



USING POPULATION-BASED DATA TO INFORM FATALITY REVIEW

TELLING STORIES TO SAVE LIVES



Key Funding Partner

Federal Acknowledgement

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Housekeeping

Before We Get Started



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Speakers

The speakers have no financial relationships or interests to disclose.



Sasha Mintz, MPH
Senior Epidemiologist
National Center



Josh Thomas
Senior Project Coordinator
National Center



Shiv Sunger, MSW
Program Manager
Colorado Department of Public
Health and Environment

Agenda

At the end of this presentation, attendees will have increased knowledge about:



POPULATION-BASED DATA



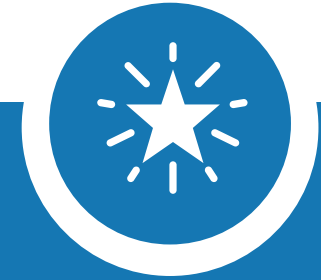
Understand population-based data, example sources, and key considerations.



STRATEGIES FOR USE



Highlight ways to use population-based data across the fatality review process.



SUCCESS STORIES



Hear how programs are already finding success with using population-based data.

Community Health Factors

Non-Medical Factors That Influence Health



Using Population-Based Data to Inform Fatality Review

New Guidance Report

- It can be difficult for fatality review teams to identify the social and environmental context in which a decedent and their family lived.
- One strategy to better understand the context is to use population data sources across the fatality review process.
- The purpose of this guidance is to provide resources and ideas for how you can supplement your work by incorporating population data.



May 2025



Using Population-Based Data to Inform Fatality Review

National Center Guidance Report

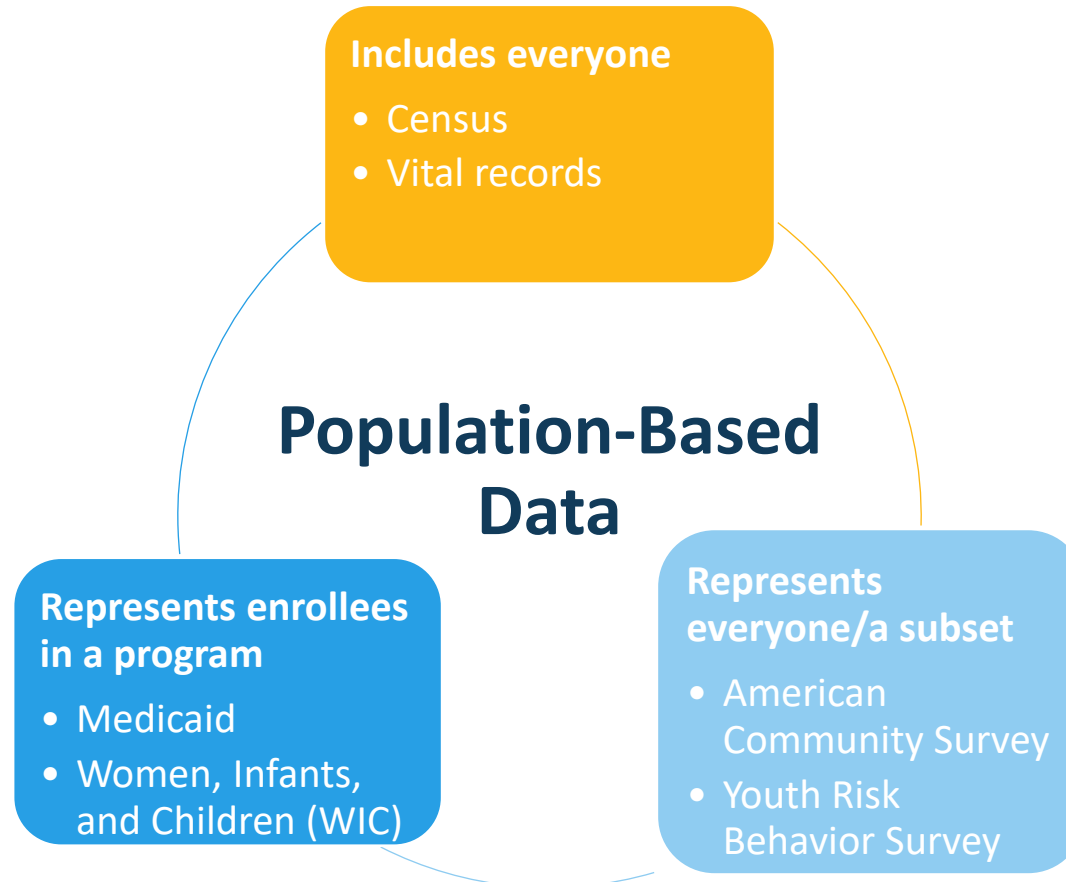


POPULATION-BASED DATA

Definitions, Examples, and Key Considerations

What is Population-Based Data?

Definition and Examples



What is Population-Based Data?

Local Examples

Includes everyone

- In 2020, 715,522 people resided in Denver County.
Source: U.S. Census Bureau, 2020 Decennial Census

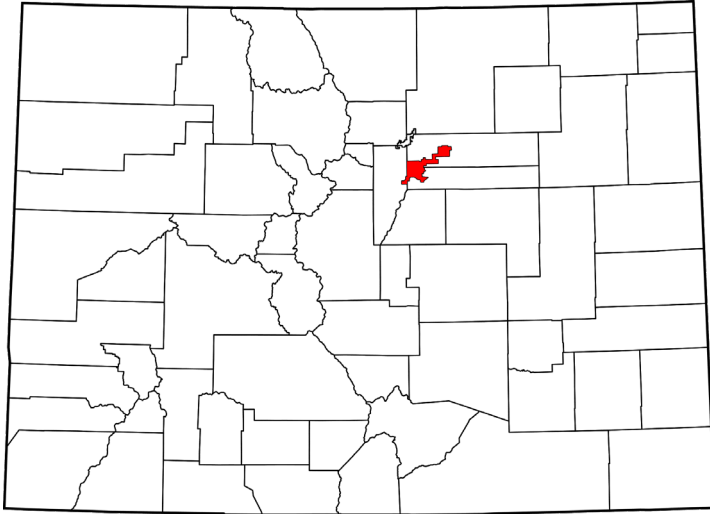
Population-Based Data

Represents enrollees in a program

- In 2020, 20,535 women, children, and infants were enrolled in WIC in Denver County.
Source: CO WIC Program

Represents everyone

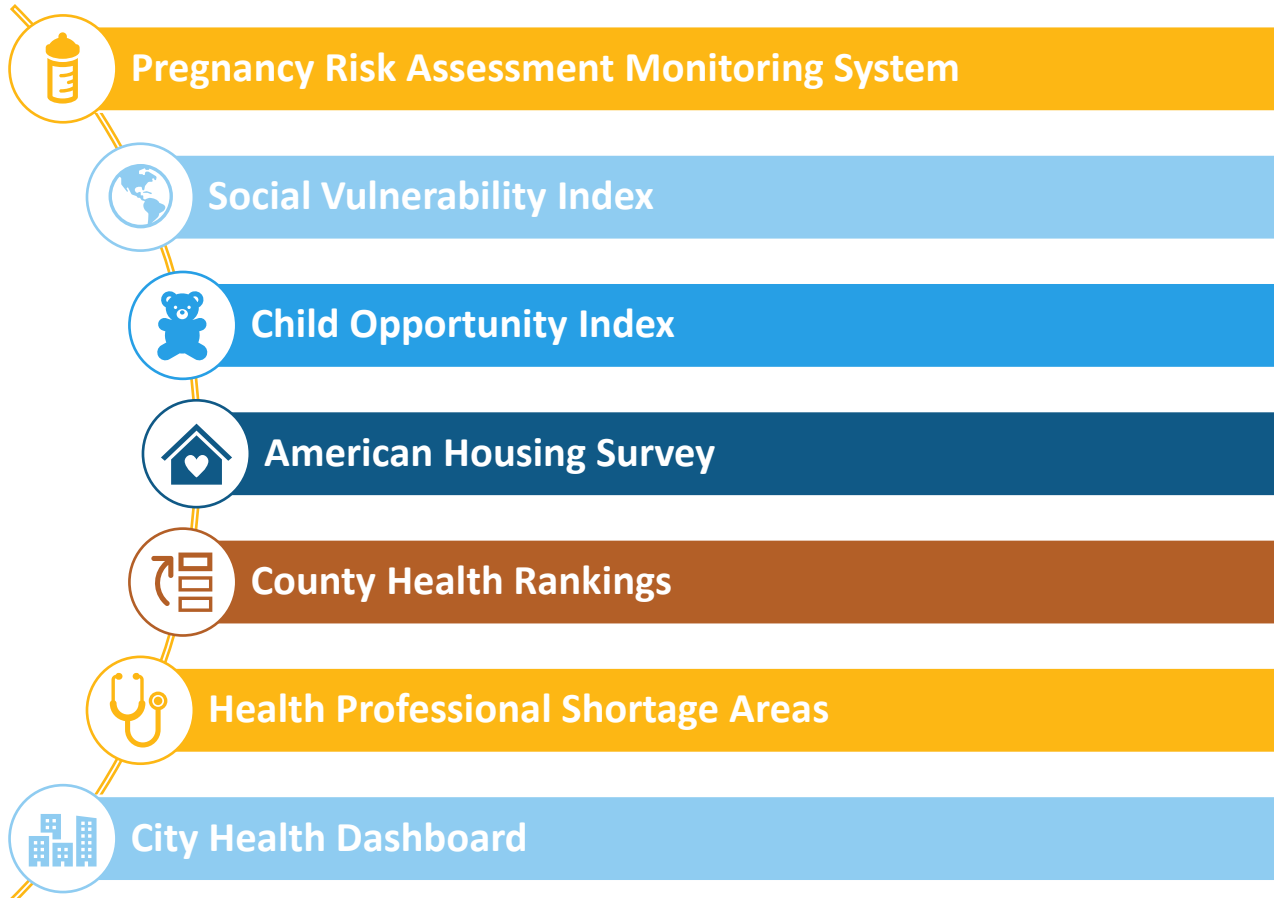
- In 2020, 11.9% of Denver County residents lived below the poverty level.
Source: U.S. Census Bureau, American Community Survey



Denver County, Colorado

Population-Based Data Sources

More Examples

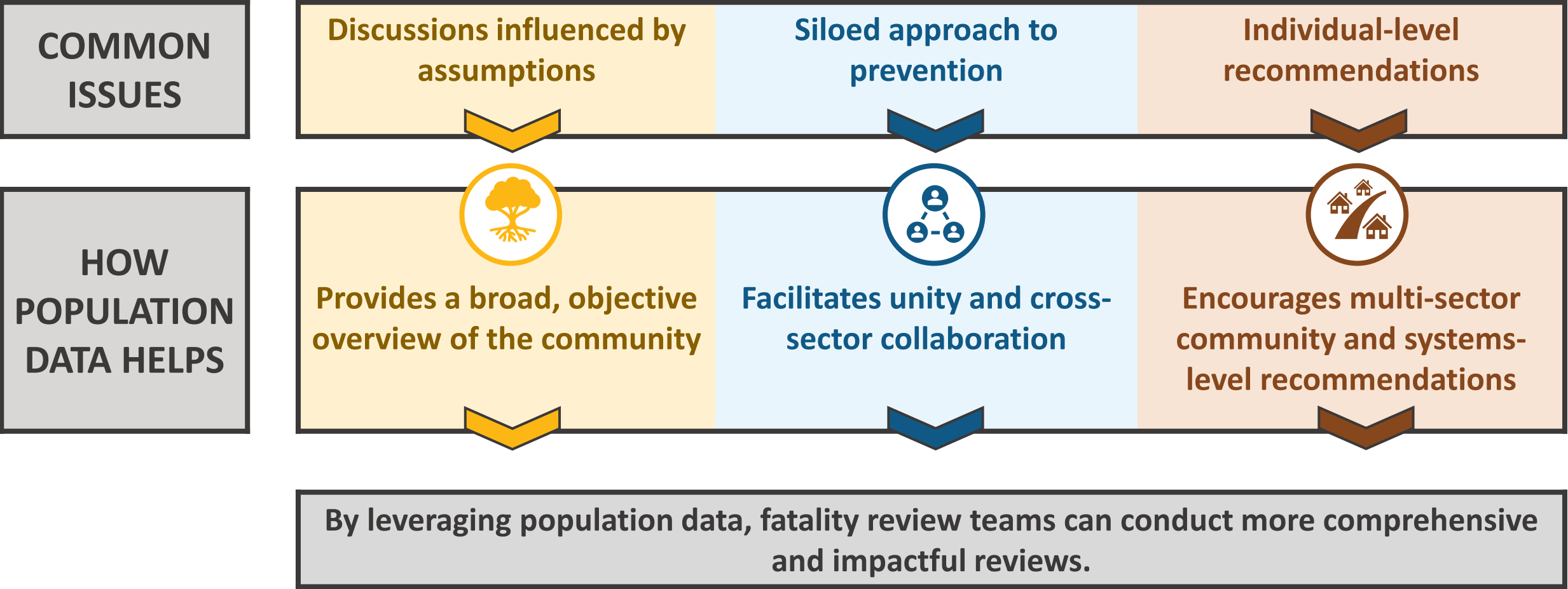


Information on how to access these sources (and many more!) can be found in Appendix A of the guidance:

https://ncfrp.org/wp-content/uploads/Population_Based_Data_Guidance.pdf

Why is Population-Based Data Important?

In the Context of Fatality Review



Key Considerations

Geographic Scale Matters

- Different geographic scales can yield varying insights.
- For example, census blocks may offer more detailed information unique to a neighborhood that could go unnoticed by larger aggregations at the county level.
- Carefully select the scale that aligns with the goal of using each data source.

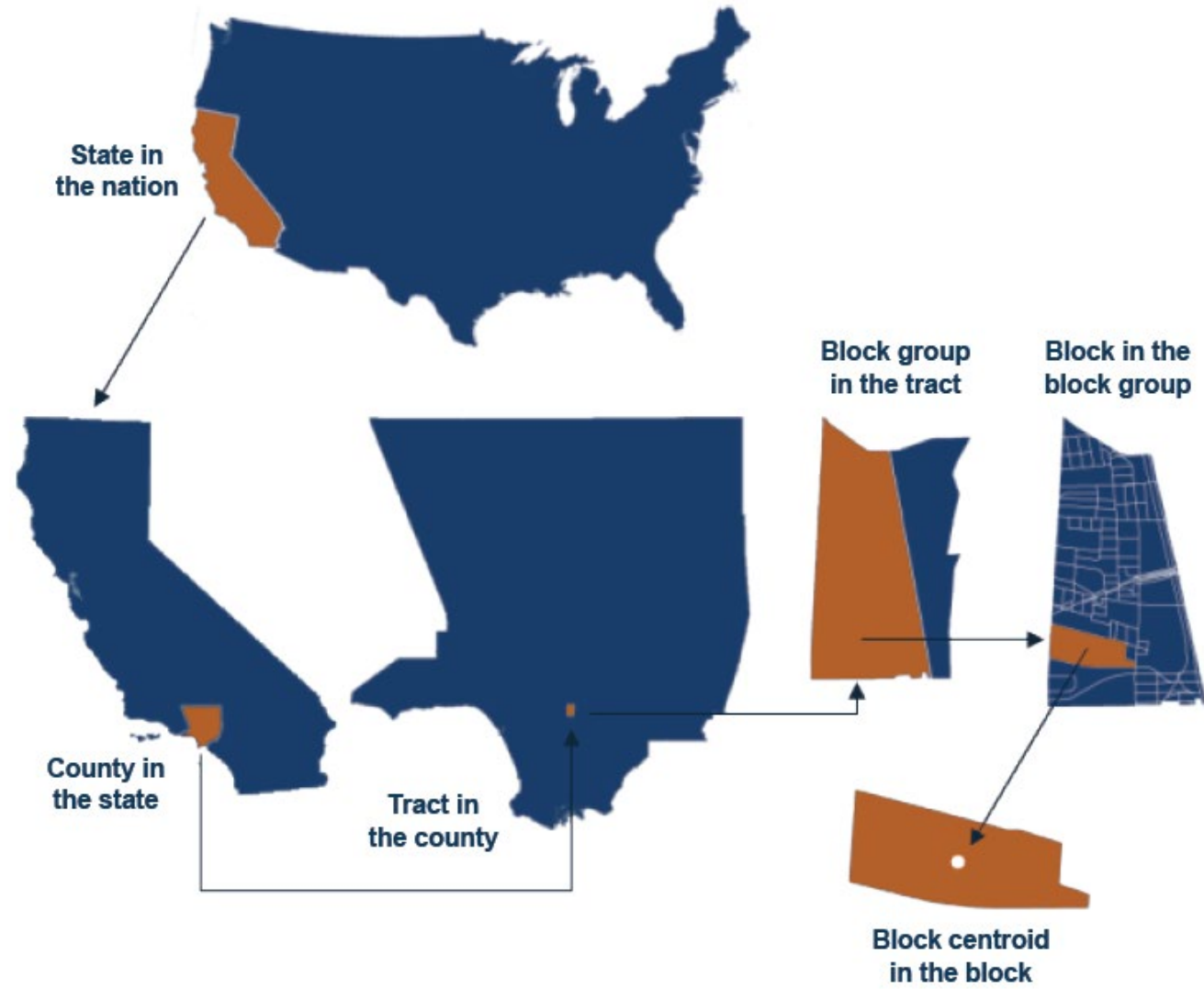


Image adapted from <https://www.cityhealthdashboard.com/blog-media/what-exactly-is-a-census-tract>



Welcome to Sunny Meadows



\$80,000



\$35,000



\$100,000



\$90,000



\$130,000



\$95,000



\$100,000



\$90,000



\$80,000



\$110,000



\$85,000



\$40,000

Key Considerations

Avoid Ecological Fallacy

- Ecological fallacy happens when assuming what's true for a group is also true for individuals within that group.
- It's like saying, "**Sunny Meadows** has a high average household income, so every family must have a high income."
 - But that's not true—there could be families struggling financially in the neighborhood. **Any assumption about individual households would be an ecological fallacy.**
- To avoid the ecological fallacy, caution is necessary when interpreting population-based data.

Key Considerations

Bridging the Gaps for Stronger Prevention

- Using multiple sources of information leads to deeper insights and a stronger foundation for recommendations and prevention.
 - Population data.
 - Fatality review findings.
 - Community insight.
 - Peer-reviewed research.



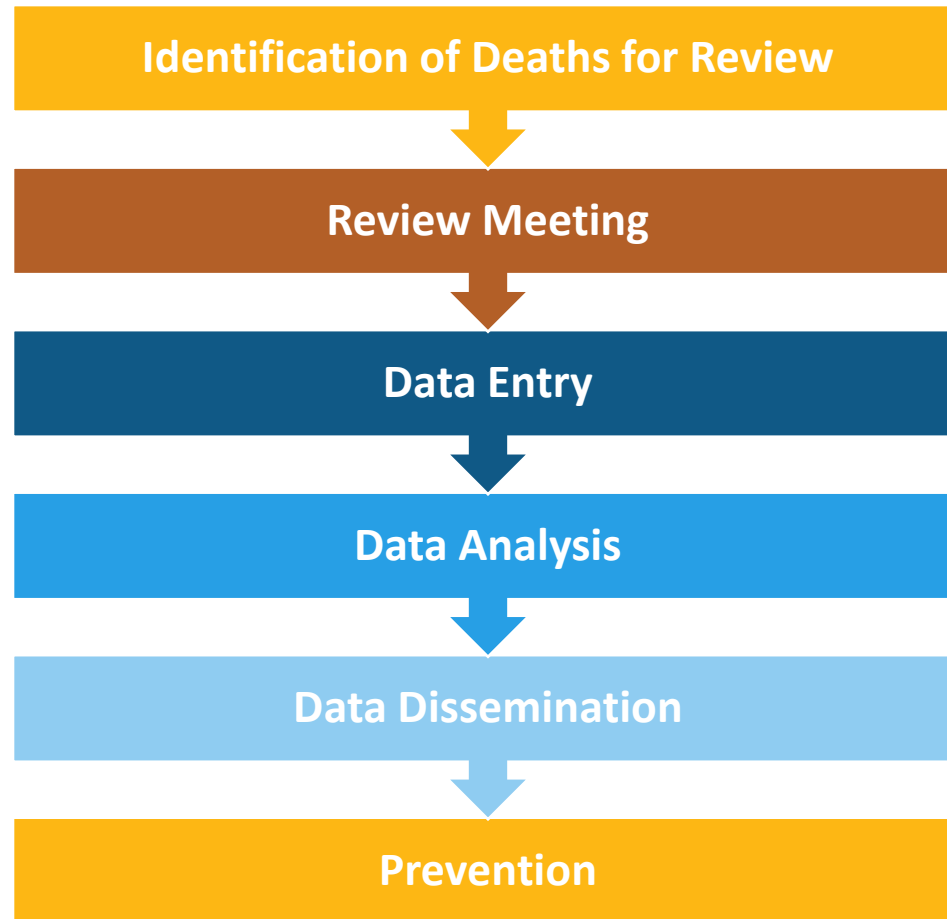


STRATEGIES

Across the Fatality Review Process

Using Population-Based Data

Across Fatality Review



Identification of Deaths for Review

Review Meeting

Data Entry

Data Analysis

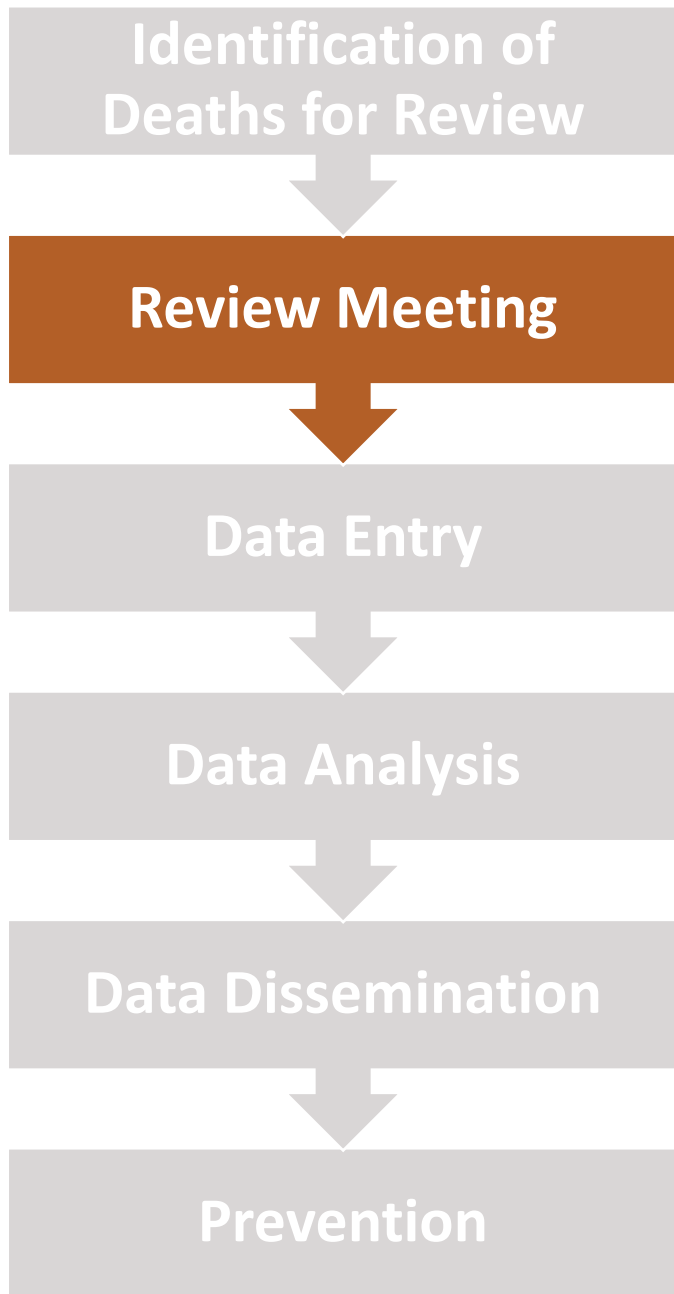
Data Dissemination

Prevention

Using Population-Based Data

Identification

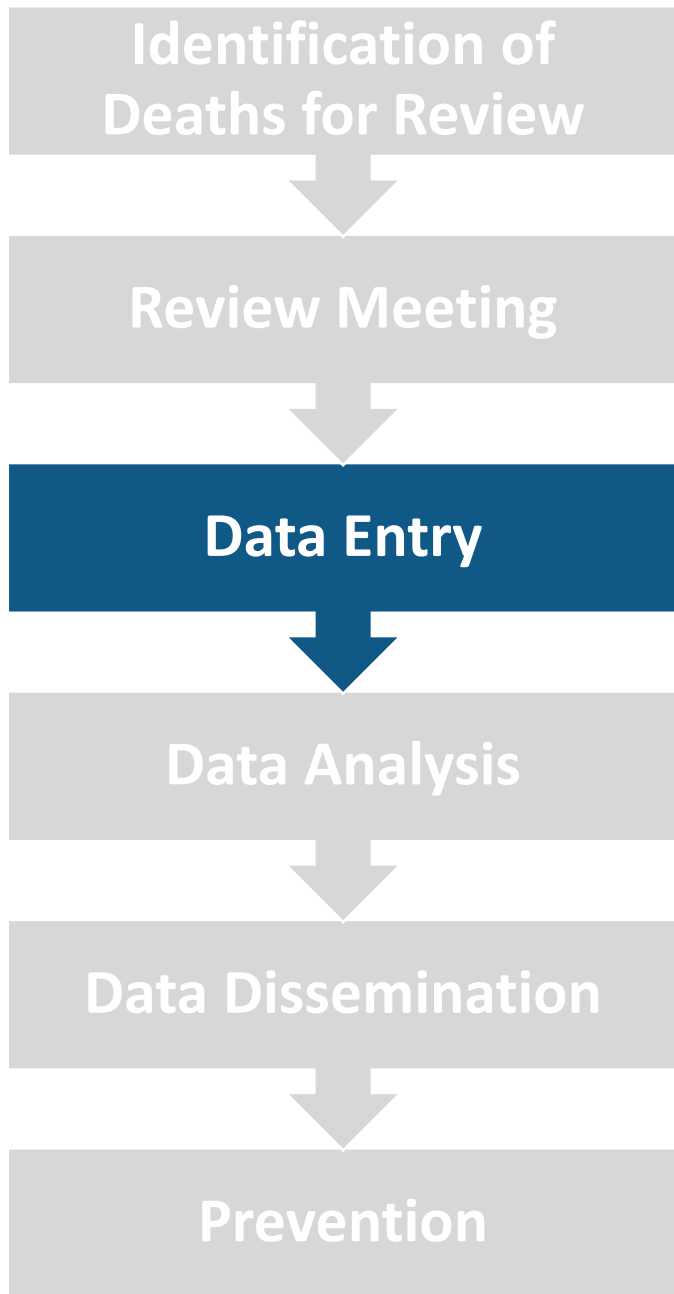
- Population data serves as a tool in the process of identifying deaths for fatality review.
- Many fatality review teams identify deaths for review using individual death certificate data.
- Vital records data at the population level can also aid in identification, such as the Perinatal Periods of Risk (PPOR) approach.
- Some FIMR teams without capacity to review all deaths in their jurisdiction use PPOR to help prioritize the selection of deaths for review.
- Learn more at <https://www.citymatch.org/perinatal-periods-of-risk-ppor/>.



Using Population-Based Data

Review Meeting

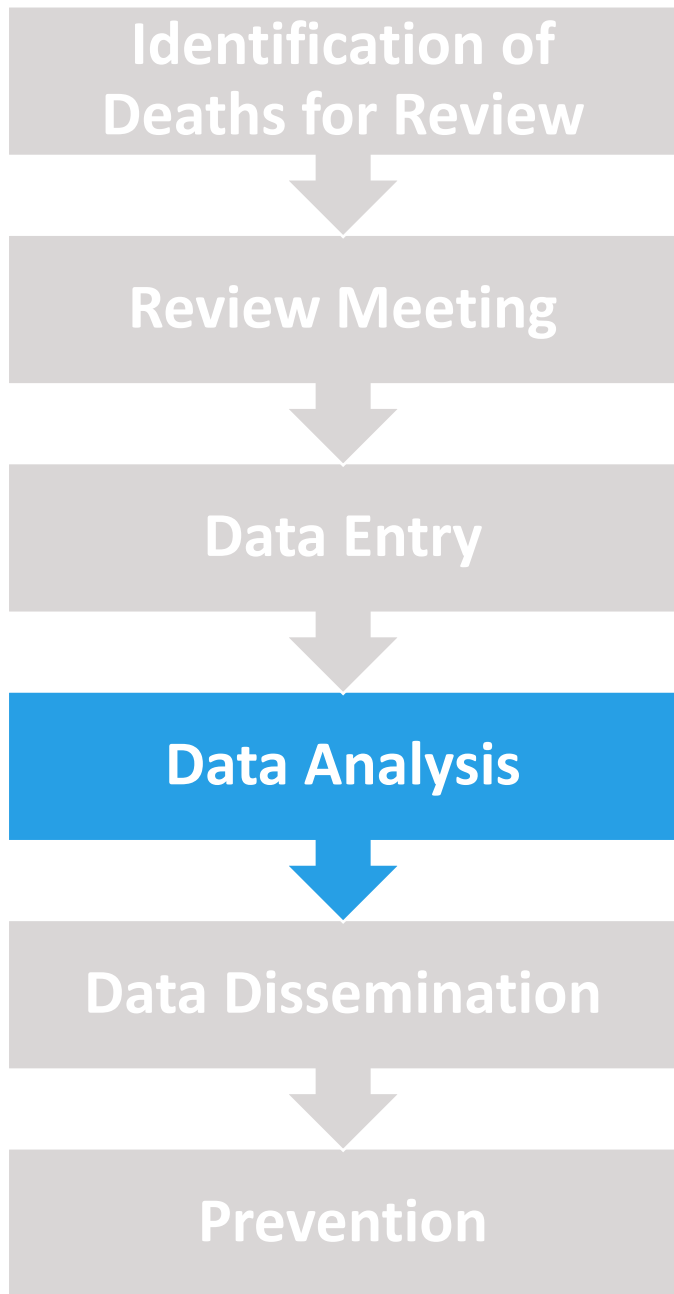
- Population data enables review teams to understand the contextual risk factors that may have been present for the young person and their family (e.g., access to healthcare, housing conditions).
- Without making assumptions about the child's experience, population data allows for a more comprehensive understanding of the community, highlighting areas where prevention could be prioritized.
- Population data ultimately guides the development of community- and systems-level prevention recommendations.
- See a mock scenario in the guidance: https://ncfrp.org/wp-content/uploads/Population_Based_Data_Guidance.pdf.



Using Population-Based Data

Data Entry

- Many fatality review teams utilize the Pediatric National Fatality Review-Case Reporting System (Pediatric NFR-CRS).
- Using supplemental population data sources to obtain both person-level and place-based data can be helpful to complete data entry, fill knowledge gaps, and improve data quality.
- Sometimes, population data sources can be used to find person-level information (e.g., immunization registry, child welfare information systems).
- Examine your jurisdiction's data quality summary with a lens toward where population data might be able to help.



Using Population-Based Data

Data Analysis

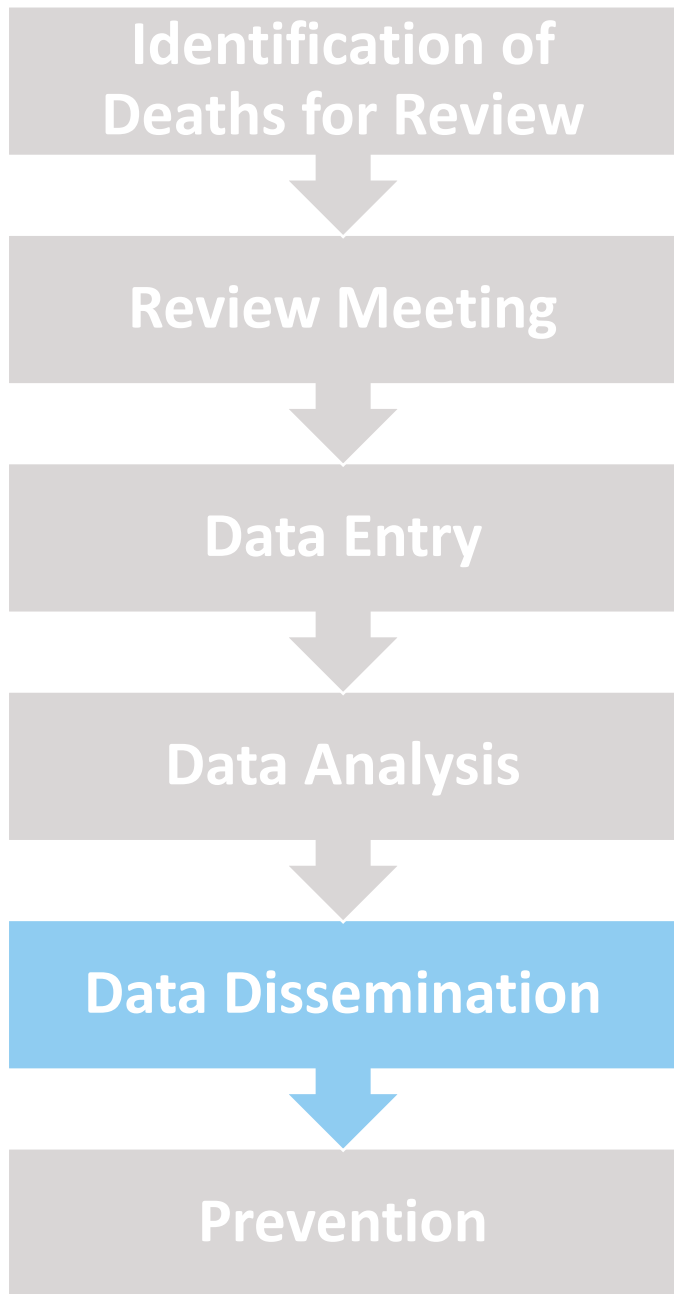
- By examining population data alongside NFR-CRS data, teams can uncover risk factors that may not be evident from aggregated NFR-CRS data alone.
- There are two ways to incorporate population data in your analysis:
 1. View the data side by side.
 2. Conduct a data linkage.
- Data linkages can be resource intensive and won't be an option for everyone.

Success Story

Utah Child Fatality Review Committee (CFRC)

- The Utah CFRC recognized that there were barriers to collecting data on community health factors for deaths they were reviewing.
- They decided to utilize Utah's Health Improvement Index (HII) in data analysis and reporting as a proxy way of highlighting community context.
- During data analysis, the Utah CFRC links death data to HII values based on the area the child lived in. Rates of injury death are calculated based on the health improvement index level.
- Visit page 11 of Utah CFRC's 2023 Annual Report to learn more and see how these data are visualized: <https://vipp.utah.gov/wp-content/uploads/Child-Fatality-Report-2023-Final.pdf>.

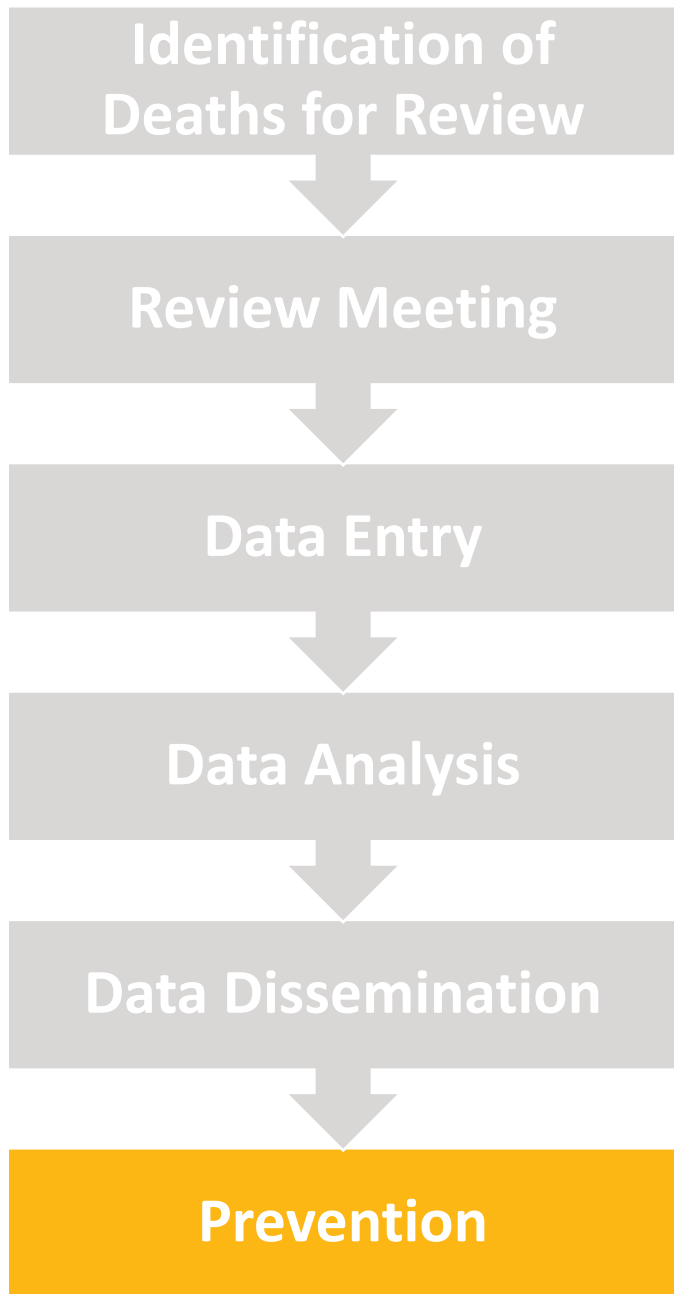




Using Population-Based Data

Data Dissemination

- Effective communication of fatality review data alongside population data allows review teams to share the broader implications of their findings, raise awareness about systemic issues, and advocate for specific prevention strategies.
- A few ways population data can be used during dissemination include:
 - Highlighting trends and differences.
 - Providing data framing.
 - Strengthening policy recommendations.
 - Engaging communities.
 - Monitoring and evaluation.



Using Population-Based Data

Prevention

- In combination with community insights and feedback, population data can help focus prevention activities.
- Though population-level information might not reflect the individual child and family, this approach allows for a better understanding of the assets and vulnerabilities of the community where the family resides.
- The combination of data and community input ensures that prevention efforts are not only rooted in data but also reflect the voices and priorities of those most affected.
- See examples in the guidance: https://ncfrp.org/wp-content/uploads/Population_Based_Data_Guidance.pdf.

Using Population Data

Across Fatality Review: A Summary

Identification

- Aids in identification of deaths for review, such as the PPOR approach.

Review

- Provides community context, encouraging systems-level prevention discussion.

Data Entry

- Helps complete data entry, fill knowledge gaps, and improve data quality.

Data Analysis

- Supports teams to uncover risk factors.

Data Dissemination

- Highlights the broader implications of findings to advocate for prevention.

Prevention

- Focuses prevention, alongside community insights and fatality review findings.



PEDIATRIC INJURY EXTENDED REVIEW (PIER)

Using Population Data

Pediatric Injury Extended Review (PIER)

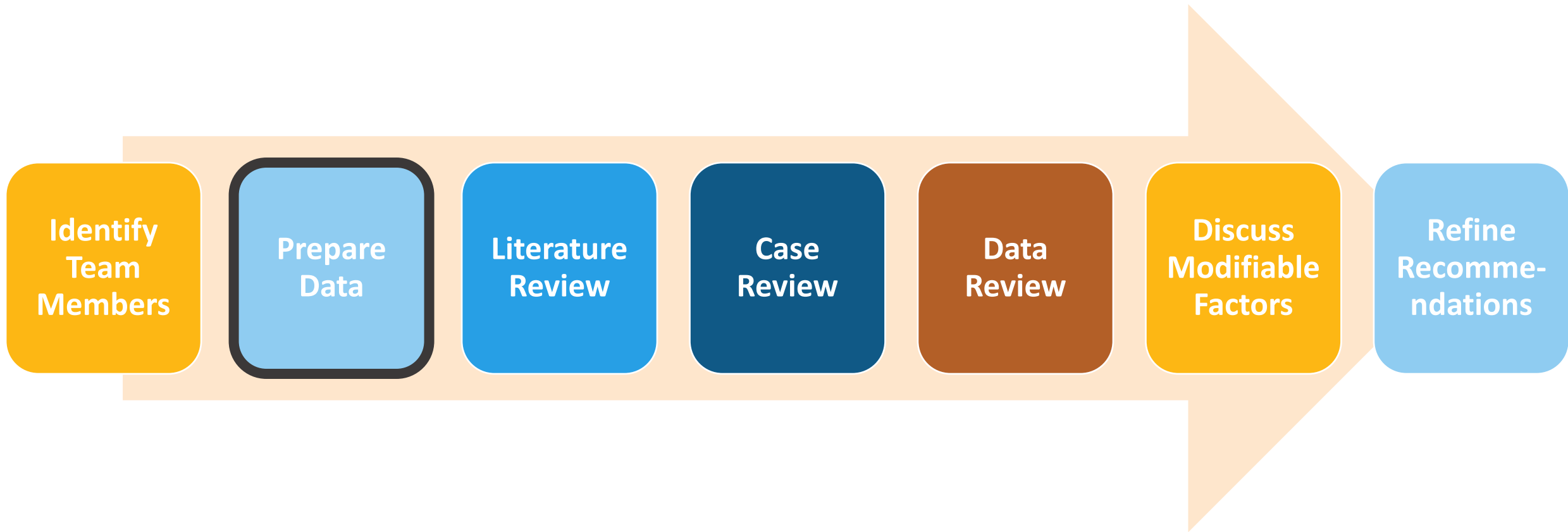
Why PIER?

- PIER is a new process to identify differences in injuries and develop actionable recommendations.
- Builds on the existing infrastructure of the child fatality review process with the following goals:
 - Develop a process for the systematic multidisciplinary review of fatal and non-fatal injuries with the goal of keeping all children safe.
 - Create a rigorous, replicable process and tools that can be scaled nationwide.



PIER Process

Steps

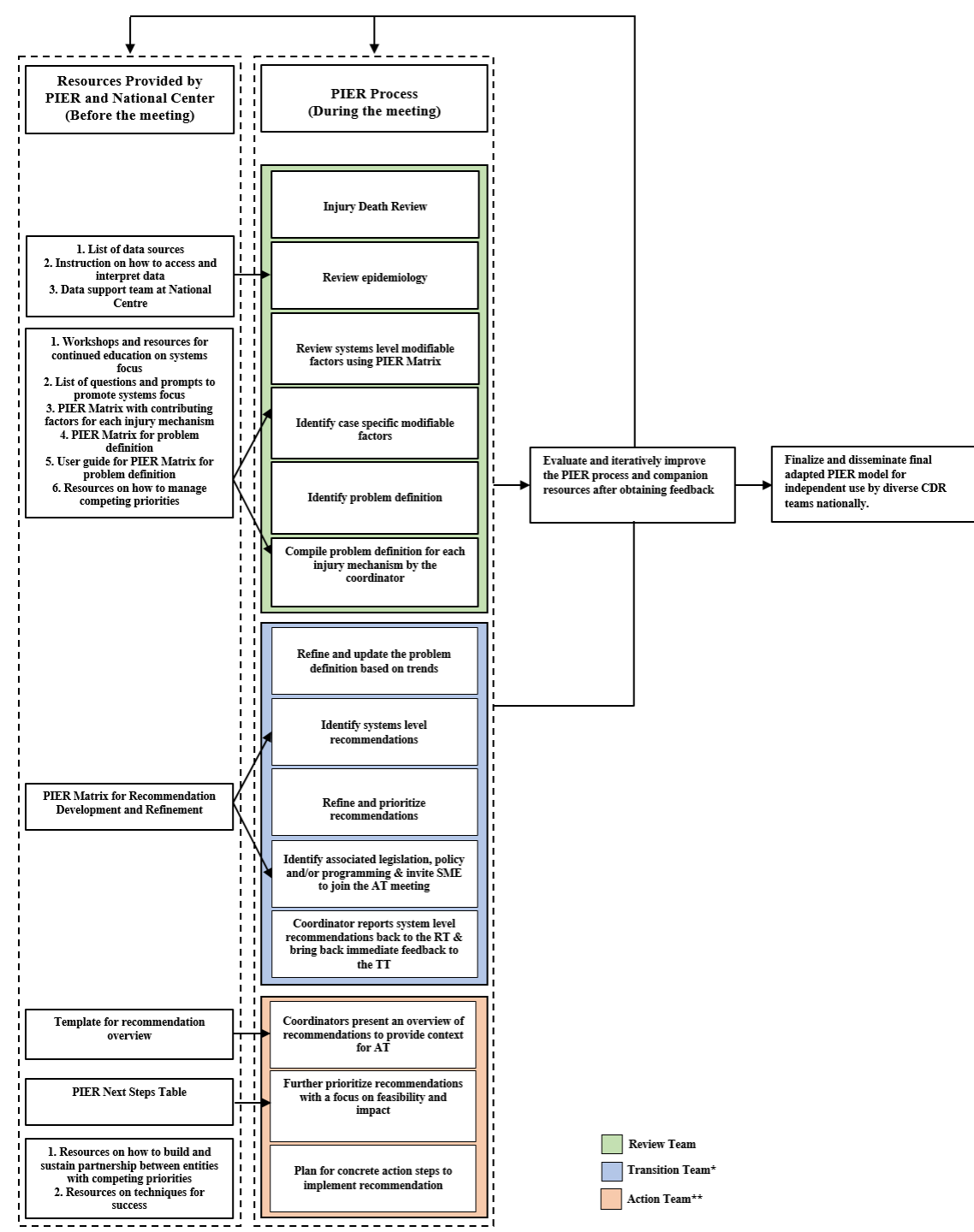


PIER Adapted Process

Review

Transition

Action

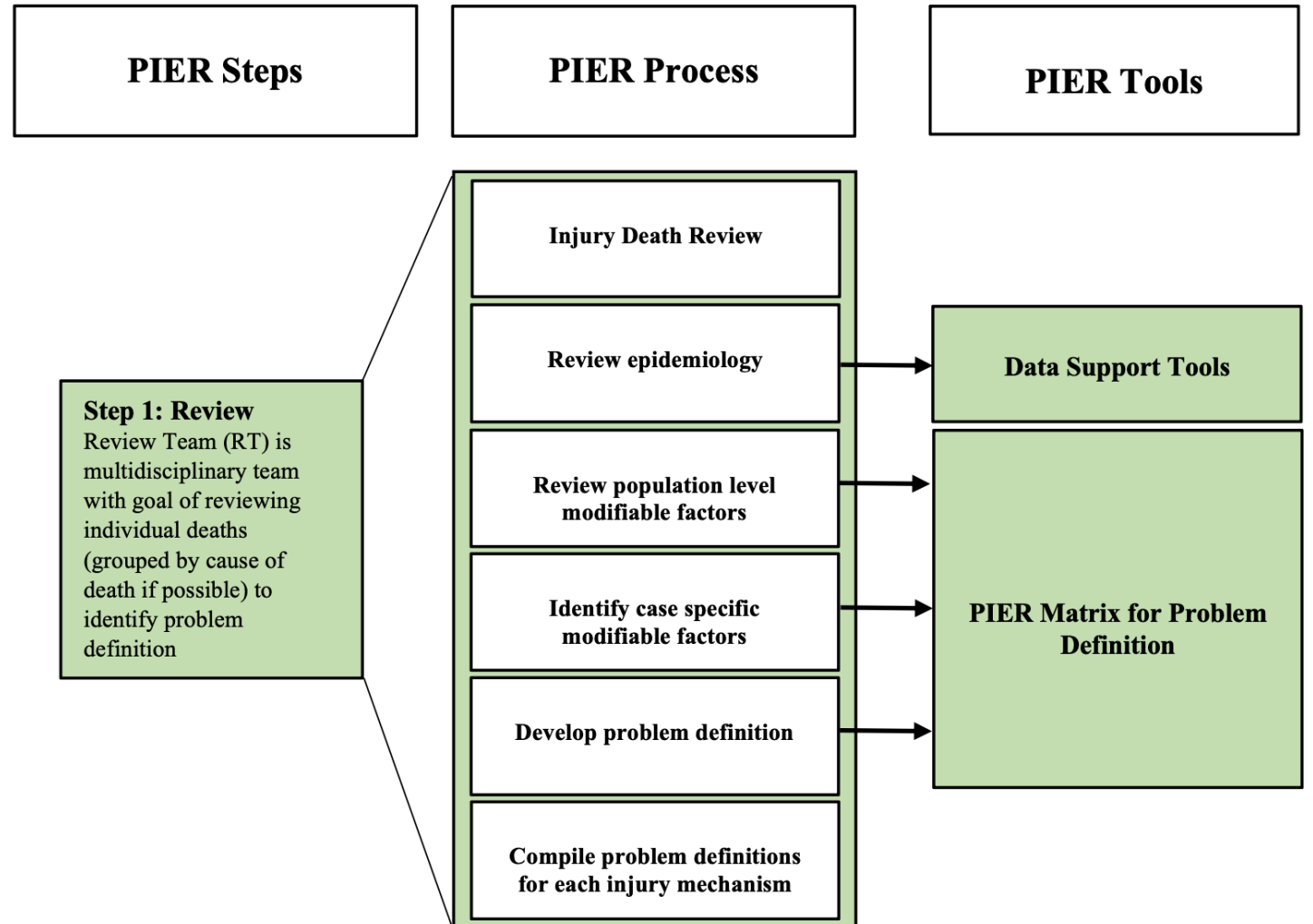


PIER Adapted Process

Part 1: The Review

Goal:
Understand the problem

Output:
Problem definition



Population-Based Data

Review epidemiology based on the desired level of interest



NATIONAL



CDC WISQARS

CDC WONDER

NFR-CRS / Child DASH

National Trauma Data Bank



STATE



Public Health Data

CPS Records

NFR-CRS



COUNTY, CITY, ZIP CODE, ETC.



Hospital Records

Pediatric NFR-CRS

Public Health Data

Preparing an Injury Data Summary

- Aggregate Data
- Analyze Differences
- Incorporate Local and National Data



Identifying Differences

Demographics

- Highlight differences in injury rates across identities.

Environment

- Use indices like the [Child Opportunity Index](#) to assess risks based on socioeconomic and geographic factors such as:
 - Access to healthcare
 - Neighborhood safety
 - Infrastructure (e.g., poorly lit streets, lack of pedestrian crossings)

Geographic Variations

- Examine differences across urban, suburban, and rural areas to identify areas with elevated risks or fewer safety resources.



Visualizing Data

FOR DEEPER INSIGHTS

When presenting data to the review team, consider visualizing it with graphs, charts, GIS Mapping, and Risk and Resource Maps.

PIER Matrix for Recommendation Development and Refinement

Problem Definition*	Countermeasures**	Recommendations***				Refined Recommendation
		Initial Recommendation	Impact on Gaps	Associated Legislation, Policy, or Programming	Possible Action Team Partner	
	Natural and Built Environment					
	Social Environment					
	Equipment & Technology					
	Education					
	Treatment & Recovery					
	Others					

*From PIER Matrix for Problem Definition

**Consider modifiable factors when thinking of countermeasures in each category

***Type of recommendations to consider:

1. New policy, program, or legislation
2. Change in existing policy, program, or legislation
3. Change in implementation

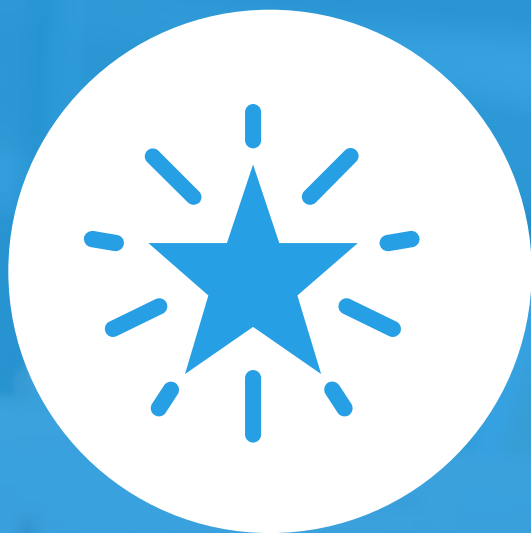
Specific
Measurable
Attainable
Realistic
Timely
for Everyone

Assessing Impact on Gaps

Straightforward Method to Evaluate Impact on Gaps Based on Evidence and Expert Opinion

- ✓ Likely to Decrease Gaps
- ~ Mixed Impact on Gaps
- ✗ Likely to Increase Gaps
- ? Inconclusive Impact on Gaps



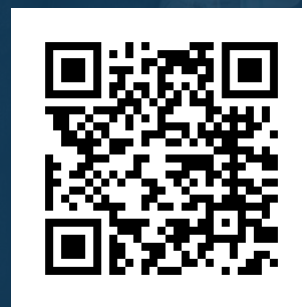


SUCCESS STORIES

From the Field

THANK YOU

Complete an evaluation
through the link in chat or
by scanning this QR code:





CONTACT INFORMATION



2395 Jolly Rd., Suite 120
Okemos, MI 48864



Phone: 800-656-2434



info@ncfrp.org



www.ncfrp.org