

State Injury Profile for Michigan

The CDC State Injury Profiles

Gathering and sharing reliable data about the broad range of public health problems is among the many ways the Centers for Disease Control and Prevention protect the safety and health of Americans.

Policy makers and health care workers need access to the best, most current data available so they can make informed decisions about where to allocate limited resources to prevent diseases and injuries. Yet, many people find statistics difficult to understand and interpret. This State Injury Profile offers an easier way to look at statistics. Through maps and graphs, the Profile clearly shows how this state compares with others in the nation and what injury problems are most pressing.

CDC's National Center for Injury Prevention and Control gathers data about a broad range of intentional and unintentional injuries or what many people call 'violence' and 'accidents.' Injuries affect everyone. Injury is the leading cause of death for all Americans ages one to 34, and injury remains one of the leading causes of death, no matter how long someone may live.

Maps and graphs in this State Injury Profile show this state's death rates from in falls, poisoning, drowning, suffocation, fires and burns, suicide, homicide, traumatic brain injury and injuries related to firearms. The graphics show how this state compares with others and with mortality rates in the United States as a whole. You will also find a table showing the Ten Leading Causes of Death for the United States and for this state. **New this year** is a county-by-county map showing locations with higher death rates for each type of injury.

In addition to injury data, you'll also find a list of all CDC-funded injury prevention and research programs in this state for 2001.

DEPARTMENT OF HEALTH AND HUMAN SERVICES

Centers for Disease Control and Prevention
National Center for Injury Prevention and Control

To learn more

After you page through the State Injury Profile, if you want to know more, CDC has made it easy for you to find additional information about any injury and public health. Simply visit www.cdc.gov/ncipc. Or call the CDC National Center for Injury Prevention and Control, Office of Planning, Evaluation and Legislation at 1-770-488-4936.

These other resources offered or funded by the CDC may also interest you:

General information about injury in America

Customized data reports, www.cdc.gov/ncipc/wisqars

Consumer facts and tip sheets, www.cdc.gov/ncipc/safeusa or call the SafeUSA hotline toll free at 1-800-252-7751.

Intentional Injury

National Resource Center on Domestic Violence, 1-800-537-2238

National Sexual Violence Resource Center, www.nsvrc.org, or call 1-877-739-3895

National Violence Against Women Prevention Research Center, www.violenceagainstwomen.org, or call 1-843-792-2945

National Youth Violence Prevention Resource Center, www.safeyouth.org, or call 1-866-SAFEYOUTH (723-3968)

Violence Against Women Electronic Network (VAWnet), www.vawnet.org, or call 1-800-537-2238

Unintentional Injury

National Program for Playground Safety, www.uni.edu/playground, or call 1-800-554-PLAY (7529)

National Resource Center on Aging and Injury, www.olderadultinjury.org, or call 1-619-594-0986

State Injury Profile for Michigan 1989-1998

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United States

10 Leading Causes of Deaths by Age Group: 1996-1998

Rank	Age Groups										Total
	<1	1-4	5-9	10-14	15-24	25-34	35-44	45-54	55-64	65+	
1	Congenital Anomalies 18,771	Unintentional Injuries 6,087	Unintentional Injuries 4,666	Unintentional Injuries 5,392	Unintentional Injuries 40,525	Unintentional Injuries 37,468	Malignant Neoplasms 51,170	Malignant Neoplasms 135,803	Malignant Neoplasms 260,166	Heart Disease 1,824,785	Heart Disease 2,185,194
2	Short Gestation 11,928	Congenital Anomalies 1,791	Malignant Neoplasms 1,557	Malignant Neoplasms 1,514	Homicide 18,200	Suicide 16,898	Unintentional Injuries 43,925	Heart Disease 105,367	Heart Disease 198,361	Malignant Neoplasms 1,150,087	Malignant Neoplasms 1,620,642
3	SIDS 8,863	Malignant Neoplasms 1,227	Congenital Anomalies 662	Suicide 918	Suicide 12,679	Homicide 15,068	Heart Disease 40,037	Unintentional Injuries 31,208	Bronchitis Emphysema Asthma 30,317	Cerebro-vascular 419,998	Cerebro-vascular 478,181
4	Respiratory Distress Synd. 3,958	Homicide 1,194	Homicide 523	Homicide 908	Malignant Neoplasms 4,976	HIV 14,953	HIV 26,456	Cerebro-vascular 17,196	Cerebro-vascular 29,005	Bronchitis Emphysema Asthma 283,777	Bronchitis Emphysema Asthma 327,640
5	Maternal Complications 3,836	Heart Disease 643	Heart Disease 413	Congenital Anomalies 613	Heart Disease 3,124	Malignant Neoplasms 13,837	Suicide 20,308	Liver Disease 16,797	Diabetes 25,504	Pneumonia & Influenza 235,529	Unintentional Injuries 288,427
6	Placenta Cord Membranes 2,870	Pneumonia & Influenza 494	Pneumonia & Influenza 218	Heart Disease 560	Congenital Anomalies 1,252	Heart Disease 9,843	Homicide 11,138	Suicide 14,916	Unintentional Injuries 21,316	Diabetes 142,639	Pneumonia & Influenza 262,047
7	Perinatal Infections 2,348	Septicemia 245	HIV 194	Bronchitis Emphysema Asthma 287	HIV 883	Cerebro-vascular 2,068	Liver Disease 10,518	Diabetes 12,979	Liver Disease 15,844	Unintentional Injuries 95,191	Diabetes 189,154
8	Unintentional Injuries 2,323	HIV 233	Bronchitis Emphysema Asthma 159	Pneumonia & Influenza 180	Bronchitis Emphysema Asthma 677	Diabetes 1,903	Cerebro-vascular 8,159	HIV 12,892	Pneumonia & Influenza 11,228	Alzheimer's Disease 65,647	Suicide 92,013
9	Pneumonia & Influenza 1,358	Perinatal Period 210	Benign Neoplasms 134	Cerebro-vascular 140	Pneumonia & Influenza 638	Pneumonia & Influenza 1,633	Diabetes 5,622	Bronchitis Emphysema Asthma 8,467	Suicide 8,834	Nephritis 65,296	Nephritis 75,817
10	Intrauterine Hypoxia 1,341	Benign Neoplasms 188	Cerebro-vascular 102	HIV 139	Cerebro-vascular 533	Liver Disease 1,592	Pneumonia & Influenza 4,255	Pneumonia & Influenza 6,493	Septicemia 5,704	Septicemia 54,428	Liver Disease 75,414

United States Total Number of Injury Deaths

<u>Cause</u>	<u>Deaths</u>	<u>Percent</u>
Unintentional Injury	288,427	65.6%
Intentional	151,102	34.4%
Total (1996-1998)	439,529	100.0%

Average Number of Injury Deaths per Year
In the United States = **146,510**

Michigan

10 Leading Causes of Deaths by Age Group: 1996-1998

Rank	Age Groups										Total
	<1	1-4	5-9	10-14	15-24	25-34	35-44	45-54	55-64	65+	
1	Congenital Anomalies 613	Unintentional Injuries 225	Unintentional Injuries 200	Unintentional Injuries 199	Unintentional Injuries 1,323	Unintentional Injuries 1,170	Malignant Neoplasms 1,851	Malignant Neoplasms 4,996	Malignant Neoplasms 9,628	Heart Disease 69,170	Heart Disease 83,275
2	Short Gestation 602	Congenital Anomalies 72	Malignant Neoplasms 52	Malignant Neoplasms 53	Homicide 704	Homicide 663	Heart Disease 1,639	Heart Disease 4,310	Heart Disease 7,556	Malignant Neoplasms 41,295	Malignant Neoplasms 58,593
3	SIDS 438	Homicide 53	Congenital Anomalies 24	Homicide 43	Suicide 447	Suicide 546	Unintentional Injuries 1,301	Unintentional Injuries 1,010	Bronchitis Emphysema Asthma 1,006	Cerebro-vascular 15,179	Cerebro-vascular 17,280
4	Respiratory Distress Synd. 242	Malignant Neoplasms 41	Homicide 24	Suicide 32	Malignant Neoplasms 184	Malignant Neoplasms 481	Suicide 701	Liver Disease 681	Cerebro-vascular 989	Bronchitis Emphysema Asthma 9,609	Bronchitis Emphysema Asthma 11,129
5	Maternal Complications 126	Heart Disease 17	Heart Disease 14	Congenital Anomalies 27	Heart Disease 110	Heart Disease 388	HIV 520	Cerebro-vascular 648	Diabetes 900	Pneumonia & Influenza 7,869	Unintentional Injuries 9,384
6	Placenta Cord Membranes 124	Pneumonia & Influenza 13	Pneumonia & Influenza 10	Heart Disease 20	Congenital Anomalies 46	HIV 251	Liver Disease 471	Diabetes 494	Unintentional Injuries 686	Diabetes 5,516	Pneumonia & Influenza 8,922
7	Unintentional Injuries 107	Cerebro-vascular 10	Cerebro-vascular 6	Bronchitis Emphysema Asthma 14	Bronchitis Emphysema Asthma 34	Cerebro-vascular 75	Homicide 405	Suicide 489	Liver Disease 583	Unintentional Injuries 3,161	Diabetes 7,222
8	Perinatal Infections 84	Perinatal Period 8	Bronchitis Emphysema Asthma 5	Pneumonia & Influenza 10	Pneumonia & Influenza 29	Diabetes 75	Cerebro-vascular 321	Bronchitis Emphysema Asthma 316	Pneumonia & Influenza 417	Nephritis 2,783	Nephritis 3,234
9	Intrauterine Hypoxia 55	Benign Neoplasms 7	HIV 5	Cerebro-vascular 4	HIV 17	Liver Disease 67	Diabetes 220	Pneumonia & Influenza 295	Suicide 274	Atherosclerosis 2,015	Suicide 3,093
10	Homicide 42	2 Tied	2 Tied	Septicemia 4	Diabetes 15	Pneumonia & Influenza 57	Pneumonia & Influenza 188	HIV 227	Nephritis 222	Alzheimer's Disease 1,898	Liver Disease 2,909

Michigan Total Number of Injury Deaths

<u>Cause</u>	<u>Deaths</u>	<u>Percent</u>
Unintentional Injury	9,384	63.2%
Intentional Injury	5,462	36.8%
Total (1996-1998)	14,846	100.0%

Average Number of Injury Deaths per Year
In Michigan = **4,949**

1996-1998 Leading Causes of Death

Unintentional Injury

United States Unintentional Injury

<u>Cause</u>	<u>Deaths</u>	<u>Percent</u>
MV Traffic	127,053	44.1%
Fall	35,745	12.4%
Poisoning	30,474	10.6%
Suffocation	13,325	4.6%
Drowning	12,416	4.3%
Fire/Burn	10,809	3.7%
Other Causes	<u>58,605</u>	<u>20.3%</u>
	288,427	100.0%

Michigan Only Unintentional Injury

<u>Cause</u>	<u>Deaths</u>	<u>Percent</u>
MV Traffic	4,436	47.3%
Fall	1,055	11.2%
Poisoning	633	6.7%
Suffocation	423	4.5%
Fire/Burn	414	4.4%
Other Causes	<u>2,423</u>	<u>25.8%</u>
	9,384	99.9%

Intentional Injury

United States Suicide

<u>Cause</u>	<u>Deaths</u>	<u>Percent</u>
Firearm	53,156	57.8%
Suffocation	16,469	17.9%
Poisoning	15,280	16.6%
Other Causes	<u>7,108</u>	<u>7.7%</u>
	92,013	100.0%

Michigan Only Suicide

<u>Cause</u>	<u>Deaths</u>	<u>Percent</u>
Firearm	1,741	56.3%
Suffocation	590	19.1%
Poisoning	566	18.3%
Other Causes	<u>196</u>	<u>6.3%</u>
	3,093	100.0%

United States Homicide and Legal Intervention

<u>Cause</u>	<u>Deaths</u>	<u>Percent</u>
Firearm	39,951	67.6%
Cut/Pierce	6,955	11.8%
Suffocation	2,147	3.6%
Other Causes	<u>10,036</u>	<u>17.0%</u>
	59,089	100.0%

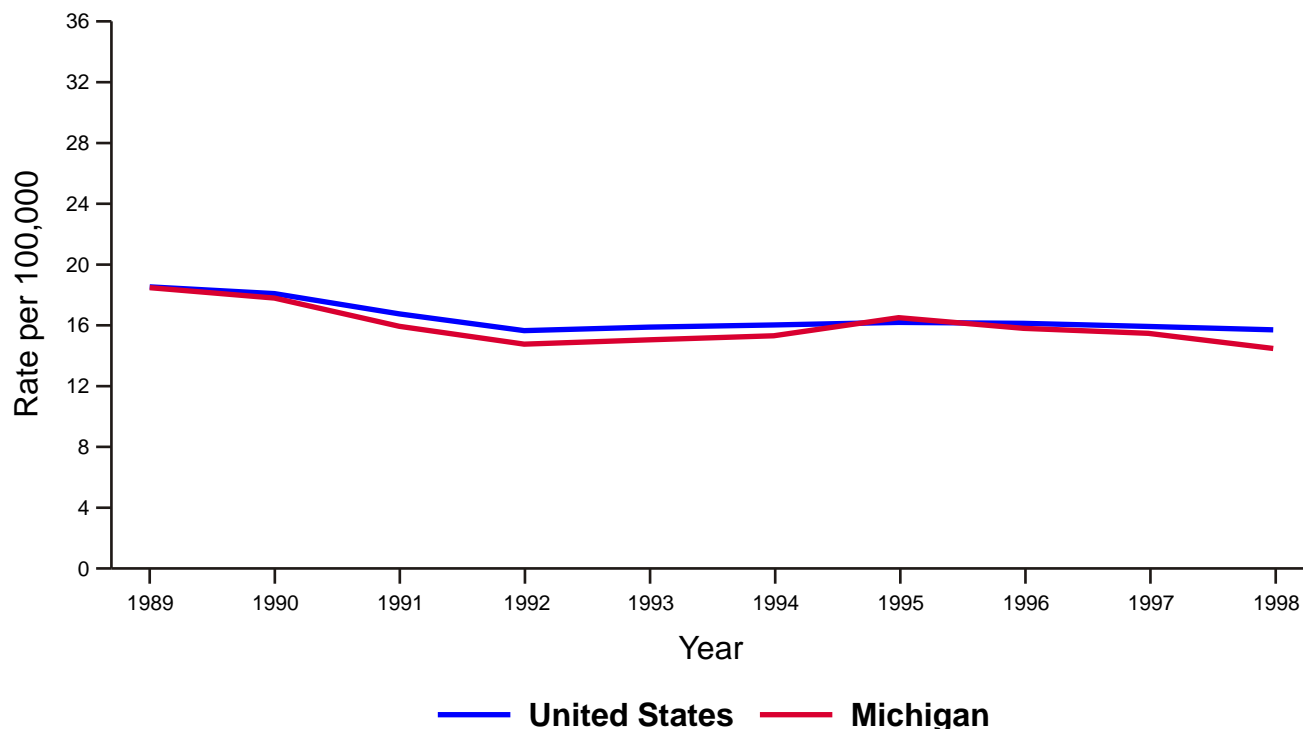
Michigan Only Homicide and Legal Intervention

<u>Cause</u>	<u>Deaths</u>	<u>Percent</u>
Firearm	1,643	69.4%
Cut/Pierce	225	9.5%
Suffocation	109	4.6%
Other Causes	<u>392</u>	<u>16.5%</u>
	2,369	100.0%

Unintentional Motor Vehicle, Traffic-Related Death Rates United States, 1996-1998



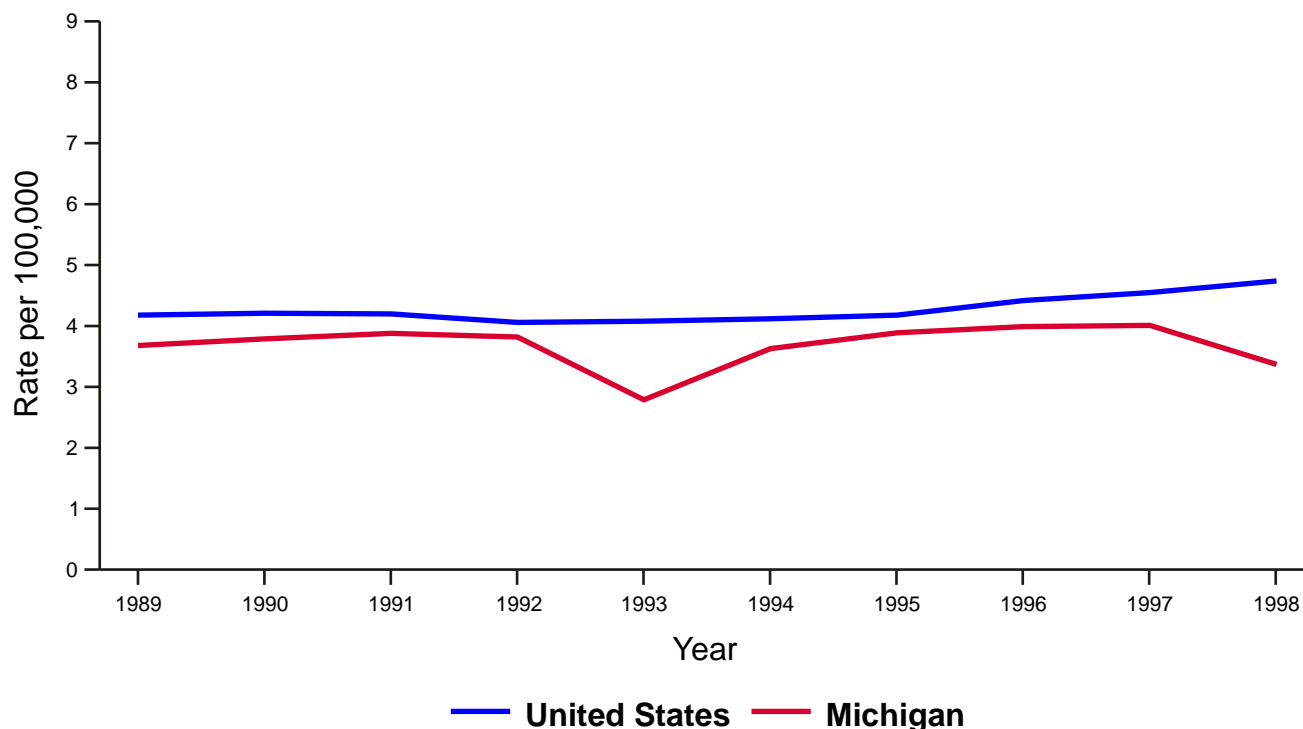
United States and Michigan 1989-1998



Unintentional Fall Death Rates United States, 1996-1998



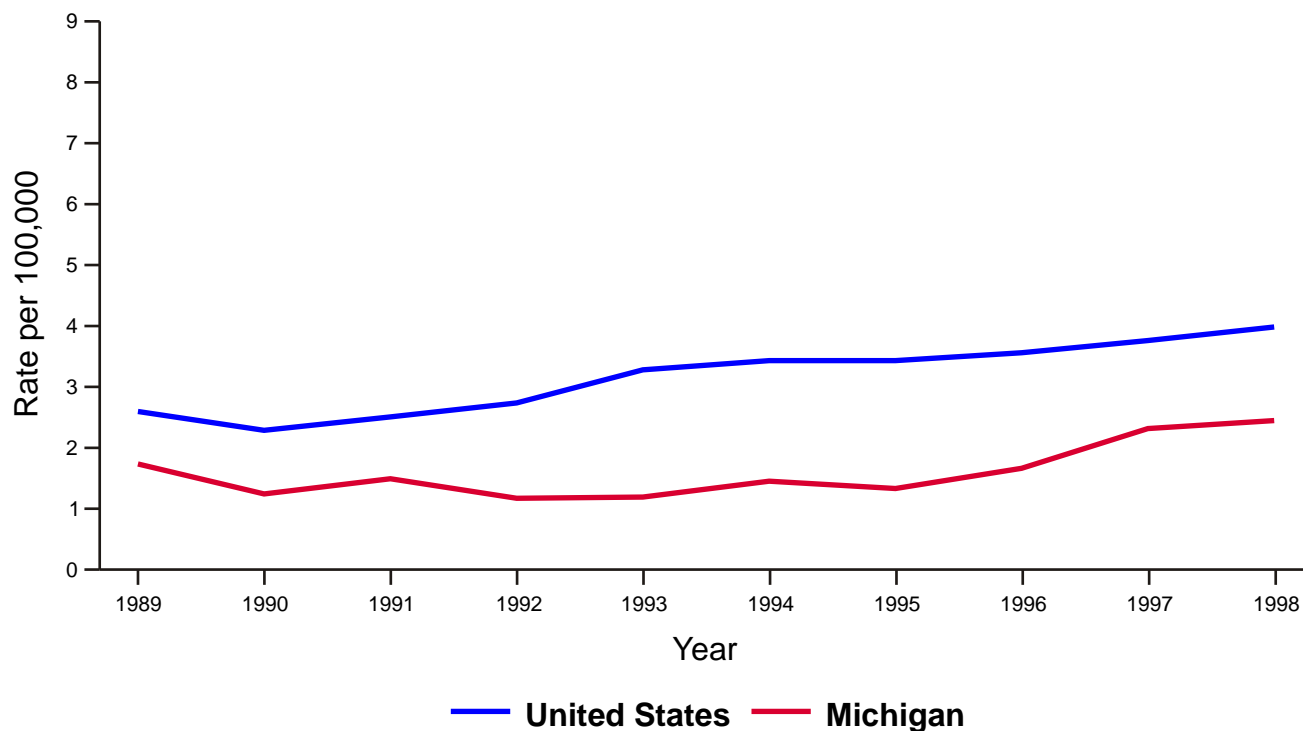
United States and Michigan 1989-1998



Unintentional Poisoning Death Rates United States, 1996-1998



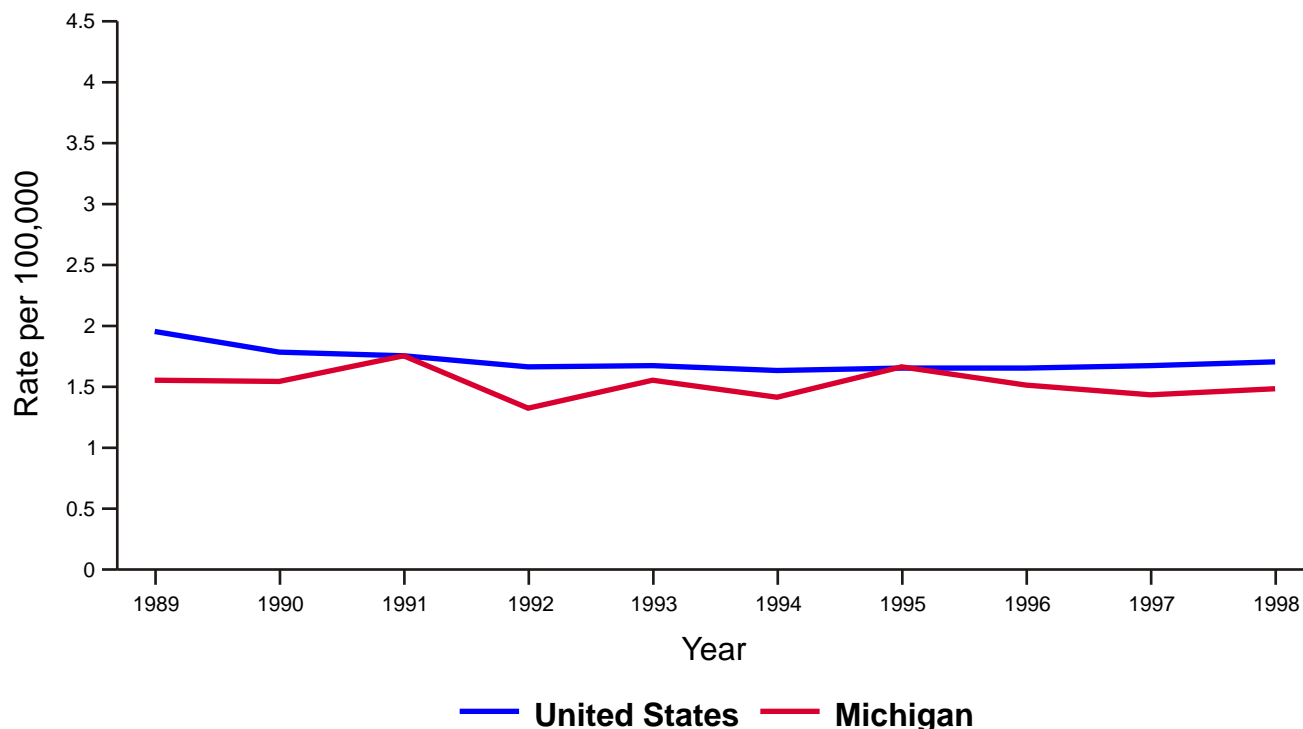
United States and Michigan 1989-1998



Unintentional Suffocation Death Rates United States, 1996-1998



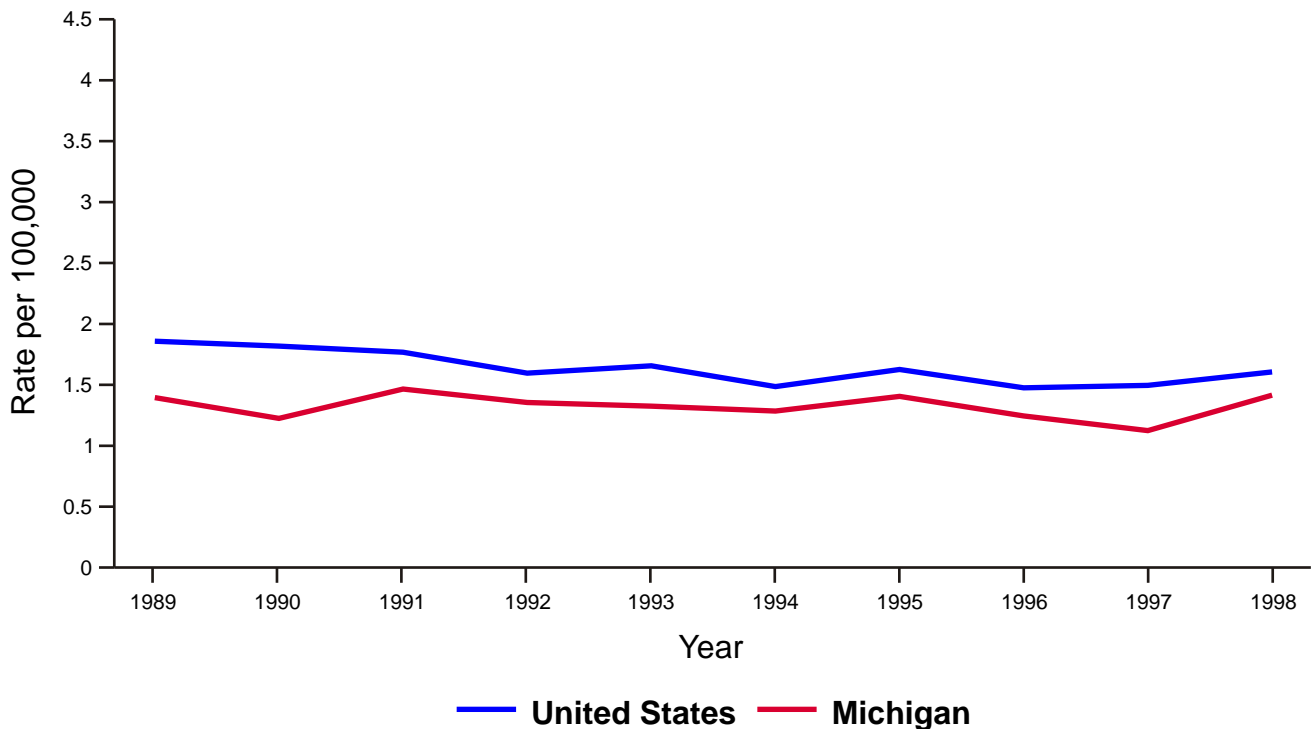
United States and Michigan 1989-1998



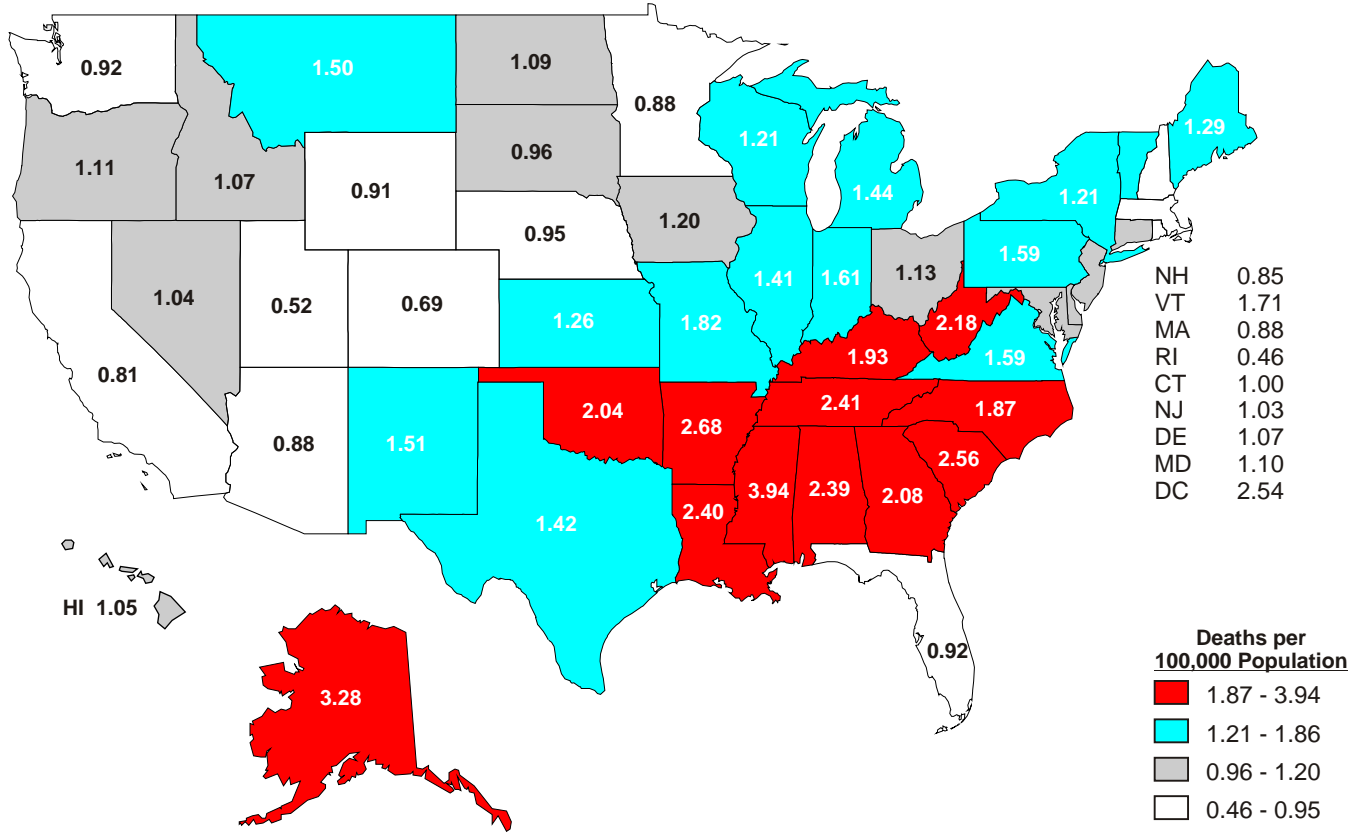
Unintentional Drowning Death Rates United States, 1996-1998



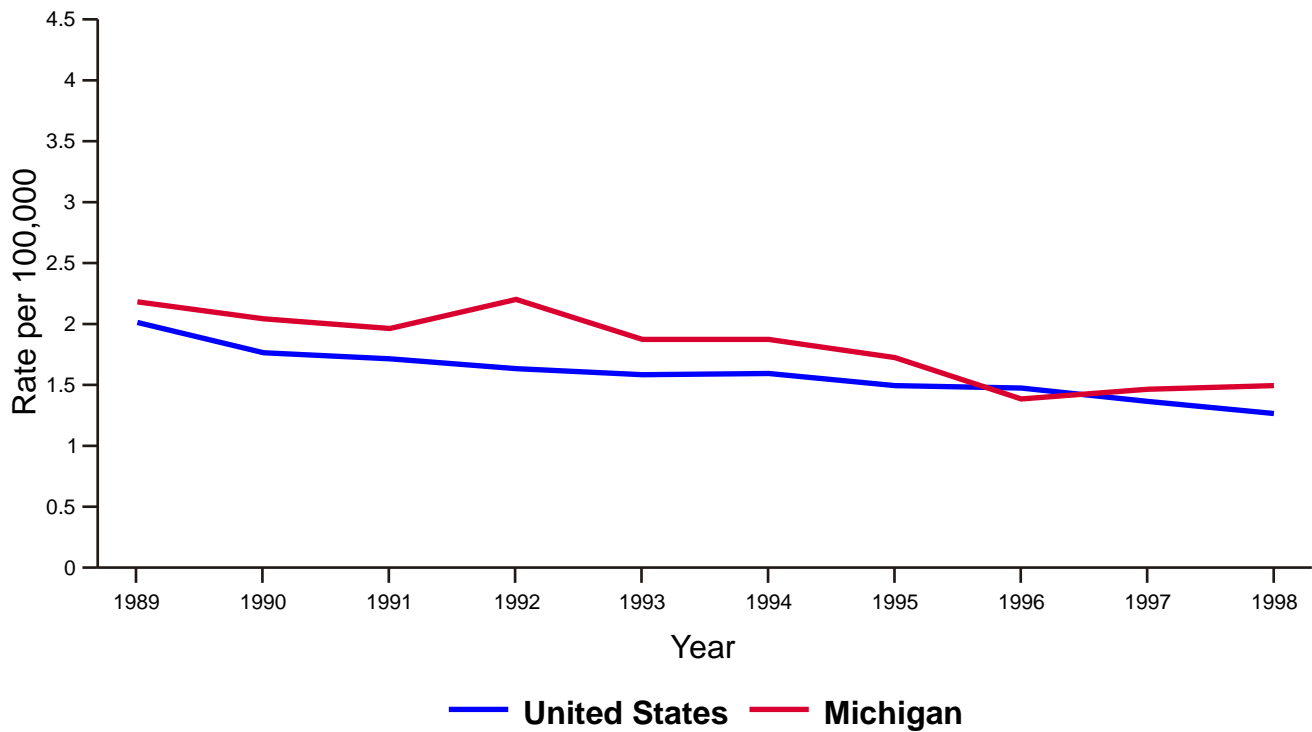
United States and Michigan 1989-1998



Unintentional Fire and Burn-Related Death Rates United States, 1996-1998



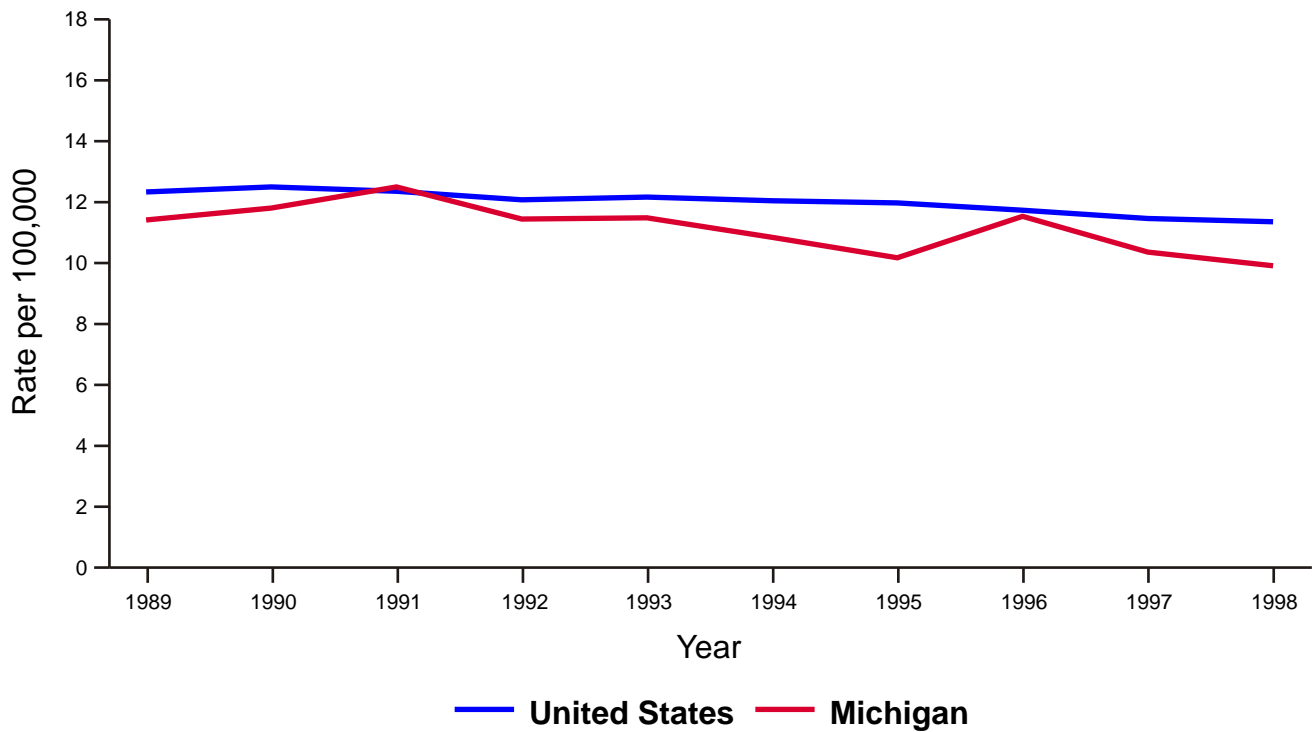
United States and Michigan 1989-1998



Suicide Death Rates United States, 1996-1998



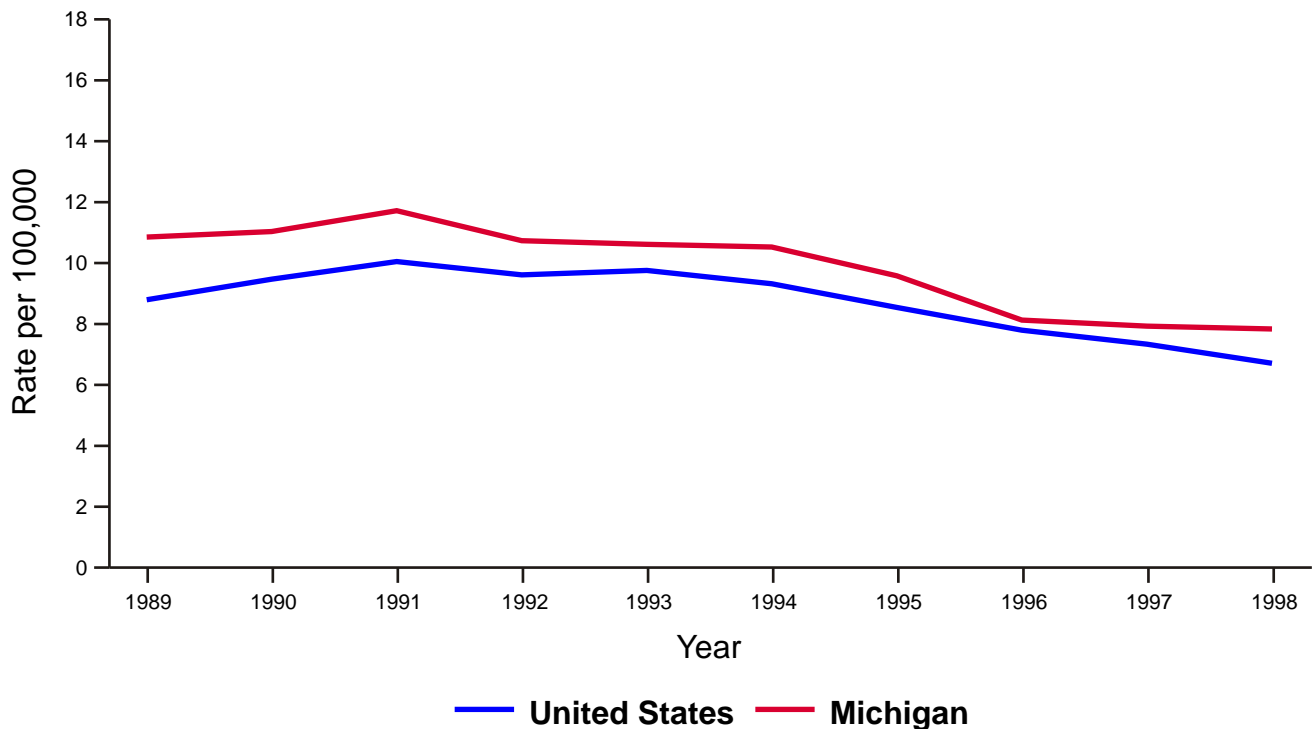
United States and Michigan 1989-1998



Homicide Death Rates United States, 1996-1998



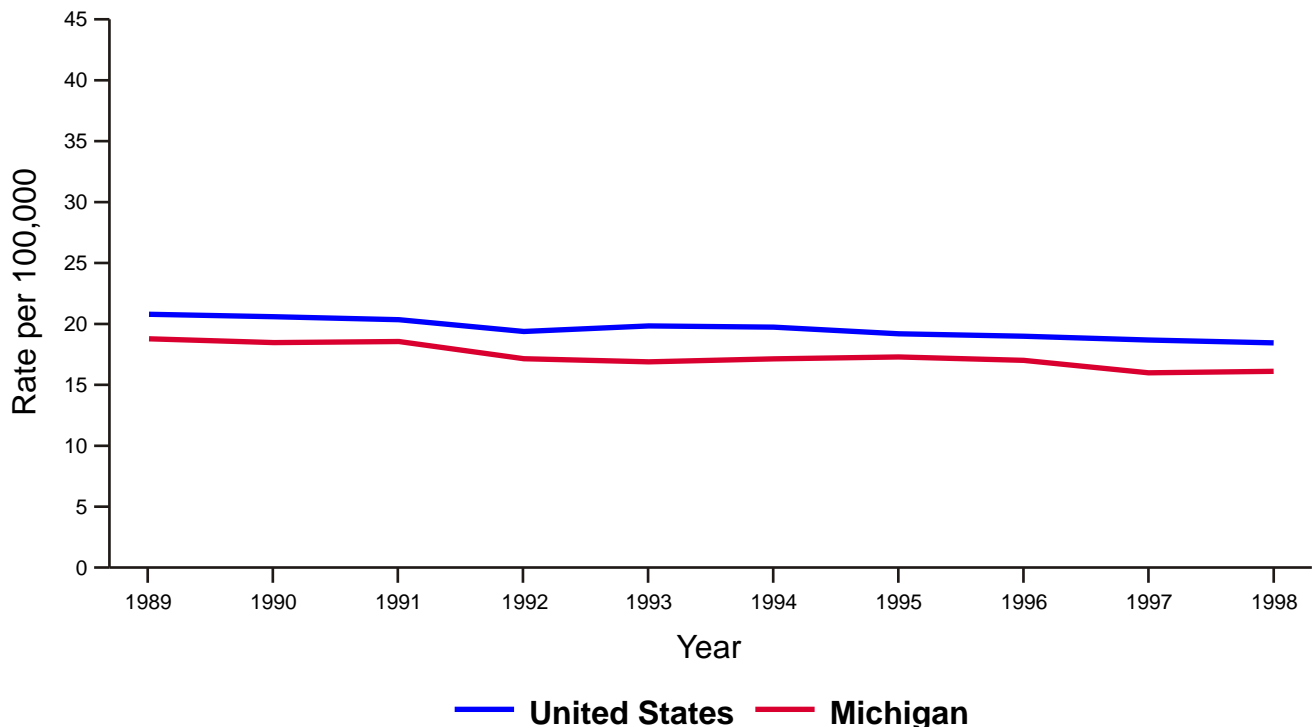
United States and Michigan 1989-1998



Traumatic Brain Injury-Related Death Rates* United States, 1996-1998



United States and Michigan 1989-1998

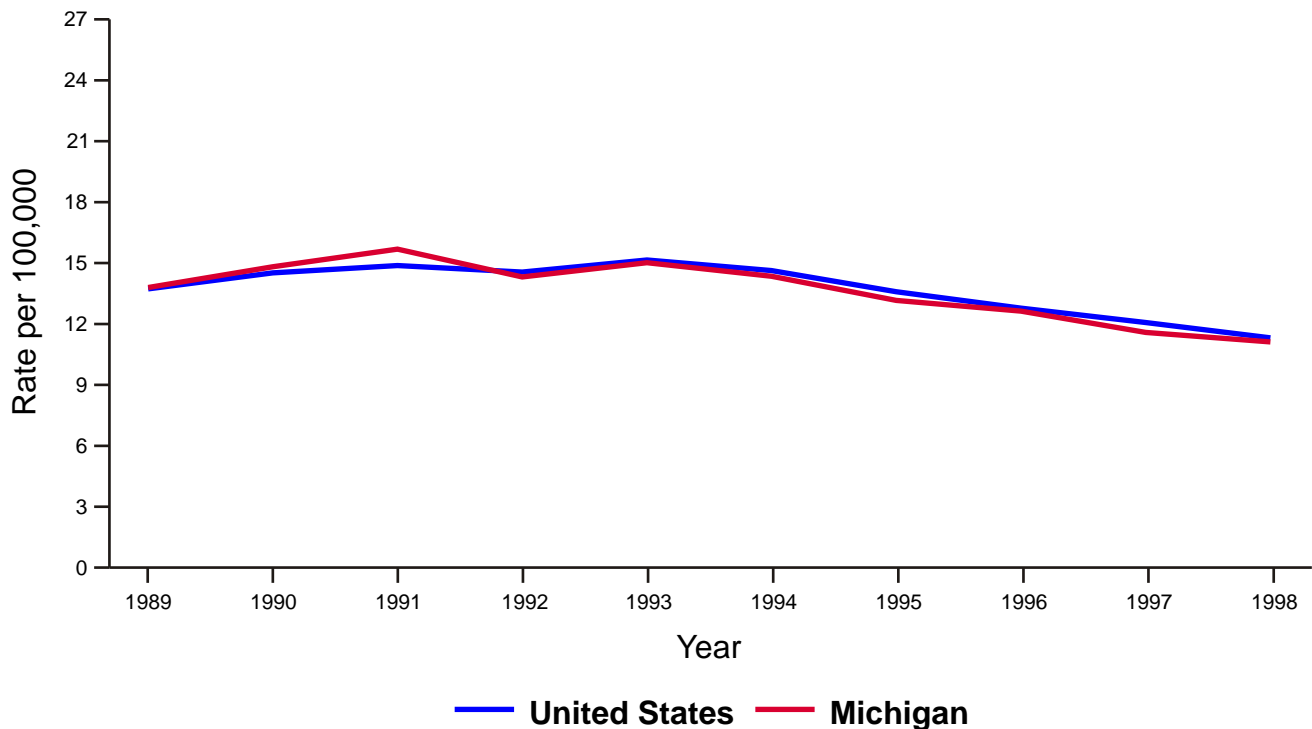


* Includes unintentional and intentional deaths from motor vehicles, firearms, falls, and other causes (of determined and undetermined intent).

Firearm-Related Death Rates United States, 1996-1998

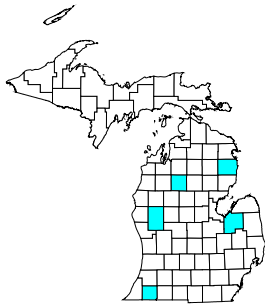


United States and Michigan 1989-1998

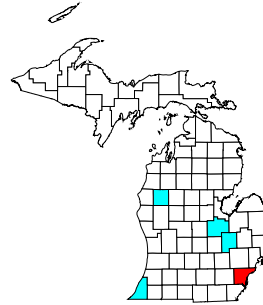


* Includes deaths from firearm suicide, firearm homicide, unintentional firearm-related deaths, and firearm-related deaths of undetermined intent.

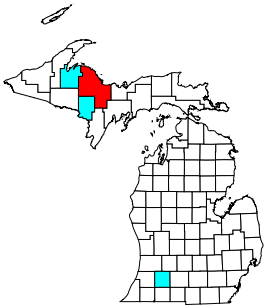
Michigan 1989-1998



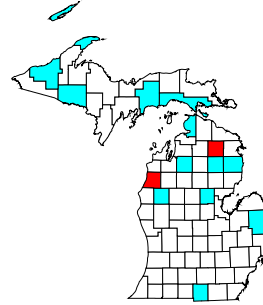
Motor Vehicle
1,516 Deaths/Year
 U.S. 16.4
 MI 15.8



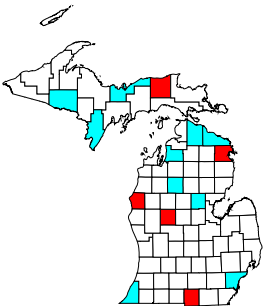
Homicides
974 Deaths/Year
 U.S. 8.7
 MI 9.9
 Excess Deaths/Year **111**



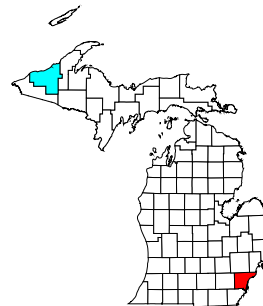
Falls
320 Deaths/Year
 U.S. 4.3
 MI 3.7



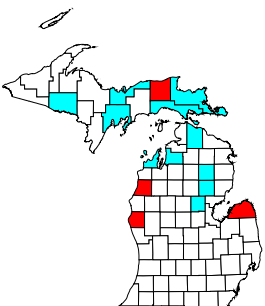
Suicides
1,052 Deaths/Year
 U.S. 12.0
 MI 11.1



Fires/Burns
175 Deaths/Year
 U.S. 1.6
 MI 1.9
 Excess Deaths/Year **23**



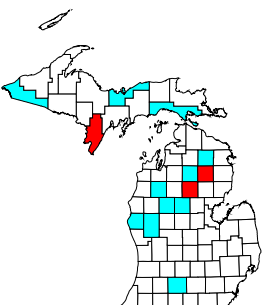
Firearms
1,325 Deaths/Year
 U.S. 13.7
 MI 13.6



Drownings
128 Deaths/Year
 U.S. 1.7
 MI 1.3



Traumatic Brain Injury
1,590 Deaths/Year
 U.S. 18.5
 MI 16.7



Poisonings
154 Deaths/Year
 U.S. 3.2
 MI 1.7

Legend

At or above the 90th NATIONAL percentile

At or above the 75th but less than the 90th NATIONAL percentile

CDC-Funded Injury Control Projects

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CDC-Funded Injury Control Projects in MICHIGAN

CDC's National Center for Injury Prevention and Control (NCIPC) funds 11 programs in Michigan to build the state's ability to keep its citizens safe. New this year in Michigan is an Academic Center of Excellence on Youth Violence.

National Academic Centers of Excellence

National Academic Centers of Excellence on Youth Violence

The University of Michigan is one of ten centers created in October 2000 to link university-based research into violence with community programs to address youth violence. The University of Michigan was named a 'developing' center for non-research activities related to youth violence prevention. These activities will include training, technical assistance, program and policy development and evaluation, advocacy, and media outreach. The center will also coordinate small pilot projects, develop and implement a community response plan, and develop curricula for training health care professionals about youth violence prevention. *(University of Michigan)*

Core Injury Programs

State-Based Core Injury Program Development

Michigan is one of 23 states receiving CDC funding to establish a point of coordination for injury control efforts, assess injury data and surveillance resources within the state, and develop a state injury control plan. A core injury development program is a cooperative effort to develop or strengthen the capacity of state public health agencies to prevent and control injuries. These programs possess some combination of these features and tools:

- 1) injury prevention coordinator;
- 2) up-to-date profile of injuries within the state from existing data sources;
- 3) advisory structure to facilitate collaboration with public and private sector groups;
- 4) relationships with organizations, agencies, and individuals interested or experienced in injury prevention or control; and
- 5) a current plan for injury prevention and control based on the state's priorities.

The enhanced program aims to reduce unintentional injuries and homicide by strengthening collaborative relationships, building state capacity, establishing access to and analysis of injury data using core data sets, and developing and implementing an evaluation plan to measure program effectiveness and impact. *(Michigan Department of Community Health)*

Acute Care and Rehabilitation

The Biomechanics of Brain Injury

This project shed more light on brain injury mechanisms through further development of a computer model of brain injury. It will also develop a hypothetical tolerance surface to account for both linear and angular acceleration inputs. The research will yield a fully

validated computer model that can be used to predict sites of injury within the brain for an impact of known direction and magnitude. Such information will be useful for both the prevention and treatment of brain injury. (*Wayne State University*)

Unintentional Injury

Prevention of Fire-Related Injuries

This project will increase the number of homes with adequate smoke alarm coverage in communities where the incidence of fire and mortality rates are above state averages and mean household incomes are below the poverty line. Smoke alarms will be distributed and installed in high-risk homes in target communities. (*Michigan Department of Community Health*)

Preventing Alcohol-Related Adolescent Injury

This project seeks to decrease the risk of alcohol-related injuries among adolescents by preventing alcohol use and misuse. Researchers will develop and test a computer-based intervention to prevent alcohol use/misuse among adolescents presenting to the emergency department (ED). Goals include increasing knowledge about the effects of alcohol, promoting more positive attitudes about not using/abusing alcohol, and promoting more positive behavioral intentions. (*University of Michigan Medical Center, Ann Arbor*)

Blunt Knee Injuries Causing a Post-Traumatic Osteoarthritis

Researchers will examine the biomechanics of knee trauma by studying scenarios representative of motor vehicle crashes, sports, and occupational incidents. They will also explore the use of blood and urine markers to help diagnose an "injured knee" early. (*Michigan State University*)

Intentional Injury

Violence Against Women

This project will establish the Michigan Prevention of Violence Against Women Program. This program will evaluate the usefulness of a surveillance system for assessing VAW; establish a broadly representative advisory structure to address issues related to VAW; assess and define the state's capacity and role in addressing VAW; develop, implement, and evaluate four multifaceted community-level programs to prevent VAW; and prepare and broadly disseminate replication guidelines describing all aspects of the VAW program. (*Michigan Department of Community Health*)

Coordinated Community Responses to Prevent Intimate Partner Violence

This is one of 10 demonstration projects that examine ways to reduce domestic violence by improving coordinated community responses. This program will expand primary prevention activities; enhance services for victims of intimate partner violence and their families; and conduct a thorough evaluation. (*Women's Center, Inc., Marquette*)

Surveillance of Intimate Partner Violence

In order to improve Michigan's capacity for surveillance of intimate partner violence (IPV), the State Health Department will integrate population-based IPV surveillance into existing injury surveillance systems to help determine the magnitude of IPV in population subgroups. It will

revise and test uniform definitions and recommended data elements. The state will provide feedback to CDC about the IPV surveillance system and implement an expert work group to address issues related to the system. (*Michigan Department of Community Health*)

Risk and Protective Factors for Domestic Violence

Researchers will identify the risk factors that lead to continued domestic violence among women and examine the risk and protective factors that lead to the inter-generational transmission of such violence among their children. Researchers will look specifically at the type and severity of domestic violence and the socio-environmental context in which the violence occurs. They will also assess the physical and mental health outcomes of domestic violence among the women and their children. (*Michigan State University*)

Rape Prevention and Education

A nationwide grant program providing resources to states for rape prevention and education programs conducted by rape crisis centers, State sexual assault coalitions, and other public and private nonprofit entities for:

- 1) educational seminars;
- 2) operation of hotlines;
- 3) training programs for professionals;
- 4) preparation of informational material;
- 5) education and training programs for students and campus personnel designed to reduce the incidence of sexual assault at colleges and universities;
- 6) education and training to increase awareness about drugs to facilitate rapes or sexual assaults; and
- 7) other efforts to increase awareness about, or to help prevent, sexual assault, including efforts to increase awareness in underserved communities and awareness among individuals with disabilities.

(*Michigan Department of Community Health*)

Notes