



Suicide in Minnesota

2011 Data Brief

Minnesota had the 10th lowest suicide rate among states in 2010 (1). However, suicide continues to be a serious public health concern in Minnesota, as there has been a steady increase in adult suicide rates for over the last decade. This brief highlights suicide data collected from death certificates in 2011. Analysis of these data reveals that the rate of suicide among Minnesota youths and seniors held relatively steady during the last decade. In contrast, adult suicide rates among Minnesotans ages 25 to 64 years old have been steadily increasing. Of special concern is that 2011 saw an increase in all three major age groups: youth, adults, and seniors.

Based on these trends, the Minnesota Department of Health is calling for an updated statewide suicide prevention plan, and for private and public entities to increase prevention activities that focus across the lifespan, with specific emphasis on middle-aged adults and other at-risk populations.

Suicides are preventable

Minnesota's plan for suicide prevention is based on a public health approach as recommended by the US Surgeon General (2). Suicides are rarely random and inevitable. Suicide is often the result of multiple causes such as mental illness, substance abuse, history of trauma and impulsive behavior. A person's risk of suicide may increase with a painful loss, social isolation, feelings of hopelessness or being a burden to others, and not asking for help. Research shows that 90% of those who die by suicide were suffering with an underlying mental illness or substance abuse problem at the time of their death.

Minnesota's prevention strategies rely on the fact that mental illness is treatable. Significant advances have been made in the science of training gate-keepers and health care professionals to identify individuals at risk for suicidal behavior, to assess them for risk and refer them to science-based treatment. Treating mental illness and substance abuse with therapy and medications can reduce the risk of suicide.

Key public suicide prevention initiatives

The Minnesota Department of Health and SAVE (Suicide Awareness Voices for Education) are forming the Minnesota Suicide Prevention Planning Task Force with other state agencies, community-based organizations and advocacy groups to develop a statewide suicide prevention plan. This plan will update the state's plan, last revised in 2007, to include strategies specifically targeting high-risk groups, such as adults, and will include the latest research and recommendations from the National Strategy for Suicide Prevention.

For fiscal year 2011 and 2012, the Minnesota Legislature provided MDH with \$292,000 for suicide prevention. Following Minnesota Statute 145.56, this funding allowed MDH to provide information to the public and grants to local communities to implement effective strategies to reduce suicide. Current grantees include Evergreen House Youth and Family Services, National Alliance on Mental Illness-Minnesota (NAMI-MN), and Suicide Awareness Voices of Education (SAVE).

State-Wide Hotline Services

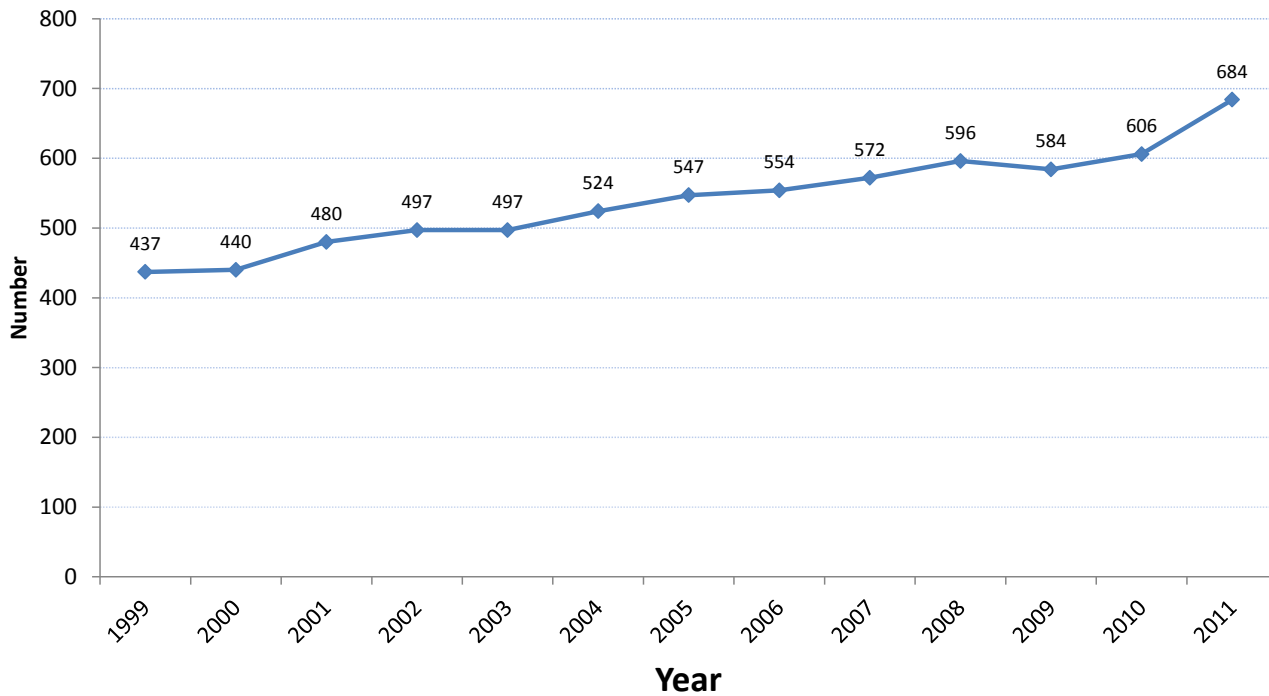
In 2011, **TXT4Life** was funded by the U.S. Substance Abuse and Mental Health Services Administration (SAMHSA) to provide texting crisis services via Canvas Health/Crisis Connection to youth in NE Minnesota and provide outreach and education about the program to youth and adults in the seven county region (Aitkin-Carlton-Cook-Itasca-Koochiching-Lake-St. Louis), including four Tribes (Bois Forte-Fond du Lac-Grand Portage-Red Lake), of Northeast Minnesota. In 2013, the Minnesota Legislature provided funding to expand this initiative throughout the state.

Crisis Connection provides mental health phone crisis counseling, referral information and connection with emergency interventions as needed. In 2011, 34,560 calls were managed from the Crisis Connection line and 4,147 calls on the National Suicide Prevention Lifeline from Minnesotans. In addition, Crisis Connection also provides ASIST (Applied Suicide Intervention Skills Training) for community caregivers who work with persons at risk for suicide.

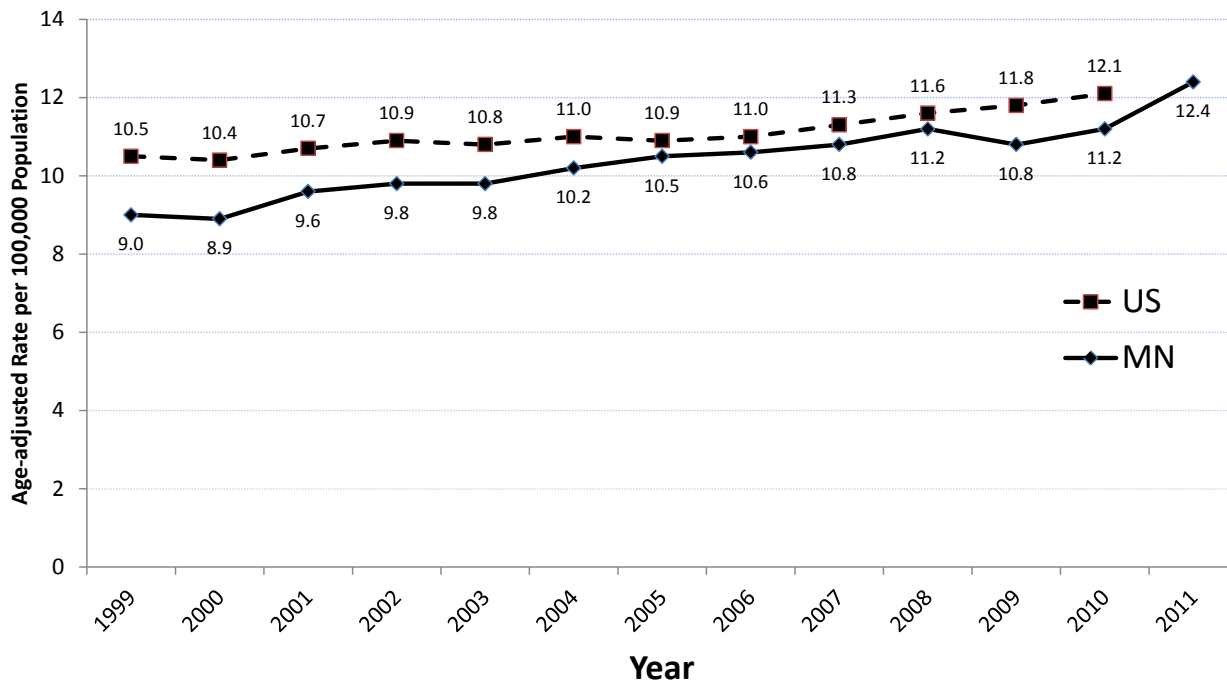
The Minnesota Department of Human Services (DHS) Children's Mental Health Crisis Services managed 10,034 crises over the phone and 2,604 crises in persons 21 years and under in 2011. The primary reason for intervention was suicidal ideation (24 percent) with an additional 9 percent depression and 3 percent suicidal attempt. Seventy-two (72) percent of people who were suicidal or attempted suicide remained in their current home and avoided hospitalization.

DHS Adult Mental Health Crisis Services managed 11,483 crises in person for individuals who were 18 years old and older. The primary reason for intervention was suicidal ideation or attempt (28 percent). An additional 23 percent of the crises involved depression. Eighty-five (85) percent of people who received services remained in their own home and avoided hospitalization.

Chart 1: Suicide In Minnesota: The Number of Suicides is Increasing



**Chart 2: The Rate of Suicide Is Increasing:
The Minnesota Rate Has Been Similar to the U.S. Rate**



Charts 1 and 2: Suicide continues to be a significant public health problem in MN and the US. Both the number and rates have been increasing over the last decade, with suicide rising to the 10th leading cause of death nationally, and to the 9th leading cause of death in Minnesota. However, Minnesota had the 10th lowest suicide rate among all US states in 2010 (US 2011 data were not released yet), perhaps reflecting Minnesota’s many efforts to address this preventable cause of death.

Chart 3: The Rate of Suicide By Age Group: Youth and Older Adults Have Lower Rates; All Age Groups Had Increases

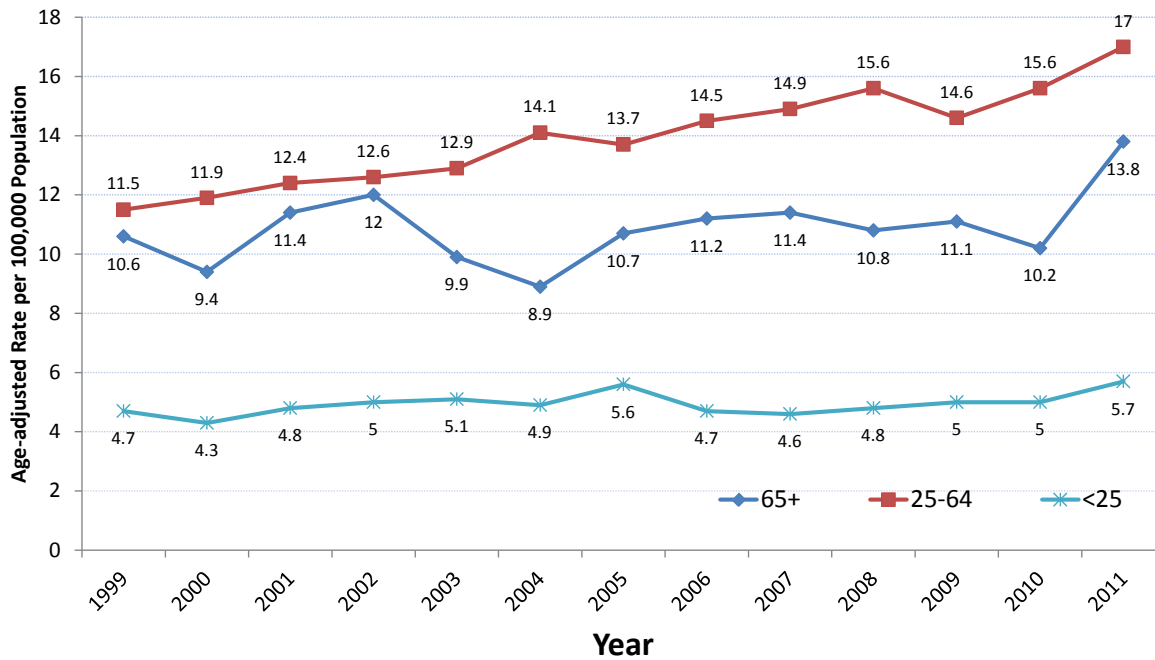


Chart 3: Adult suicide rates among Minnesotans ages 25 to 64 years old have the highest rates and have been steadily increasing over the last decade. Older adults rates have been stable from 2005-2010, but had a dramatic increase from 2010-2011. Youth rates have been stable over the last decade; however, in Minnesota suicide remains the second leading cause of death for youth ages 10-24, compared to being the third leading cause of death for that age group in the U.S.

Chart 4: The Rate of Suicide Is Higher in Males: In 2011, The Rate Increased in Males

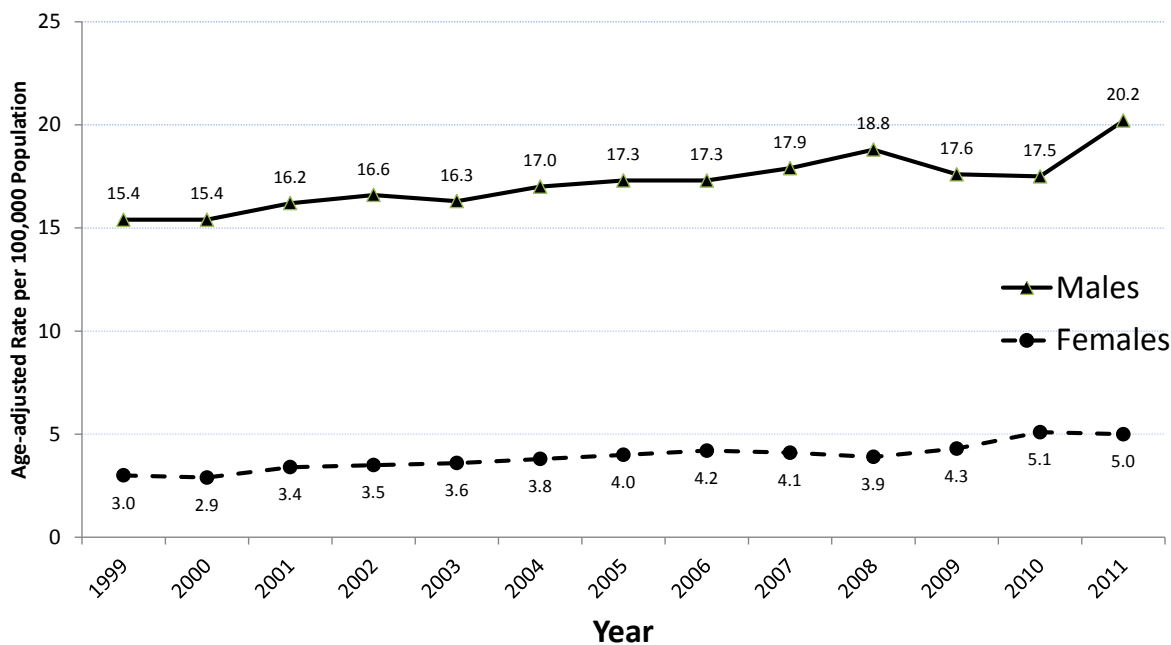
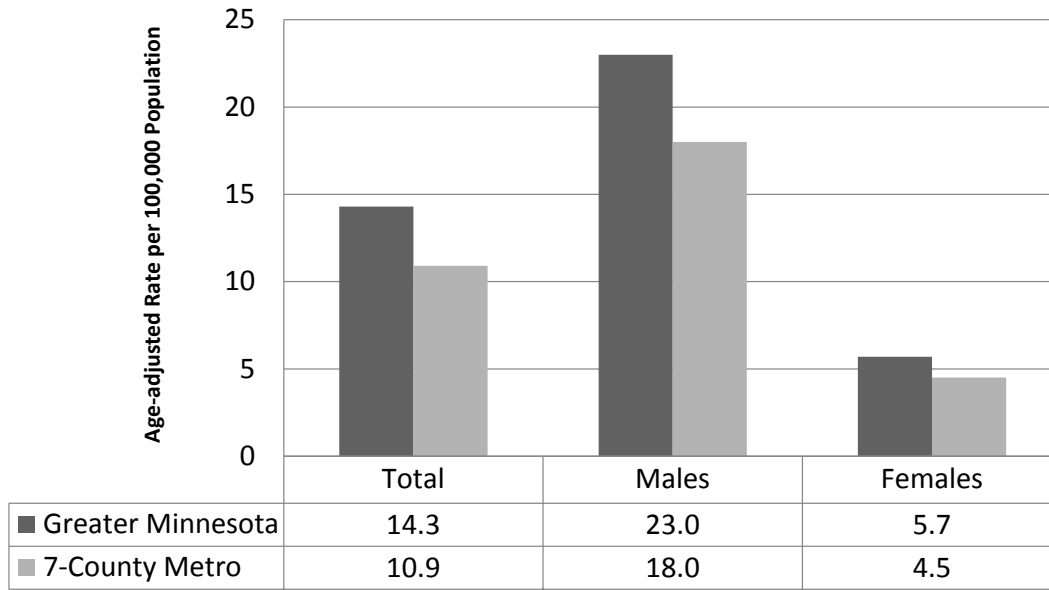


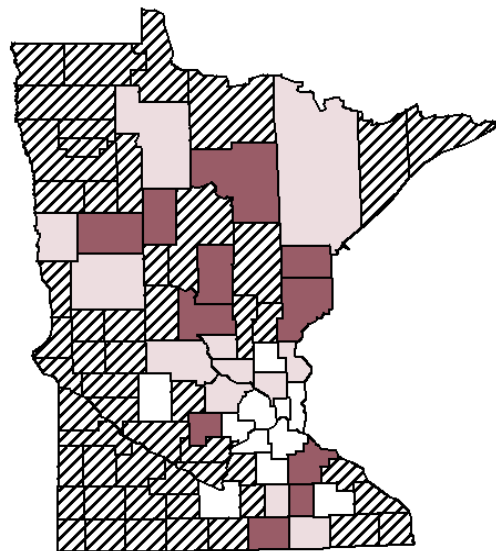
Chart 4: Over the last decade the age-adjusted suicide rate for males has been steadily increasing from 15.4 per 100,000 in 1999 to 20.2 per 100,000 in 2011, a 31% increase in 10 years. During the same time period, Minnesota’s female suicide rate increased from 3.0 to 5.0, a very concerning 67% increase. However, in 2011, the age-adjusted rate for males was still five-times the female rate.

Chart 5: Suicide Rate Urban-Rural Differences: Greater Minnesota Has Higher Rate



Map 1: Suicide Rate by County

Suicide Age-Adjusted Rate
by County of Residence, Minnesota 2007-2011



Rate (tertiles)

- Unstable (n < 20)
- Low (7.9-11.4)
- Medium (11.5-13.5)
- High (13.6-22.2)

Minnesota Department of Health
Injury and Violence Prevention Unit
Rates are per 100,000 population

Chart 5 and Map 1: In 2011, the age-adjusted rate for suicide in the 7-county Twin City Metro area (10.9 per 100,000 residents) is more than 20% lower than the rate for those living in the 80-county Greater Minnesota (14.3 per 100,000). The rates for TC-Metro males (18.0) and females (4.5) are also both lower than that of Greater Minnesota males (23.0) and females (5.7). This is consistent with national finds that those states with higher proportion of rural populations have higher rates of suicide.

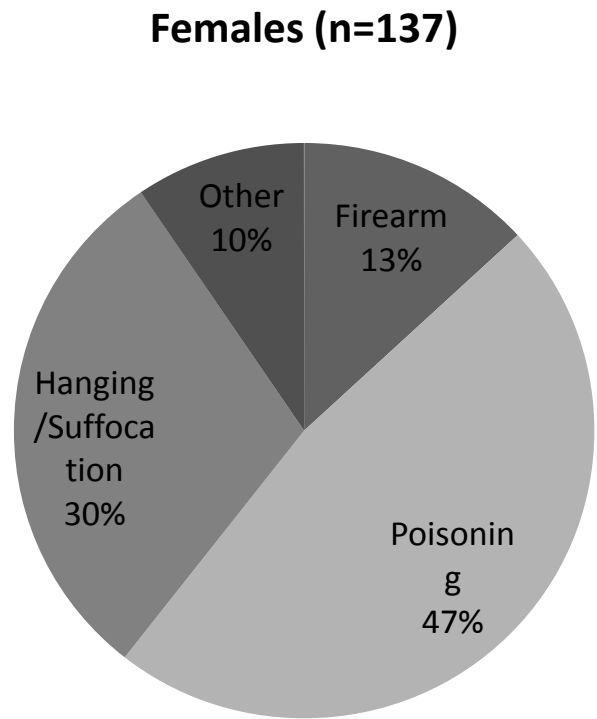
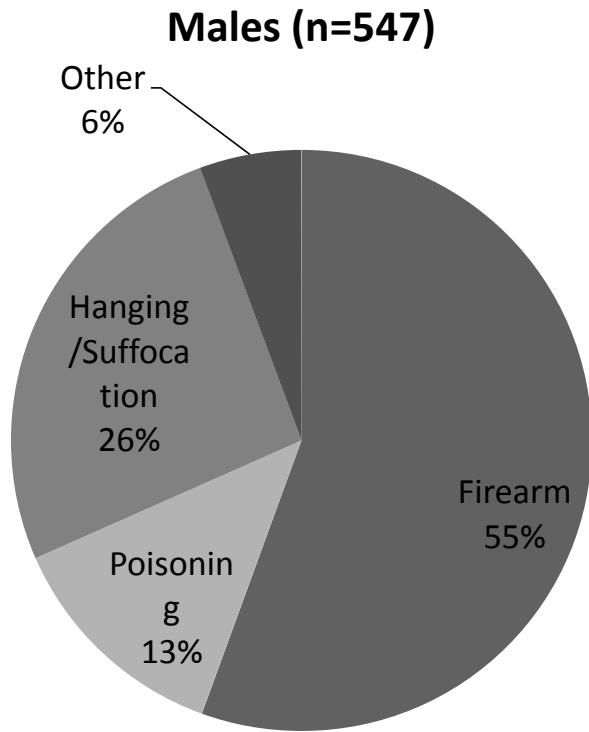
Table 1: 5-year trends by county 2007-2011

Region	5 year totals, 2007-2011					Single year totals				
	Number	Age-adjusted rate	Age group - number			2007	2008	2009	2010	2011
			<25 years	25-64 years	65 years plus	(n)	(n)	(n)	(n)	(n)
Minnesota	3034	11.2	460	2182	392	570	593	589	598	684
Aitkin	7	.	.	5	2	.	3	1	1	2
Anoka	195	11.5	34	145	16	37	36	33	48	41
Becker	22	13.6	2	16	4	5	2	7	3	5
Beltrami	29	12.2	13	11	5	8	5	5	5	6
Benton	26	13.3	3	19	4	4	6	6	3	7
Big Stone	3	.	.	2	1	.	3	.	.	.
Blue Earth	32	10.6	7	25	.	11	2	7	7	5
Brown	12	.	5	6	1	1	2	5	2	2
Carlton	36	20.2	7	22	7	6	6	7	10	7
Carver	41	8.8	6	30	5	10	5	9	7	10
Cass	14	.	1	11	2	6	5	1	.	2
Chippewa	3	.	.	3	.	.	.	2	.	1
Chisago	37	13.5	5	27	5	8	10	7	4	8
Clay	36	12.5	6	25	5	11	6	4	5	10
Clearwater	2	.	.	1	1	.	.	1	1	.
Cook	3	.	.	1	2	.	.	2	1	.
Cottonwood	11	.	2	9	.	1	2	2	2	4
Crow Wing	39	13.6	4	29	6	9	6	7	6	11
Dakota	224	10.9	32	172	20	35	41	44	41	63
Dodge	21	22.2	6	11	4	3	6	4	3	5
Douglas	17	.	2	9	6	3	2	4	2	6
Faribault	7	.	1	5	1	1	.	1	2	3
Fillmore	9	.	1	6	2	.	1	4	1	3
Freeborn	22	14.5	2	17	3	4	6	4	4	4
Goodhue	35	15.0	5	22	8	5	6	11	5	8
Grant	5	.	.	5	.	1	.	3	1	.
Hennepin	576	9.6	81	414	81	106	120	114	122	114
Houston	13	.	2	8	3	5	3	1	2	2
Hubbard	20	17.5	2	11	7	3	7	3	3	4
Isanti	22	11.3	1	17	4	5	7	6	2	2
Itasca	36	16.2	1	29	6	5	10	4	10	7
Jackson	10	.	.	8	2	2	.	3	3	2
Kanabec	13	.	2	9	2	1	3	2	4	3
Kandiyohi	21	9.9	8	10	3	3	6	1	.	11
Kittson	2	.	.	2	.	.	.	1	1	.
Koochiching	15	.	2	10	3	4	3	2	2	4
Lac Qui Parle	5	.	2	2	1	.	2	3	.	.
Lake	12	.	1	9	2	4	1	5	1	1
Lake Of The Woods	1	.	.	1	.	1	.	.	.	.
Le Sueur	13	.	2	10	1	3	4	1	1	4
Lincoln	2	.	.	1	1	1	.	.	.	1
Lyon	12	.	4	7	1	2	4	1	.	5
Mcleod	25	13.6	1	20	4	3	6	6	6	4
Mahnomen	4	.	2	1	1	2	.	1	.	1
Marshall	4	.	2	2	.	2	1	.	1	.
Martin	16	.	4	9	3	5	.	3	3	5
Meeker	16	.	3	12	1	2	3	5	4	2
Mille Lacs	15	.	.	13	2	3	4	2	4	2

Region	5 year totals, 2007-2011					Single year totals				
	Number	Age-adjusted rate	Age group - number			2007	2008	2009	2010	2011
			<25 years	25-64 years	65 years plus	(n)	(n)	(n)	(n)	(n)
Morrison	28	17.4	6	17	5	6	2	9	8	3
Mower	25	13.3	.	22	3	7	2	4	4	8
Murray	5	.	.	4	1	.	1	.	2	2
Nicollet	18	.	4	13	1	6	.	5	4	3
Nobles	12	.	1	8	3	2	5	1	2	2
Norman	6	.	2	4	.	1	1	.	.	4
Olmsted	81	11.5	14	60	7	15	16	17	17	16
Otter Tail	36	12.9	5	26	5	9	7	6	8	6
Pennington	7	.	.	7	.	2	.	2	1	2
Pine	21	14.1	3	14	4	2	5	4	7	3
Pipestone	5	.	1	4	.	2	1	.	2	.
Polk	17	.	5	9	3	2	4	2	4	5
Pope	5	.	.	3	2	.	.	2	2	1
Ramsey	268	10.5	44	190	34	44	61	49	53	61
Red Lake	2	.	.	2	.	.	.	1	1	.
Redwood	9	.	4	4	1	3	2	1	1	2
Renville	18	.	2	14	2	4	4	2	3	5
Rice	37	10.7	6	24	7	7	9	6	5	10
Rock	5	.	1	2	2	1	1	1	1	1
Roseau	10	.	2	8	.	1	4	.	2	3
St. Louis	141	13.5	14	104	23	28	30	29	21	33
Scott	51	7.9	10	39	2	6	13	10	11	11
Sherburne	55	12.9	9	39	7	8	9	11	16	11
Sibley	12	.	2	9	1	2	1	3	4	2
Stearns	93	12.5	9	76	8	10	18	19	23	23
Steele	21	12.1	5	15	1	4	4	3	5	5
Stevens	7	.	2	4	1	2	1	1	1	2
Swift	1	.	.	1	.	.	.	.	1	.
Todd	18	.	4	10	4	5	1	2	4	6
Traverse	2	.	.	1	1	.	.	.	.	2
Wabasha	16	.	1	15	.	4	3	3	2	4
Wadena	10	.	1	6	3	2	1	3	2	2
Waseca	13	.	2	9	2	5	2	.	3	3
Washington	120	10.0	23	87	10	24	23	24	22	27
Watonwan	10	.	1	9	.	3	2	3	1	1
Wilkin	3	.	2	1	.	2	.	1	.	.
Winona	19	.	2	16	1	3	1	4	7	4
Wright	80	13.3	7	63	10	14	14	15	15	22
Yellow Medicine	4	.	2	2	.	1	.	1	.	2
County Unknown	2	.	.	2	.	2	.	.	.	.
7 County Metro	1475	10.0	230	1077	168	262	299	283	304	327
Greater Minnesota	1557	12.7	230	1103	224	306	294	306	294	357

Data Source for Chart 5, Map 1 and Table 1: Minnesota Department of Health, Injury & Violence Prevention Unit. Unpublished data, compiled from Minnesota Certificate of Death Data. 2007-2011. August 29, 2013.

Charts 6 and 7: Suicide By Gender and Method



Charts 6 and 7: Firearms remain the most common mechanism used for suicide. Over half (55%) of male suicides were by firearm and nearly half (47%) of females suicides were by poisoning (e.g., prescription medications). Limiting access to lethal means such as firearms and medications during times of crises saves lives.

Data Sources (unless otherwise stated)

1999-2010: Centers for Disease Control and Prevention, National Center for Health Statistics. Underlying Cause of Death 1999-2010 on CDC WONDER Online Database, released 2012.

2011: Minnesota Department of Health, Injury & Violence Prevention Unit. Unpublished data, compiled from Minnesota Certificate of Death Data. 2011. August 29, 2013.

Age-adjusted rates: Age-adjusted rates were formulated using a weight based on age groupings of the U.S. population as reported by the U.S Census Bureau (3).

References

1. Centers for Disease Control and Prevention, National Center for Health Statistics. Underlying Cause of Death 1999-2010 on CDC WONDER Online Database, released 2012. Data are from the Multiple Cause of Death Files, 1999-2010, as compiled from data provided by the 57 vital statistics jurisdictions through the Vital Statistics Cooperative Program. Accessed at <http://wonder.cdc.gov/ucd-icd10.html> on Aug 28, 2013 5:25:22 PM
2. U.S. Department of Health and Human Services (HHS) Office of the Surgeon General and National Action Alliance for Suicide Prevention. *2012 National Strategy for Suicide Prevention: Goals and Objectives for Action*. Washington, DC: HHS, September 2012.
3. U.S. Census Bureau: www.census.gov

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