REGIONAL
PEDESTRIAN SAFETY
ACTION PLAN

METRO

Transportation Advisory Board
June 16, 2021

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Project Overview

- Goal: End pedestrian deaths and serious injuries on roads in the region

- Approach: Safe system framework and data-driven, looking at both crash history and systemic risk factors

- Outcomes:
  - Risk assessment maps for the region
  - Data-driven prioritization metric recommendation for Regional Solicitation funding
  - Countermeasure guidance for key crash patterns in the region
  - Additional policy and program recommendations
  - *All recommendations will be grounded in Safe Systems, acknowledging the needs of all road users*

Policy Context for Doing This Work

- The Minneapolis-St. Paul region tends to have **over half** of the pedestrian deaths in Minnesota, a much higher share than we see for all traffic fatalities where we average about 30% of the state total.

- Our region needs to take a bigger role in helping to address pedestrian safety

- Both the state and the region set annual targets for fatalities and serious injuries as part of our federally-required safety performance measures

  - These targets on our way to zero deaths and serious injuries are aggressive and require additional focus and action to reach

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

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A safe system 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**
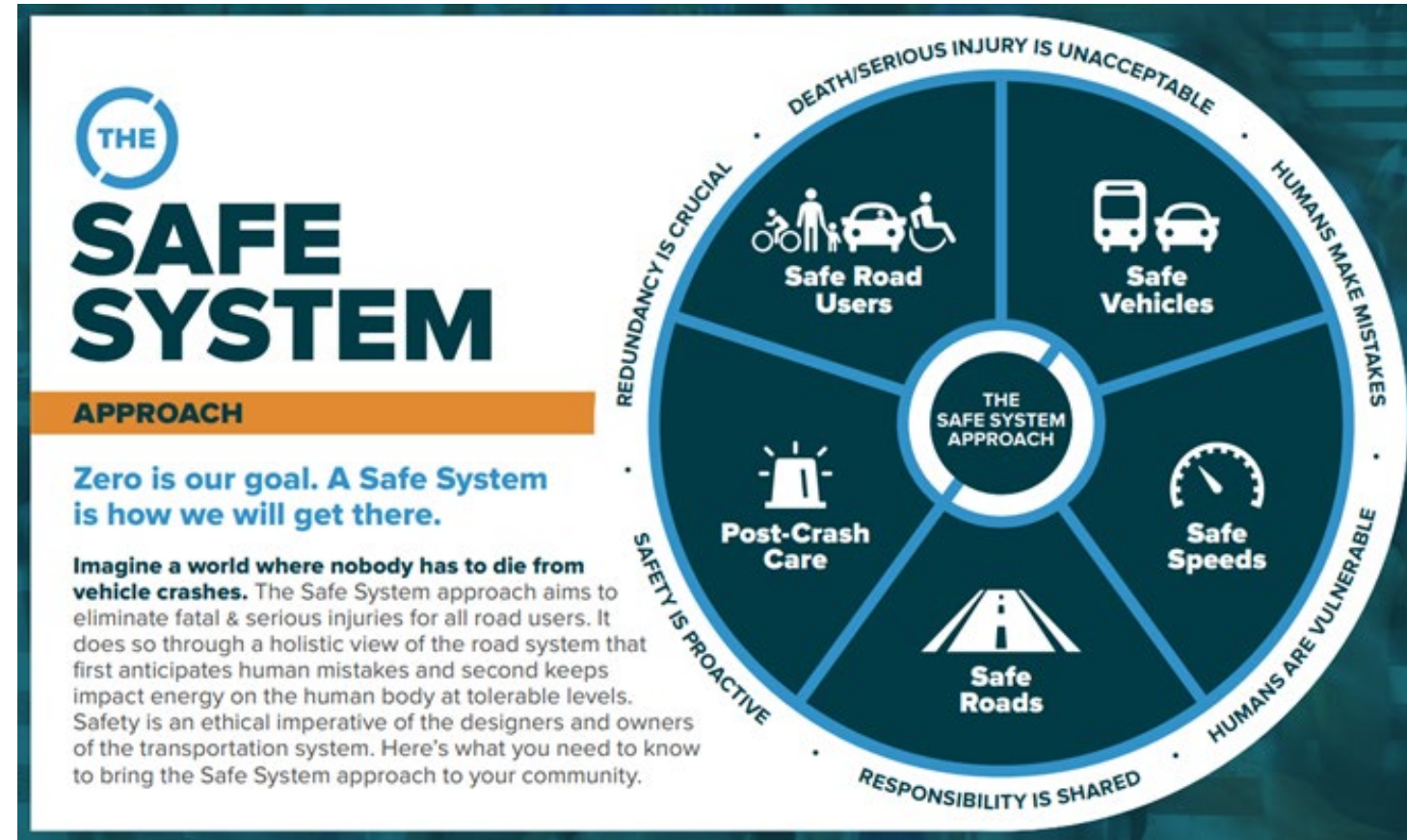
Project Timeline

- 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
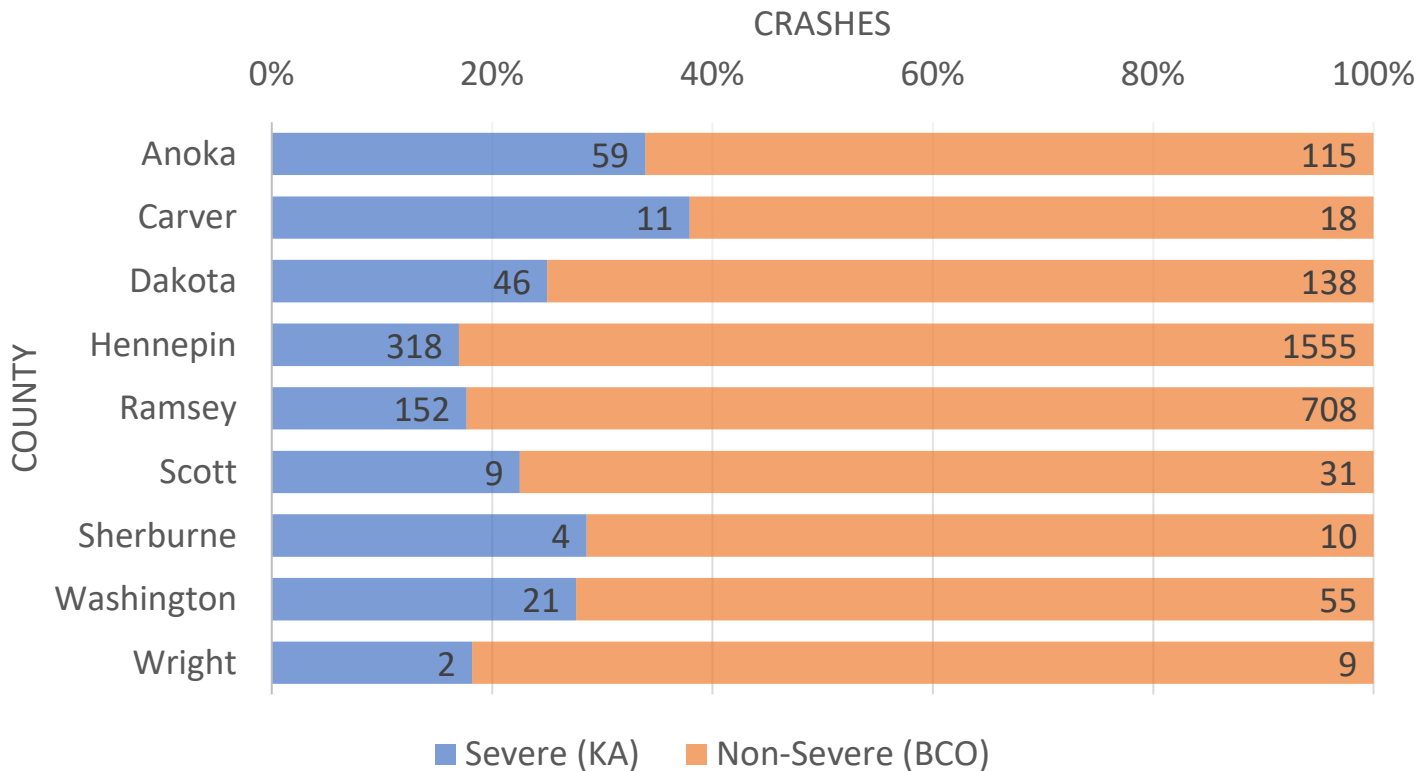
- Final Report – Early 2022
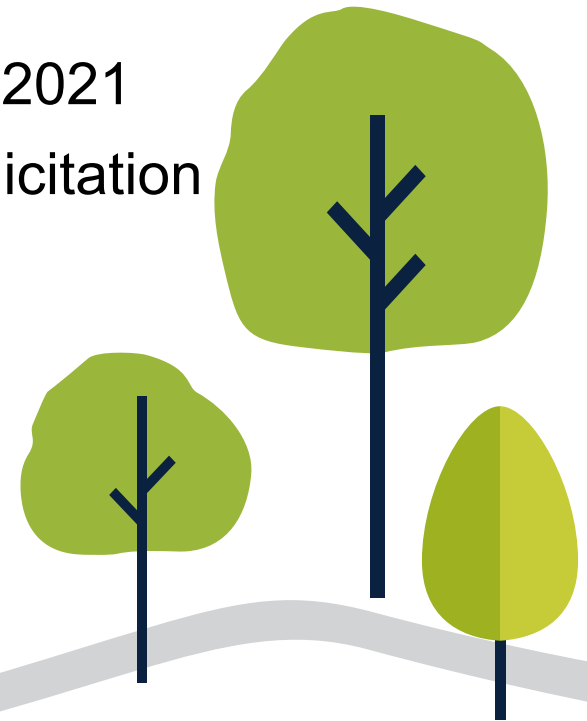
Key Findings so far

- Based on crash history for 2016-2019

Geographic Distribution
# Pedestrian Crash Severity is Higher in Suburban Counties

SEVERE CRASH PROPORTION BY COUNTY

CRASHES

- 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
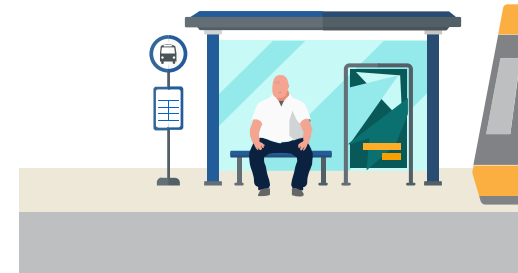
Severe (KA) Intersection Crash Distribution by Transit Stop Count

21%   79%

25%

26%

19%

9%
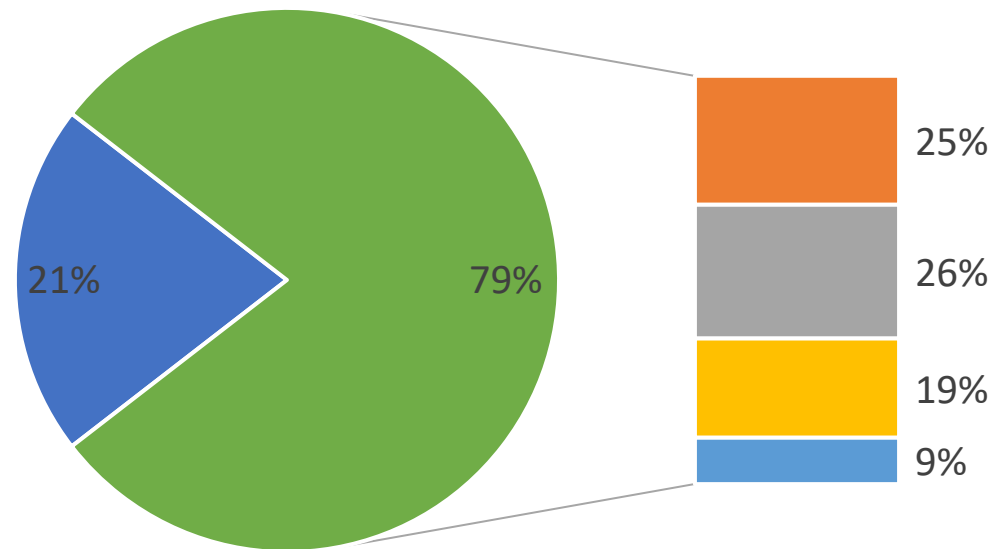
■ None/Unknown   ■ 1-2   ■ 3-4   ■ 5-8   ■ 9+

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)
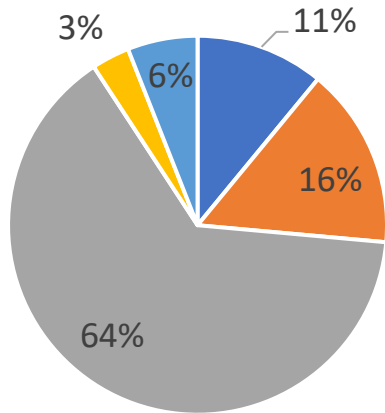
- Local & Other/Unknown
- Major Collector
- Minor Arterial
- Principal Arterial - Interstate/Freeway/Expressway
- Principal Arterial - Other
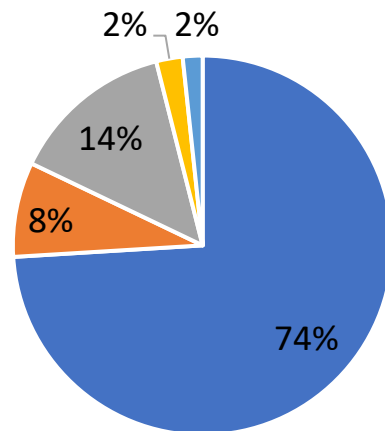
- 64% of severe pedestrian crashes happen on Minor Arterials, which represent only 14% of the roadway network

- 11% of severe pedestrian crashes happen on Local 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

Crash Severity Distribution by Black Population Proportion

	0% - 1.15%	1.16% - 3.75%	3.76% - 7.5%	7.51% - 15%	>15%
■ Non-Severe (BCO)	172	251	281	562	1373
■ Severe (KA)	57	66	75	139	285

BLACK POPULATION PROPORTION

CRASHES (y-axis: 0, 200, 400, 600, 800, 1000, 1200, 1400, 1600, 1800)
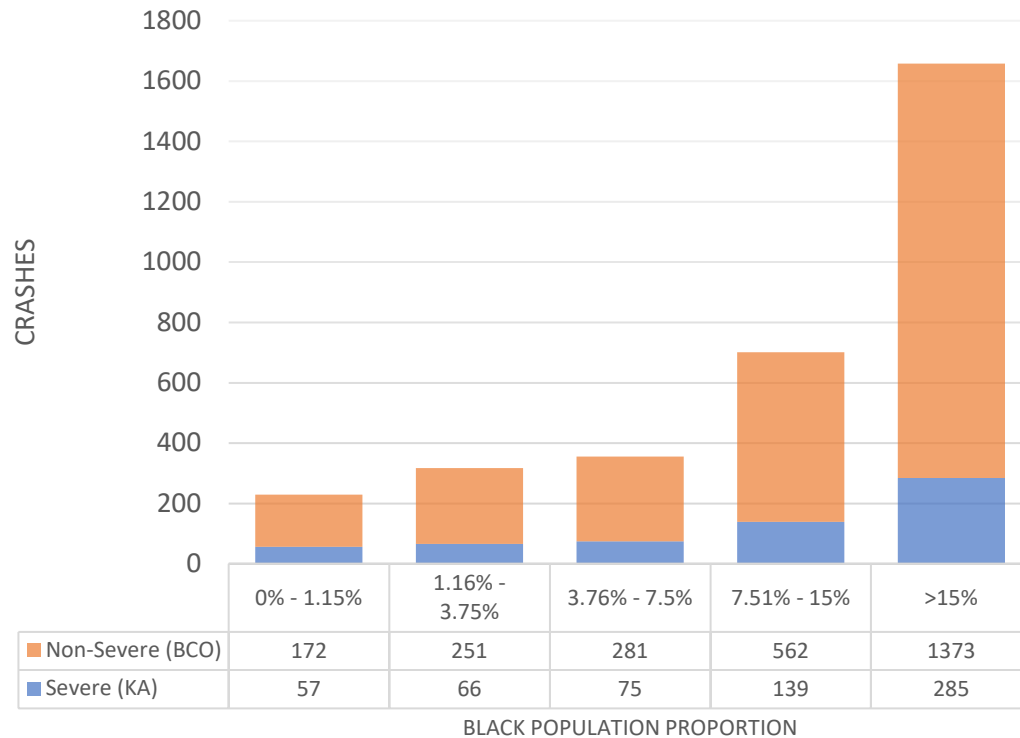
Fatalities only, by individuals

- 16.5% of pedestrian deaths were Black people (vs. 9.6% of population)

- 3.7% of pedestrian deaths were Native people (vs. 0.48% of population)

All crashes, by geography

- 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.

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Systemic Analysis

- Identify underlying systemic risk factors associated with crashes

- Screen the roadway network, and produce maps to help:
    - Allow communities to better understand local safety issues
    - Prioritize regional solicitation funding
    - Support other safety recommendations and initiatives (e.g., countermeasure selection)

- Develop funding prioritization criteria based on network screen

Next Steps

- June: Review proposed Regional Solicitation measure with Technical Advisory Group (TAG)

- July/Aug: Bring proposed measure through committees for consideration; review TAG comments on draft systemic analysis

- Fall: Countermeasure, policy & programmatic recommendations

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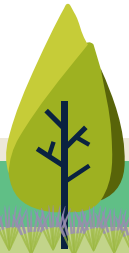
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