

Project Overview

- Goal: End pedestrian deaths and serious injuries on roads in the region
- Approach: Safe systems framework and data-driven, looking at both crash history and systemic risk factors
- Outcomes:
 - Risk assessment maps for the region
 - Data-driven prioritization metric for roadways Regional Solicitation funding category
 - Additional policy and program recommendations
 - Countermeasure guidance for key crash patterns in the region
 - All recommendations will be grounded in Safe Systems, acknowledging the needs of all road users





Draft Goal and Principles for Regional Pedestrian Safety Action Plan

Overall goal

 To reduce and ultimately eliminate pedestrian deaths and serious injuries from traffic crashes in the region

Principles to guide this work

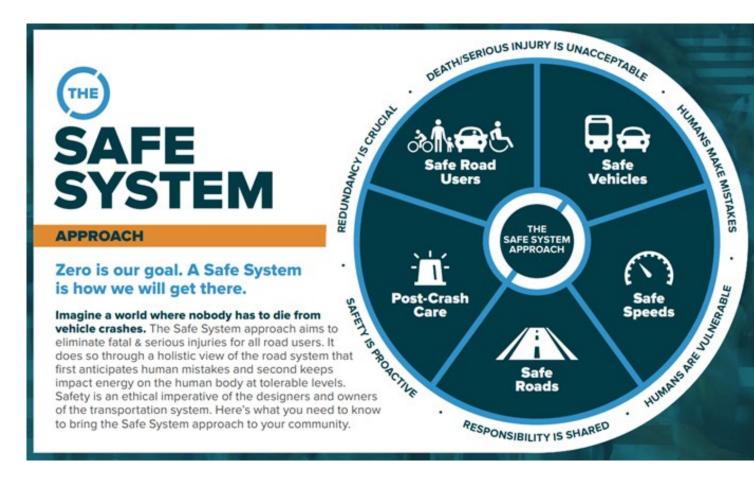
- Use a safe system approach
- Ensure equity is incorporated into the work
- Make roadway and environment changes that encourage and support walking with safe and convenient crossings





A safe systems framework helps us proactively identify high risk areas and plan for roadway solutions that meet the needs of ALL road users.

- People make mistakes
- Human bodies are vulnerable
- Deaths or serious injuries are not acceptable
- Redundant safety measures create layers of safety
- Responsibility is shared
- Infrastructure is key







Project Timeline

- Kick-Off Fall 2020
- State of Practice Review Fall 2020
- Retrospective Crash Analysis Winter 2020
- Systemic Crash Analysis and Network Screen Spring 2021
- Develop Regional Solicitation Pedestrian Safety Criteria Spring 2021
- Work with TAC/TAB and other stakeholders to refine Regional Solicitation criteria – Summer 2021
- Develop Policy and Programmatic Recommendations Fall 2021
- Develop Countermeasure Recommendations Fall 2021
- Draft Report Winter 2022





Key Findings so far

Based on crash history

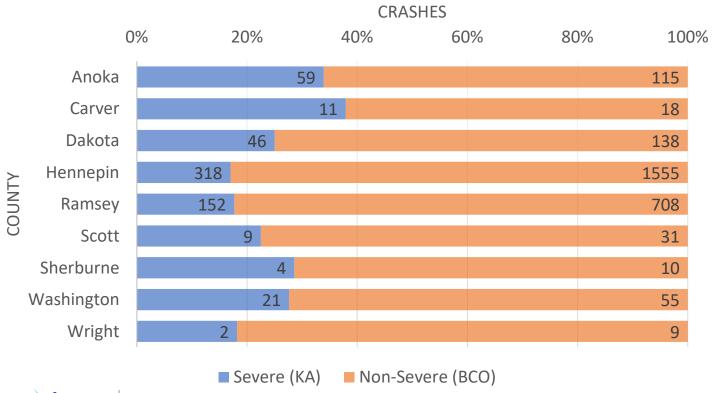






Geographic Distribution Pedestrian Crash Severity is Higher in Suburban Counties

SEVERE CRASH PROPORTION BY COUNTY



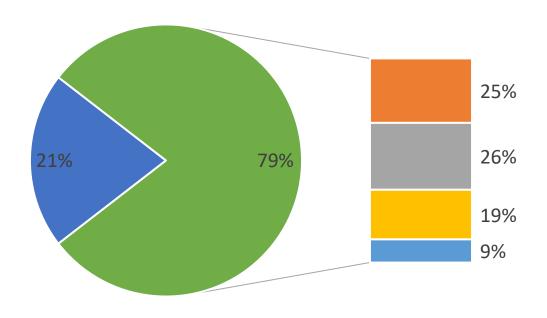
- Hennepin and Ramsey have the highest numbers of both all severities and severe crashes
- Crash severity in other counties is generally higher





80% of Severe Pedestrian Intersection Crashes and 50% of Mid-Block Crashes Occur Near Transit Stops

Severe (KA) Intersection Crash Distribution by Transit Stop Count



■ None/Unknown ■ 1-2 ■ 3-4 ■ 5-8 ■ 9+

Transit stops are a good proxy for high pedestrian exposure. There is no evidence that transit *causes* the crashes.

Intersections with transit nearby (within 500') comprise fewer than 25% of all intersections.

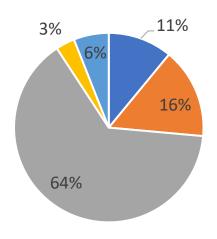




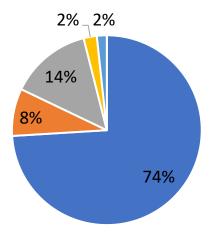


Severe Pedestrian Crashes Disproportionately Occur on Minor Arterial Roadways

Severe (KA) Crash Distribution by Max Functional Classification (Intersection)



Centerline Miles Distribution by Functional Classification (7 County)



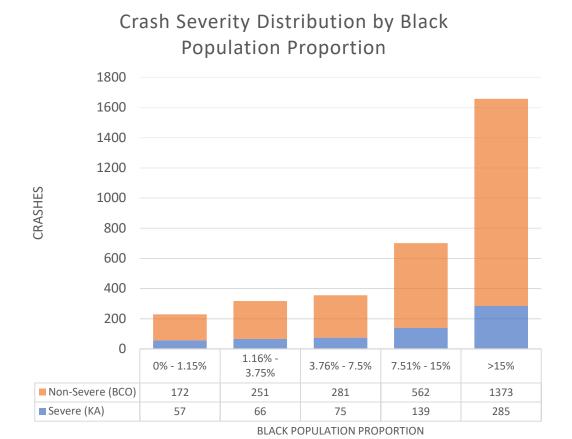
- Local & Other/Unknown
- Major Collector
- Minor Arterial
- Principal Arterial Interstate/Freeway/Expressway
- Principal Arterial Other





- 64% of severe pedestrian crashes happen on Minor Arterials, which represent only 14% of the roadway network
- 11% of severe pedestrian crashes happen on Local/Residential Roads (74% of the network)
- Functional class is a good proxy for roadway attributes linked to risk (e.g., vehicle speeds, volume, number of lanes)
 - We're looking at these other variables in Task 5

Black and Native Communities Disproportionately Harmed by Pedestrian Crashes



- 14% of pedestrian deaths were Black people (vs. 9.6% of population)
- 2.3% of pedestrian deaths were Native people (vs. 0.48% of population)
- Tracts with higher shares of Black or Native residents have more pedestrian crashes
- Tracts with higher shares of white residents have fewer pedestrian crashes
- May be linked to exposure, but closely mirrors historic patterns of disinvestment and racially biased lending practices





Quintile sections: each represent 20% of the total population Note: this analysis is based on demographics of the Census tract where the crash occurred, not on the crash victim's actual race.

Next Steps







Systemic Analysis

- Identify underlying systemic risk factors associated with crashes
- Screen the roadway network, and produce maps to help:
 - Prioritize regional solicitation funding
 - Allow communities to better understand local safety issues
 - Support other safety recommendations and initiatives (e.g., countermeasure selection)
- Develop funding prioritization criteria based on network screen



Next Steps

- Draft Systemic Analysis Spring 2021
- Draft/Final Regional Solicitation Criteria Spring/Summer 2021
- Policy, Programmatic, and Countermeasure Recommendations – Fall 2021









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