

MICHIGAN ANNUAL REGION 8 TRAUMA REPORT-2023

REGION 8

Statutory Reference: R325.132 Rule 8 (3) (a) At least quarterly, a region shall submit evidence of ongoing activity, such as meeting notices, minutes to the department. Annually the regional trauma advisory council shall file a report with the department which describes progress toward system development, demonstrates ongoing activity, and includes evidence that members of the regional trauma advisory council are currently involved in trauma care.

OVERVIEW AND ASSESSMENT OF RESOURCES

Demographics:

Marquette County in the Upper Peninsula (UP) has the largest county land mass at 1,808 square miles, for comparison, Oakland and Kent Counties are 867 and 846 square miles respectively. If oriented north-south, the UP would cover 1/3 of the Lower Peninsula. However, the population density is low, only 3% of the state's population reside in the UP. National and international publications, list the UP as the place to four-season visit. The rugged remoteness of the National Park, National Lakeshore, and State Parks are juxtaposed with finite healthcare resources, and spotty to non-existent cellular and broadband service. EMS agencies struggle to remain staffed, and hospitals and coverage areas are limited when considering the extent of the geography. There are 14 hospitals, including three independents, in the Region 8 Trauma Network. Corporate health systems are headquartered in Wisconsin, Illinois, Tennessee, and the Lower Peninsula of Michigan.

A Quantitative Analysis of GDP in the Upper Peninsula published by Rural Insights in May 2021, states Marquette, Delta, Dickinson, Chippewa, and Houghton, collectively make 70.17% of the total economy of the UP. These top five counties have a commonality in their top industries: government, real estate (including rentals and leases), and retail trade. Except for Marquette County, median income in each county is below the state median income. With the exceptions of Alger and Houghton Counties, all counties have a higher percentage of households with children 18 years and younger living in poverty than the statewide percentage.

According to the 2021 UP Community Health and Needs Assessment, 17.7% of Michigan residents are aged 65 years or older, whereas in the UP 22.9% of residents are aged 65 or older. If college and university populations in addition to prisons' populations were subtracted, the percentage of persons 65 years and older increases from 22.9% to 24.9%.

Medical Control Authorities:

MCA Name	Medical Director
Baraga	Jeffrey Dorhauer, MD <i>(new)</i>
Delta	Robert Benkendorf, MD <i>(new)</i>
Dickinson	Amadeo Sturla, MD
Eastern	Kyle Raycraft, MD MBA
Gogebic Iron Ontonagon	Michael Clark, DO <i>(new)</i>
Keweenaw Houghton	Craig Thomas, MD <i>(new)</i>
Luce	Steven A. Vix, MD
Marquette Alger	Michael Mlsna, MD
Schoolcraft	David Schoenow, MD

Designation Status of Facilities in Region:

Facility Name	Designated Yes or No	Level of Designation
Aspirus Iron River	N	
Aspirus Ironwood	Y	IV
Aspirus Keweenaw	N	
Aspirus Ontonagon	N	Decided to not renew IV
Baraga County Memorial	Y	IV
Helen Newberry Joy	Y	IV
Marshfield Medical Dickinson	Y	IV
Munising Memorial	N	Provisional IV
MyMichigan Sault	Y	III
OSF St. Francis	Y	IV
Schoolcraft County Memorial	N	Provisional IV

UP Health System Bell	N	Provisional IV
UP Health System Marquette	Y	II
UP Health System Portage	Y	III

Governance:

Regional Trauma Network (RTN) Board

	Name and Title
Chairperson	Shelly Reeves, HNJH Trauma Program Coordinator and Luce County MCA Coordinator
Vice Chairperson	Elizabeth Ross, Schoolcraft County MCA Coordinator

Regional Trauma Advisory Council (RTAC)

	Name and Title
Chairperson	Shelly Reeves, HNJH Trauma Program Coordinator and Luce County MCA Coordinator
Vice Chairperson	vacant

Regional Professional Standards Review Organization (RPSRO)

	Name and Title
Chairperson	vacant
Vice Chairperson	Wade Liston, MD, UPHS Portage Trauma Medical Director

Governance Activity Report:

- Regional Trauma Network Board (RTN Board): Members of the RTN travel up to 4 hours one way for an RTN meeting held in the central UP. RTN meetings are now scheduled once a year, which hampers work required by administrative rules.
- The 2024-2026 application was approved by the RTN in September with empowerment of the Board Chair to make requested modifications should they arise by the Department, STAC, or EMSCC.
- Regional Trauma Advisory Council (RTAC): Significant turnover in membership. Orientations are offered to new members and attendance is stressed as that proves regional involvement in injury prevention and performance improvement.
- Regional Professional Standards Review Organization (RPSRO): Struggles with physician attendance. Given that the RTN must meet in person to appoint members, turnover is a complicating factor.

Work Plan Objective Progress and Highlights

Injury Prevention

<p>Indicator N/A 207.4 (New Indicator from Strategic Plan): A trauma system public information and education plan exists that heightens public awareness of trauma as a disease, the need for trauma care system and the prevention of injury. The RTN will promote evidence based primary injury prevention activities and projects.</p>
<p>Regional Score: New indicator. 1 in 2020 workplan</p>
<p>Objective: By December 2023, the region will support the Michigan Trauma Coalition's trauma system messaging campaign currently in development with a focus on the messages applicable throughout the region.</p>
<p>Progress: Messages shared to RTN and RTAC and posted on the R8TRAUMA Facebook page. Completed.</p>
<p>Objective: Region 8 Trauma has collaborated with Region 8 MCA Network to have a page on the MCAN website with an anticipated go live date of December 2020. This website will be a publicly accessible location for items approved by the RTN to be placed there and populated by the Regional Trauma Coordinator (RTC).</p>
<p>Progress: The website has become a one-stop location for EMS protocols across the UP as managed by the MCAs, and information about regional trauma.</p>

Communications

<p>Indicator 325.132(3)(c)(ii)(B) 302.10: There are established procedures for EMS and trauma system communications for major EMS events or multiple jurisdiction incidents that are effectively coordinated with the overall regional response plans.</p>
<p>Regional Score: 2 in 2017 workplan; 3 in 2020 workplan</p>
<p>Objective: Ongoing through December 2023, Regional Trauma shall continue to review and support Regional Healthcare Preparedness Communications initiatives when they are brought to the RTAC and RTN. The Regional Trauma Coordinator is to continue throughout this three-year workplan to be a Regional Preparedness board member representing Regional Trauma.</p>
<p>Progress: Complete and continuing.</p>

<p>Indicator 325.132(3)(c)(ii)(B) 302.9: There is a procedure for communications among medical facilities when arranging for inter-facility transfers including contingencies for radio or telephone system failure.</p>
<p>Regional Score: 2 in 2017 workplan; 4 in 2020 workplan</p>
<p>Objective: Regional Healthcare Preparedness utilizes the Regional Trauma survey of hospital communication redundancies and Regional Trauma shall update the survey by January 2021.</p>

Progress: Completed and reviewed in 2023. New evolution of this in 2024 workplan.

Indicator N/A 105.7 (New Indicator from Strategic Plan):

An assessment of the needs of the general medical community, including physicians, nurses, pre-hospital care providers and others, concerning trauma system information has been conducted.

Regional Score: new indicator 1 in 2020 workplan

Objective: By January 2021, hospitals and MCAs within Region 8 will be surveyed to determine the following: 1. How they inform the broad medical community about trauma, 2. Who they inform, 3. When they inform, 4. What is inclusionary to the process and what is disseminated. Survey information will be shared with the Regional Trauma Network. Regional Trauma shall continue to utilize its Facebook page throughout this three-year workplan for topics such as injury prevention initiatives, educational notices, national literature, and publication sharing.

Progress: The survey illustrated no uniformity in messaging if there was messaging. The R8TRAUMA Facebook page took on a greater emphasis of informing its followers. The RTN issued a self-imposed directive to the hospitals to be implemented in 2024. Once a year, timed at their own choosing, hospitals will inform their employees, the broad medical community, and their community of what a trauma center is, what level they are and why that is important, in addition to any program features and how to contact.

Infrastructure

Indicator 325.132(3)(c)(ii)(E) 302.1:

There is well-defined regional trauma system medical oversight integrating the needs of the trauma system with the medical oversight of the overall EMS system.

Regional Score: 1 in 2017 workplan; 2 in 2020 workplan

Objective: By January 2021, the hospital trauma program managers and each MCA contact person shall participate in a survey conducted by the Regional Trauma Coordinator on how they assure medical directors collaborate on EMS trauma protocols.

Progress: Unless the trauma medical director and the MCA medical director were the same person, collaboration was not occurring. The regional directive for collaboration was stressed at 2023 RTAC meetings, which continues to be particularly important with the new EMS protocols.

Objective: By June 2021, the RTN shall review the survey and author a regional benchmark regarding formal trauma protocol reviews by trauma and MCA medical directors.

Progress: The RTN issued a regional directive that was distributed to the RTAC in December of 2021 that stated that MCA meeting minutes and hospital trauma program meeting minutes will contain evidence of the MCA and trauma program medical directors collaborating on EMS protocols, clinical oversight, findings, and corrective action plans. In 2023, the RTC worked

with the State MCA Coordinator to create a shared calendar of MCA meetings with the discovery there is significant variance in meeting frequency.

Indicator 325.135(6) 303.1:

The regional trauma plan has clearly defined the roles, resources and responsibilities of all acute care facilities treating trauma, and of facilities that provide care to specialty populations (burns, pediatrics, other).

Regional Score: 1 in 2017 workplan; 3 in 2020 workplan

Objective: By June 2021, the RTN shall expand the current 24/7 medical specialties database to include information from each hospital on what facilities they recommend specialty populations (burns, pediatrics, TBI rehabilitation, other specialty rehabilitation) be transferred to, which may be out of state.

Progress: UPHS Marquette Care Management provided an overview of rehabilitation facilities, from licensed rehab in multiple states to swing beds and skilled nursing, that it utilizes for injured patients. This was presented to the RPSRO in 2023.

Objective: By September 2021, the Regional Trauma Coordinator will share the database with the Regional MCA Network for informing their transfer agencies. Updates to the database will be provided by the hospital trauma program managers to the Regional Trauma Coordinator, as needed. The database shall be shared with new trauma program managers. Triennially, the database will be reviewed and updated.

Progress: Changing ownership of health systems, inability to find bed placements, hospitals modifying capabilities, and finite transport solutions made a database more a point in time study instead of a resource. The next work-plan outlines identification of existing hospitals transfer practices and assisting them in hardwiring a process to have designated review timeframes because of the prior named points that are continuously fluctuating.

Indicator 325.135(6)(c) 303.2:

The regional trauma network plan should ensure that the number, levels, and distribution of trauma facilities are communicated to all partners and stakeholders. The RTN should develop procedures to ensure that trauma patients are transported to an appropriate facility that is prepared to provide care.

Regional Score: 1 in 2017 workplan; 1 in 2020 workplan

Objective: By February 2022, hospital will participate in a survey regarding their written diversion plans and what types of incidents cause diversion, who has the authority enact the plan, what the plan contains regarding who is notified and how it is documented.

Progress: Some hospitals submitted their diversion plans; however, the theme was they do not divert trauma patients unless they are within a few miles of another facility.

Objective: By August 2022, the RTAC will review the findings and provide recommendation to the RTN of minimum standards to be included in hospital diversion plans.

Progress: Because of the sentiment that trauma patients are not diverted, a new approach was formed in 2023 for the 2024-2026 workplan being a half-day workshop in conjunction with regional preparedness. Multiple scenarios will be developed around hospitals suffering incidents whereby their emergency departments are no longer able to function.

Indicator 325.132(3)(c)(ii)(E) 208.2: (New Indicator from Strategic Plan)

The incident management and trauma systems have formal established linkages for system integration and operational management. This is directed at the Trauma Network's collaboration with the Regional Healthcare Coalition.

Regional Score: new indicator 2 in 2020 workplan

Objective: Through December 2023, the Regional Trauma Coordinator will be the liaison to preparedness as evidenced by meeting participation and involvement as a Regional Medical Coordination Center member with subsequent updates at each RTAC and RTN meeting, inclusion in mass casualty planning, exercises, and real events.

Progress: The RTC assisted Regional Preparedness by formatting their Operations Plan into a uniform document with table of contents, and that resulted in a R8MCC refresher.

Objective: Through December 2023, the Regional Trauma Coordinator will continue in the role of a regional resource by maintaining status as a regional superuser of EMTrack, eICS, and EMResource.

Progress: Modified to continuing as hospital contact for EMResource.

Indicator 325.136(d) 303.4:

When injured patients arrive at a medical facility that cannot provide the appropriate level of definitive care, there is an organized and regularly monitored system to ensure the patients are expeditiously transferred to the appropriate, system defined trauma facility.

Regional Score: 2 in 2017 workplan; 1 in 2020 workplan

Objective: By October 2021, the Regional Trauma Coordinator on behalf of the RTN will survey hospital trauma programs on how each facility conducts reviews of interfacility transfers.

Progress: Dr. Todd Chassee presented during an RTAC meeting on trauma team activations. The RTAC was advised of ACS geriatric best practices and formed an ad hoc committee to review in March 2024. The R8 Trauma Transfer Guide was reviewed by RTAC and awaits RTN review.

Objective: By February 2022, the RTAC will receive the survey findings and recommendations from the RTN based upon information from the RSPRO. The RTAC shall provide a regional interfacility transfer review procedure to the RTN.

Progress: Instead of a regional interfacility transfer procedure, the RTN may adopt a transfer guideline in 2024 that was reviewed in 2023.

Indicator 325.135(6)(b) 302.6:

There are mandatory system-wide pre-hospital triage criteria to ensure that trauma patients are transported to an appropriate facility based on their injuries. These triage criteria are regularly evaluated and updated to ensure acceptable and system-defined rates of sensitivity and specificity for appropriately identifying the major trauma patient. This indicator is directed at the process for prehospital triage of trauma patients.

Regional Score: 3 in 2017 workplan; 2 in 2020 workplan

Objective: By December 2021, using available reports from Biospatial and the Regional MCA Network, the RTN in collaboration with the Regional MCA Network will pilot a validation project focused on Field Triage, i.e., definitions, educational needs, data interpretation and action steps to address identified gaps with an expected 12-month completion date.

Progress: Because two hospitals were not re-designated as trauma centers, the RTC wrote reports in biospatial for patients meeting prehospital trauma triage elements physiological and anatomical (steps 1 & 2). They best align with hospital trauma team activations. Patients transported to the non-designated trauma centers who met Step 1 and 2, were communicated to the respective MCAs for their follow-up.

Regional Performance Improvement

Indicator 325.134(4) 206.1:

The RTN uses data reports to evaluate and improve system performance. This refers to any data reports and the RPSRO Inventory.

Regional Score: 2 in 2017 workplan; 2 in 2020 workplan

Objective: Through December 2023, the RTN and its RPSRO will utilize data reports generated by the State of Michigan, ImageTrend®, MTQIP, and RPSRO Inventory and individual hospital and EMS agencies to evaluate and improve regional trauma care and system performance.

Progress: The RPSRO meets virtually; however, with turnover in positions and the requirement for RTN to seat the members, they have vacancies. Two meetings occurred in 2023 that included the Inventory, aggregate information about transfers, a drafted transfer guideline, and the desire for whole blood to be carried by the helicopter and two fixed wings located within the region.

Indicator 325.135(6) 302.5:

The retrospective medical oversight of the EMS system for trauma triage, communications, treatment, and transport is closely coordinated with the established performance improvement processes of the trauma system.

Regional Score: 1 in 2020 workplan new indicator

Objective: Through December 2023, the RPSRO, working with the Region 8 MCA Network, will utilize data reports generated by the State of Michigan, ImageTrend®, and Biospatial to provide medical oversight of EMS trauma triage, communications, treatment, and transport of trauma patients.

Progress: With the expressed consent of the RPSRO, the RTC provides information back to MCAs regarding patients meeting trauma triage, their destinations, and transfer practices.

Indicator 325.135(6)(d) 205.2:

Collected data from a variety of sources are used to review the appropriateness of all-inclusive regional trauma performance standards, from injury prevention through rehabilitation.

Regional Score: 1 in 2017 workplan; 1 in 2020 workplan

Objective: By December 2021, the RPSRO, working with the RTAC will develop a Regional Performance Improvement Plan that includes evaluation on trauma triage criteria and effectiveness, trauma center diversion and provision of care. This plan will be based off suggestions from the State of Michigan, State Trauma Advisory Committee, and American College of Surgeons guidance documents.

Progress: The PI Plan completed a few years ago and available on the regional website was utilized for a case review once in 2023.

Indicator 325.136(d) 303.4:

There is a regional trauma bypass protocol that provides EMS guidance for bypassing a trauma care facility for another more appropriate trauma care facility.

Regional Score: 2 in 2017 workplan; 1 in 2020 workplan

Objective: By December 2022, the RTN, working with the Region 8 MCA Network will develop a regional bypass protocol that clearly defines the process for bypassing one trauma facility for another trauma center more appropriate for the patient's injuries or specialty needs (pediatrics, burns, obstetric).

Progress: The EMS protocols describe destination choices and all MCAs in the region have adopted these. Bypasses have been occurring in areas where there is more than one hospital and varying capabilities. Regarding specialties, there are neither pediatric facilities nor pediatric ICUs within the region. Also, there are no burn centers. These types of facilities are hours away from the region.

Continuum of Care

Indicator 325.132(3)(c)(ii)(F) 308.1:

The lead agency has incorporated, within the trauma system plan and the trauma center standards, requirements for rehabilitation services including interfacility transfer of trauma patients to rehabilitation centers. The regional work plan addresses the integration and participation of rehabilitation services within the continuum of care for trauma patients.

Regional Score: 1 in 2017 workplan; 2 in 2020 workplan

Objective: By December 2020, the RTN shall expand the current 24/7 medical specialties database to include information from each hospital on where they transfer specialty populations.
Progress: Modified objective in 2023 for the 2024-2026 workplan. Having each hospital analyze their transfer practices and address a process whereby these practices are reviewed since hospital capabilities are continually changing and bed availability has become scarcer.
Objective: By April 2021, the considerations for rehabilitation transfer shall be collected from the trauma program managers within the region for review by the RTAC.
Progress: UPHS Marquette Care Management provided an overview of rehabilitation facilities, swings beds, and skilled nursing facilities that are utilized and that was shared with the RPSRO.
Objective: By February 2022, the RTN will establish a formal communication pathway of regional trauma initiatives to licensed rehabilitation facilities within the region that are utilized for trauma patients.
Progress: UPHS Marquette is the only licensed rehabilitation facility in the region.

Trauma Education

Indicator 325.132(3)(C)(ii)(D) 310.3,4,6: The regional trauma network establishes and ensures that appropriate levels of EMS, nursing and physician trauma training courses are provided on a regular basis.
Regional Score: 2 in 2017 workplan; 2 in 2020 workplan
Objective: Throughout 2020, the RTN will encourage hospitals and MCAs to identify their regularly offered trauma education programs. The RTAC will consolidate a master calendar of scheduled trauma education programs by January of 2021 based on information from hospitals, MCAs, and share/exchange lists with Region 7. The master calendar will include programs open to out-of-health system employees and may be out-of-region and out-of-state.
Progress: There was not participation in the formation of a master calendar. Trauma programs contact the RTC with any announcements they have for the R8TRAUMA Facebook page.

Indicator 325.132(3)(C)(ii)(D) 310.10: As new protocols and treatment approaches are instituted within the regional trauma system; structured processes are in place to inform or educate all personnel of those changes in a timely manner.
Regional Score: 1 in 2017 workplan; 2 in 2020 workplan
Objective: The RTN will continue to inform of educational offerings through utilization of its Facebook page through 2023. By December 2020, the RTN will have developed a one-page electronic flyer to disseminate to trauma program managers that can be utilized to encourage their staff to follow the Facebook page.

Progress: Updates on R8TRAUMA are on-going.
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Regional Summary:

Ten new trauma program manager and trauma medical director orientations were done in 2023. The RTC provides daily technical assistance with trauma programs. The Office of Highway Safety Planning experienced the retirement of Regional Coordinator Jamie Dolan. The UP Bystander Care Program is being transitioned to the RTN. Hospital administrators have also experienced turnover in addition to more hospitals being acquired by corporate health systems. Collaboration is occurring with the Michigan Office of Highway Safety Planning, Michigan DNR, Upper Peninsula Traffic Safety Network, Northern Michigan University Center for Rural Health, UP Health System School of EMT, Region 8 MCA Network, Region 8 Healthcare Preparedness, Central UP Senior Network, Marquette Alger Regional Education Services Agency and UP school nurses.

Regional System Evaluation in accordance with Administrative Rule Requirements:

- ☐ Regional trauma network and committee meetings have taken place as scheduled (quarterly) in accordance with the Open Meetings Act.

If not completed, please explain: Virtual RTAC meetings occur quarterly. RTN meeting is annual because of the requirement to be in-person.
- ☒ Schedule and information regarding RTN Board and RTAC posted on the trauma website
- ☒ Annual confirmation that members of the RTAC are currently involved in trauma care completed.
- ☒ All MCAs are participating in the RTN.
- ☐ Documentation that all hospitals in the trauma network are participating in:
 - ☐ Regional Injury Prevention – not all hospitals have attended RTAC.
 - ☐ Regional Performance Improvement – not all hospitals have attended RTAC.
 - ☐ Submission of registry data to ImageTrend – not all hospitals have submitted complete data.
- ☐ Regional trauma plans completed (attach copy of plan or state “in progress”)
 - ☒ Regional Injury Prevention
 - ☐ Regional Trauma Education
 - ☒ Regional Performance Improvement
If not completed, which plans are missing and why? Regional Trauma Education is not being worked on in Region 8.

- ☒ Regional PI process in place; Inventory data reviewed, and trends (if noted) are being monitored. PI process that includes two levels of review is place (as needed). RPSRO had the opportunity to review the inventory twice in 2023. One collection of dispatch circumstances was presented to the RPSRO and investigated.
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RTN Board Chairperson:

Shelly Reeves

Date: *1/23/2024*

Regional Trauma Coordinator:

Lyn Nelson

Date: 1/23/2024