

MICHIGAN INJURY PREVENTION PLAN

Introduction and Background

It is well-established that injury prevention is an essential, and therefore required component of effective trauma systems.¹ Therefore, the Region 8 (R8) Trauma Network has developed an organized and coordinated plan for injury prevention.

Michigan has a statewide, regionally based, trauma system and a state Injury Prevention Plan. There are a multitude of injury prevention activities throughout the state, and R8 benefits from having access to numerous nationally and internationally renowned injury prevention resources, programs, and injury-reduction-focused research centers. Utilizing some of these resources and focusing on our regional data research, R8 seeks to achieve the following global aims:

- Support and promote inter-agency collaboration and communication between community agencies, Medical Control Authorities, EMS agencies and hospital trauma programs
- Document the existing use of injury prevention resources and activities
- Utilize the region's experts to further delineate R8's role in promoting coordinated and successful injury prevention and reduction strategies within its trauma system
- Support a research-based strategic approach to implement currently known best practices in injury prevention
- Facilitate regional trauma system coordination of existing injury prevention programs
- Assess for areas or populations with gaps in services and resources
- Facilitate regional coordination to provide injury prevention coverage
- Provide reports on regional trauma data to help guide and prioritize activities
- Facilitate collaborative injury prevention research
- Assist in the evaluation of programs and activities
- Encourage professional development education on injury prevention, either by sharing training opportunities and/or by providing training as indicated

The operational details for R8's plan to coordinate injury prevention follows in this plan. It is acknowledged that this is created for a still-developing and evolving regional trauma system. Thus, it is expected it will be revised to meet future emerging needs and goals as they are identified.

Goals and Performance Metrics

An Injury Prevention Subcommittee was established in 2019 and authored R8's first Injury Prevention Plan in 2020. Specific goals set by the committee were synchronous with R8's trauma workplan.

- Annually, survey hospital trauma programs on evidence-based injury prevention programming in their communities with particular interest towards those addressing the hospital's top three mechanisms of injury.
- Ensure the R8's Injury Prevention Plan is aligned with regional injury patterns as determined by an annual evaluation of injury from the trauma registry.
- Work within the structures of regional trauma by using the Regional Trauma Advisory Committee to facilitate discussion, collaboration, and institute regionalized initiatives to address the top three mechanisms of injury in the Upper Peninsula.
- Refer to the below tables for performance indicators and metrics required by the State of Michigan based on Health Resources and Services Administration (HRSA) criteria for RTN approval.³

Rule HRSA#	Indicator	Score
325.132(3)(c)(ii)(A) 306.2	The RTN is active within the region in the monitoring and evaluation of regional injury prevention activities and programs.	<p>0. Not known.</p> <p>1. The RTN does not actively participate in the monitoring and evaluation of injury prevention activities and programs in the region.</p> <p>2. The RTN does some minimal monitoring and evaluation of injury prevention activities and programs in the region.</p> <p>3. The RTN monitors and evaluates injury prevention activities and programs in the region.</p> <p>4. The RTN is an active participant in injury prevention programs in the region, including the evaluation of program effectiveness.</p> <p>5. The RTN is integrated with injury prevention activities and programs in the region. Outreach efforts are well coordinated and duplication of effort is avoided. Ongoing evaluation is routine and data are used to make program improvements.</p>

<p>325.132(3)(c)(ii)(A) 203.5</p>	<p>The RTN has developed a written injury prevention plan. The injury prevention plan is data driven and targeted programs are developed based upon high injury risk areas. Specific goals with measurable objectives are incorporated into the injury prevention plan.</p>	<p>0. Not known. 1. There is no written plan for coordinated injury prevention programs within the region. 2. Although the RTN has a written injury prevention and control plan, it is not fully implemented. There are multiple injury prevention programs within the region that may compete with one another, or conflict with the goals of the regional trauma system, or both. 3. There is a written plan for coordinated injury prevention programs within the region that is linked to the regional trauma system plan, and that has goals and time-measurable objectives. 4. The regional injury prevention and control plan is being implemented in accordance with established objectives, timelines and the region is collecting data. 5. The injury prevention plan is being implemented in accordance with established timelines. Data concerning the effectiveness of the injury prevention programs are being collected and are used to validate, evaluate, and modify the program.</p>
<p>325.132(3)(c)(ii)(A) 207.4</p>	<p>A trauma system public information and education plan exists that heightens public awareness of trauma as a disease, the need for a trauma care system and the prevention of injury. The RTN will promote evidenced based primary injury prevention activities and projects.</p>	<p>0. Not known 1. There is no written public information and education plan on trauma system or injury prevention and control. 2. There is a trauma system public information and education plan, but linkages between programs and implementation of specific objectives have waned. 3. There is a trauma system, and injury prevention plans have a linked public information and education component that has specific timetables and measurable goals and objectives. 4. The trauma system public information and education plan are being implemented in accordance with</p>

		<p>the timelines established and agreed on by the stakeholders and coalitions.</p> <p>5. The trauma system public information and education plan are being implemented in accordance with the timelines. Data concerning the effectiveness of the strategies are used to modify the plan and programs.</p>
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As the R8 Trauma System evolves, additional goals and performance metrics will be incorporated into this injury prevention strategic plan. The scope of these goals may cover items such as:

- Regional Projects: Timelines, goals, SMART objectives, and relevant strategic plan details for any future regionally coordinated injury prevention projects.
- Regional Injury Data Reports: Specific process for compiling and disseminating regional injury data reports acquired from the State Trauma Registry. For example:
 - Providing reports on leading causes of injury admissions and deaths, patient demographics, location of injury, etc.
 - Analyzing data for risk factors, patterns, at-risk populations, emerging trends, etc.
 - Utilizing the reports to prioritize coordinated regional prevention activities, such as a combined multi-center event, dissemination of educational materials, training workshop, media messaging/public service announcements, legislative advocacy, etc.

Definitions of Injury Prevention and Activities

R8 Trauma System endorses and supports a comprehensive evidence-based approach to injury prevention. Effective injury control is multi-tiered and relies on a combination of intervention strategies that incorporate the principals of:²

- **Primary Prevention:** Preventing an injury from occurring or eliminating injury.
 - Examples of primary prevention in R8: Community-based educational programs on older adult fall prevention, pedestrian safety, burn prevention and fire safety, distracted driving prevention, etc.
- **Secondary Prevention:** Intervening during and immediately after injury to mitigate damage, minimize severity, and diminish effect.
 - Examples of secondary prevention in R8: Use of safety equipment such as helmets and child safety seats; public education on initial first aid and/or other limb and life-saving actions; rapid EMS response; appropriate severity-based transfer to and treatment at trauma/burn centers; etc.
- **Tertiary Prevention:** Improving or optimizing long-term outcomes following injury.
 - Examples of tertiary prevention in R8: Rehabilitation, survivor and family support groups, school/work reintegration programs, return to play guidelines following concussions, etc. [These specific activities are not tracked and documented in the Regional Resource Guide. Please contact the injury prevention liaison or trauma program manager at R8 hospitals to request more information on the availability of tertiary prevention programs and resources.]

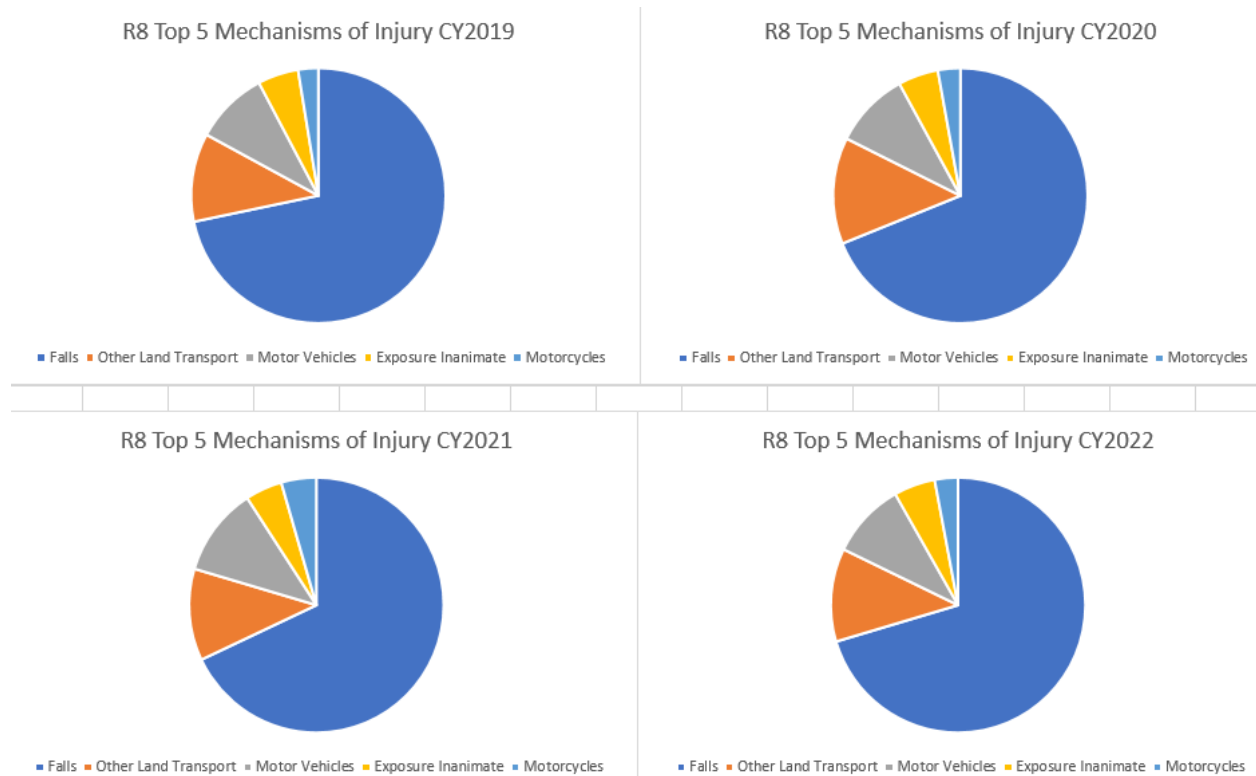
Scope of Activities, Resources, and Expertise

R8 Trauma Network's strategic plan for injury prevention employs all the above listed principal processes. A basic tenet of plan operations is utilization of a multifaceted, comprehensive approach that encompasses a broad scope of prevention and safety-focused efforts, such as: community education, awareness, professional training, media outreach, data collection and analysis, epidemiology, evaluation, research, publications, product safety guideline development, regulations or code enforcement, and advocacy or expert testimony to support legislative action.

The plan utilizes multi-agency collaboration and multi-disciplinary participation to address the complex components of prevention. R8 is comprised of members from a variety of disciplines (e.g., nurses, physicians, EMS providers, public health, educators/teachers, etc.). In addition to their own hospitals and agencies, R8 members are affiliated with a multitude of professional organizations. The R8 injury prevention plan capitalizes on the wealth of existing prevention-focused resources in the state.

Data to Target Priorities

According to the American College of Surgeons Committee on Trauma’s regional trauma system guidelines, “the descriptive epidemiology of injury among the whole jurisdictional population (geographic area served) within a trauma system should be studied and reported...[and] enables the identification of priorities for directing better allocation of resources, the nature and distribution of injury prevention activities, financing of the system, and health policy initiatives.”¹ The Region 8 Trauma Coordinator compiles and reports summary data on injury-related fatalities and hospitalizations in the region. Based on injury incidence frequency, the following mechanisms were consistently identified as top three priorities for injury prevention: falls, other land transport crashes, motor vehicle crashes. ICD-10 Injury Categories for Region 8 are as follows in graphs.⁴



Assessment of Activities, Programs, and Resources

To meet the above stated performance indicators and metrics (see “Goals and Performance Metrics”), the R8 Injury Prevention Subcommittee has collected and compiled a list of existing injury prevention programs within its boundaries. [Injury Prevention Programs within Region 8](#)

A primary purpose of the R8 Regional Injury Prevention Resource Guide is to assess whether existing programs match the injuries identified as top priorities for prevention intervention. This Regional Injury Prevention Resource Guide appears in Appendix A. The guide can be utilized by hospitals, agencies, community health programs, and interested others to locate injury prevention education available in the R8 area. It will be updated per the frequency defined in the “Goals and Performance Metrics” section.

Summary and Conclusions

R8 Trauma System benefits from a wealth of pre-existing and well-established resources, experts, initiatives, and programs dedicated to comprehensive injury prevention and control throughout the nation and the state. This is a hugely positive asset. Although R8 is large in area, it is very rural with limited populations and resources. Utilizing existing state and national resources that are freely shared, assists with moving the injury prevention activities in R8 forward.

Accordingly, it also presents some unique operational challenges, such as how to improve regional-wide coordination without adding unnecessary and labor-intensive processes, and how to best promote proven successful injury reduction strategies within R8. As the relatively new regional trauma system evolves, this Injury Prevention Strategic Plan will be revised to document progress and communicate future decisions.

References

1. American College of Surgeons Committee on Trauma. Regional Trauma Systems: Optimal Elements, Integration, and Assessment: Systems Consultation Guide (2008):
<https://www.facs.org/-/media/files/quality-programs/trauma/tscp/pdfs/regionaltraumasystems.ashx>
2. United States Department of HHS, HRSA; Model Trauma System Planning and Evaluation:
<https://www.hsdl.org/?view&did=463554>
3. Region 8 Trauma Network Application: www.r8mcan.org
4. Michigan Trauma Registry extraction March 10, 2023.
5. Region 2 South’s Strategic Approach to Injury Prevention and Community Outreach (2017).
6. Michigan Trauma System Strategic Plan (2018-2023)
https://www.michigan.gov/documents/mdhhs/Strategic_Plan_Final_658317_7.pdf
7. Resources for Optimal Care of the Injured Patient 2014/Resources Repository: <https://www.facs.org/quality-programs/trauma/tqp/center-programs/vrc/resources>

R8 Members' Network of Professional Organization Membership, On-line Resource Access or Affiliations with Injury Prevention Activities

- [American Academy of Emergency Medicine](#)
- [American Academy of Pediatrics](#)
- [American Association for the Surgery of Trauma](#)
- [American Burn Association](#)
- [American College of Emergency Physicians](#)
- [American College of Surgeons, Committee on Trauma](#)
- [American Red Cross](#)
- [American Trauma Society](#)
- [Centers for Disease Control and Prevention and its Injury Centers](#)
- [Department of Homeland Security](#)
- [Eastern Association for the Surgery of Trauma](#)
- [Emergency Medical Services for Children](#)
- [Emergency Nurses Association](#)
- [International Association of Fire Fighters](#)
- [International Center for Automotive Medicine](#)
- [Michigan Department of Health and Human Services](#)
- [Midwestern Injury Prevention Alliance](#)
- [Michigan Fire Inspectors Society](#)
- [Michigan Ride Right Snowmobiling](#)
- [Michigan Trauma Coalition](#)
- [National Association of State EMS Officials](#)
- [National Fire Protection Association](#)
- [National Highway Traffic Safety Administration](#)
- [National Institutes of Health, National Institute on Aging](#)
- [National Rural Health Association](#)
- [Office of Highway Safety Planning Michigan](#)
- [Office of Rural Health Policy](#)
- [Ride Right Snowmobiling](#)
- [Ride Right ORV](#)
- [Safe Kids Worldwide](#)
- [Safe States Alliance](#)
- [Society for Advancement of Violence and Injury Research](#)
- [Society of Trauma Nurses](#)
- [Stop The Bleed](#)
- [ThinkFirst National Injury Prevention Foundation](#)
- [United States Fire Administration](#)
- [UMTRI - University of Michigan Transportation Research Institute](#)
- [UPCAP Matters of Balance](#)

APPENDIX A
R8 REGIONAL INJURY PREVENTION RESOURCE GUIDE

Available injury prevention education and outreach activities/programs provided by trauma centers in Region 8

- Bicycle & Helmet Safety
- Boaters and Water Safety
- Burn Prevention, Fire Safety, and Youth Fire-setting Prevention & Intervention
- Camp 911
- Child Safety Seat Clinics
- Distracted Driving
- Fall Prevention
- Firearm Safety
- Hunters Safety
- Infant Safe Sleep
- Pet Safety
- Preventing Youth Athletic Injuries & Overheating
- Pedestrian Safety/Safetyville
- Older Adult Fall Prevention and Senior Lifestyle & Injury Prevention
- Ride Right
- Stop the Bleed
- ThinkFirst Injury Prevention

**APPENDIX B:
INJURY PREVENTION ONLINE RESOURCE LIST**

General Resource Guides and Toolkits for Injury Prevention

- **American Association for the Surgery of Trauma and Harborview Injury Prevention and Research Center: A Community Guide to Injury Prevention and Ten Steps for Developing an Injury Prevention Program**
www.aast.org/Library/TraumaPrevention/InjuryPreventionGuide.aspx
- **American College of Surgeons Committee on Trauma Injury Prevention**
www.facs.org/quality-programs/trauma/ipc
www.facs.org/~media/files/quality%20programs/trauma/injuryprevent.ashx
- **Centers for Disease Control and Prevention: National Action Plan for Child Injury Prevention**
www.cdc.gov/safecild/nap/
- **Children’s Safety Network: Resource Guides**
www.childrensafetynetwork.org/resource-guides
- **Safe States Alliance: Building Safer States Core Components of State Public Health Injury and Violence Prevention Programs and the State of the States Reports**
www.safestates.org/?page=SOTS
www.safestates.org/?page=BuildingSaferStates
- **United States Department of Homeland Security - Federal Emergency Management Agency - United States Fire Administration: Safety Program Toolkit**
www.usfa.fema.gov/downloads/pdf/publications/fire_safety_program_toolkit.pdf
- **Vision 20/20: Community Risk Assessment and Community Risk Reduction Planning Guides**
<http://strategicfire.org/community-risk-reduction/community-risk-assessment/>

Other Online Injury Prevention Resources and Materials

- **AARP Driving and Home Safety:** www.aarp.org
- **American Academy of Pediatrics health children (AAP):** www.healthychildren.org
- **American Academy of Neurology: Concussion Resources:** <https://www.aan.com/Concussion>
- **American Association of Poison Control Centers (AAPCC):** www.aapcc.org
- **American Red Cross (ARC) Emergency Preparation:** www.redcross.org/get-help/prepare-for-emergencies/types-of-emergencies
- **AT&T Distracted Driving; It Can Wait (Take the Pledge):** www.itcanwait.com/home#
- **ASPCA: Dog Bite Prevention** <https://www.aspca.org/pet-care/dog-care/dog-bite-prevention>
- **ASPCA: Dogs and Babies** <https://www.aspca.org/pet-care/dog-care/dogs-and-babies>

- **Bicycle Helmet Safety Institute-** <http://bhsi.org>
- **Brain Injury Association of America (BIAA):** www.biausa.org
- **Bridgestone Teens Drive Smart:** www.teensdrivesmart.com
- **Centers for Disease Control and Prevention (CDC):** www.cdc.gov and it's funded (current or previous) injury control research centers:
 - **Columbia University Center for Injury Epidemiology and Prevention:** www.cuinjuryresearch.org
 - **Harborview Injury Prevention and Research Center:** <http://depts.washington.edu/hiprc/>
 - **Johns Hopkins Center for Injury Research and Policy:** www.jhsph.edu/research/centers-and-institutes/johns-hopkins-center-for-injury-research-and-policy
 - **Mount Sinai Injury Control Research Center:** <http://icahn.mssm.edu/research/brain-injury/about/funding/cdc>
 - **Nationwide Children's Hospital Research Institute Center for Injury Research and Policy:** www.nationwidechildrens.org/injury-research-and-policy
 - **University of Iowa Injury Prevention Research Center:** www.public-health.uiowa.edu/iprc
 - **University of North Carolina Injury Prevention Research Center:** <http://iprc.unc.edu>
 - **University of Michigan Injury Center:** www.injurycenter.umich.edu
 - **University of Rochester Center for the Study and Prevention of Suicide:** <https://www.urmc.rochester.edu/psychiatry/cspas.aspx>
 - **West Virginia University Injury Control Research Center:** <http://publichealth.hsc.wvu.edu/icrc/>
- **Centers for Disease Control and Prevention: Home and Recreational Safety** <https://www.cdc.gov/homeandrecreationalafety/> ; <https://www.cdc.gov/steady/index.html>
- **Child Abuse Prevention Association (CAPA):** <http://capacares.org/>
- **Children's Hospital Association:** www.childrenshospitals.org
- **Child Welfare Information Gateway:** www.childwelfare.gov
- **Childhelp National Child Abuse Hotline:** www.childhelp.org
- **Children's Safety Network (CSN):** www.childrenssafetynetwork.org
- **Consumer Product Safety Commission (CPSC):** www.cpsc.gov
- **Ford Driving Skills for Life:** www.drivingskillsforlife.com/
- **I'm Safe Multiple Resources-** <https://www.imsafe.com/>
- **Injury Free Coalition for Kids:** www.injuryfree.org
- **Insurance Company Sponsored Education and Programs:**
- **Allstate:** www.allstate.com/about/safe-driving.aspx
- **American Automobile Association (AAA):** www.aaafoundation.org and <https://michigan.aaa.com/safety/driving-safety.aspx>
- **Liberty Mutual Research Institute:** www.libertymutualgroup.com/about-lm/research-institute/research-institute
- **State Farm:** <https://www.statefarm.com/about-us/community>
- **Kids Health:** <http://kidshealth.org>
- **Kid Smartz:** www.kidsmartz.org
- **Infant Safe Sleep-** <http://www.sidscenter.org/SafeSleep/index.html>
- **Maine Health A Matter of Balance:** www.mainehealth.org/mob

- Michigan Department of Health and Human Services (MDHHS) Injury Prevention Division: www.michigan.gov/mdch/0,1607,7-132-54783_54879---,00.html
- Michigan State Police (MSP) Crime Prevention, Safety & Police Services: www.michigan.gov/msp/0,4643,7-123-72297_64773_33018---,00.html
- Mothers Against Drunk Driving (MADD): www.madd.org
- National Association of Area Agencies on Aging (N4a): www.n4a.org
- National Center on Shaken Baby Syndrome and Period of Purple Crying: www.dontshake.org and www.purplecrying.info
- National Coalition for Safer Roads and Stop Red Light Running: www.ncrsafety.org/stop-on-red-3/
- National Committee for the Prevention of Elder Abuse: www.preventelderabuse.org
- National Council on Aging: www.ncoa.org
- National Council on Patient Information and Education and the Center for Improving Medication Management: www.learnaboutrxsafety.org
- National Fire Protection Association (NFPA): www.nfpa.org and www.sparky.org
- National Fire Safety Council: www.nfsc.org
- National Highway Traffic Safety Administration (NHTSA): www.nhtsa.gov and www.safercar.gov
- National Institute on Alcohol Abuse and Alcoholism (NIAAA): www.niaaa.nih.gov
- National Institute of Child Health and Human Development (NICHD) Safe to Sleep: www.nichd.nih.gov/sts/Pages/default.aspx
- National Organization for Youth Safety (NOYS): www.noys.org
- National Safety Council (NSC): www.nsc.org/Pages/Home.aspx
- National Scald Prevention Campaign: <http://flashsplash.org/>
- Safe Kids Worldwide: www.safekids.org
- ThinkFirst National Injury Prevention Foundation: www.thinkfirst.org
- Toyota and Cincinnati Children's Buckle Up for Life: <http://buckleupforlife.org/>
- United States Fire Administration: www.usfa.fema.gov
- Vision 20/20: <http://strategicfire.org/>
- World Health Organization: www.who.int/en/