

Surveillance Report

Stay Safe in Montana Waters

Figure 1. Unintentional drowning death rate by sex, age group, and race, Montana, OVS, 2003-2011

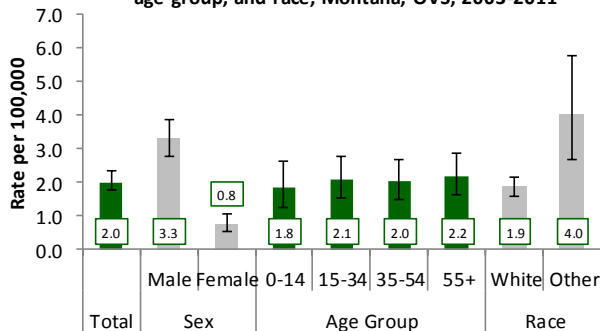
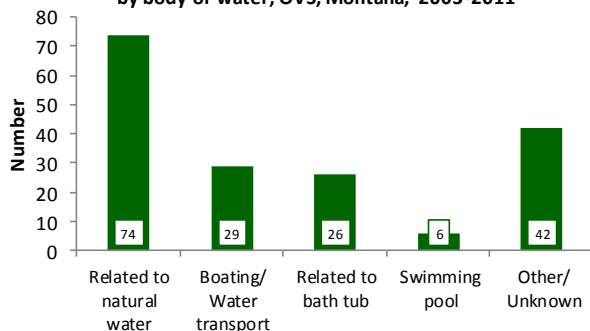


Figure 2. Number of unintentional drowning deaths by body of water, OVS, Montana, 2003-2011



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Attention to safety around bodies of water is essential because drowning can occur in a matter of minutes. Many steps can be taken to reduce the chances of drowning. These steps include fencing around pools and small ponds, ability to swim, wearing a life jacket, and importantly, availability of sober supervision and not consuming alcohol.

This report describes the demographics, time of year, day of week, and location of drowning deaths in Montana during 2003-2011. It also suggests how to prevent drownings. For more information on injury prevention in Montana see the Montana Injury Prevention Program's website at <http://www.dphhs.mt.gov/ems/prevention/> or contact the Montana Injury Prevention program at: bperkins@mt.gov, 406-444-4126.

- During 2003 to 2011, there were 177 unintentional drowning deaths in Montana, for a rate of 2.0 deaths/100,000 population. The rate in the US (2005-2009) was 1.3 deaths/100,000 population.¹
- The drowning-related death rate was four times higher for males (n=144) than for females (n=33) (Figure 1).
- We found no significant differences in the drowning-related death rates among by age group (Figure 1).
- The drowning-related death rate was more than twice as high for non-whites as for whites decedents (Figure 1).
- More drownings occurred in natural bodies of water than in bathtubs and swimming pools (Figure 2).
- On average, eight people drowned each year in natural bodies of water in Montana (Figure 2).

Methods

Data for this report are from the Montana Office of Vital Statistics (OVS) for 2003-2011 using ICD-10.² Injuries leading to deaths were classified by intent and mechanism according to the CDC Injury Matrices.³ Though usually classified as transport-related, boating-related drowning (ICD10 V90 and V92) is included in the definition of unintentional drowning (W65-W74) for the purpose of this report.

Table. Unintentional drowning deaths by month, day, and time of drowning, Montana, OVS, 2003-2011

Time of year	Number	Percent
December-February	18	10
March-May	31	18
June-August	82	46
September-November	29	16
Unknown	17	10
Day of week		
Monday	16	9
Tuesday	17	10
Wednesday	22	12
Thursday	13	7
Friday	25	14
Saturday	36	20
Sunday	31	18
Unknown	17	10
Time		
12:00am-7:59am	6	3
8:00am-11:59am	14	8
12:00pm-3:59pm	38	21
4:00pm-7:59pm	55	31
8:00pm-11:59pm	19	11
Unknown	45	25

When Drownings Occur

- Drowning deaths were most common in the summer months of June, July, and August. Forty-six percent of drowning deaths occurred during these months (Table).
- 18% of drowning deaths occurred during Spring (March-May) (Table)
- 38% of drowning deaths occurred on the weekend (Table)
- 31% of drowning deaths occurred between 4:00pm and 7:59pm (Table)

How to Stay Safe

Learn to Swim: Formal swimming lessons for young children reduce the risk of drowning.⁴

Use Life Jackets: An estimated half of boating deaths might have been prevented with the use of life jackets.⁵ There are several locations around Montana that loan life jackets to boaters and swimmers. Visit www.fwp.mt.gov for more information. Montana law states that “children under 12 years of age must wear a life jacket on a boat less than 26 feet in length that is in motion.”

Learn CPR: Performing CPR on drowning victims can save lives. The sooner CPR is started, the better the victim’s neurological outcome.⁶

Supervise Young Children Around Water: Assure the supervisor can watch the area without being distracted. Individuals of any age should never swim alone.

Avoid Alcohol While Boating and Swimming: Alcohol can impair a person’s ability to make safe choices in an around water.

Know the Water and Weather Conditions: Rip currents, strong winds, and thunderstorms create hazardous swimming and boating. During winter activities, like ice fishing, ice skating, and snowmobiling be aware of ice conditions to prevent falling into the cold water.

If you have a swimming pool:

Install a barrier: Fences should be at least four feet high and have self-closing and self-latching gates that are out of the reach of children. Always supervise young children around pools.

Clear the pool and walk area of toys and other materials: Children may be tempted to enter the water for a toy. Also, toys and other items can create tripping hazards if left in walking areas causing a child to accidentally fall into the water.

References

1. Centers for Disease Control and Prevention. Drowning-United States, 2005-2009. *MMWR*. 2012; 61(19):344-347.
2. <http://apps.who.int/classifications/icd10/browse/2010/en>
3. http://www.cdc.gov/nchs/injury/injury_matrices.htm.
4. Brenner RA, Taneja GS, Haynie DL, Trumble AC, Qian C, Klinger RM, Klevanoff MA. Association between swimming lessons and drowning in childhood: A case-control study. *Archives of Pediatrics & Adolescent Medicine* 2009;163(3):203-10.
5. Cummings P, Mueller BA, Quan L. Association between wearing a personal flotation device and death by drowning among recreational boaters: a matched cohort analysis of United States Coast Guard data. *Injury Prevention* 2011;17:156-159.14.
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