



Safe Streets and Roads for All

SS4A Community of Practice Peer Exchange: Rural Data Collection

March 20, 2024



U.S. Department of Transportation
Federal Highway Administration

ZERO IS OUR
GOAL
A SAFE SYSTEM IS HOW WE GET THERE



Disclaimer

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This presentation is intended only to provide information and clarity on existing requirements under the law or agency policies.

Today's Speakers

Host



Meg Miller

Transportation Specialist
Office of Safety, FHWA

Guest Speaker



Scott Himes

Highway Safety Engineer
VHB

Guest Speaker



Ian Hamilton

Transportation Planner
VHB



Today's Agenda



1. Welcome



2. Update on Community of Practice



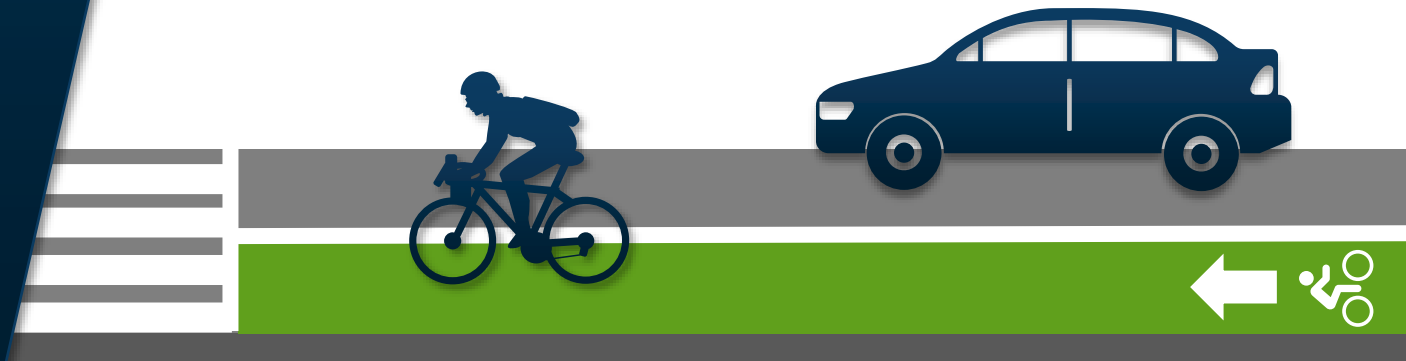
3. Data Collection Overview



4. Breakout Room Sessions



5. Next Steps and Q&A



SS4A CoP Updates



Virtual

April CoP Meeting

When: April 3, 2024

Who: FHWA, Guest Speaker(s), All CoP Members

What: FHWA will discuss procurement regulations as detailed in 2 CFR 200



Technical Assistance

When: As needed

What: One-on-one support for grant recipient questions on grants administration or project execution (e.g., Action Plan development)



Clearinghouse Website

When: Will be published shortly!

What: Provides a resource library and other technical assistance resources, including CoP meeting materials



Data Collection Overview

Scott Himes

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US Fatalities by FHWA Focus Area

Average National Traffic Fatalities: 37,338/Year

Percentage Traffic fatalities	
45%	Roadway Departure Only
18%	Intersection Only
12%	Pedestrian/Bicycle Only
11%	Multiple Focus Areas
13%	Crashes not involving a Focus Area



Percentage	Fatal crashes where one or more areas overlap
5.7%	Intersection and Pedestrian/Bicycle
4.0%	Intersection and Roadway Departure
1.4%	Roadway Departure and Pedestrian/Bicycle
0.2%	All Focus Areas

A roadway departure (RwD) crash is a crash which occurs after a vehicle crosses an edge line or a center line, or otherwise leaves the traveled way.

If RwD crashes are random, how can we address them?

While RwD crashes occur randomly, they tend to be predictable

Collision Type	2017	2018	2019	2020	2021
Trees	195	211	180	191	195
Curb, Ditch, Embankment	178	189	176	152	141
Head-on	93	118	120	113	94
Post and Poles	63	68	51	62	78
Other	55	53	49	42	56
Rollover	54	37	30	27	16
Barrier	31	33	26	23	22
Other Fixed Object	24	24	24	23	17

What does a systemic approach look like?

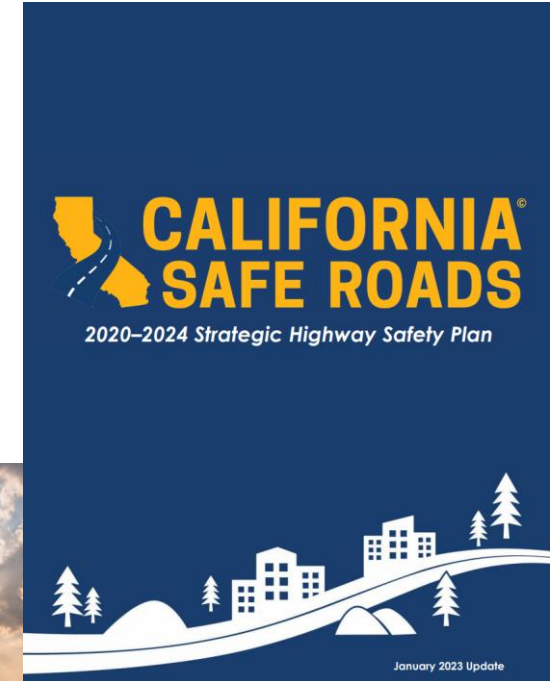
1. Identify focus crash types
2. Identify focus facilities
3. Evaluate risk factors
4. Assign risk rating

Where do I Start?

- Important questions to ask before you get started:
 - Can we access reliable crash data?
 - What parts of our road network do we want to consider?
 - Do we know what our State prioritizes?
 - Which treatments will we want to consider during implementation?

The purpose of the safety plan is to proactively address risk.

Data are just supporting tools to help effectively address risk.



What Data Should I Prioritize?

- Crash attributes can tell you a lot about your needs:
 - Do crashes happen at night?
 - What were the roadway conditions?
 - Who is typically involved?
 - What are the leading maneuvers and first harmful events?
- Focus on collecting data that support your priorities!
 - The goal of analysis is a map of priority areas.
 - More detailed data can be used for site diagnosis

What Data Should I Prioritize?



Potential Sources of Risk

- Frequency of Severe Crashes
- High Traffic/Crossings
- Narrow Roads and Shoulders
- Sharp Curves
- Steep Grade
- Limited Sight Distance
- Roadside Hazards
- Clear Zone
- Speed
- Wide Crossings



Typical Data Sources

Crash Characteristics

- Location
- Severity
- Attributes

Roadway Characteristics

- Number of Lanes
- Posted Speed Limit
- Functional Class
- Median Width/Type
- Lane Width
- Shoulder Width

Traffic Volumes/Counts

- AADT
- Trucks and Heavy Vehicles



Other Data to Consider

- Aerial imagery
- Curves from digital centerlines
- Grade and roadside slopes from digital surface models
- Demographics and socioeconomic characteristics
- Land use and zoning (parcels)
- Equity and Historic Disadvantage
- Businesses and employment
- Probe and connected vehicle data
- Travel demand models

Don't Forget Qualitative Data!

- Stakeholders can provide insights traditional data cannot.
 - Where do people *feel* uncomfortable?
 - Where have there been close calls?
 - Are conditions changing rapidly?
- Road Safety Audits (RSAs) or other field visits can help prioritize treatments at high crash or high-risk locations.

Breakout Room Coordination



Approximately
10 grant
recipients per
breakout room



Breakout rooms
were decided
based on
background of
grant recipient



Meeting notes
are only to inform
high-level
takeaways



Each breakout
room will have at
least two
facilitators



Breakout Room Session



Breakout Room Session Report Out



Next Steps

Spring 2024

- April 3, 2024 - CoP Meeting (Virtual)
- Q2 2024 - CoP Peer-Exchange Meeting (Virtual)
- Q2 2024 – Webinar on Quarterly Reporting Requirements (Virtual)



Thank you!

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