

Michigan Regional Trauma Resources

Region 6



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Introduction to Region 6

Region 6 spans a large area across the middle of the state, extending from the western border to the center of the state. The US 2011 Census statistics list the population of Region 6 counties at 1, 456,776, which ranks it the third most populous region within the state. During the summer months the population increases as the many miles of shoreline attract tourists from around the world.

There are 13 counties in the region, Clare, Ionia, Isabella, Kent, Lake, Mason, Mecosta, Montcalm, Muskegon, Newaygo, Oceana, Osceola, and Ottawa. A majority of the counties consist of small rural communities with the exception of Kent, Ottawa and Muskegon. Lake County does not have an acute care hospital located within its border.

Region 6 is served by 22 hospitals, 138 EMS Agencies, 12 Medical Control Authorities and 7 local Health Departments. There is one federally recognized tribe in Region 6.

Three of 22 hospitals in the region have been verified by the American College of Surgeons (ACS). This verification process confirms that the hospital is performing as a trauma center and meets the required criteria and validates the resources needed to provide trauma care. The three verified centers are located in Kent County and include; Spectrum Health Butterworth with Level I Trauma Center verification, Helen DeVos Children's with Level I Pediatric Trauma Center verification and Mercy Health Care St. Mary's with Level II Trauma Center verification. Eleven of the 22 hospitals have dedicated pediatric service and Helen DeVos Children's Hospital, is a full service Children's Hospital. Region 6 has experience working with a regional approach to care (pediatrics) for several years. This successful program is called "Partners in Children's Health" and involves numerous regional healthcare partners.

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 an understanding of trauma within the region.

The graphs below identify the leading causes for death and hospitalization in Region 6 as well as age specific data.

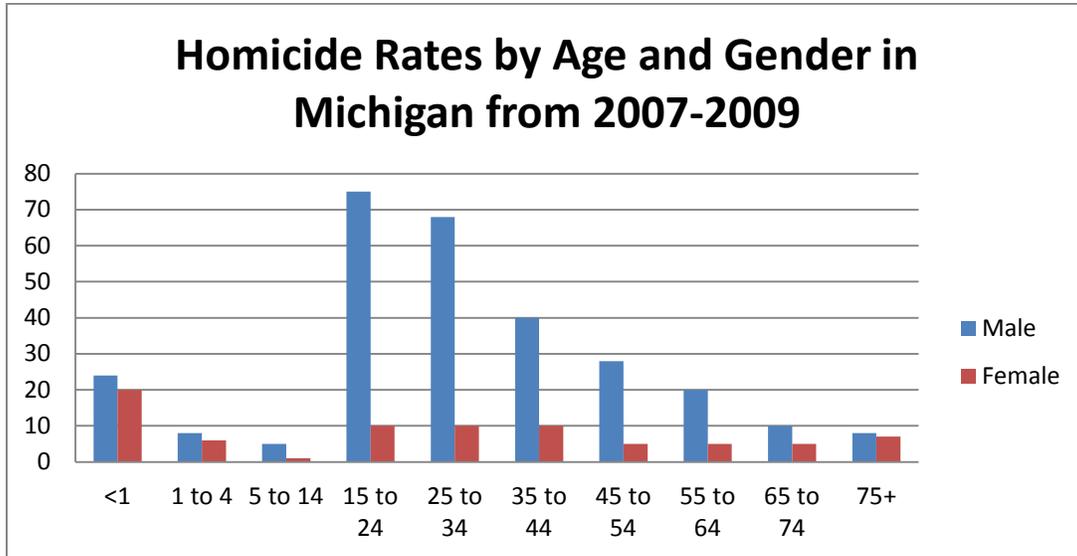


Figure 1 Michigan Homicide Statistics. Source: Michigan Department of Community Health (MDCH) – Injury & Violence Prevention Section, 2007-2009

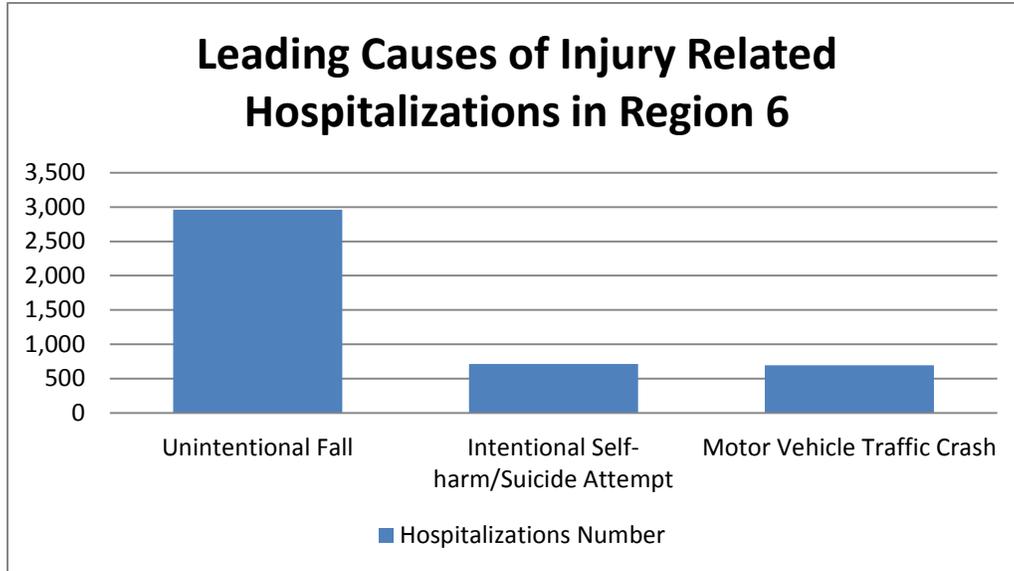


Figure 2 Region 6 Injury Related Hospitalizations. Source: Thomas W. Largo, MPH, Division of Environmental Health, Bureau of Disease Control, Prevention, and Epidemiology, Michigan Department of Community Health, 2010 data.

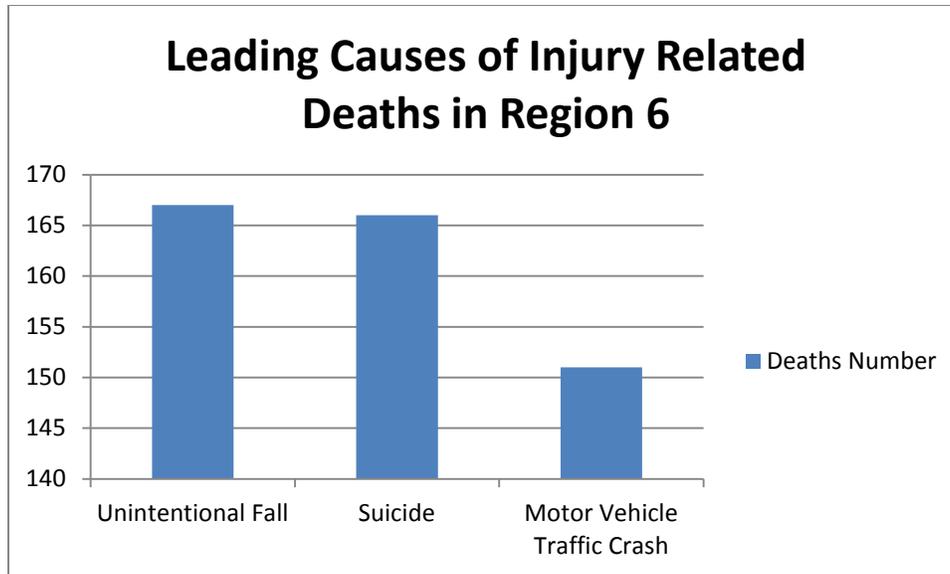


Figure 3 Region 6 Injury Related Fatalities. Source: Thomas W. Largo, MPH, Division of Environmental Health, Bureau of Disease Control, Prevention, and Epidemiology, Michigan Department of Community Health, 2010 data.

Leading Causes of Injury and 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 populations.

Figure 4 Leading Causes of Death and Injury in Michigan. Source: MDCH Vital Records and Health Data Development Section

Regional Trauma System Infrastructure

Emergency Medical Services (EMS) and Medical Control Authority Affiliation

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 and are responsible for establishing written protocols for pre-hospital care. The Medical Director of each MCA is responsible to ensure the provision of medical control. In Region 6 there are 12 MCA's with 22 participating hospitals.

There are 138 Emergency Medical Services (EMS) agencies that function under the 12 MCA's. They include Medical First Response, Basic Life Support, Limited Advanced Life Support, and Advanced Life Support. All counties have Advanced Life Support transport and access to aeromedical service based in Kent and Mecosta County.

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). The RTN will submit an application to the department which will be reviewed by STAC and EMSCC. The RTN is considered provisional until approved by MDCH.

The Regional Trauma Coordinator (RTC), responsible for this report, is one of the supporting resources provided to the region by MDCH. The supporting duties of the RTC include acting as a liaison between the RTN and MDCH, the coordination of and attendance at RTN meetings, to facilitate activities related to the RTN work plan, to write reports, and to identify and address educational needs.

Regional Trauma Network

All MCAs in a region are required to participate in the RTN, 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.

Each Regional Trauma Network is tasked with developing bylaws, submitting a Regional Trauma Network application and developing a work plan to address 10 components relating to trauma activities. These include injury prevention, access to the trauma system, communications, medical oversight, pre-hospital triage criteria, trauma diversion policies, trauma bypass protocols, regional trauma treatment guidelines, regional quality improvement plans and trauma education.

The goal of each region’s Trauma Network and Regional Trauma Advisory Council (RTAC) 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.

Region 6 RTN membership is comprised of designee’s from each of the twelve MCA’s as identified in Figure 5 and is actively developing bylaws with input from the RTAC members.

Representative	Medical Control Authority
Michelle Brady RN	Clare County MCA
Tara Lantz RN	Ionia County MCA
Roger Skrabut RN	Isabella County MCA
Todd Chasse MD	Kent County MCA
Jeremy Carlson RN	Lakola MCA (Lake and Osceola Counties)
William Kokx MD	Mason County MCA
Tim Ladd	Mecosta County MCA
Eric Smith	Montcalm County MCA
Jerry Evans MD	Muskegon County MCA
Dan Ceglowski MD	Newaygo County MCA
Loren Reed MD	Oceana County MCA
Rich Szczepanek	Ottawa County MCA

Figure 5 Region 6 RTN Representatives by MCA

Regional Trauma Advisory Council

The purpose of the Regional Trauma Advisory Council is to provide leadership, expertise and direction in matters related to trauma systems development in the region, and to monitor the delivery of patient care and performance of the agencies and healthcare facilities within the region, including, but not limited to, the review of trauma deaths and preventable complications. The Regional Trauma Advisory Council is comprised of physician, nursing, EMS and consumer representation from the 22 hospitals, 12 MCA’s and communities within Region 6. The chair of the RTAC is the Trauma Medical Director from the Level II Verified Trauma Center in Region 6. The RTAC is actively engaged with the RTN in the development of the bylaws.

Representative	Organization
Wayne Vanderkolk MD	Mercy Health St. Mary's –Trauma Surgeon-Level II
Sherri Veurink-Balicki RN	Mercy Health St. Mary's-Trauma CNS
Jerry Evans MD	Muskegon Co. MCA and Mercy Health Mercy Emergency Physician
Heather Ruffin RN	Mercy Health Hackley Trauma Program Manager
Amy Koestner RN	Spectrum Health Butterworth-Trauma Manager Level 1
Kathy Ribbens RN	Spectrum Health Butterworth -Injury Prevention-Level 1
Todd Nickoles RN	Helen DeVos Children's- Trauma Manager Level 1
Todd Chasse MD	Kent County EMS Medical Director- Kent Co. MCA
Damon Obiden	Kent county EMS Administrator
Peggy Muckey RN	Spectrum Health Gerber Nurse Manager
Dan Ceglowski MD	Newaygo Co. MCA Medical Director
Joe Bonello RN	Holland Hospital- Manager
Eric Smith	Montcalm Co. MCA-EMS
Jeremy Carlson RN	Spectrum Health Reed City -Osceola Co. MCA - Manager
Harold Moores MD	Lakola (Lake & Osceola Co) MCA and Mecosta Co. MCA Medical Director
Kathy Walters RN	Spectrum Health Big Rapids-ED Nurse Manager
Ruth Sommerfeldt RN	Memorial Medical Center of W. MI - Clinical Director
William Kokx MD	Mason County MCA Medical Director
Rich Szczepanek	Ottawa Co. MCA & EMS Systems Administrator
Yvonne Prowant RN	Metro Health – Trauma Nurse Manager
Loren Reed MD	Mercy Health Lakeshore Medical Director –Trauma Surgeon
Lance Corey	Oceana Co. EMS Director
Michelle Brady RN	Mid-Michigan Medical Center-Clare VP
Nancy Weaver RN	Carson City Hospital-VP, Chief Nursing Officer
Teresa Baker RN	Sheridan Hospital-ED Nurse Manager
Tara Lantz RN	Sparrow - Ionia Emergency Department Manager
Denise Brock RN	Spectrum Health – Kelsey ED Manager
Christine Klenk RN	Spectrum Health – United Memorial ED Manager
Patricia Simon RN	McLaren Medical Center-Central MI ED Manager
Tim Ladd	Mecosta Co. EMS Director
Sarah DeLaat RN	Spectrum Health Zeeland Emergency Department
James Walters MD	North Ottawa Community Health System Medical Director
Kerri Wiseman	Consumer Newaygo County

Figure 6 Region 6 RTAC representatives by organization and role.

Regional Professional Standards Review Organization (PSRO)

The RTN is also required to appoint a regional professional standards review organization (RPSRO) to improve trauma care, reduce death and disability, and to address 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, triage criteria and its effectiveness, activation of trauma teams, notification of specialists and trauma care diversion. The results of the evaluation are to be reported annually to MDCH, to include all region-wide policies, procedures, and protocols. A select group of RTAC members (noted in Figure 6) will be appointed to the PSRO.

Hospitals

The MCA's and affiliated hospitals of Region 6 are shown below with their ACS level of verification.

Hospital	County	ACS Verification	MCA
Carson City Hospital	Montcalm		Montcalm MCA
McLaren Central Michigan	Isabella		Isabella County MCA
Holland Hospital	Ottawa		Ottawa County MCA
Spectrum Health Ludington Hospital	Mason		Mason County MCA
Mercy Health Hackley	Muskegon		Muskegon County MCA
Mercy Health Lakeshore	Oceana		Oceana County MCA
Mercy Health Mercy	Muskegon		Muskegon County MCA
Mercy Health St. Mary's	Kent	Level II Trauma Center Burn Surge Facility	Kent County MCA
Metro Health Hospital	Kent		Kent County MCA
Mid-Michigan Medical Center-Clare	Clare		Clare County MCA
North Ottawa Community	Ottawa		Ottawa County MCA
Sheridan Community Hospital	Montcalm		Montcalm County MCA
Sparrow Ionia	Ionia		Ionia County MCA
Spectrum Health Big Rapids	Mecosta		Mecosta County MCA
Spectrum Health Blodgett	Kent		Kent County MCA
Spectrum Health Butterworth	Kent	Level I Trauma Center, Burn Center	Kent County MCA
Spectrum Health Gerber Memorial	Newaygo	OB	Newaygo County MCA
Spectrum Health-Helen DeVos Children's Hospital	Kent	Level 1 Pediatric Trauma Center	Kent County MCA
Spectrum Health Kelsey	Montcalm		Montcalm County MCA
Spectrum Health Reed City	Osceola		Lakola (Lake and Osceola County) MCA
Spectrum Health United Memorial	Montcalm		Montcalm County MCA
Spectrum Health Zeeland	Ottawa		Ottawa County MCA

Figure 7 Region 6 Hospitals, Verification and MCA Affiliation

MDCH 2013 Trauma Needs Assessment

In July 2013, the MDCH EMS & Trauma Section sent out a survey request 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. Twelve hospitals in Region 6 responded to the survey. The following graphs represent the survey responses in Region 6.

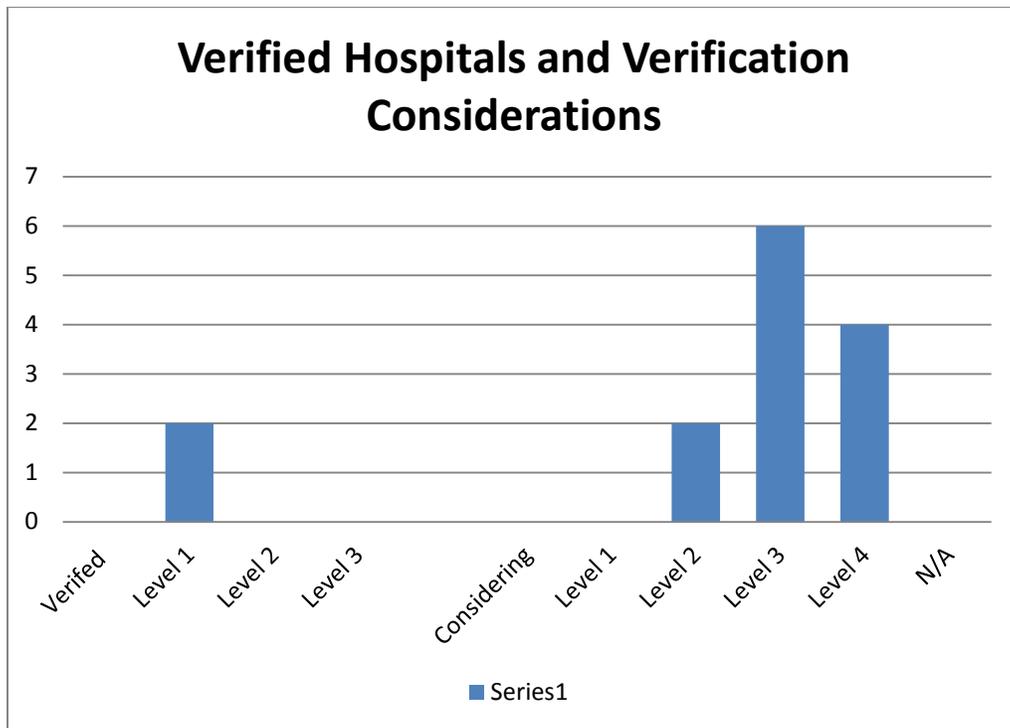


Figure 8 Region 6 Hospital ACS Verification Level and Considered Level. Source: 2013 MDCH Hospital Survey.

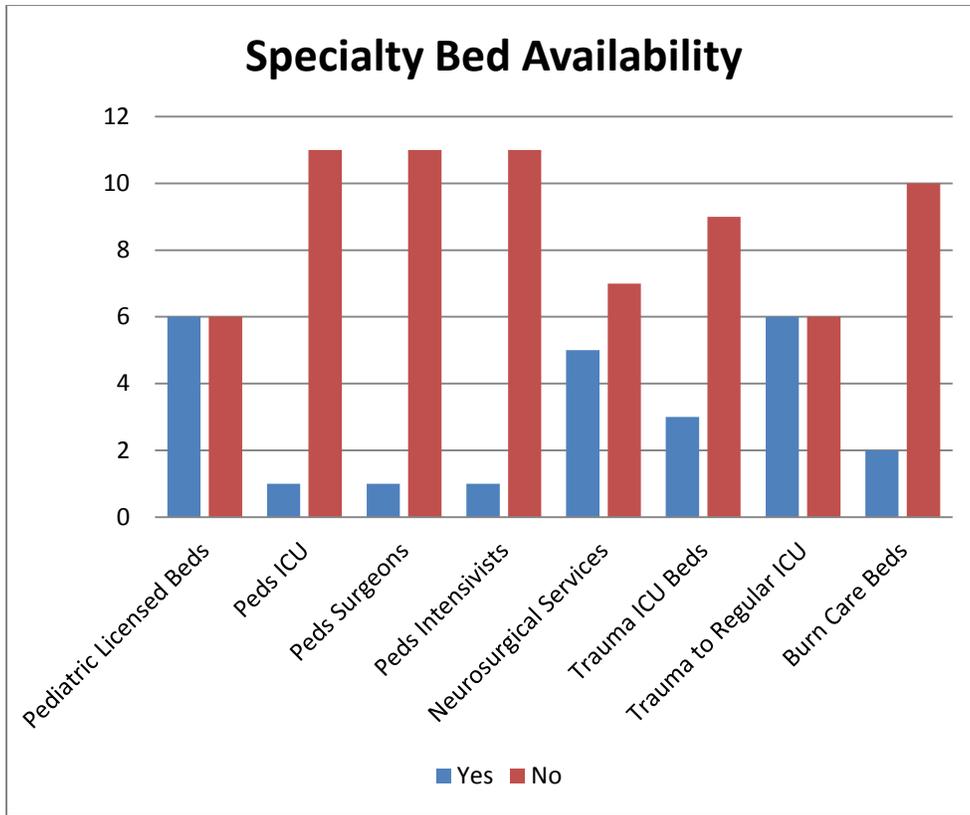


Figure 9 Region 6 Specialty Bed Resources. Source: 2013 MDCH Hospital Survey.



Figure 10 Region 6 Specialty Service Resources. Source: 2013 MDCH Hospital Survey.

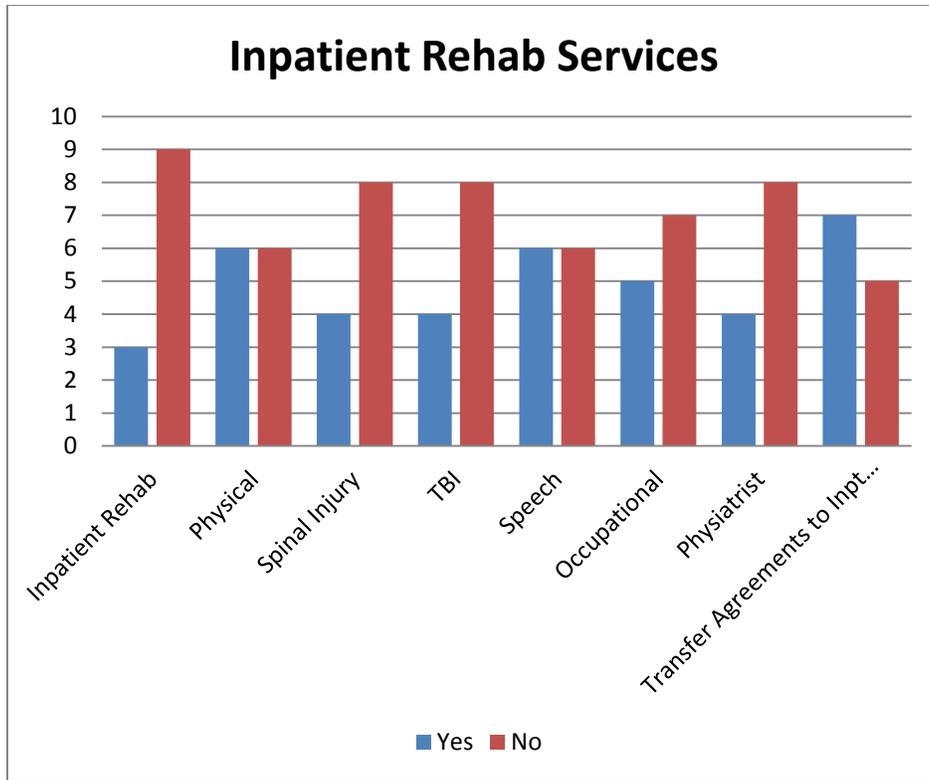


Figure 11 Region 6 Inpatient Rehabilitation Service Resources. Source: 2013 MDCH Hospital Survey.

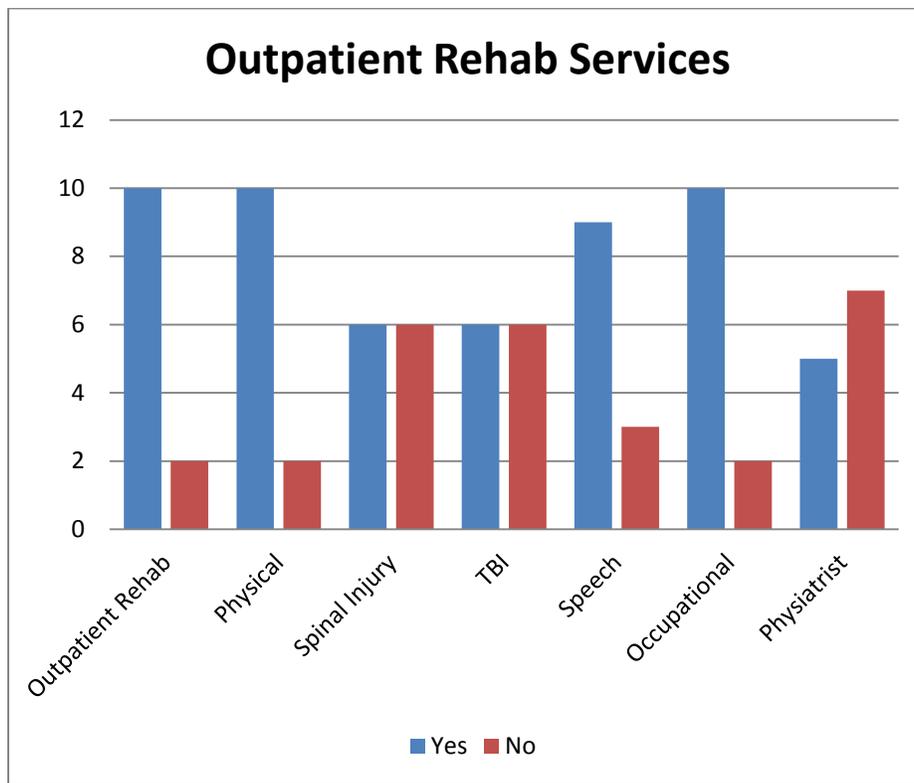


Figure 12 Region 6 Outpatient Rehabilitation Service Resources. Source: 2013 MDCH Hospital Survey.

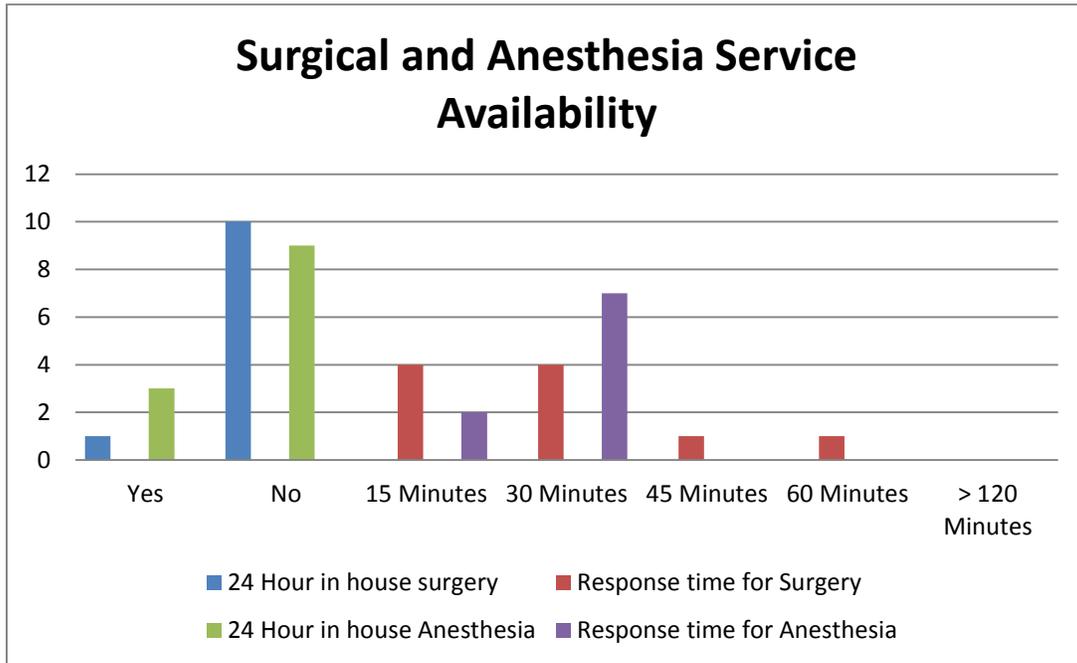


Figure 13 Region 6 Surgical and Anesthesia Service Resources. Source: 2013 MDCH Hospital Survey.

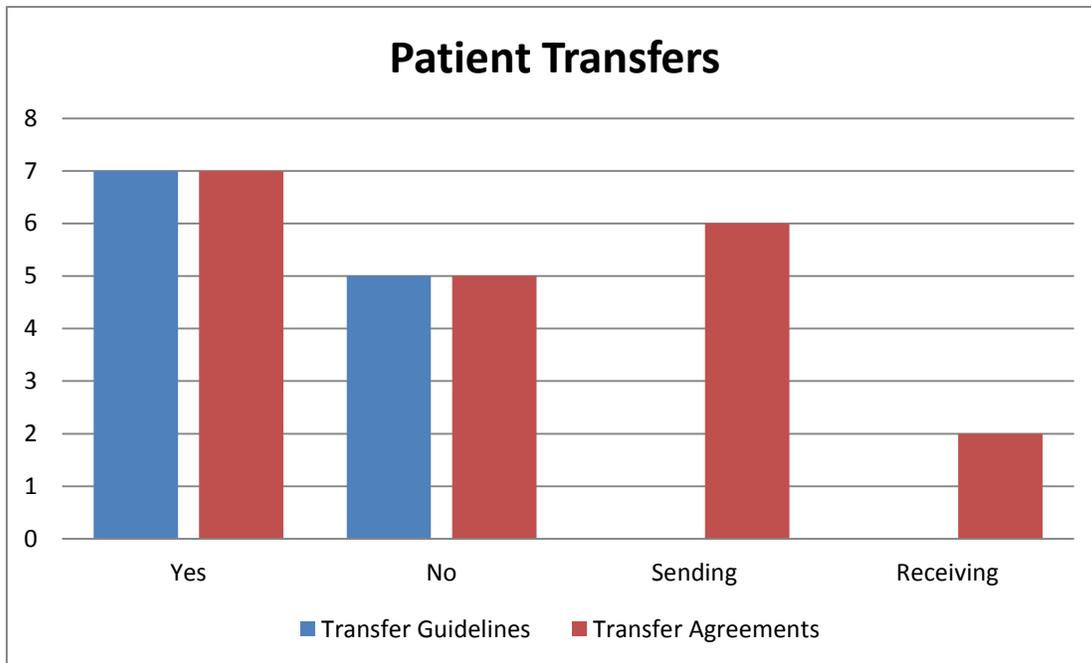


Figure 14 Region 6 Hospitals with Adult Patient Written Transfer Agreements and Guidelines. Source: 2013 MDCH Hospital Survey

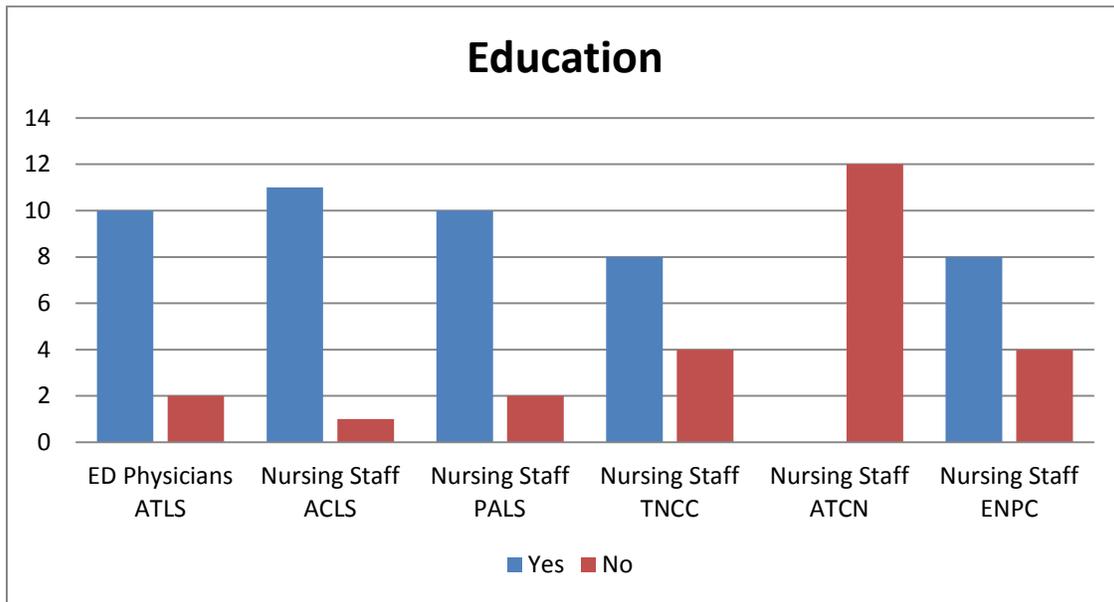


Figure 15 Region 6 Hospitals Emergency Department Trauma Education Requirements. Source: 2013 MDCH Hospital Survey

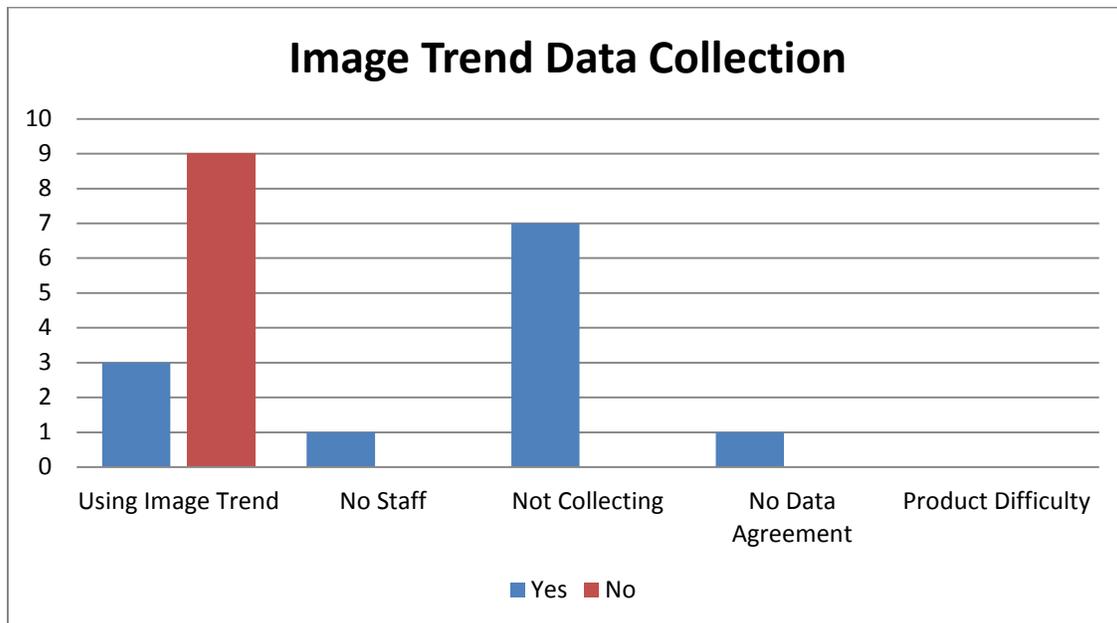


Figure 16 Region 6 Hospitals State Trauma Data Base Submissions*. Source: 2013 MDCH Hospital Survey.

*Questions asked for this figure:
 Are you submitting data quarterly to the state data base (Image Trend)?
 If you are not submitting data, what are the reasons you are not?

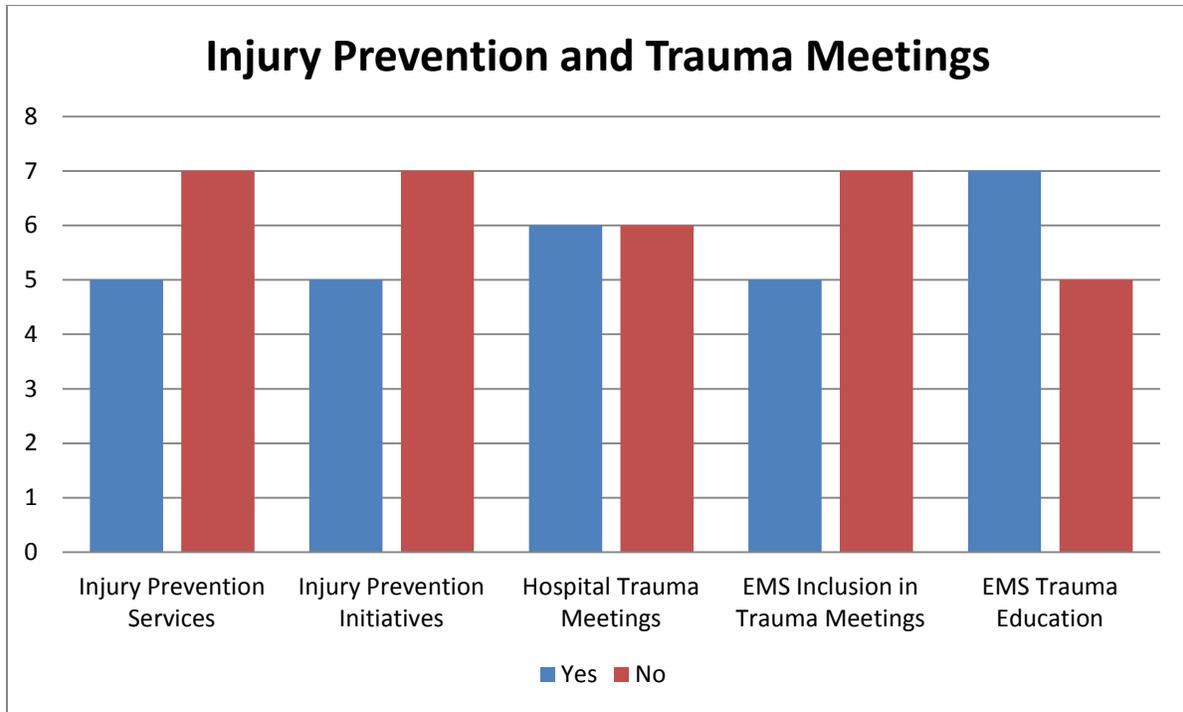


Figure 17 Region 6 Hospitals Injury Prevention and Trauma Meeting Participation*. Source: 2013 MDCH Hospital Survey.

* Questions asked for this figure:

- 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?

Summary

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 if health care in both the pre-hospital and healthcare facility environments, and 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 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.

This regional trauma resource report is not an exhaustive compilation of resources but is intended to provide partners and stakeholders a baseline regarding the assets and resources available in Region 6 as they develop and build this “all inclusive” trauma system. It is expected this report will be a “living” document and will continue to evolve as the system develops and matures.