

MICHIGAN DEPARTMENT OF COMMUNITY HEALTH

Regional Trauma Resources Region 8



Prepared by Cheryl Moore
Regional Trauma Coordinator
March 2014

Contents

Introduction to Region 8 1-2

Injury 2-4

Regional Trauma System Infrastructure 5

 Emergency Medical Services (EMS) and Medical Control Authorities 5

 Regional Trauma Network 6

 Regional Trauma Advisory Committee 7-8

 Professional Standards Review Organization 9

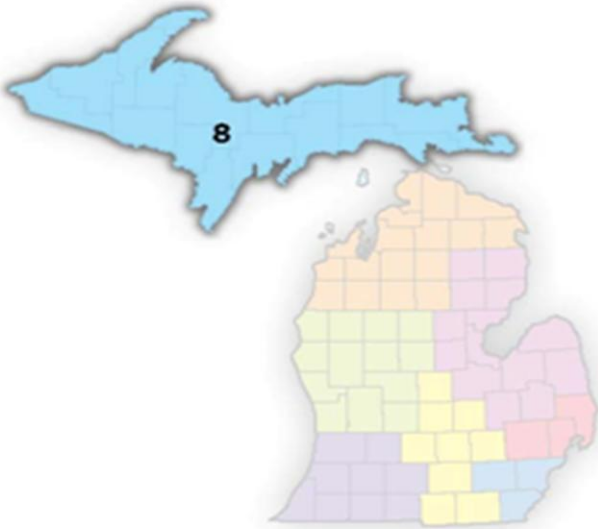
 Governance 9

 Hospitals..... 10

MDCH 2013 Trauma Needs Assessment..... 11-15

Summary 16

Introduction to Region 8



Region 8 makes up the Upper Peninsula and is joined to the Lower Peninsula by the Mackinac Bridge. With a population of 311,361 (just 19 people per square mile), Region 8 makes up nearly 1/3 of the total land mass of Michigan but only 3 percent of its total population. The region is composed of 15 rural counties and is home to five federally recognized tribal nations.

The region has one international border crossing with Canada and shares a long border with north eastern Wisconsin as well as sharing a huge water border with Minnesota and Canada via Lake Superior. Region 8 is known for large expanses of natural resources. It is home to four

designated wilderness areas and several National Forests, Parks and Preserves. There are thousands of miles of all-terrain and snowmobile trails crisscrossing the entire region. The Upper Peninsula is a major tourist attraction for outdoor enthusiasts for hunting, fishing, hiking and boating. There is a commercial fishing industry as well as logging and mining operations.

The Upper Peninsula has a humid continental climate. The Great Lakes have a significant effect on most of the peninsula. Winters tend to be long, cold, and snowy for most of the peninsula, and because of its northern latitude, the daylight hours are short— around 8 hours between sunrise and sunset in the winter. Lake-effect snow causes many areas to get in excess of 100–250 inches of snow per year.

The Upper Peninsula of Michigan has three state universities; Lake Superior State University in Sault Ste. Marie, Michigan Technological University in Houghton, and Northern Michigan University in Marquette, one private university, Finlandia University located in Hancock, Michigan.

There are 6 health departments in Region 8: Chippewa County, Dickinson-Iron District, LMAS District, Marquette County, Public Health Delta Menominee and Western Upper Peninsula.

There are and five federal recognized Tribal Nations: Bay Mills Chippewa Indian Community, Hannahville Potawatomi Indian Community, Lac View Desert Band of Lake Superior Chippewa Indians, Keweenaw Bay Indian Community, Sault Ste. Marie Chippewa Tribal Council.

There are 16 Hospitals within Region 8, of those one hospital is a Level II American College of Surgeons Committee on Trauma (ACS) verified Trauma Center (Duke Lifepoint Marquette General Hospital) and one is a Level III ACS verified Trauma Center (Portage Health System).

County	Population	Land Area (sq. mi)	Population Density (per sq. mi)
<u>Schoolcraft</u>	8,485	1,171	7.2
<u>Ontonagon</u>	6,780	1,311	5.1
<u>Menominee</u>	24,029	1,044	23.0
<u>Marquette</u>	67,077	1,808	37.1
<u>Mackinac</u>	11,113	1,021	10.8
<u>Luce</u>	6,631	899	7.3
<u>Keweenaw</u>	2,156	540	4.0
<u>Iron</u>	11,817	1,166	10.1
<u>Houghton</u>	36,628	1,009	36.3
<u>Gogebic</u>	16,427	1,101	14.9
<u>Dickinson</u>	26,168	761	34.4
<u>Delta</u>	37,069	1,171	31.6
<u>Chippewa</u>	38,520	1,558	24.7
<u>Baraga</u>	8,860	898	9.8
<u>Alger</u>	9,601	915	10.5
TOTALS	311,361	16,377	19.0

Source "[Census 2010 Gazetteer Files](#)". Retrieved July 20, 2013.

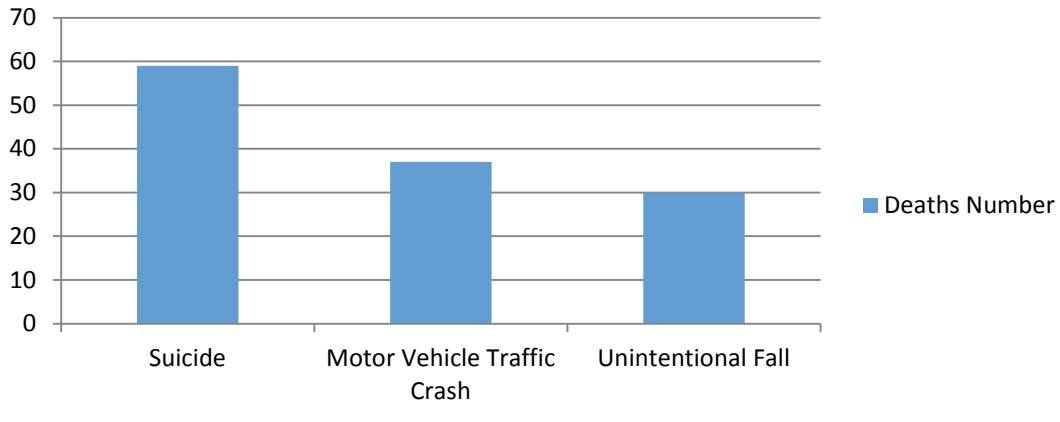
Injury

In order to address a systematic, regionalized approach to injury, it is necessary to assess regional data. Accurate assessment of data provides the means for policy development organized to address the goals of injury prevention, incident response and post-injury rehabilitation.

This data, along with other data sets including the Michigan trauma registry, will be used to enhance system performance and to drive change. The injury and fatality information that follows was abstracted from a variety of sources to provide a general sense of the current trauma problem within the region and state.

The following graphs describe the three leading causes of injury related deaths and injury related hospitalizations for Region 8 in 2010.

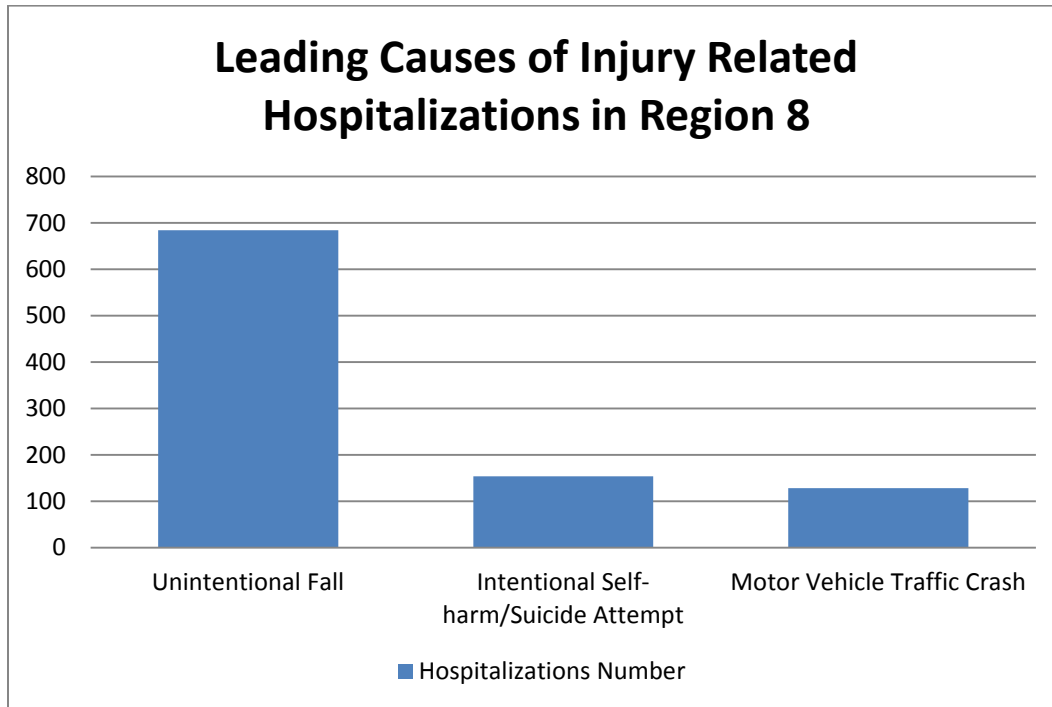
Leading Causes of Injury Related Deaths in Region 8



Region 8 Injury Related Hospitalizations

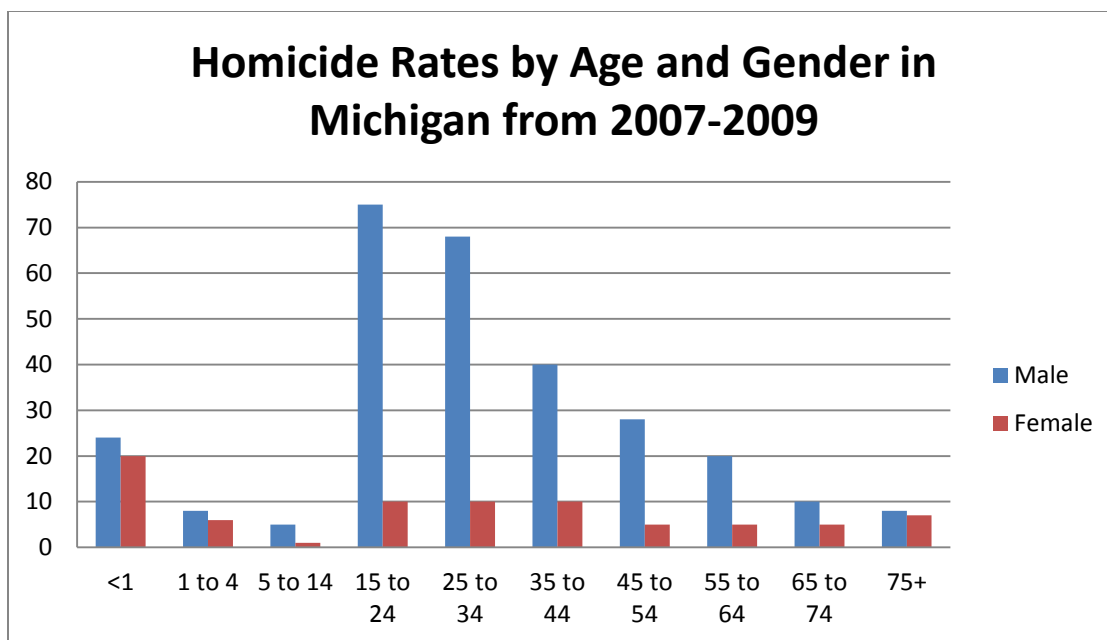
Source: Tom Largo Injury Epidemiologist, MDCH Division Environmental Health, 2010 data.

Leading Causes of Injury Related Hospitalizations in Region 8



Region 8 Injury Related Hospitalizations

Source: Tom Largo Injury Epidemiologist, MDCH Division Environmental Health, 2010 data.



Source: Michigan Department of Community Health – Injury & Violence Prevention Section, 2007-2009

Leading Causes of Injury Death by Age Group Michigan Residents Aged 0-19 2007-2010

Age Group (Years)	Cause	Average Annual Deaths	Average Annual Population	Average Annual Rate
<1	1. Unintentional Suffocation	62.0	117,443	52.8
	2. Homicide	10.0	117,443	8.5
	3. Suffocation - Undetermined Intent	3.5	117,443	3.0
1-4	1. Homicide	12.3	492,184	2.5
	2. Unintentional Drowning	8.8	492,184	1.8
	3. Unintentional Exposure to Fire/Flames/Smoke	7.5	492,184	1.5
5-9	1. Motor Vehicle Traffic Crash*	10.0	647,691	1.5
	2. Homicide	4.8	647,691	0.7
	3. Unintentional Exposure to Fire/Flames/Smoke	4.3	647,691	0.7
10-14	1. Motor Vehicle Traffic Crash	17.8	691,722	2.6
	2. Suicide	8.5	691,722	1.2
	3. Homicide	7.0	691,722	1.0
15-19	1. Motor Vehicle Traffic Crash	106.0	753,455	14.1
	2. Homicide	86.5	753,455	11.5
	3. Suicide	59.8	753,455	7.9

*Those killed in motor vehicle traffic crashes include: motor vehicle occupants, motorcyclists, bicyclists, pedestrians, and others. Rates are the number of deaths per 100,000 population. Data Source: Vital Records and Health Data Development Section, MDCH

Source: Michigan Department of Community Health Injury & Violence Prevention Section, 2007-2009

Regional Trauma System Infrastructure

Emergency Medical Services (EMS) and Medical Control Authorities

Of the 84 Emergency Medical Services (EMS) agencies (including fixed wing and rotary) in Region 8, there are 21 Advanced Life Support (ALS), 4 Limited Advanced Life Support, 34 Basic Life Support and 25 Medical First Responder Services. Six Life Support Agencies from out of the state are licensed to respond to emergencies.

A Medical Control Authority (MCA) is an organization, designated by the Michigan Department of Community Health’s Crime Victims, EMS and Trauma Division, for the purpose of supervising and coordinating an emergency medical services system. A hospital that treats emergency patients 24 hours a day, 7 days a week may participate in the local MCA. Each MCA is administered by the participating hospitals of the designated MCA region. The ten MCA’s and affiliated hospitals in Region 8 are listed below. In some cases, hospitals participate in more than one medical control authority. The 10 MCA’s in Region 8 are responsible for the supervision and oversight of 178 EMS agencies.

Medical Control Authority	Medical Directors	Lead Staff
Marquette/Alger Medical Control Authority	Michael Mlsna MD	Lyn Nelson
Baraga County Medical Control Authority	Todd Ingram MD	Gary Wadaga
Delta County Medical Control Authority	Edward Bigsby MD	Amy Anderson
Dickinson County Medical Control Authority	Douglas McDowell MD	John Cox
Eastern UP Medical Control Authority	Steven Vix MD	Pat Hirt
Gogebic/Ontonagon Medical Control Authority	Eric Maki MD	Joel Bach
Iron County Medical Control Authority	Scott Hagle MD	Tom Bucek
Keweenaw/Houghton County Medical Control Authority	Dawn Nulf MD	Gerald Primeau
Luce County Medical Control Authority	Steven Vix MD	Sarah Johnson
Schoolcraft County Medical Control Authority	David Schoenow MD	Ed Unger

Regional Trauma Network

All MCAs in a region are required to participate in the Regional Trauma Network, to appoint an advisory committee, and to develop a regional trauma plan. The trauma plan will encompass the comprehensive and integrated arrangement of emergency medical services, hospitals, equipment, personnel, communications, medical control authorities, and stakeholder organizations needed to provide trauma care to all patients within the region. The Region 8 Trauma Network membership is comprised of the medical directors or designees of the region's 10 participating medical control authorities.

Each Regional Trauma Network has been tasked with developing bylaws consistent with State statute and submitting a Regional Trauma Network application to the State of Michigan. The application is submitted to the department and reviewed by the Statewide Trauma Advisory Committee (STAC) and the Emergency Medical Services Coordination Committee (EMSCC) the RTN is considered provisional until approved by MDCH. The network will develop a work plan to address: injury prevention, access to the system, communications, medical oversight, pre-hospital triage criteria, trauma diversion policies, trauma bypass protocols, regional trauma treatment guidelines, regional quality improvement and trauma education.

The goal of each region's trauma network and advisory committee is to implement an "all-inclusive" trauma system in their region. This system will provide for the care of all injured patients in a regional and statewide integrated system of health care for both the pre-hospital and healthcare facility environments, and will include personnel that are well trained and equipped to care for injured patients of any severity. Each healthcare facility can participate in the trauma system to the extent or level that it is willing to commit the resources necessary for the appropriate management of the trauma patients. This ensures that all trauma patients are served by a system of coordinated care, based on the degree of injury and extent of care required.

Voting MCA Designees on RTN	Medical Control Authority
Marie Hale	Baraga County Medical Control Authority
Edward Bigsby	Delta County Medical Control Authority
Douglas McDowell	Dickinson County Medical Control Authority
Pat Hirt	Eastern UP Medical Control Authority
Joel Bach	Gogebic/Ontonagon Med Control Authority
Cindy Gurchinoff	Iron County Medical Control Authority
Gerry Primeau	Keweenaw/Houghton Med Control Authority
Sarah Johnson	Luce County Medical Control Authority
Alyson Sundberg	Marquette/Alger Medical Control Authority
Ed Unger	Schoolcraft County Medical Control Authority

Regional Trauma Advisory Council

The purpose of the Regional Trauma Advisory Council (RTAC) is to provide leadership and direction in matters related to trauma systems development in the region, and to monitor the performance of the agencies and healthcare facilities within the region, including, but not limited to, the review of trauma deaths and preventable complications.

The Region 8 RTN has broadened membership eligibility for the Advisory Council in order to maximize the inclusion of the region's constituents. The Regional Trauma Advisory Council is primarily comprised of the following representative roles:

- EMS Medical Director, or designee, from an MCA
- MCA Administrative representative from an MCA
- Trauma Director, or designee, from a trauma facility*¹
- Trauma Program Manager from a trauma facility*
- Trauma Registrar from a facility*
- Trauma Nurse Representative from a trauma facility*
- Trauma Outreach and Prevention Coordinator from a facility*
- Emergency Department Physician representative from a licensed hospital and free standing surgical outpatient facilities (as defined in EMS statute section 20918 (1))
- Emergency Department Nurse representative from a licensed hospital and free standing surgical outpatient facility (as defined in EMS statute section 20918 (1))
- Life Support Agency, EMS personnel and Consumer representatives as appointed by each MCA within the RTN, to include (as example);
 - Protocol Committee / Advisory Committee Chairperson
 - EMS Personnel representative
 - Life Support Agency representative
 - EMS Communication representative
 - Consumer representative not affiliated with the EMS or hospital systems

¹Members of the Region 8 Trauma Advisory Council are designated in writing by the appointing MCA, hospital, Life Support Agency or other organization. Alternate members may be designated, and the appointing body may remove and replace its representative(s) at any time at its discretion.

¹ * Trauma facility is defined as an ACS verified trauma facility, a provisionally approved trauma facility, or a facility actively seeking verification.

RTAC Members and their Agency Representation

Representative	Agency
Jamie Dolan	MSP Office Highway Safety Regional Coordinator
Jodi McCollum	Marquette General – Trauma Department
Bonnie Cotter	Baraga County Community Hospital Safety
Shelli Arnold	War Memorial Hospital
George Belkowski	St. Francis Hospital
Anita Parsons	STEMI Coordinator DLP Marquette General
John Cox	Ed Director Dickinson County Health System
Mary Beth Larsen	Dickinson Memorial Hospital
Vicki Peterson	Portage Hospital – Trauma Coordinator
Ted Ludwig	War Memorial Hospital – Physician
Kelly Kalicich	Aspirus Keweenaw - Trauma Coordinator
Louise Kaupinen	ED Director Aspirus Keweenaw Hospital
Chad Hewitt	Bell Memorial Hospital – COO
Jon Stone	Region 8 Healthcare Coalition Coordinator
Teresa Schwalbach	Marquette County Emergency Manager
Gary Gustafson	Region 8 Healthcare Coalition Coordinator
Don Manty	Bell Hospital EMS Director
Michael Mlsna	Medical Director Marquette/Alger MCA
Ted Ludwig	War Memorial Hospital
Amber Denman	Alger County EMS
Todd Essendrop	Trauma Coordinator Dickinson Health System
Susan Hadley	DON Dickinson County Health System
David Schoenow	Region 8 Medical Director
Eric Maki	Aspirus Grandview Hospital

Regional Professional Standards Review Organization (RPSRO)

The RTN is also required to appoint a regional professional standards review organization (RPSRO) to improve trauma care, reduce death and disability, and to correct local and regional injury problems. The RPSRO is responsible for the regional trauma system improvement process addressing specific standards incorporated in the administrative rule 325.135(5).

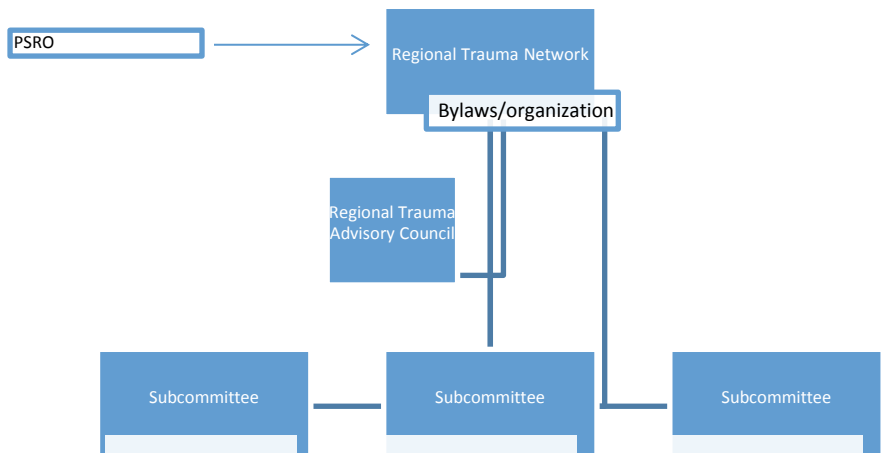
Each region is required to develop and implement a region wide trauma performance improvement program. The region is responsible for the assessment of its trauma care system through an ongoing evaluation of the components of the regional plan.

Regional Trauma Coordinator

The Regional Trauma Coordinator (RTC), acts as a liaison between the RTN and MDCH, and is responsible for the coordination of and attendance at regional trauma meetings, facilitate activities related to the RTN work plan, write reports, and identify and address educational needs.

Governance

Part 209 of Michigan’s Public Health Code (Act 368 of 1978) stipulates that the Michigan Department of Community Health “develop, implement, and promulgate rules for the implementation and operation of a statewide trauma care system within the emergency medical services system” [20910(1)(l)] in consultation with the statewide trauma care advisory (STAC) subcommittee of the state emergency medical services coordination committee (EMSCC). The statutorily promulgated administrative rules task the department with establishing regional trauma networks (RTN) comprised of collaborating local medical control authorities within a region, and provide for supporting resources to the region consistent with criteria found in the Michigan Trauma Systems Plan (2004).



Hospitals

According to the 2010 Michigan Department of Community Health Certificate of Need Survey the 16 hospitals in Region 8 have 133 Emergency Department beds and reported a total of 144,863 Emergency Department visits, of those visits 9,849 were trauma-related.

MCA Affiliated Hospital	MCA	ACS verified
Aspirus Keweenaw Hospital Critical Access Hospital (CAH)*	Keweenaw/Houghton	
Aspirus Ontonagon Hospital(CAH)	Gogebic/Ontonagon	
Baraga County Memorial Hospital(CAH)	Baraga	
Bell Hospital (CAH)	Marquette/Alger	
War Memorial Hospital	Eastern UP	
Dickinson County Memorial	Dickinson	
Aspirus Grand View Hospital (CAH)	Gogebic/Ontonagon	
Helen Newbery Joy Hospital (CAH)	Luce County	
Duke Lifepoint Marquette General Health System	Marquette/Alger	Level II Trauma Center Burn Surge Facility
Munising Memorial Hospital (CAH)	Marquette/Alger	
Northstar Health System (CAH)	Iron County	
Portage Health System	Keweenaw/Houghton	Level III Trauma Center Burn Surge Facility
Schoolcraft Memorial Hospital (CAH)	Schoolcraft County	
Order of Saint Francis - Saint Francis Hospital	Delta County	

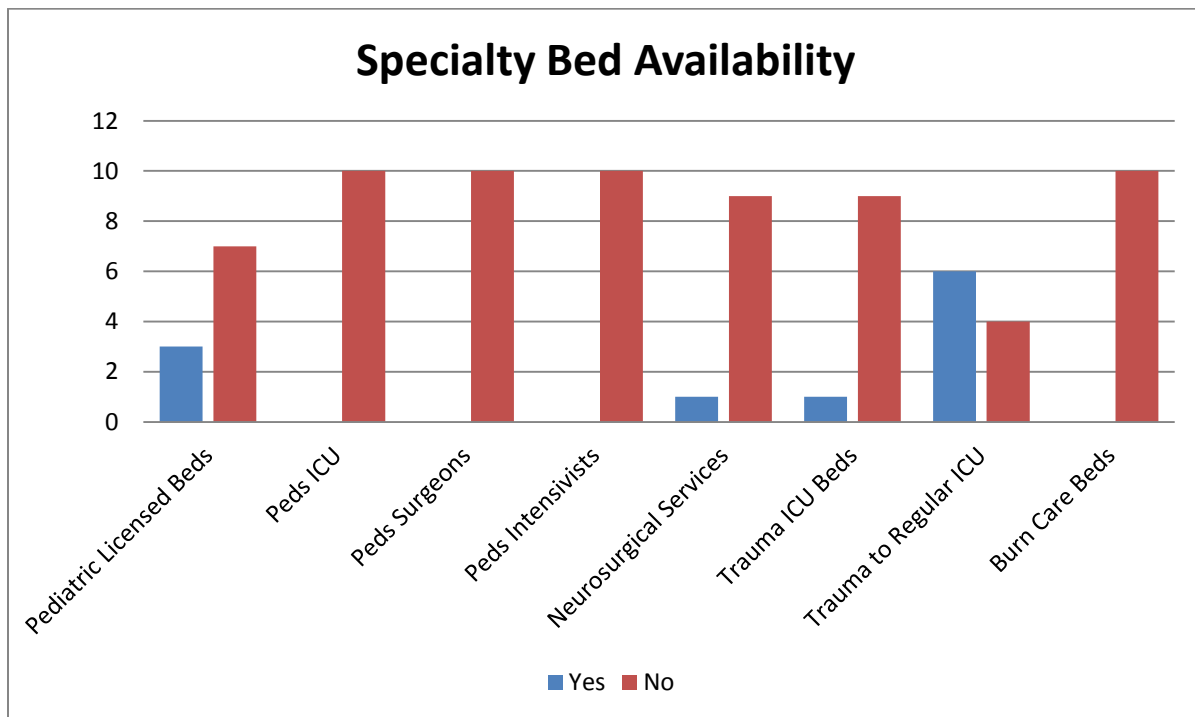
*Critical Access Hospital: Is generally a geographically remote facility that provides outpatient and inpatient hospital services to people in rural areas. The designation was established by law, for special payments under the Medicare program.

<http://publicapps.odh.ohio.gov/facilityinformation/HospitalMeasuresHospitalTypeDefinition.aspx?HospitalTypeName=Critical%20Access%20Hospitals>

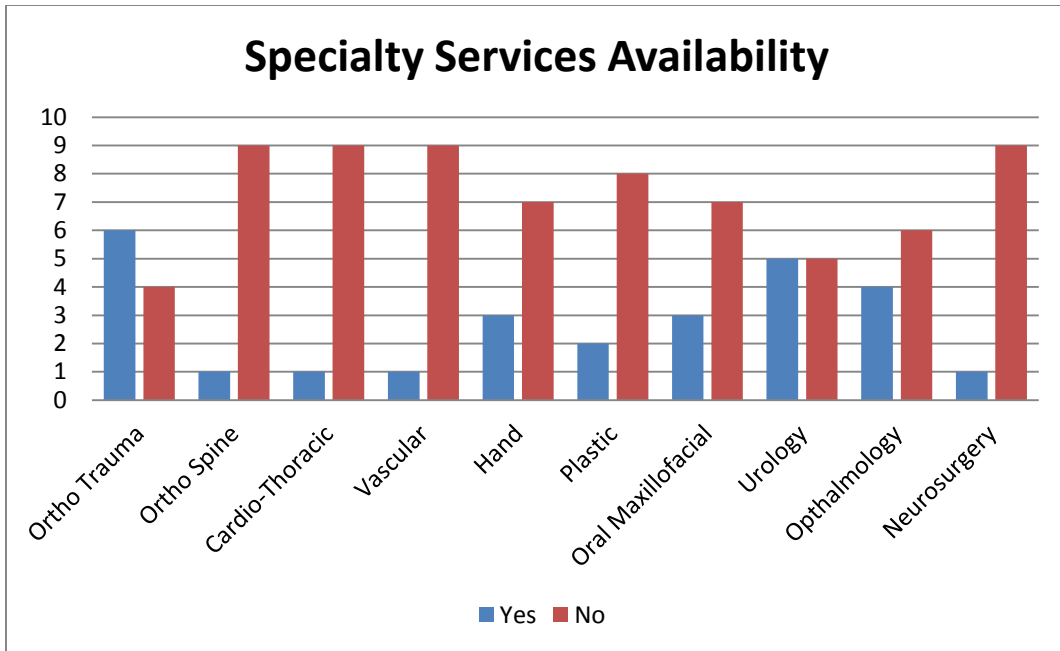
MDCH 2013 Trauma Needs Assessment

In July 2013, the MDCH Trauma Section sent out a survey to the hospitals in the 8 trauma regions. The intent of the survey was to provide information to regional stakeholders regarding the assets, resources and demographics of their individual regions in order to assist in the development of regional trauma plans.

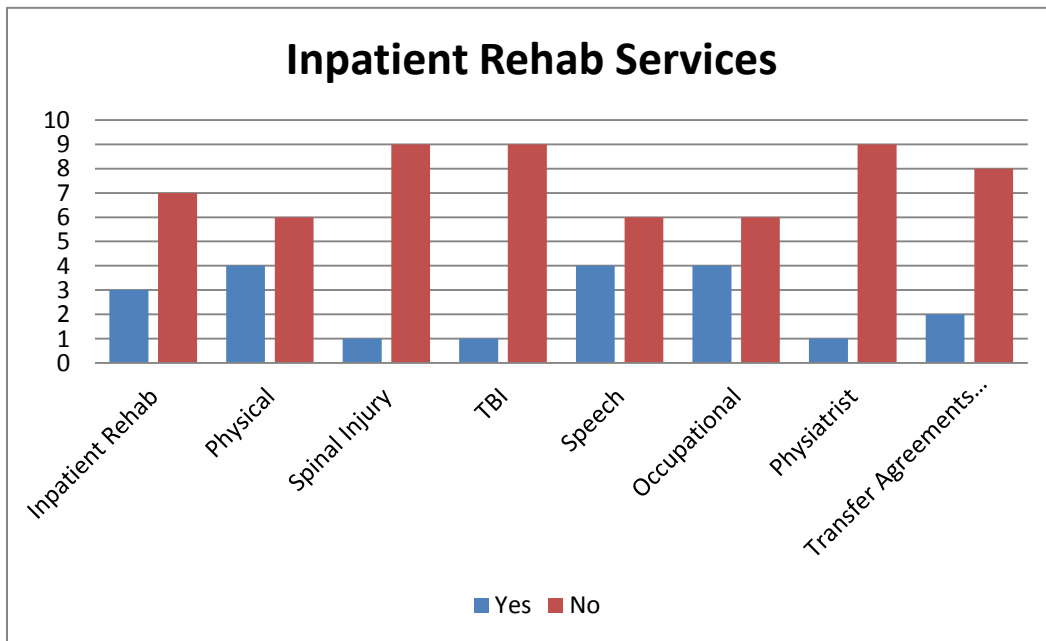
Data from the Statewide MDCH 2013 Trauma Needs Assessment for Region 8 is presented below. The data will be used to guide regional strategic planning for the current application cycle. Ten hospitals in Region 8 responded to the survey.



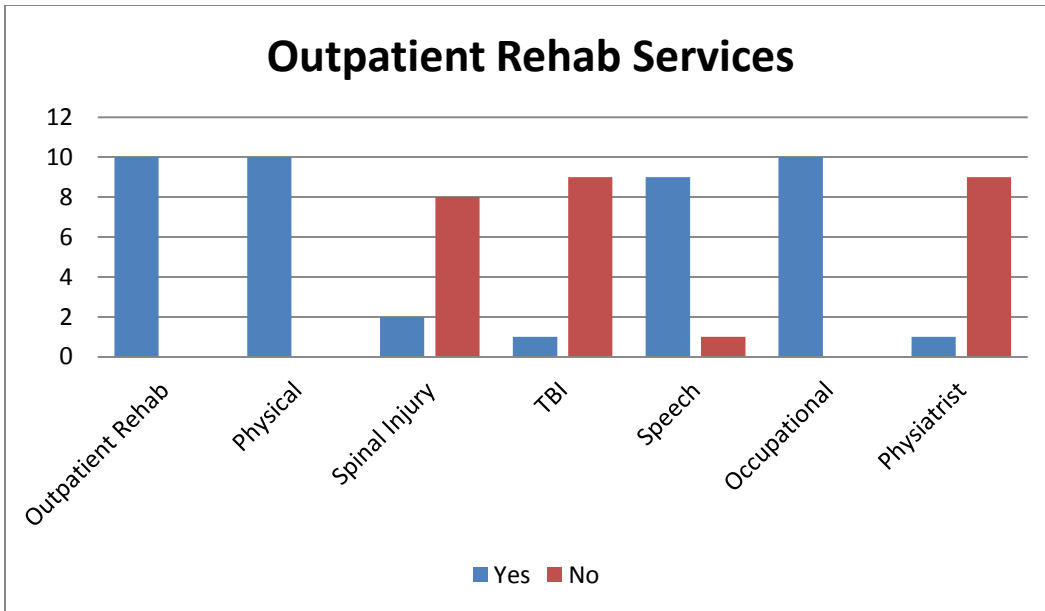
Region 8 Specialty Bed Availability
Source: 2013 MDCH Hospital Survey



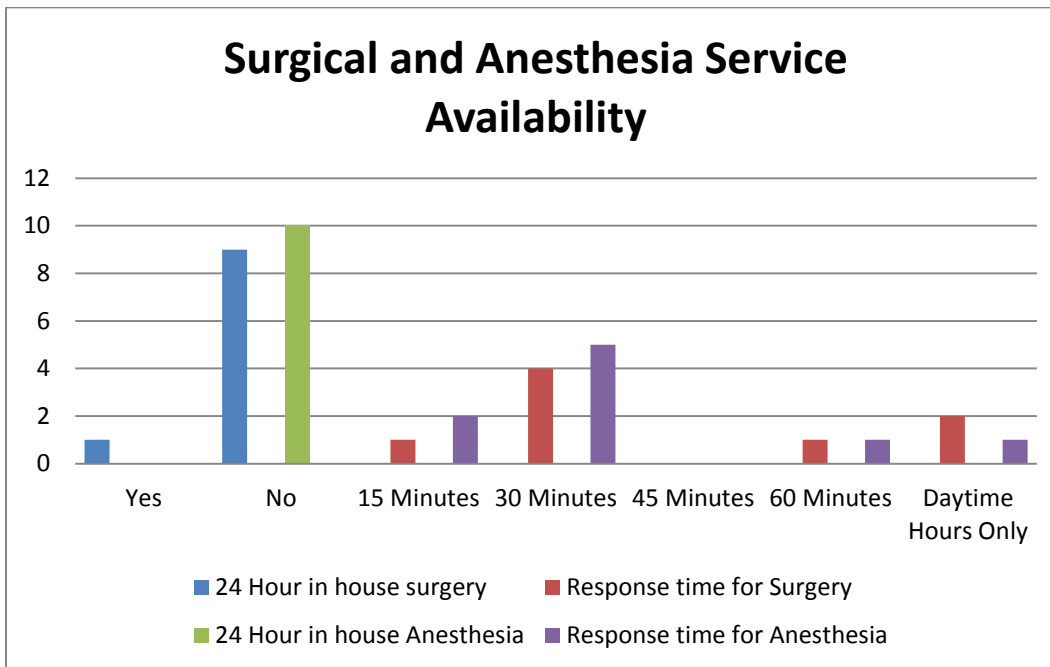
Region 8 Specialty Services Availability
Source: 2013 MDCH Hospital Survey.



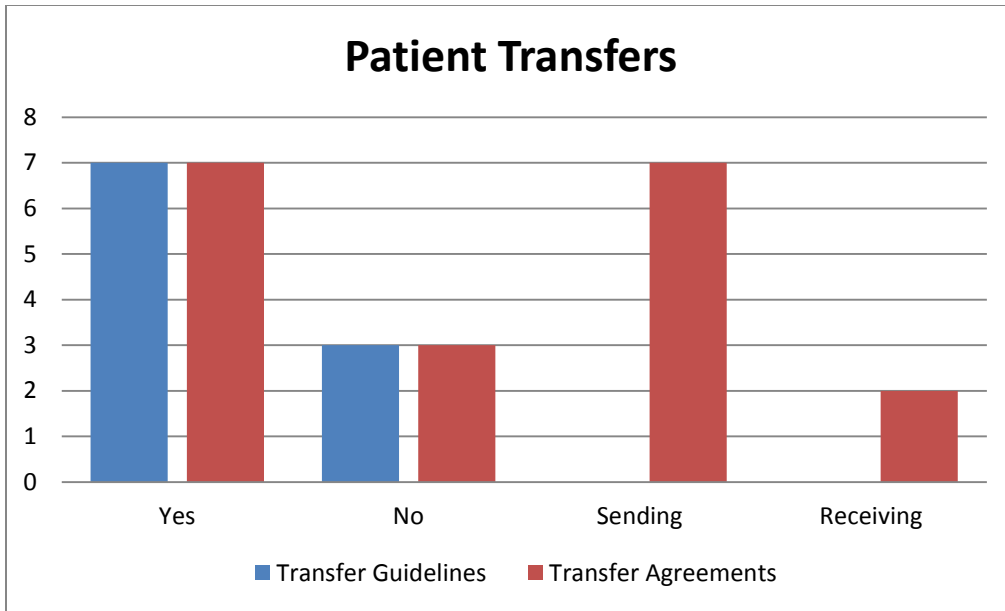
Region 8 Inpatient Rehab Services
Source: 2013 MDCH Hospital Survey



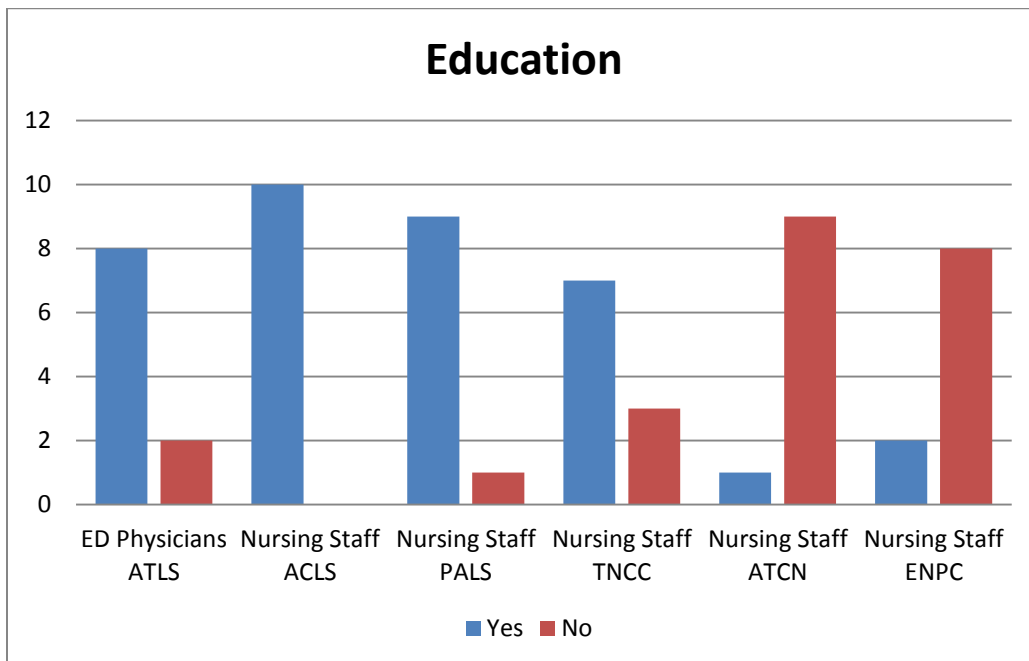
Region 8 Outpatient Rehab Services Source: 2013 MDCH Hospital Survey.



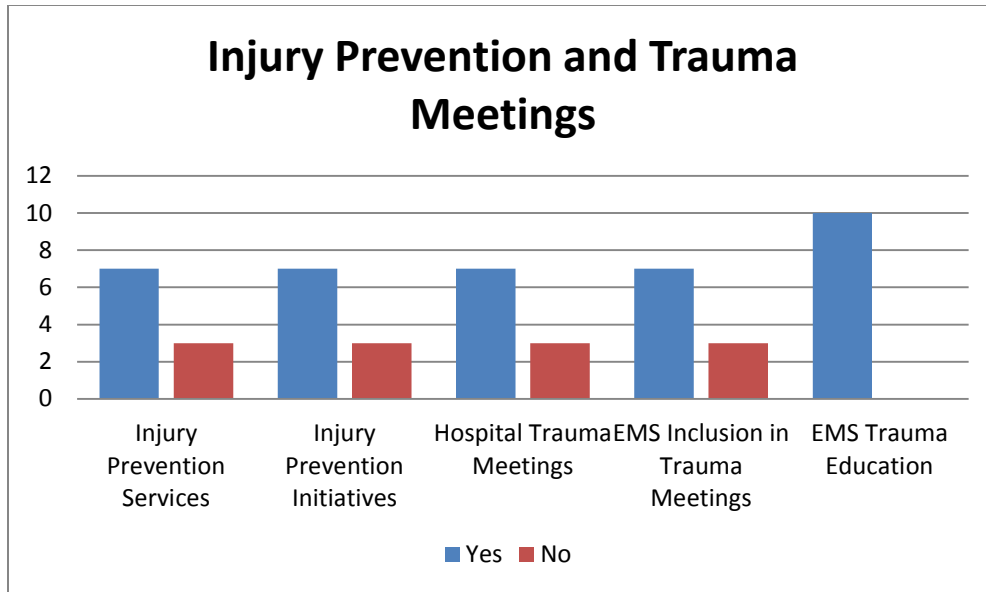
Region 8 Surgical and Anesthesia Service Availability Source: 2013 MDCH Hospital Survey.



Region 8 Patient Transfers. Source: 2013 MDCH Hospital Survey.



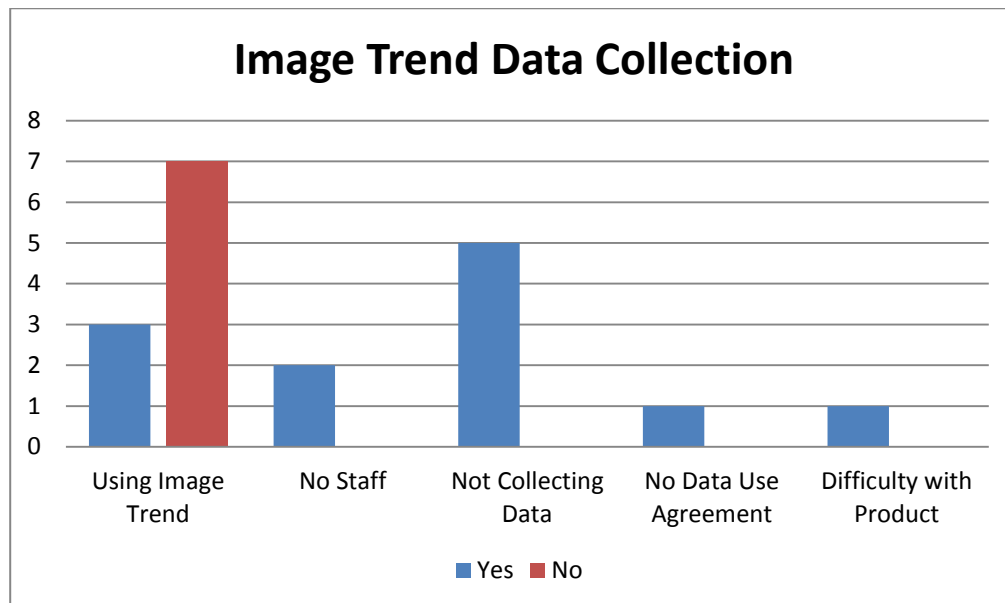
Region 8 Education. Source: 2013 MDCH Hospital Survey.



Region 8 Injury Prevention and Trauma Meetings. Source: 2013 MDCH Hospital Survey.

Survey Questions for Injury Prevention and Trauma meetings:

- > Do you provide any injury prevention services/programs in your community?
- > Do you participate in injury prevention initiatives in your community?
- > Does your hospital have meetings to address trauma related issues?
- > Do you include EMS providers in your trauma meetings?
- > Do you include EMS providers in your trauma education opportunities?



Region 8 Image Trend Data Collection. Source: 2013 MDCH Hospital Survey.

Survey Questions for Image Trend:

- > Are you submitting data quarterly to the state data base? (Image Trend)
- > If you are not submitting data, what reasons are you not?

Summary

To reiterate, the goal of each region's trauma network and advisory committee is to implement an "all-inclusive" trauma system in their region. This system would allow for the care of all injured patients in a regional and statewide integrated system of health care in both the pre-hospital and healthcare facility environments, which would include personnel that are well trained and equipped to care for injured patients of any severity. Each healthcare facility can participate in the system to the extent or level that it is willing to commit the resources necessary for the appropriate management of the trauma patients. It also ensures that all trauma patients are served by a system of coordinated care, based on the degree of injury and care required.

The Michigan Regional Trauma Resources Report is intended to be a living document providing the partners and stakeholders a common understanding of the assets and resources available in the region this report will be continue to evolve as the system develops and matures.
