clear that both staff on the premises and electronic entry gates help to reduce suicide incidents.
- Question: Were the staff (previously discussed) trained in suicide prevention?
 - Response: At the time when the study was happening, staff were in the training process, so only some staff had completed training. It is hard to tell how much the training affects the reduction in suicides that they found at staffed stations.

- Question: The increase in suicide in the Netherlands is quite dramatic. Is that an artifact in the data or a real trend?
 - NL Response: The suicide increase is real – a lot of work goes into manner of death determinations in the Netherlands and rates have been increasing significantly. One potential reason for the 2008 increase was due to financial crisis issues – not that people were out of jobs, but that there were significant cutbacks in social safety nets, such as social programs.
 - US Response: In the US, the opioid crisis could be indicator of social stress as well. The US has also seen a large uptick in opioid related issues.
 - NO Response: There has been an increase in suicide in Norway as well, but it may be normalized by population increases.
 - NL Response: The studies have found that population increases cannot account for this jump, as the population has been stable over this time. Another related comment is that Cornelis Van Houwelingen, a researcher, has shown that you can predict train suicide rate by number of trains, train km and general suicide rate.
- Bart is looking to coordinate with other countries about trespass, suicide, and general railway accident data to be used in the UIC-Safety database and benchmarking.
 - Bart met with FRA in January to discuss data and welcomes anyone who is interested in coordinating on data to contact him.

New Zealand, TrackSAFE

Update provided by Shelley Brunskill-Matson.

- TrackSAFE NZ focuses mainly on promoting rail safety and is becoming more involved with suicide prevention. Over the last 4-5 years there have been around 7-8 suicides each year, representing approximately 1.6% of the total suicides each year in NZ.
- The key areas that TrackSAFE NZ is focusing on now are:
 - Data: Having high quality data is critical and they are working to improve their data.
 - TrackSAFE recently requested coroner findings from 2008-2021 to try to give more context to the data they currently collect.
 - Within these data, they are looking at factors such as home address vs. point of death and individual background information, among other factors.
 - There is underreporting of suicide attempts in NZ that did not result in a fatality.
 - They believe that part of the issue may be that the relevant information is not getting to those who report the incidents. One solution may be for a feedback loop to ensure that the information gets back to those who report it, to provide an incentive for reporting. The recent introduction of a feedback loop with respect to reporting of level crossing incidents has worked well to improve reporting.
 - Currently NZ does not have any gatekeeper training for rail staff, and they are trying to understand what TrackSAFE's role is in that.
 - NZ rail context is quite different from other countries; annually only one or two rail suicides occur at a station. Most incidents are on open track or at level crossings so many station-based countermeasures are not relevant.
 - TrackSAFE NZ has been doing hotspot mapping. An important part of TrackSAFE's suicide prevention focus will be advocating for fencing at high-risk areas.

- One important goal is to identify how the NZ rail industry can continue the conversation about trespass and suicide prevention to keep the momentum going.

Norway

Update provided by Tore Dyrhaug Mo.

- In 2019, an incident occurred partly because of inadequate fencing. The Norwegian railway infrastructure manager was fined 10 000 000 NOK and after several rounds in the juridical system in Norway also sentenced for negligent homicide. The infrastructure manager attempts to appeal the sentence to the Norwegian Supreme Court to raise the question around their responsibility for securing their railway areas. Two teenagers were seriously injured and one killed by touching the overhead contact line above a parked train.
 - One issue identified was a ladder thought unclimbable after putting a metal guard over the rungs. In fact, it was climbable when accessed from the side by using the rungs from behind.
- Fencing was often weak and could easily be cut or bent for access. Installing higher quality fencing helps though trespassing continued to occur.
- Homeless individuals and their personal items were in the tunnel next to a parked train.
- Prevention measures identified to address this issue include:
 - Higher and more solid fencing
 - Increased security
 - More signage
- Data show that trespass incident rates related to holes in fencing peaked in 2014. In 2019 and 2020, the number of these incidents was higher than 2016-2018, but lower than the peak in 2014 and 2015. The accident described above occurred in 2019 and it is unclear how that may have influenced the rates.
- One challenge they face is that it's not possible to completely close the railway system to trespassers
- Question: Is there any evidence that after fencing was installed, the problem simply moved to other locations?
 - Response: Not necessarily, Norway is seeing the problem location shift, but even robust fences has been told damaged with newer tools. There is no hard data, but it seems that trespass is still an issue.
- Question: Have there been any efforts to try any other deterrents, such as anti-trespass panels?
 - No formal effort was described by Norway.
 - Bart (The Netherlands) added that there was an effort in Turkey to install anti-trespass panels as part of RESTRAIL. See the pilot-test information on the bottom of the page:
<http://www.restrail.eu/toolbox/spip.php?article106>

United Kingdom, Network Rail

Update provided by Becky Bray.

- The overall goal of this program is to reduce actual and attempted suicides on the network, reduce trauma, and reduce delays.
- One strategy that is through is dissuasion research.

- This involves research conducted at universities into why people choose rail as a suicide method. These findings may help understand how to dissuade people from considering rail as a method.
- Network Rail asked how they can dissuade people from using rail as a suicide means while encouraging help seeking.
- A primary aim is to catch people upstream and get them connected with support services. Becky mentioned the phrase, “Stop fishing people out of the river and figure out how they fell in” to illustrate this philosophy (i.e., help people long before they even consider suicide).
- This upstream mentality is in their Chasing the Stigma campaign and Hub of Hope app/website. This website and app are an easy way to connect to services quickly and on their own time. They aim to provide resources to the public to address mental health related issues before they reach a point of crisis.
 - This website provides a link to 3,500 national support services.
 - The goal of this is to help individuals feel in control of the services they use by providing many options to choose.
- The dissuasion research also shows a need to introduce more hope into people’s lives and to make rail stations a happier environment for passengers. Context and environment influence people’s behaviors, therefore, Network Rail implemented efforts to create a positive atmosphere in stations to support mental health. They sought to accomplish this goal through the following efforts:
 - Increasing the number staff in the stations to create a more social and interactive atmosphere for passengers.
 - The creation of the *Brighter Journey* campaign includes input from mental health experts to help people who struggle with their mental health. A range of ideas for events including big flower displays, pleasing scents, and bird songs and/or soothing music. A few events have been held:
 - Giving pieces of paper with inspirational poems to passengers at stations.
 - Seeded papers offered to passengers so they could plant flowers at their homes.
 - Feedback from passengers was that these events (from Brighter Journey campaign) truly made a difference in their day. It was particularly helpful in reducing anxiety related to returning to work and public transport after the pandemic shutdown.
 - <https://www.networkrail.co.uk/stories/there-is-always-hope/>
- Middlesex University will conduct psychological autopsies of 450 individuals who completed suicide to look for similarities.
 - Researchers are looking at the following types of information:
 - Socio-demographics
 - Mental health & prior self-harm (including family history)
 - Physical health
 - Contact with services (general physician, mental health, criminal justice)
 - Life events – distal and proximal
 - Other risk factors & significant events (including COVID 19)
 - Incident details and circumstances

- Behavior at the time of the incident and behaviors preceding/leading up to the incident
 - Suicide intent
 - Social and environmental context
- An interim report in January with the final report coming later.
 - The insight from this study can help Network Rail learn where best to locate information for those in need. Network Rail believes that signage is important, but lack insight about the optimal placement of these signs, and this effort may help give some insight.
- Network Rail is developing a social media listening tool. The purpose of this tool is to:
 - Gather relevant social media posts about mental health and suicide, including those about the railway through social media platforms such as Instagram, Reddit, Twitter, etc.
 - Analyze themes and content to identify risk factors.
 - Share information with routes, industry partners, councils and community stakeholders to make sure they know what the risks are to the people in their communities.
 - The listening tool can identify a wide range of terms. The terms being considered may fall into a variety of topic areas, such as:
 - Relationships, coronavirus, bullying, self-harm, drugs, body dysmorphia, employment, inclusivity and more.
 - While this tool has many potential benefits there are some known limitations that Network Rail is aware of, including:
 - A need to refine searches on a regular basis as they may return false hits.
 - The results may not be representative – for example, the sample is limited to only individuals who have opted into sharing their location.
- Network Rail has developed a 10-point plan around operational engineering solutions. This plan includes the following:
 - ADI Systems proposed a technology to provide an automatic early warning of pre-suicidal behavior by tracking smart phone movement. It can detect signals from smart devices within a 100m area. If an individual enters a restricted space or detects a suspicious pattern of movement, it can alert authorities to investigate that area. This could potentially detect behavior patterns for further analysis.
 - A trial of this technology will commence for 6 months at London Bridge, East Croydon, Stevenage, and Kildwick Level Crossing.
- Network Rail found that 30% of people who come to the rail system in crisis have are repeat presenters, having previously been connected to mental health services by going to the rail system in crisis. This led to some new thinking about prevention.
 - Individuals may come back to a station with the intention to speak with a trained member of the station staff who can put them in touch with services. These individuals may not intend to take their life. Instead, coming back to a station may be the easiest way or the only way they know to contact the services they needed. Providing these individuals with another way to get the help they are looking for is extremely important. If they have another avenue to contact services outside of the rail station, it

may provide quicker access to important care. Network Rail is looking for potential commonalities between individuals who adopt this behavior so that trained staff may be able to recognize these individuals more quickly.

- One strategy to help individuals get in touch with the help they need was by creating a harm reduction team that works with National Health Service (NHS) nurses. This team identifies individuals who come to railroad stations to connect with mental health services. They then help to connect these individuals with professionals in mental health who set up regular contact and work to ensure they are following treatment plans so they do not need to go to rail to get these services. Currently the harm deduction team is in two locations, one in London and one in Birmingham. Each team will be in place for two years to test its effectiveness.
- Network Rail is using Forward-Facing Closed-Circuit Television (FFCCTV) to improve turnaround time after an incident by using a direct video feed from trains and remote download capabilities.
 - This makes the railway safer by allowing rail staff and emergency responders understand the details of a trespassing incident before arriving at the scene. It may also help to reduce the time to restore service.
 - Journeo is a system Network Rail is using, capable of tracking multiple trains and remote download videos from the FFCCTV. The goal is to see if reviewing the FFCCTV can help expedite incident response and turnaround time.
- Persons in Precarious Positions (PIPP) are incidents where an individual is found in a location where responding to the situation may put the safety of the responding staff in danger.
 - PIPP incidents often present an operational response conflict between managing the safety of the person on the tracks, those responding, and other passengers because of the situation.
 - Network Rail is developing plans to understand how to manage situations where a PIPP may present a danger to those who are responding to the situation.
 - Network Rail is developing a decision-making model to help all parties understand the risks and best response action for PIPP incidents given the situation specifics.
- Network Rail is exploring the use of drones with thermal imaging to address trespass. They have a procedure in place for police to obtain exemptions from Civil Aviation Authority rules to use drones to identify the location of individuals who are on the right-of-way (ROW).
 - The goal is to have fewer people on the ROW. With a drone it can be easier to search a long stretch of track without endangering anyone else who would otherwise have to enter the system to search for the trespasser.
 - Use of drones may reduce search time and allow trains to continue to operate, as well as expedite the safety in the area.
- Question: You said that the act of trespassing could sometimes be an individual reaching out for help and trying to access services. Are there data on the number of non-fatal suicide attempts? In the US it is about 10% of suicide attempts are non-fatal. Has anyone used non-fatal incident data to convey to the public that not everyone struck by a train will die?
 - Response: In the UK, 20% of suicide attempts are non-fatal and often result in life changing injuries

- Research shows that lethality is a big part of the decision to attempt suicide by rail. Another reason is that individuals would rather railway staff find them than a family member.
 - There is a belief that suicide by rail is 100% lethal and instant, but this is not true.
 - We need to be careful about how we talk about train lethality. Suicide does have an impact on staff, so efforts to reduce the number of incidents are all valuable, but we also must consider how to promote help seeking behavior.
- Response: In the Netherlands, about 10% of all suicides are non-fatal, illustrating the need for interventions to address non-fatal attempts. We have about 40 cases of suicide completion compared to 172 cases where we have prevented a suicide by some form of intervention.

United Kingdom, New International Collaborations

Update provided by Ian Stevens.

- Ian provided an update regarding upcoming work with TrackSAFE.
- TrackSAFE are undertaking a review of bystander/gatekeepers campaigns to assist their thinking in this space.
 - Queensland University of Technology have already undertaken a literature review.
 - Ian is now undertaking a pracademic review to identify what makes these types of campaigns work or not, as the case may be. His research will look at
 - Campaigns post-2015, in the social media age.
 - Gathering knowledge about the railroad industry from experts.
 - Around the world, there are bystander campaigns about sexual violence with some similarities to apply to rail suicide prevention. If campaigns to enlist the public for looking out for one another in public spaces can those successes, be applicable for the rail suicide prevention campaign?
 - Hub of Hope is a website/app that connects individuals with a wide range of services that may help them identify a strategy to address issues related to mental health. This resource is focused on mental health generally, incorporating suicide in the broader context of mental health.
- Question: Can anyone in the group speak about their experience with bystander training or public campaigns about suicide prevention?
 - UK Response: Hub of Hope is all about upstream sign posting. Network Rail is starting to train bus and taxi drivers about intervening as well. This includes what behaviors to look for and what resources to offer someone who may need help. Similar training with people who work near or in the rail station to identify individuals before they get to the rail is also underway. The goal is to push the prevention as upstream as possible, understand how prevention tactics can be pushed further away from rail, as well as preventing incidents before an individual reaches a crisis point.
 - UIC Response: The TreSP survey identified many countries that implemented various campaigns about trespass and suicide. At this time no detail about campaign specifics, but will follow up once findings are available for discussion.
 - NL Response: The Netherlands have had local campaigns to give out coffee at train stations; two cups of coffee to each person with the intention for them to give one away to a fellow passenger and strike up a conversation. They have research underway to examine reactions of

passengers who hear announcement of a train strike. They are considering making these announcements by referring to each event as an accident. This would keep the message honest, but vague. Their research has shown that it is in their best interest to keep the idea of suicide on the railway out in their messaging just in case of any individual at risk for suicide, is impressionable from information relayed in their announcement.

- UK Response: Network Rail has also implemented similar efforts with coffee where you buy one; receive two, and the extra goes to someone in need. It works both ways, the person buying the coffee feels good that they've done something nice and the person receiving the needed coffee feels like someone cares. There is also the [Small Talk Saves Lives](#) campaign that has is in place in the UK.
- US Response: FRA has recently started issuing directed grants related to trespass enforcement and suicide prevention. Two of the four suicide prevention grants will be for gatekeeper training. Some will be include community members and individuals who work at homeless shelters. For one of the grants, an established program known as [TRACKS](#) will expand to include QPR (Question, Persuade, Refer) training and to emphasize rail outreach ambassadors in stations.
- CA Response: In western Canada, they introduced QPR training on their system as well. They are now trying to tap into what they call a “network effect,” which is related to engaging the public. Station attendants are in process of receiving the training. Many station attendants have received mental health first aid training already, but QPR focuses on the rail suicide specifically. They are very interested in engaging the public. Based on results from campaigns like “See Something, Say Something” it has proven that educating the public can be effective. In another example, the city of Seattle, WA has a four to five times higher survival rate for cardiac events since the public is more trained in CPR. The more people trained, the higher the chance of an intervention occurring.
- US Response: There is a lot of discussion at different railroads in the US, for example, at Metra in Chicago, they are attempting to engage the public more directly. In addition, many railroads in the US use the term “medical emergency” to describe an incident instead of directly stating there was a suicide, or person struck.
- NO Response: Based on prior studies, not mentioning suicide in campaigns, but speaking directly about suicide can be important for those who are struggling with suicidal thoughts.

United States

Update provided by Michail Grizkewitsch and Scott Gabree.

- FRA has been hosting trespass summits in counties around the country with high rates of trespass and/or suicide. The meeting presentations and recordings are available on the FRA website: <https://www.fra.dot.gov/conference/2021/trespassing/>
 - The meeting in Chicago is best align with this group’s activities and would be worth looking at.
- FRA has started to issue directed grants for trespass and suicide prevention work. This year they have \$2M for enforcement of trespass laws and \$200k for suicide prevention programs.
 - Current funded efforts are in California, Florida and New York, more than one of which involve employee-training programs.
 - There is also a new data collection tool for trespass enforcement. This tool is for law enforcement officials to use when approaching a trespasser. The goal is to document the circumstances around a non-strike trespass incident and its precursors to the incident. This new data collection tool will allow officers to document interactions with individuals who

expressed considering suicide. This data can help understand potential value of patrols for trespass and suicide prevention.

- FRA and Volpe are working on a Toolkit similar to one developed by RESTRAIL. The goal is to provide US rail carriers, and others interested in railroad suicide prevention, with an easily accessible single source. The source will include information about different measures to prevent trespass and suicide or to mitigate the aftereffects of an incident. FRA anticipates a public launch in 2022.
 - Each measure has the following information:
 - Description
 - Notable Practices
 - Advantages
 - Drawbacks
 - Images
 - References
 - Related Measures
- In November 2021, FRA and Volpe initiated their first meeting of the Suicide Prevention for US Rail (SPUR) working group, for commuter railroad representatives to share their experiences about trespass and suicide prevention. The group was borne out of conversations with carriers wanting to know more about how peers are addressing their challenges in this area. The goal is to provide participants an opportunity to share challenges, successes, and lessons learned in their prevention efforts.
- Operation Lifesaver, Inc. (OLI) is working with Volpe and others on campaigns related to trespass prevention. Volpe's participation has largely focused on considering suicide in OLI's messaging as to deemphasize lethality or other factors that may unintentionally highlight the rail as a means for suicide. Some specific campaigns included the following:
 - Resources for those experiencing homelessness. The focus of the campaign was to highlight respect and the ability to choose. Materials were available at homeless shelters and other locations where these issues are prominent.
 - Mature drivers
 - College age students
 - Shift workers
- Volpe is collecting and reviewing peer-reviewed research articles related to rail suicide with a goal of better understanding the accessibility, quality, and utility of the data sources used to conduct the research. Volpe is documenting various aspects of data sources described by the authors, including if the data source is public, how to obtain data, variables included in each data source, how to use the data to inform prevention strategies, and any noted limitations or benefits of using the source.
- Volpe is starting an effort to leverage other data sources within the US to further our understanding of rail suicide and trespass in the US. These data sources will include the National Violent Death Reporting System (NVDRS) maintained by the Centers for Disease Control (CDC). The NVDRS captures more information about the individuals involved than the FRA database, including demographic information, history of suicide and mental health diagnoses.

ACRONYMS

ACRI	Australasian Centre for Rail Innovation
AU	Australia
CA	Canada
CDC	Centers for Disease Control
FFCCTV	Forward-Facing Closed-Circuit Television
FI	Finland
FRA	Federal Railroad Administration
GRASP	Global Railway Alliance for Suicide Prevention
ILCAD	International Level Crossing Awareness Day
NHS	National Health Service
NL	Netherlands
NO	Norway
NVDRS	National Violent Death Reporting System
NZ	New Zealand
OLI	Operation Lifesaver Inc.
PIPP	Persons in Precarious Positions
QPR	Question, Persuade, and Refer Training
RESTRAIL	REduction of Suicides and Trespasses on RAILway property
ROW	Right-of-Way
SPUR	Suicide Prevention for US Rail
TreSP	Trespass and Suicide Prevention Network
UIC	International Union of Railways
UK	United Kingdom
US	United States