



Traumatic Brain Injury and Public Services *in Michigan*



Partners:



TBI Services and Prevention Council (SPC)

With continued support of State and Federal funds in fiscal year 2010, the Michigan Traumatic Brain Injury (TBI) Project continued to improve state and local capacity to enhance access to comprehensive, coordinated, person/family directed, and culturally competent services for individuals with TBI and their family members; to reach out to the most at-risk communities; and to evaluate and improve TBI services. Established in April of 2005, the Michigan TBI Services and Prevention Council (SPC) continues to meet quarterly and provide oversight and guidance to the project. The Council is currently comprised of twenty-one active members who contribute to one of four subcommittees that focus on specific topic areas. The subcommittees are: 1) Training, 2) Prevention/Outreach, 3) Data, and 4) Policy. The diverse expertise of the SPC provides a well-rounded approach to the prioritization and programming of the grant activities. This reporting period, from 2009 through 2010, marks the 12th year of the TBI Project in Michigan. The combined expertise and coordinated efforts of its members, the SPC provides timely, accurate, and relevant information and resources about TBI on a State and national level. Describing the accomplishments of the SPC and its workgroups, this report highlights recent accomplishments and project activities.

Project Overview and Significant SPC Accomplishments in 2009-2010

- Training public service professionals remains an important focus of the SPC. *The Traumatic Brain Injury and Public Services in Michigan* online training continues to be expanded in both curriculum and scope.
- Updated TBI incidence rates from 1999 through 2008 indicated an increase in the number of nonfatal hospital cases in Michigan.
- The data workgroup made plans for a Comprehensive State Needs Assessment to evaluate the Medicaid TBI Rehabilitation Program, and to better understand the needs, services required and obtained through the program, barriers encountered, and overall experiences of individuals in the program.
- The data workgroup collaborated with the University of Michigan to use the Minimum Data Set for Home Care to gather data on people with TBI who are using publicly funded long-term supports and services.
- The Brain Injury Association of Michigan (BIAMI) filled a TBI Ombudsman position. The Ombudsman's role is to educate individuals in public and private sectors about the needs of persons with TBI. This position works closely with the offices of the Long Term Care Ombudsman and the Michigan Protection and Advocacy Service.
- Governor Granholm declared September 23, 2010, Fall Prevention Awareness Day. The Michigan Office of Services to the Aging hosted Matter of Balance trainings across the State, teaching practical strategies to reduce the fear of falling and increase activity levels in seniors.
- BIAMI President, Michael Dabbs, and Veteran's Program Manager, Rick Briggs, continue to broaden TBI awareness by educating policy makers and legislative leaders. In May 2010 they presented to the U.S. Senate Veterans Affairs Committee and in June 2010 they gave a presentation to the Michigan House Committee on Health Policy.

Traumatic Brain Injury Training for Public Service Professionals

- The *Traumatic Brain Injury and Public Services in Michigan* online training educates professionals and individuals with TBI and their family members about TBI. The free training, found at www.mitbitraining.org, consists of four self-study modules including: 1) Introduction to TBI, 2) Interacting and working effectively with persons with TBI, 3) Screening for TBI, and 4) Public services in Michigan. From April 1, 2009 to September 15, 2010, 717 people have registered for the training. Since tracking of training registrants began in July of 2008, 2,787 trainees have registered.
- The training currently offers the opportunity to earn continuing education credits for the following professionals: Nurses, Educators, Case Managers, Social Workers, Nursing Home Administrators, Licensed Professional Counselors, Certified Disability Management Specialists, Certified Rehabilitation Counselors, Adult Foster Care Workers, and Certified Health Education Specialists.
- Two additional training modules focused on TBI in pediatric and geriatric populations have just completed production. The content of both modules explains the behavioral and cognitive impact of brain injury. These exciting new modules will be posted on the *Traumatic Brain Injury and Public Services in Michigan* online training website located at www.mitbitraining.org as well as on the Virtual Center of Excellence website located at <http://vceonline.org/VCE-Online-Courses.id.571.htm>.
- Cross training between the Michigan Long Term Care Ombudsman, the Michigan Department of Community Health (MDCH), and the Michigan TBI Ombudsman with BIAMI was held. The training provided an overview of the roles, policies, and procedures for both offices. The Ombudsmen developed procedures for how they will work together on TBI cases.
- Members of the Training Committee developed a Mild TBI Recovery Guide for patients and family members with newly sustained concussions or mild TBI (mTBI). The Guide gives consumers information about their injuries and symptoms, what to expect during recovery, and ways to improve recovery progress. A Feasibility Study, designed and conducted by a Council member from the Detroit Medical Center, determined the usefulness of the Guide in a hospital emergency department (ED) setting. The study showed the Guide is easy for ED physicians to distribute and easy for newly diagnosed mTBI/concussion patients to understand.



Traumatic Brain Injury Policy Recommendations of the SPC

- Current programs and services for individuals with traumatic brain injury (TBI) and their families are not available to all persons who sustain a brain injury. To address the disparity of available services, the SPC and BIAMI developed a comprehensive statewide plan to address the needs of ALL individuals with brain injuries called the Michigan Brain Injury Act. This act would require the Council, in collaboration with the MDCH, to add definitions of brain injury terms to State law; develop a comprehensive statewide information and referral network for individuals with brain injuries; collect data on the incidence of brain injuries in the State; and make recommendations to address the needs of individuals with brain injuries, including the use of public-private partnerships.
- The SPC and BIAMI are currently drafting legislation requiring private sports and recreation leagues using public facilities to abide by and enforce sports concussion guidelines when applying for or renewing licensing requirements.
- Other issues that are monitored by the Policy committee include maintaining Auto No-Fault insurance, the existing helmet laws and supporting the Michigan TBI Medicaid Waiver Program.

Traumatic Brain Injury Characteristics in Michigan

The SPC data workgroup presents findings on the incidence of TBI and risk factors for TBI from the analysis of Michigan inpatient and mortality data from 1999 to 2008. The following information describes the incidence of TBI in the state.

How many people in Michigan have a Traumatic Brain Injury?

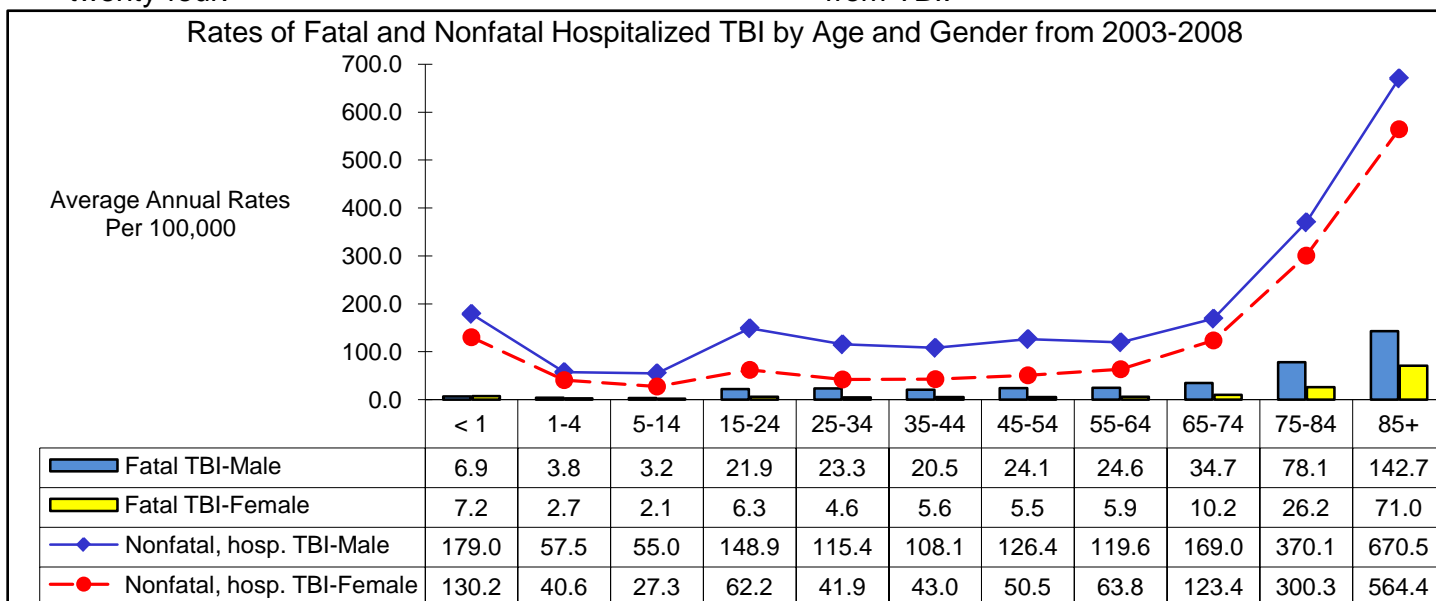
Year	No. of Fatal Cases	Fatal TBI Rates Per 100,000	No. of Nonfatal Hosp Cases	Hosp. Rates Per 100,000
1999	1,585	16.1	8,612	87.3
2000	1,591	16.0	8,703	87.4
2001	1,563	15.6	9,275	92.7
2002	1,523	15.2	9,669	96.3
2003	1,538	15.3	9,064	90.0
2004	1,502	14.9	9,547	94.6
2005	1,557	15.4	10,211	101.1
2006	1,550	15.4	10,358	102.6
2007	1,497	14.9	11,373	113.2
2008	1,549	15.5	11,920	119.2

- On an annual basis, about 58,000 individuals sustain a TBI in Michigan. Out of those approximately:
 - 1,530 die;
 - 10,400 are hospitalized; and
 - 46,000 are treated and released from an emergency department.
- From 1999 to 2008, rates of nonfatal hospitalizations of Michigan residents related to TBI have increased; over the same time period the rate of TBI-related deaths has decreased.

In Michigan, more people than ever are surviving serious TBI and are likely to need life-long services.

Which groups of people are at the highest risk of sustaining a Traumatic Brain Injury?

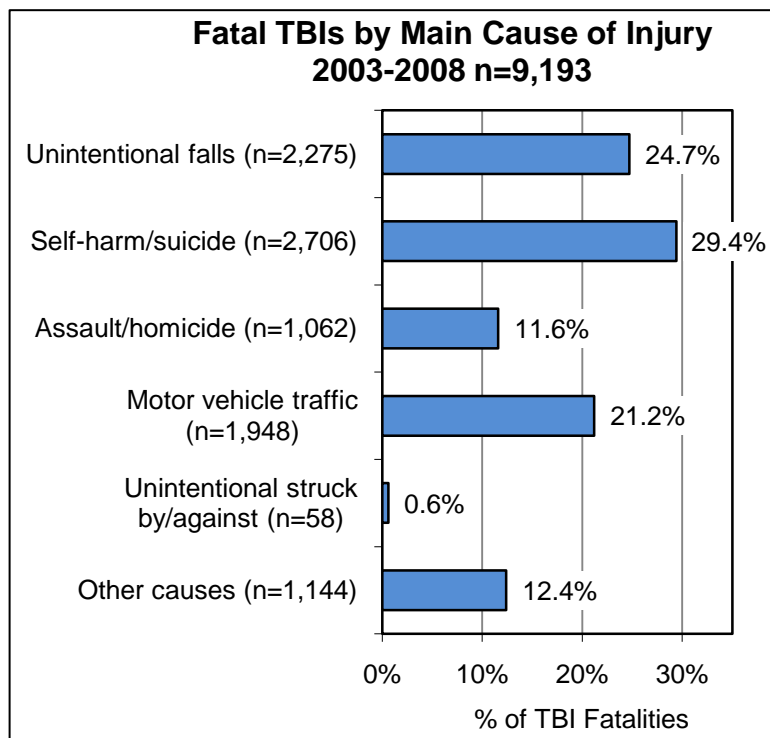
- Males are almost three times as likely as females to die from a TBI. Males are also twice as likely as females to require a TBI related hospitalization, especially from ages fifteen to twenty-four.
- Adults age 65 years or older have the highest rates of TBI-related hospitalization and death. Annually, 3,000 adults in Michigan ages 65 years and older are hospitalized and 500 die from TBI.



Traumatic Brain Injury Characteristics in Michigan Continued

Additional key findings to date from the analysis of Michigan inpatient and mortality data from 1999 to 2008 describe the leading causes in TBI in the state.

What are the leading causes of Traumatic Brain Injury in Michigan?



Accidental Falls:

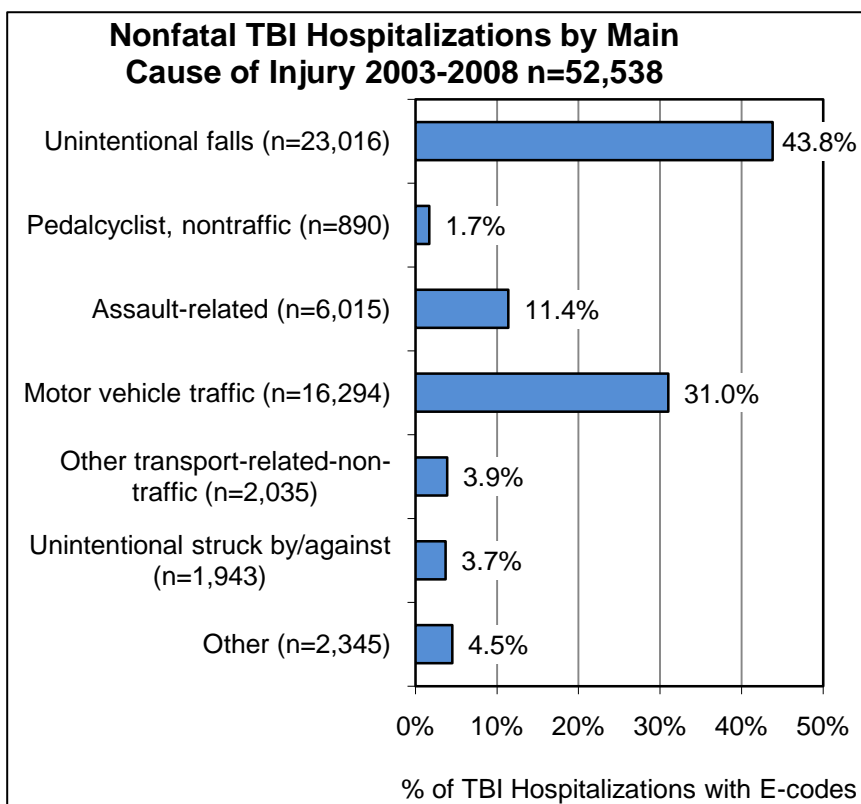
- Accidental falls are the leading cause of fatal TBIs among the elderly. Annually, 286 adults aged 65 years and older die from a TBI due to an accidental fall.
- Accidental falls are also the leading cause of TBI hospitalization for adults aged 65 years and older (2,700 hospitalizations annually).
- In all age groups, falls result in 4,500 TBI hospitalizations and 380 TBI deaths annually, accounting for over 40% of TBI hospitalizations and 25% of TBI deaths.

Motor Vehicle Traffic Crashes:

- Motor vehicle traffic crashes result in over 3,000 TBI-related hospitalizations and 325 TBI deaths annually.
- Motor vehicle traffic crashes are also the leading cause of TBI deaths for children and young adults.

Assaults and Suicides:

- Assaults result in 175 fatal TBIs and 1,200 TBI hospitalizations annually.
- 38% of fatal TBIs among children less than 5 years of age are homicides.
- Among infants and children, 10 TBI deaths and 73 TBI hospitalizations due to assaults occur annually.
- Self-harm or suicide is the leading cause of death for individuals sustaining a TBI in Michigan.
- Annually, 450 TBI deaths are the result of intentional self-harm (suicides).
- 98% of self-inflicted fatal TBI are firearm related.
- Adults 24 to 65 years of age account for 70% of TBIs from suicide.

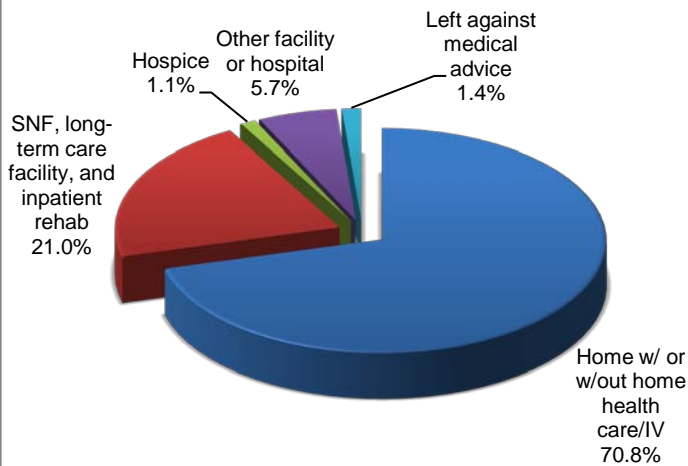


Traumatic Brain Injury Characteristics in Michigan Continued

Further findings from inpatient and mortality data from 1999 to 2008 illustrate the impact of TBI across the State. Using Michigan Medicaid data, members of the data workgroup estimated the costs of traumatic brain injuries in Michigan.

What are the outcomes and the consequences of TBI in Michigan?

Nonfatal Hospitalized TBI Cases by Hospital Discharge Disposition 2003-2008; n=62,473



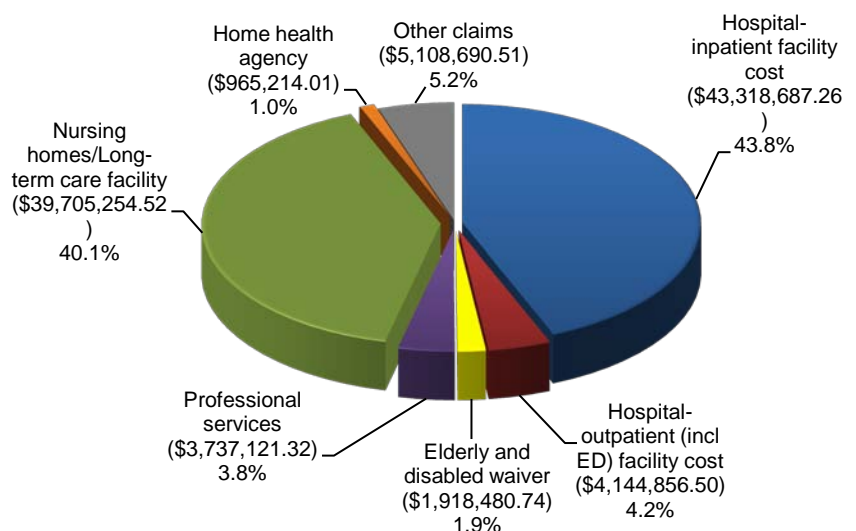
- The majority of identified TBI in Michigan are mild TBI cases that are treated and released from hospital emergency departments.
- About 2,200 Michigan TBI hospitalized cases annually are discharged from hospitals with TBI-related disability requiring rehabilitative and other long-term care stay.
- About 50% of Michigan residents hospitalized from TBI are under the age of 45.
- Analysis of the Long Term Care Minimum Data Set for 2008 collected by all the nursing facilities in Michigan showed that 266 Medicaid nursing home residents have a TBI; 60% of these cases are 64 years of age or younger.

Individuals who have survived a TBI tend to be too young to be placed in a nursing home for the rest of their lives.

What are the costs of TBI to the State of Michigan?

- Currently, the Medicaid TBI Memorandum of Understanding (MOU) Program is the only public service program specifically targeted to the rehabilitation of individuals with TBI.
- Medicaid reimbursed TBI-related services are received by about 29,000 beneficiaries per year (an under-estimate since services related to long-term needs after a TBI might not be identified)
- Michigan Medicaid covers TBI-related hospitalizations of over 3,000 beneficiaries annually.
- The Medicaid Fee for Service (FFS) component pays about \$20 million dollars a year for TBI-related services. A clear underestimate since only one-third of all individuals receiving Medicaid TBI services are enrolled in FFS.
- Nursing home expenses account for 33% while inpatient facility costs account for 44% of the fee for service costs.

TBI Cost Information by Provider Category Medicaid FFS FY2002-2006



Total amount paid for TBI-related FFS claims from FY2002-06 = **\$98,898,304.86**.

Services to Veteran’s Groups

- Shock wave blasts from improvised explosive devices, rocket propelled grenades, and land mines are the leading cause of TBIs for active duty military personnel in combat zones. Reports indicate that up to 20% of returning veterans exhibit symptoms consistent with having sustained a TBI during deployment.
- Estimates suggest that as many as 320,000 veterans of Operation Iraqi Freedom (OIF) and Operation Enduring Freedom (OEF) have sustained a traumatic brain injury.
- Nine TBI post-deployment briefings for over 1,570 returning soldiers and their families were conducted in 2010.
- Conducted awareness trainings to over 600 police officers regarding the issues faced by returning Iraq and Afghanistan combatants with Post Traumatic Stress Disorder (PTSD) and TBI.
- Operation Never Forgotten (ONF) Invisible Wounds Campaign: This is a joint media awareness campaign sponsored by the Brain Injury Association of America (BIAA) and ONF that provides electronic “Invisible Wounds” message billboards along major highways, at major airports, and at VA hospitals. For more information on the campaign, please go to <http://operationneverforgotten.org/>

TBI Prevention Activities

- The Representative Council of the Michigan High School Athletic Association (MHSAA) finalized a five-step protocol to follow when an athlete sustains a concussion during a sporting event or game. This protocol began during the 2010-2011 school year and includes revised return-to-play criteria. A player with a possible brain injury, including a concussion, may not return to play that day and will only be allowed to play with written clearance from a Medical Doctor or Doctor of Osteopathic Medicine. For a copy of the form and additional resources, please go to <http://www.mhsaa.com/Schools/HealthSafetyResources.aspx> Initial conversations have occurred between the SPC and MHSAA about partnering to provide coaches and other school staff trainings on concussions and other TBIs.
- To spread awareness of sports concussion, the Prevention Committee distributed information regarding the signs, symptoms, and lasting effects of concussion to ice hockey coaches throughout Michigan. The materials distributed were developed by the Centers for Disease Control and Prevention and can be accessed through their website at <http://www.cdc.gov/concussion/sports/>

A series of educational materials about TBI and services for eligible individuals is available for free by download at www.Michigan.gov/tbi. Products may also be ordered by emailing info@mitbitraining.org.

For the General Public and Consumers

- *Michigan Resource Guide for Persons with Traumatic Brain Injury and their Families* (Download available in English, Spanish, and Arabic)
- “Resources for Persons with Brain Injury and their Families” (Brochure available in English, Spanish, and Arabic)
- “Resources for Veterans with Brain Injury and their Families”. (Brochure available in English, Spanish, and Arabic)

For Service Providers

- Traumatic Brain Injury Online Training for Public Service Providers: www.mitbitraining.org
- *Access Guidelines to State Services for Persons with Traumatic Brain Injury* (online only)
- *Traumatic Brain Injury Provider Training Manual* (online only)
- “Important Information about Working with Persons with Brain Injury and their Families” (Brochure)

For more information about public services for people with TBI, please contact:
 Michael Daeschlein, State Administrative Manager of Home and Community-Based Services at
 (517) 335-5322 or at daeschleinm@michigan.gov