

November 2024

Indiana Department of Health



Trauma Care Commission - 2024 Annual Report



Indiana
Department
of
Health



Opening Statement

The Indiana Department of Health (IDOH) wishes to acknowledge the continued hard work and dedication of all the individuals involved in working to understand, prevent, and treat traumatic injury.

Special thanks are extended to the members of the Trauma Care Commission, hospitals, EMS agencies, medical directors, program managers, and registrars. Their dedication to continuously improving care, preventing injury, and collecting quality data makes it possible to advance Indiana's trauma system.

IDOH remains focused on supporting Indiana's trauma system to ensure that Hoosiers have access to timely, high-quality trauma care.



Contents

Executive Summary.....	4
Background.....	6
Trauma Care Commission	8
Trauma Care Commission Membership.....	8
Trauma Care Commission Subcommittees	9
Trauma System Plan	10
Background	10
Strategy Areas.....	11
Trauma System Development.....	13
Projects	13
Trauma System Regionalization and Infrastructure	17
Acknowledgements	18



Executive Summary

Injury remains a prevalent and lethal disease in Indiana. In 2022, unintentional injury was the third leading cause of death for all Hoosiers and the leading cause of death for Hoosiers ages 1 to 44.¹ It affects all populations, whether urban or rural, young, or old. Unfortunately, the disease “injury” tends to be treated as an isolated and often unpredictable event. Using a public health model, such as establishing and coordinating a trauma system, provides a framework to integrate the full spectrum of the disease into one cohesive model. Each individual component of the trauma system should be fully developed and supported. Still, equally important, key leaders and stakeholders in Indiana should ensure that the components work together and that the public is aware of the burden of injury in their community. Indiana is privileged to have an engaged stakeholder group of insightful and passionate providers across the spectrum of injury care that have been driving statewide trauma system development.

In 2023, the American College of Surgeons (ACS) assessed the State of Indiana’s trauma system and provided a report that identified system gaps. In response to that report the Indiana Trauma Care Commission (TCC) was established, a 13-member governor-appointed commission, to support the continued development of a statewide trauma system. The Trauma Care Commission - 2024 Annual Report illustrates how the TCC has moved forward with many priorities. The following are key highlights:

- The TCC identified the need to further support operational capacity by developing five subcommittees:
 - Disaster Preparedness and Military Integration
 - Trauma Education and Outreach
 - Trauma Performance Improvement
 - Trauma Registry
 - Trauma System Planning

The subcommittees allowed for more targeted planning and implementation of TCC initiatives, including non-trauma center engagement, and regularly conducted business throughout 2024.

- The TCC adopted Indiana’s first ever Trauma System Plan (TSP) in August 2024, which aims to provide a framework for the continued coordination and sustainment of the system to reduce the burden of injury. The TSP is intended to improve the health of Hoosiers through the implementation of statewide prevention and outreach programs, formalized triage and transport rules between counties, strong partnership with EMS, and support for hospital registrars to ensure accurate data for the most successful trauma care. The TSP will create the optimal level of health for all Hoosiers by engaging

¹ Centers for Disease Control and Prevention, National Center for Health Statistics. National Vital Statistics System, Mortality 2018-2022 on CDC WONDER Online Database, released in 2024. Data are from the Multiple Cause of Death Files, 2018-2022, as compiled from data provided by the 57 vital statistics jurisdictions through the Vital Statistics Cooperative Program. Accessed at <http://wonder.cdc.gov/ucd-icd10-expanded.html> on Oct 11, 2024 8:38:28 AM.



with hospitals in each district and establishing structure for the Trauma Regional Advisory Councils (TRACs). IDOH, the TCC and subcommittees, and statewide trauma system stakeholders can leverage this document as a roadmap to support future trauma system development.

- The TCC created and implemented a statewide process to grant nearly \$5.26M system development funds to trauma system stakeholders. Currently, eleven trauma system development projects are in process and seek to make improvements in the following areas:
 - Trauma System Development
 - Quality Improvement
 - Trauma Center and Non-Trauma Center Engagement
 - Injury Prevention
- The TCC supported a regionalized trauma system model by restructuring the trauma system regions across Indiana and supporting TRACs. This approach is intended to support improvements in the coordination of care based on patient flow, provide more intentional opportunities for non-trauma center engagement, and better align resources through capacity building.
- IDOH enhanced internal infrastructure to provide oversight and technical assistance to trauma system stakeholders.

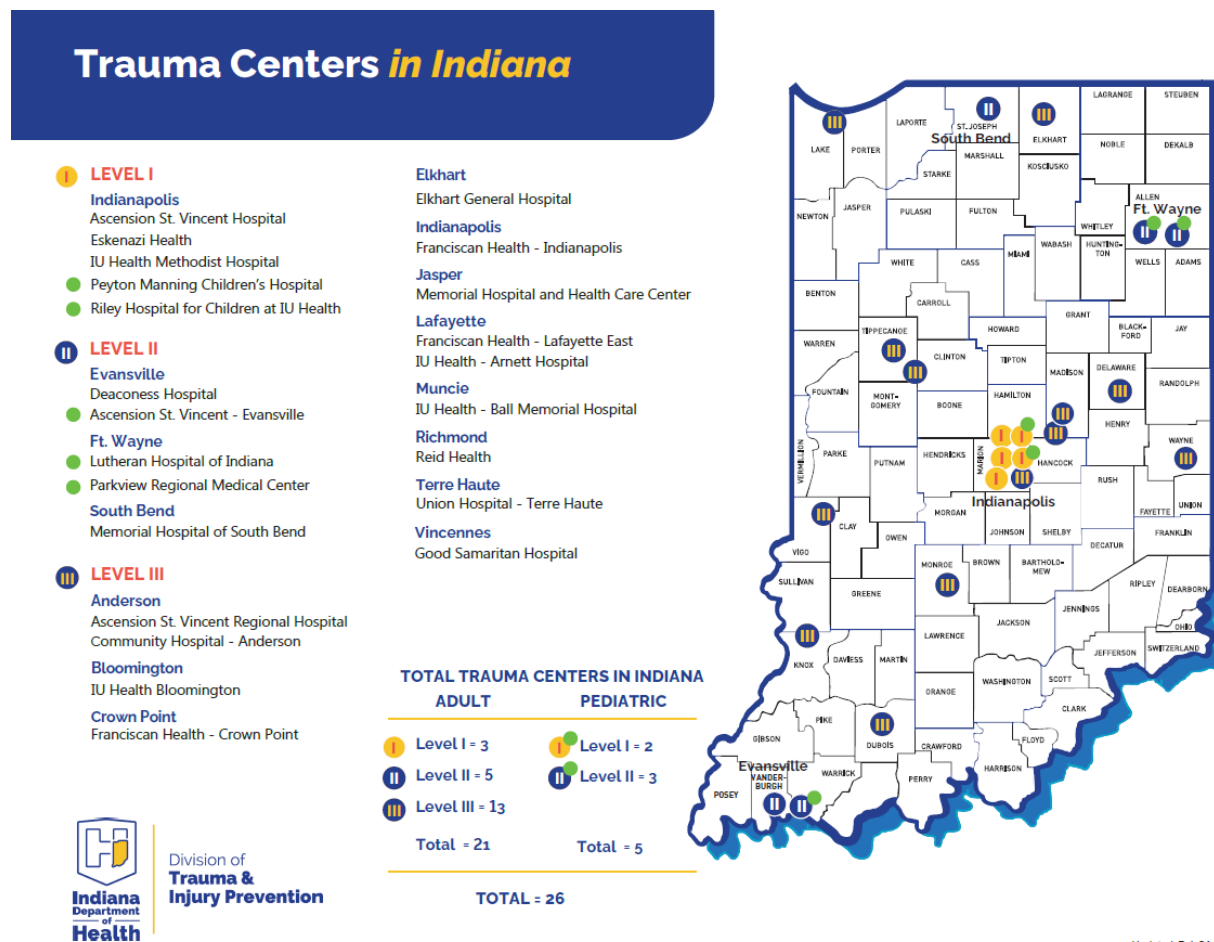
In the years ahead, the TCC will play an important role in providing oversight of the TSP implementation and guidance for future trauma system improvements in patient care as it continues to build upon the foundational practices highlighted above. Efforts are already underway to improve hospital capacity with data submission to the Indiana Trauma Registry, enhance surveillance and data visualization for hospitals and injury prevention partners, drive performance improvement by leveraging high quality data, support hospital trauma readiness and engagement through ongoing training and education, and explore opportunities for trauma center verification in northern and southern Indiana where gaps continue to exist.



Background

The 2024 TCC annual report is provided pursuant to SEA 4-2023 and IC 16-31-2.5 which established the 13-member commission. The TCC serves as an advisory body to IDOH on all issues involving Indiana's trauma system, which collectively responds to more than 40,000 reported trauma incidents, annually. Indiana's trauma system aims to assure that resources and infrastructure are in place to ensure the continuum of care for trauma patients has timely, structured, cooperation and communication across all providers, hospitals, and EMS agencies.

Trauma Center Access



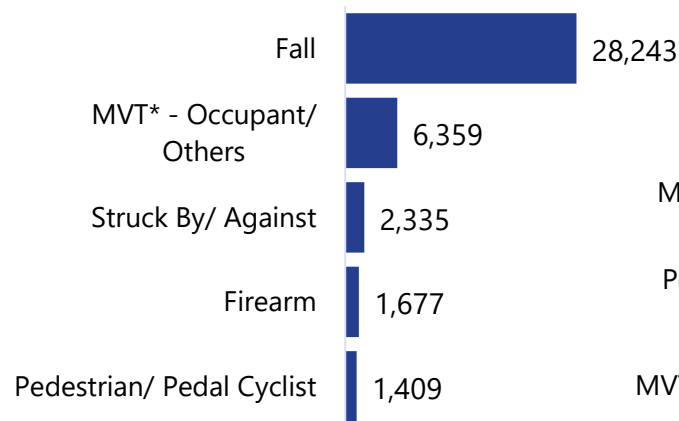
Trauma Volume and Cause of Traumatic Injury

In 2023, 46,930 trauma incidents were reported to the Indiana Trauma Registry from Indiana hospitals. The leading mechanism of injury for reported trauma incidents was falls, which accounted for over 28,000 (60.6%) incidents. Motor vehicle occupant/other injuries, struck by/against injuries, firearm injuries, and pedestrian or pedal cyclist injuries were also among the leading five mechanisms of injury reported to the trauma registry.

Trauma Deaths

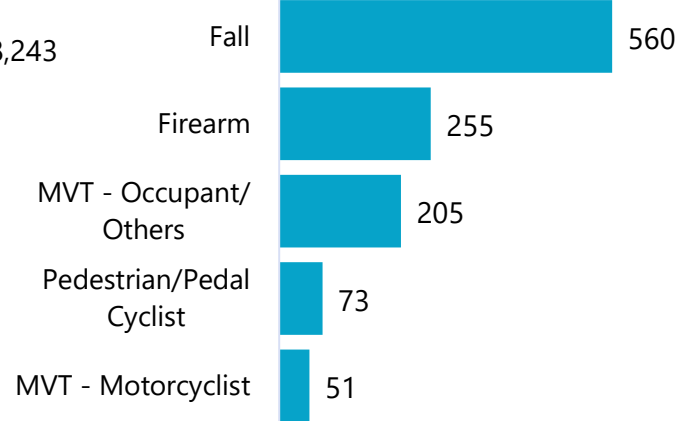
In 2023, 1,264 trauma deaths were reported to the Indiana Trauma Registry.² While falls accounted for the greatest number of deaths (560), the proportion of incidents resulting in death was highest for firearm injuries (15.2%).

Top five mechanisms of injury of Indiana Trauma Registry incidents, 2023



*Motor vehicle - traffic

Top five mechanisms of injury of Indiana Trauma Registry deaths, 2023



² Excludes deaths in which the decedent was not seen at a hospital (for example, pronounced dead at the scene).



Trauma Care Commission

TCC appointments were announced in September 2023 and the TCC conducted their inaugural meeting in November 2023. The TCC includes broad, geographical representation of subject matter expertise covering the continuum of trauma care to further develop and improve Indiana's trauma system.

Trauma Care Commission Membership	<u>Appointee</u>
State Health Commissioner (chairperson)	Dr. Lindsay Weaver
Director, Department of Homeland Security	Jonathan Whitham (formerly Joel Thacker)
Secretary, Family and Social Services Administration	Dr. Daniel Rusyniak
Representative, American College of Surgeons Committee on Trauma	Dr. Erik Streib (Eskenazi Health)
Representative, Indiana Hospital Association	Andy VanZee
Representative, Emergency Medical Services for Children Program	Dr. Elizabeth Weinstein
Representative, Level I trauma center surgeon	Dr. Lewis Jacobson (Ascension St. Vincent - Indianapolis)
Representative, Indiana Chapter of the American College of Emergency Physicians	Dr. Emily Fitz (IU Health - Tipton)
Registered nurse, employed as a trauma program manager	Lisa Hollister (Parkview Health)
Representative, Level I pediatric trauma center surgeon	Dr. Matthew Landman (IU Health - Riley)
Representative, rural non-trauma center	Dr. David Welsh (Margaret Mary Health)
Representative, Level II or Level III trauma center surgeon	Dr. Scott Thomas (Beacon Health - Memorial Hospital)
Representative, Level II or Level III trauma center surgeon	Dr. Jay Woodland (Deaconess)

TCC meeting dates during 2024 are shown in the table below.

<u>2024 TCC Meeting Dates</u>
<u>January 2024</u>
<u>February 2024</u>
<u>May 2024</u>
August 2024
November 2024



Trauma Care Commission Subcommittees

During 2024, the TCC enhanced operational infrastructure by voting on and approving the creation of five core subcommittees. The subcommittees are chaired by TCC members and have met with regular frequency throughout 2024. Subcommittee titles, leadership, and areas of focus are outlined below.

- Trauma Education and Outreach (Chairs – Dr. Matthew Landman and Dr. Jay Woodland)
 - Provide education and outreach to key trauma and injury prevention stakeholders including regional training opportunities
 - Coordinate with IDOH to utilize data for injury prevention programming
 - Conduct public awareness campaigns (where applicable)
- Trauma Registry (Chair – Lisa Hollister)
 - Review and maintain data elements of the Indiana trauma registry
 - Oversee registry outreach and training for data optimization
 - Assure data is valid, accurate and reliable: Quality data
- Trauma Performance Improvement (Chairs – Dr. Eric Yazel and Dr. Scott Thomas)
 - Identify quality measures
 - Disseminate best practices
 - Provide hospital and systemwide reports of quality measures
 - Develop a statewide PI plan
- Trauma System Planning (Chairs - Andy VanZee and Dr. Erik Streib)
 - Establishment of Trauma Regional Advisory Committees
 - Trauma center designation process
 - Funding for 2025 legislative cycle
 - Needs based assessments
 - Neighboring states
 - Allocation of current centers
 - State Trauma Plan
- Disaster Preparedness and Military Integration (Chair – Dr. David Welsh)
 - Assess capabilities to partner and coordinate with military and disaster preparedness stakeholders statewide
 - Plan and implement opportunities associated with preparedness and disaster planning including coordination of response with TRACs
 - Ensuring an established community of preparedness and response stakeholders



Trauma System Plan

The TCC leveraged the [American College of Surgeons - Trauma System Consultation \(ACS-TSC\) Final Report](#), which defines 12 essential trauma system elements to guide the development of Indiana's first ever Trauma System Plan (TSP).



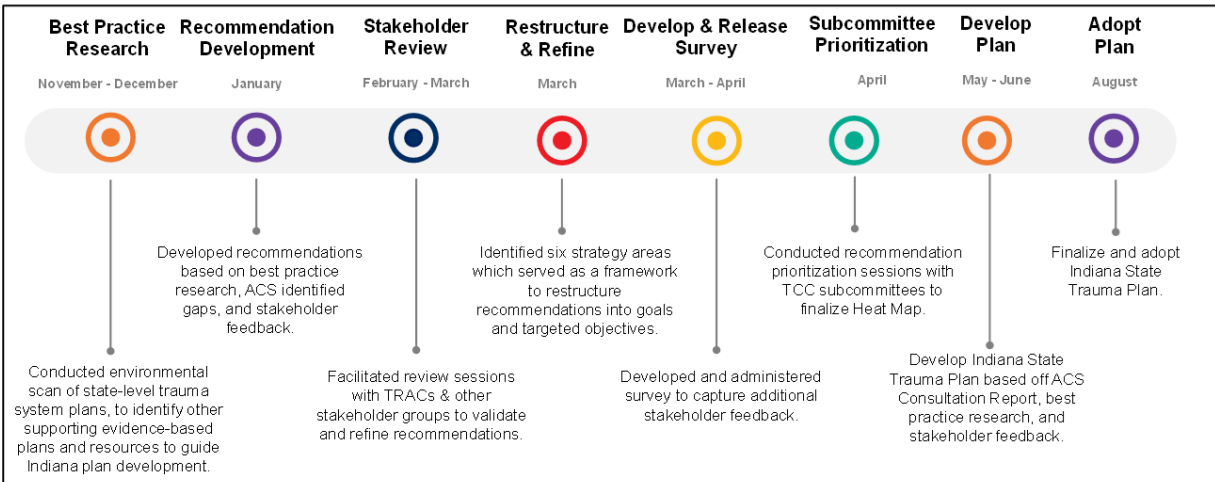
Background

The ACS-TSC final report provided IDOH with key takeaways including assets and advantages, challenges and vulnerabilities, themes, and priority recommendations. Priority recommendations included the following:

- Secure defined, sustainable funding through an established trauma system fund
- Conduct a full stakeholder analysis to assist with and ensure equitable representation of a multidisciplinary advisory group, including legislative statute governing the trauma system
- Develop a comprehensive state trauma system plan, addressing all essential trauma system elements
- Complete a statewide EMS assessment
- Improve data quality by developing a comprehensive approach that includes systematic identification of trauma-related issues
- Develop a trauma system performance improvement (PI) plan, enabling foundational PI structure and processes

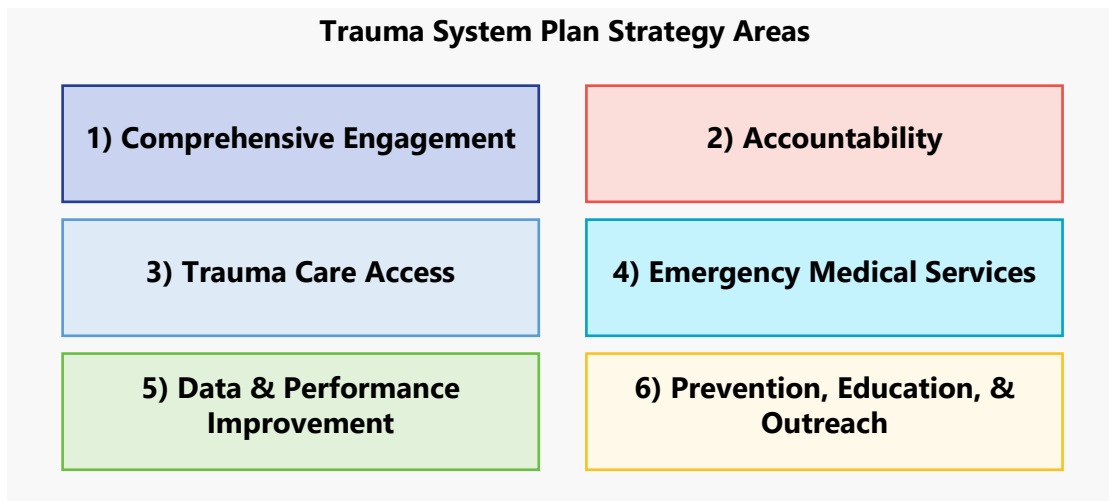
IDOH and the TCC engaged stakeholders from across the state during a six month period, successfully developing and finalizing the [trauma system plan](#), and the TCC officially adopted the TSP in August 2024. The full continuum with details of plan development is outlined below.





Strategy Areas

The TSP is organized by strategy, priority, and detailed objectives that include all components of trauma care. It encompasses six strategy areas (shown below) that organize the priorities and respective objectives. Under each strategy are the related priorities, which define the TSP's key activities, and detailed objectives are listed under many priorities which serve as more actionable items for implementation by identified stakeholder(s).



STRATEGY 1: Comprehensive Engagement

- Aim to engage additional stakeholders and formalize membership to create an inclusive, statewide trauma system



STRATEGY 2: Accountability

- Aim to implement operational guidelines, agreements, and legislation, where appropriate, that holds stakeholders accountable for the creation and maintenance of a successful statewide trauma system

STRATEGY 3: Trauma Care Access

- Aim to expand regional trauma care access, integrate rehabilitative care, and develop disaster plans focused on public health needs

STRATEGY 4: Emergency Medical Services (Prehospital)

- Aim to streamline patient care, improve EMS registry data, and conduct assessments to create an inclusive, efficient EMS system

STRATEGY 5: Data & Performance Improvement

- Aim to improve data quality and enhance data interoperability to identify opportunities for performance improvement (PI) within the trauma system

STRATEGY 6: Prevention, Education, & Outreach

- Aim to increase education for trauma system personnel, engage additional stakeholders, and report and implement targeted injury prevention programs

The TSP is a living document that will be continuously evaluated and updated by the TCC as public health and trauma evolves in Indiana and new federal and state resources are updated.



Trauma System Development

The TCC, with the assistance of IDOH, developed a grant mechanism to award funding to system stakeholders. The [request for applications \(RFA\)](#) is structured to support four core strategy areas with the intention to improve internal and external trauma system infrastructure. To date, TCC has approved and awarded funding to support 11 projects totaling nearly \$5.26M. The projects, including strategy area, title/organization, location impact, funding, and target aim, are as follows:

Projects

Core Strategy: Trauma System Development

- Purpose: Increase access and coordination to appropriate trauma care facilities by improving and maintaining the infrastructure of the trauma system and improving gaps in care

Level II ACS Verification – Franciscan Health Crown Point (Northern Region)

- Project aims to elevate Franciscan Health Crown Point from Level III to Level II. Funds are requested to allow for the personnel needed to complete this elevation, with two years needed to absorb the staffing in the annual budget. Target 2025 Level II verification cycle.
- Funding: \$798,500

Level I ACS Verification – Parkview Regional Medical Center (Northern Region)

- Project aims to elevate Parkview from Level II to Level I. Funds are requested to support process of by providing trauma research coordination and scholarly conference participation as a path to upgrade. Target 2026 Level I verification cycle.
- Funding: \$294,235

Rural Delivery of Whole Blood – Montgomery County (Central Region)

- Project aims to pilot the addition of Low Titer O+ Whole Blood (LTO+WB) to ambulances and first responder vehicles in rural areas, allowing for whole blood transfusions in the pre-hospital setting. Approach to improve rural health outcomes of traumatically injured individuals in Montgomery County with potential for expansion.
- Funding: \$34,000

Regional Trauma System Development, Education and Training Support – Indiana Hospital Association (Statewide)



- Project aims to increase access and coordination to appropriate trauma care facilities by improving and maintaining the infrastructure of the trauma system; Build upon the capacity and capability among all providers: 1) TRAC development including designation exploration, 2) Education and Outreach including training, 3) Registry improvement including exploring automation, 4) Annual trauma symposium activation.
- Funding: \$1,570,000

Simulation-based training to support rural trauma readiness – Rural Health Innovation Collaborative, Inc. (Statewide)

- Project aims to increase confidence of healthcare professionals and the quality of care for small rural and critical access hospitals related to adult and pediatric trauma utilizing simulation-based methodologies; develop and provide on-site, regionally based simulation training events at rural hospitals to increase readiness and competence in caring for trauma patients.
- Funding: \$603,000

Core Strategy: Quality Improvement

- Purpose: Promote effective coordination of care (right person, right place, right time), including appropriate hospital triage (with EMS) and timely transfer of critical patients. Improve the Indiana trauma registry and optimize data collection and quality including accuracy to advance the effective and timely use of data

Coordination of Care Improvements – Indiana University Health (Central Region)

- Project aims to pilot and support the development of a collaborative quality improvement (CQI) program that includes six non-trauma hospitals and Indiana University Health – Methodist Hospital, a LI trauma center. The project focuses on 1) creating the instruments and protocols necessary to conduct CQI with non-trauma hospitals, 2) conducting CQI activities and creating a dissemination and implementation toolkit to assist other trauma centers as they engage non-trauma hospitals in CQI, 3) increasing engagement with non-trauma hospitals, and 4) promoting quality improvement.
- Funding: \$626,880

Core Strategy: Trauma and Non-Trauma Center Engagement

- Purpose: Improve hospital reporting across the state to ensure all hospitals are submitting high-quality data. Enhance hospital infrastructure including personnel needs to support ongoing hospital engagement

Registry Education, Training, Improvements – Indiana Trauma Network (ITN) (Statewide)



- Project aims to support of ITN for improvements in the accountability, accuracy, validity, and reliability of state trauma registry and to ensure high-quality trauma data is abstracted and submitted uniformly throughout the state; allow for district and statewide training and education with a focus on improving patient outcomes, patient triage to the right place at the right time, and resource availability.
- Funding: \$79,000

Core Strategy: Injury Prevention Programming

- Purpose: Implement evidence-based programming to address leading causes of trauma and injury within the community and regional environments

Prescription for Hope – Eskenazi Health (Central Region)

- Project aims to address the impact of community interpersonal violence on youth, RxHope will provide strategic social interventions at the individual/family level and work with trauma centers and associated school districts across the state to model and support training and resource development/implementation.
- Funding: \$517,020

Falls Prevention – Indiana University Health Methodist (Statewide)

- Project aims to prevent and reduce older adult falls through collaboration to increase fall prevention outreach and create tangible connections to needed resources for the purpose of breaking down barriers for individuals at risk. The collaborative will create and disseminate a provider toolkit for fall prevention, create and disseminate a fall prevention brochure for older adults in each community, create a direct referral system between each hospital and their local community resources, refer into free Tai Chi classes, and provide one-time financial assistance for the fall prevention needs.
- Funding: \$113,540

Store It Safe, Firearm Safety – Indiana University Riley Hospital (Statewide)

- Project aims to implement the Store it Safe program which provides clinicians with education and training on how to discuss the importance of safe firearm storage with patients/families and provide resources to keep families safe; improves quality of care by enhancing pediatric clinician intervention with families about safe firearm storage.
- Funding: \$299,500

Better Future, Child abuse/maltreatment – Parkview Hospital (Northern Region)



- Project aims to provide services and personnel for a thorough child maltreatment medical follow-up visit by a pediatrician, pediatric coordinator, and/or nurse practitioner to provide a foster care medical bridge for children, and a social worker post suspected child abuse or neglect.
- Funding: \$321,000

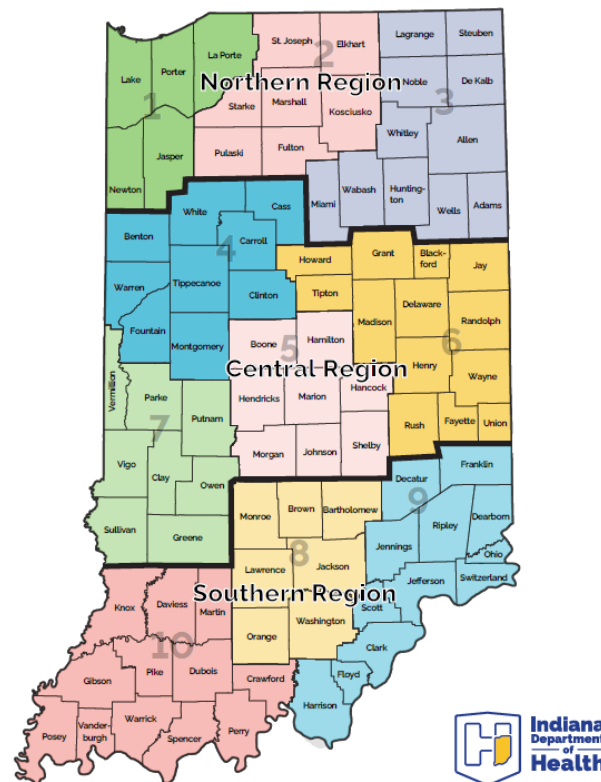


Trauma System Regionalization and Infrastructure

The TCC adopted a regional trauma system model to support the coordination of care and better align resources based on patient flow by restructuring the public health preparedness districts into three regions. Each region is intended to operate with a Trauma Regional Advisory Council and be responsible for developing and maintaining regional EMS and trauma care planning, which among other purposes, are intended to assess and analyze regional needs around care and resources.



Indiana Trauma System Regions



TRACs will have the opportunity to assess regional needs with an initial focus on the following areas:

- Operations and coordination of care
- Gaps in access to care including trauma center verification and mutual aid
- Education, training, and outreach including public awareness
- Injury prevention programming
- Registry and data capacity/support
- Performance improvement and quality of care



Acknowledgements

Lindsay Weaver, MD, FACEP – Indiana State Health Commissioner

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