

Integrating public health approaches to transportation safety: developing new skills and building multidisciplinary teams

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Background

In 2022, more than 40,000 people died on U.S. roads, a 29% increase compared to a decade earlier (NHTSA, 2024). Recognizing the urgency of this problem, transportation professionals across the U.S. have called for a new, holistic approach to transportation safety, called a Safe System approach, which incorporates critical system redundancies to ensure that no crash results in serious injury or loss of life. Integral to this approach is multidisciplinary partnership, including a specific and recurring call for increased public health integration in transportation safety efforts.

Aims

To understand and advance public health and transportation collaboration efforts in the U.S., the purpose of this project was to identify core themes and opportunities for increased public health and transportation coordination and partnership.

Methods

We used a mixed methods approach of key informant interviews (N = 7) with transportation leaders representing different regions of the U.S., combined with a systematic analysis of all state highway safety plans (HSPs) for the year 2023 (N = 57 and included plans from all states, territories, the District of Columbia, and the Bureau of Indian Affairs).

Key informant interviews were conducted between June-August 2022, and results were used to inform development of a detailed coding tool to assess presence of several public health-related elements in the plans. Elements included:

- types of health-related stakeholders involved in plan development,
- coordination between public health and transportation partners in data analyses used to inform and evaluate programmatic efforts, and
- presence of public health partner engagement and collaboration in transportation safety interventions and activities.

Results

The key informant interviews revealed three key thematic areas for increased public health and transportation agency collaboration:

- Collaborative strategic planning and holistic problem identification
- Data sharing and integration of health and transportation-related sources to improve burden assessment and prioritize action
- Innovative, joint program development, implementation, and evaluation

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These themes directly informed the design of the Transportation-Public Health Leadership Program.

Analyses of HSPs found that more than three-quarters of plans noted state public health partner involvement in plan development; however, only one plan mentioned taking a public health approach or integrating public health frameworks in plan development.

- 79% of HSPs included state public health agencies as partners in plan development.
- 2% of plans mentioned taking a public health approach into plan development.

Moreover, while states generally used traditional transportation data sources to assess burden and develop performance measures, less than a third of states utilized health data sources

More than half of plans included data sharing activities between health and transportation partners as a key activity while close to half of plans included linking health and crash data sources.

- 58% of HSPs included data sharing activities.
- 42% of HSPs included data linkage activities.

Finally, nearly all plans included some proposed collaboration between health and transportation partners in terms of programmatic activities; however, many of the activities fell into a few traditional buckets (e.g., child passenger safety seat distribution, educational programs) and fewer fell into the more systems-level, public health activities (e.g., program evaluation, data access and analysis, coalition-building, traffic safety culture, or policy work).

Next Steps

While public health partners have some presence in state transportation safety efforts, current transportation safety programming often fails to fully leverage public health concepts and expertise. Public health professionals as transportation safety partners represent a unique opportunity to improve the design, implementation, and evaluation of programs and for advancing robust, diverse safety data systems.

Next steps for this project involve identifying leading examples of promising cross-sector partnerships across the US to participate as pilot sites in the Transportation-Public Health Leadership Program, a 12-month training and peer support initiative launching in 2025. The program will equip multidisciplinary teams with tools, frameworks, and learning opportunities to integrate public health and transportation safety approaches. The program content focuses on the priority areas identified. For more information on the Transportation-Public Health Leadership Program, visit <https://transporthealthleaders.org/>.

References

National Center for Statistics and Analysis. (2024, September). Summary of motor vehicle traffic crashes: 2022 data (Traffic Safety Facts. Report No. DOT HS 813 643). National Highway Traffic Safety Administration. <https://crashstats.nhtsa.dot.gov/Api/Public/ViewPublication/813643>

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