



# Project Team

## ☐ Sponsors

- Mike Coplen – FRA Office of R&D

## ☐ Volpe Team

- Stephanie Chase, PhD
- Bianka Mejia
- Danielle Hiltunen
- Cassandra Cantu

## ☐ Other Team Members

- Ann Doucette, PhD
- Mike Martino

# Overview

## ❑ Types of trespass casualties

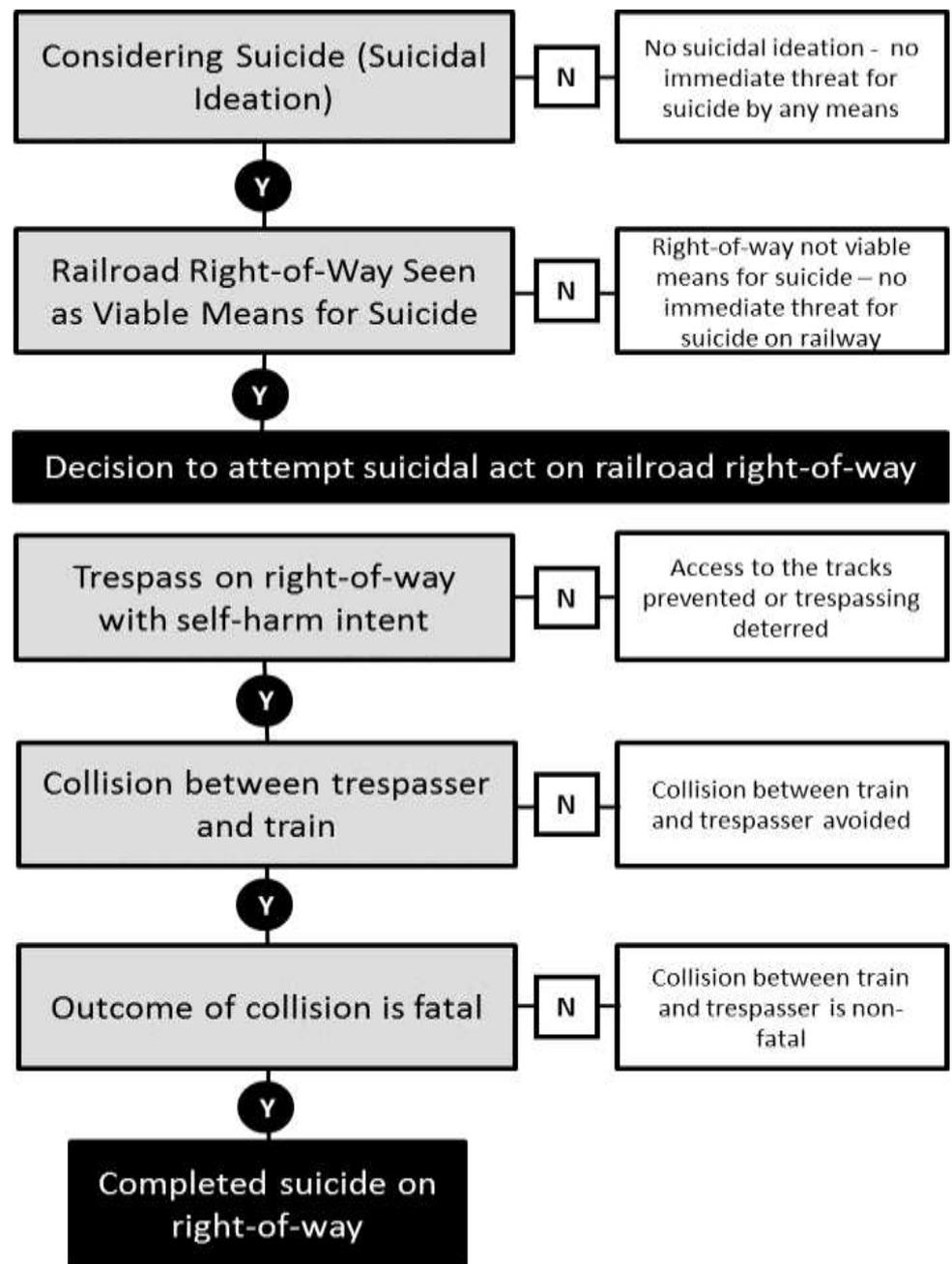
- Accidental – Intent of the trespasser is to safely cross or walk along the tracks, however, they misjudge or are unaware of the oncoming train.
- Intentional – Intent of the trespasser is to be struck and killed by the train; a suicide or suicide attempt.

## ❑ Trespassing on the right-of-way is illegal regardless of intent

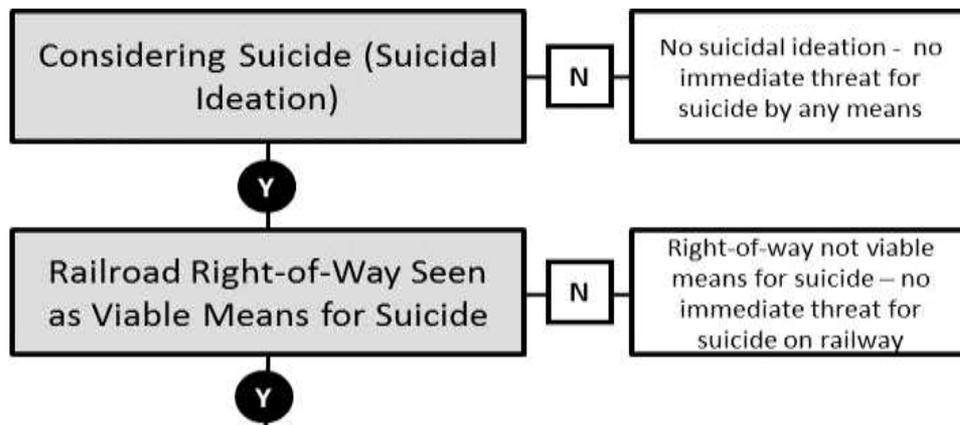
## ❑ Both types of trespassing must be considered to develop effective countermeasures

## Potential Countermeasures to Mitigate Suicides on Rights-of-Way

- ❑ Our team recently published a paper describing proposed countermeasures to mitigate suicides on the rights-of-way\*
- ❑ Not all proposed countermeasures are recommended or likely to be effective
- ❑ Diagram presents points of intervention where countermeasures may be implemented

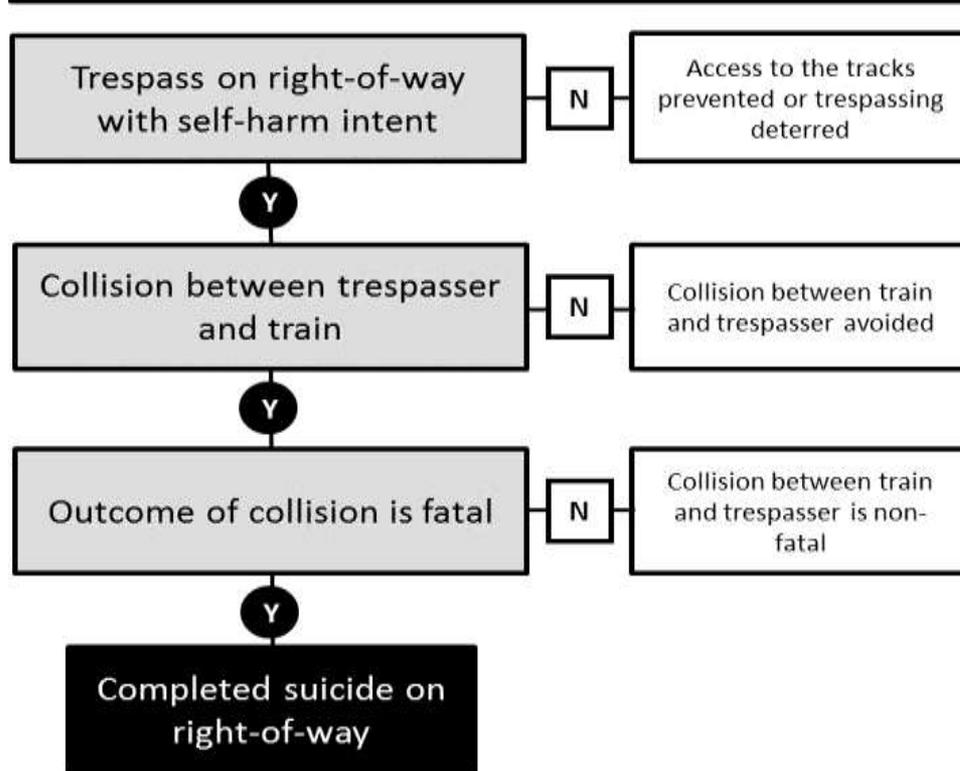


Intentional

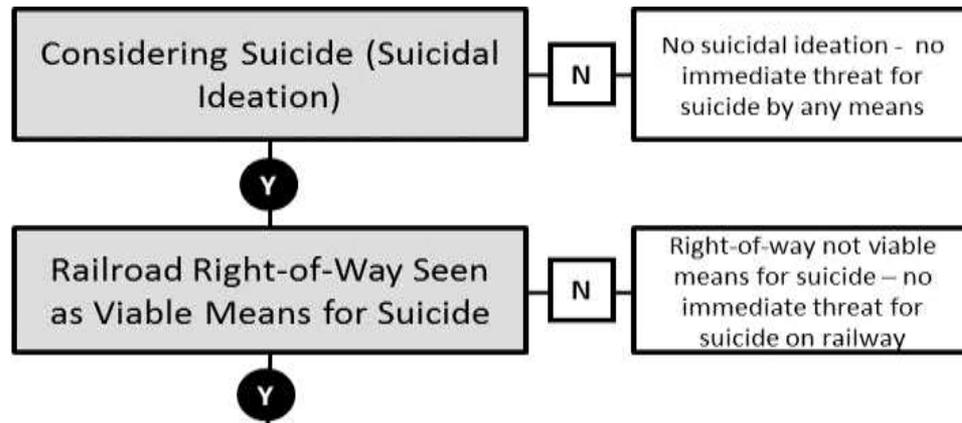


**Decision to attempt suicidal act on railroad right-of-way**

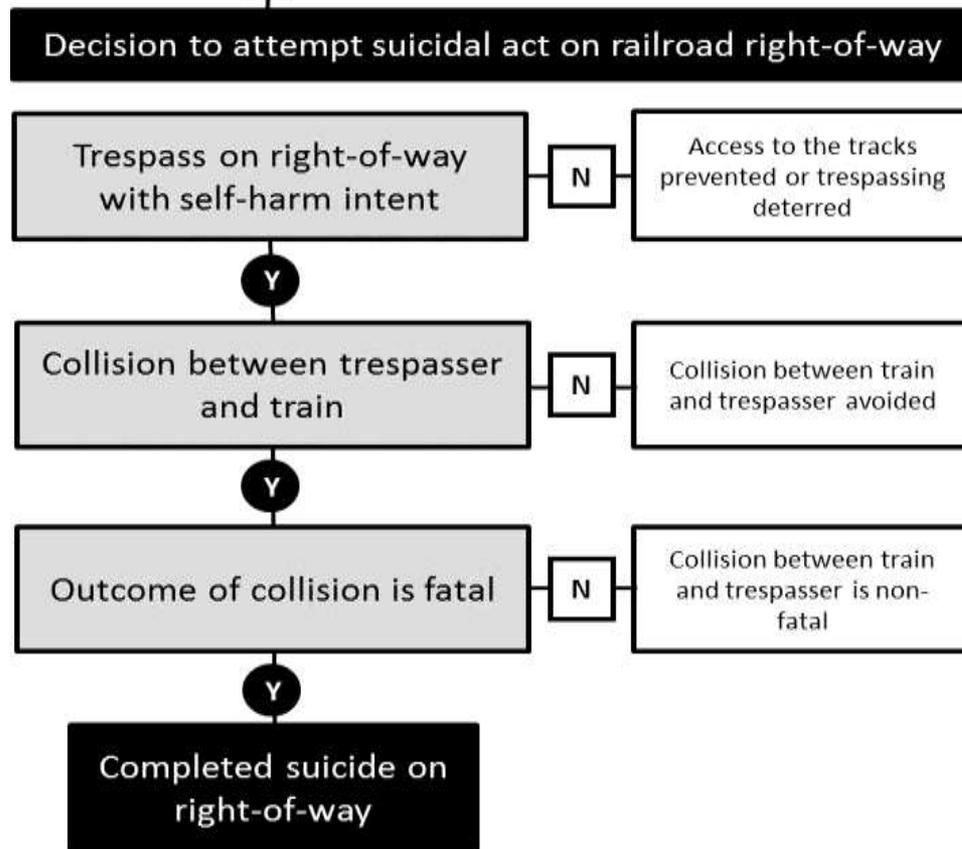
Intentional  
or  
Accidental



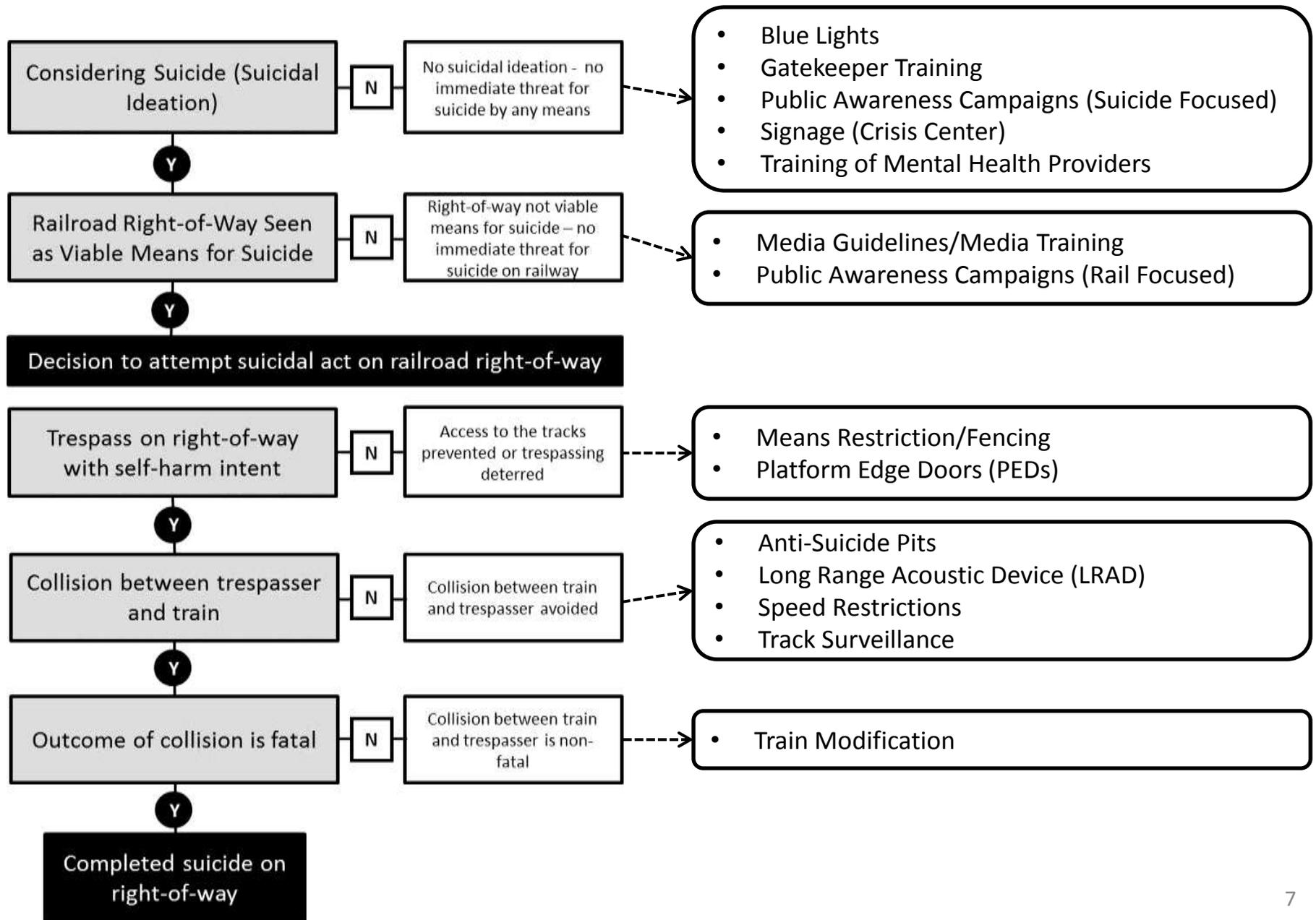
Many will be most effectively implemented with community involvement



Many are rail carrier implementations, possibly with some community involvement



# Points of Intervention – Proposed Countermeasures

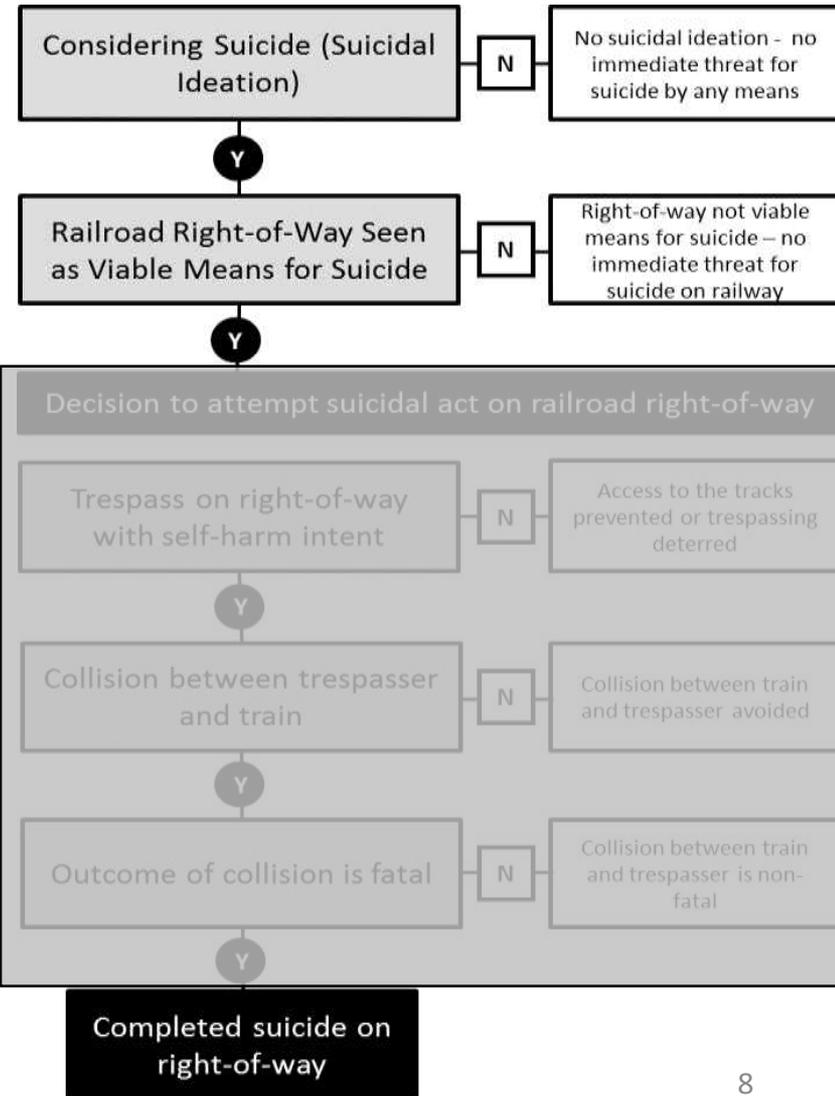


# Early Interventions

## Rail Public Safety Campaigns

Such campaigns are used widely around the world and in the US. True impact is not well understood.

Potential for unintended increase in suicide if not phrased carefully (e.g., inadvertent advertising of a means of suicide)

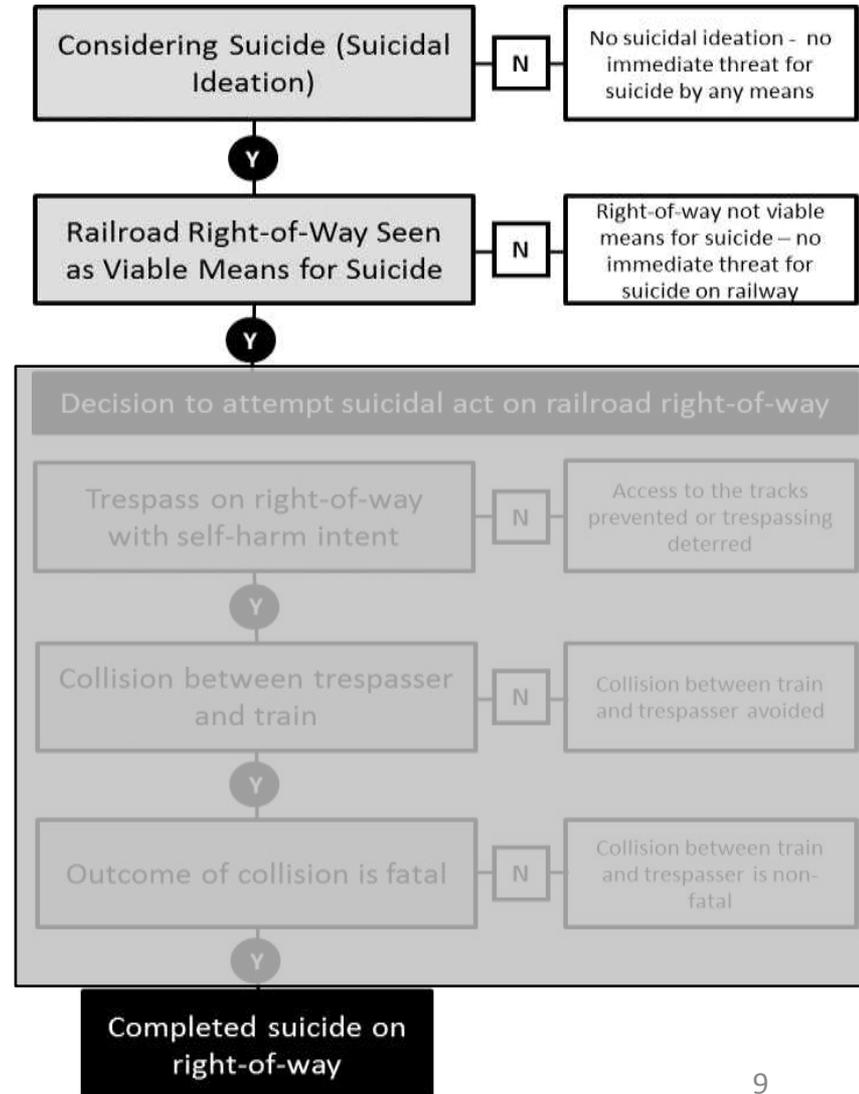


# Early Interventions

## Crisis Center Signage

Many rail carriers post signage in stations or other frequented locations along the right-of-way

May be most effective if done in concert with local communities – seeing helpline messages in a variety of contexts may help make clear that this is a community concern



# Later Interventions

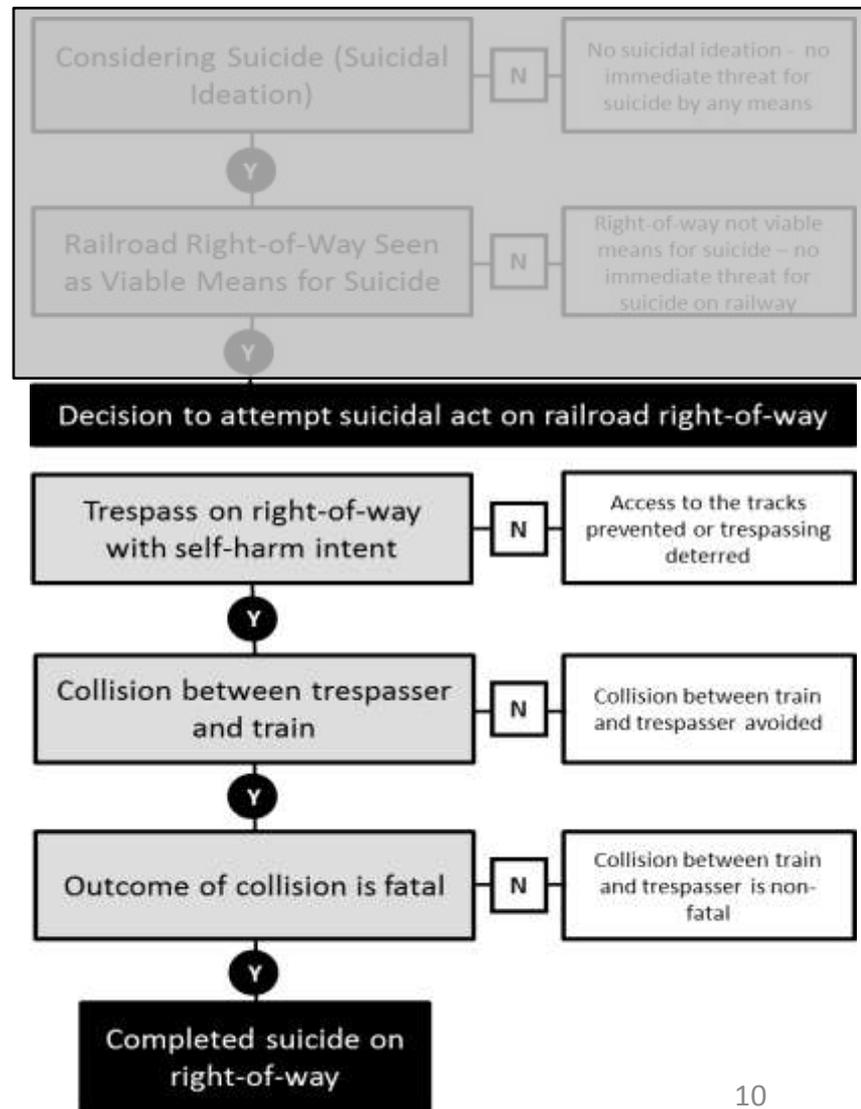
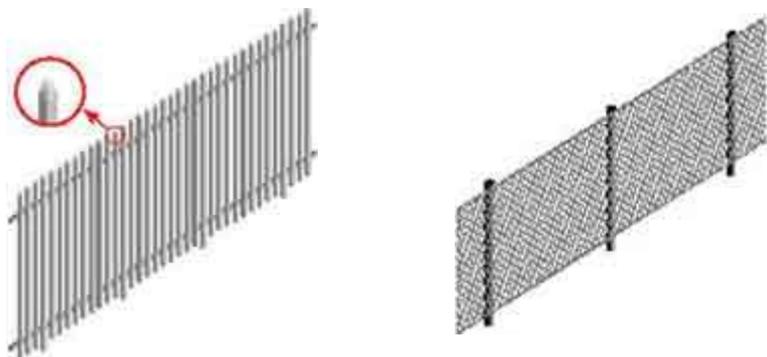
## Means Restriction

Exact impact is not well documented.

Both maintenance and installation costs should be considered.

Restricting access may not have the same impact on suicides as on trespass.

Access can never be 100% restricted – as certain locations are restricted people may turn to other locations on right-of-way



# Next Steps

## ☐ For Research

- Conduct more thorough evaluations of implemented countermeasures or pairs of countermeasures
- Better understand the impacts that trespass countermeasures have on both trespass *and* suicide

## ☐ For Rail Carriers

- When possible, work with community to both defray costs as well as spread the message about mental health outside the rail environment
- If implementing multiple countermeasures for trespass or suicide, consider addressing the issue from different angles



U.S. Department  
of Transportation  
Federal Railroad  
Administration



OFFICE OF RESEARCH & DEVELOPMENT

# Thank you!

## Our Team

### □ Sponsors (FRA)

- Michael Coplen, FRA Office of R&D

### □ Volpe Center

- Stephanie Chase, Ph.D.
- Bianka Mejia
- Cassandra Cantu
- Danielle Hiltunen

### □ Association of American Railroads

- Michael Martino

### □ George Washington University

- Ann Doucette, Ph.D.



## Scott H. Gabree, Ph.D.

Engineering Psychologist | Surface Transportation Human Factors

Volpe, The National Transportation Systems Center | U.S. Department of Transportation

55 Broadway, Cambridge MA 02142 | Web: [www.volpe.dot.gov](http://www.volpe.dot.gov)

Office: 617-494-2530 | Email: [scott.gabree@dot.gov](mailto:scott.gabree@dot.gov)