

Chronic Disease Surveillance Report

January 2015

Key Findings

- Melanoma incidence has increased in Montana; 240 Montanans were diagnosed with melanoma each year.
- 65% to 90% of melanomas are caused by ultraviolet (UV) light exposure.
- 1 in 3 female 12th grade students in Montana report indoor tanning.
- 42% of younger women diagnosed with melanoma have melanoma in trunk region of the body which suggest intermittent and intense UV light exposure -- like the exposure experienced when tanning.

Montana Cancer Control Programs

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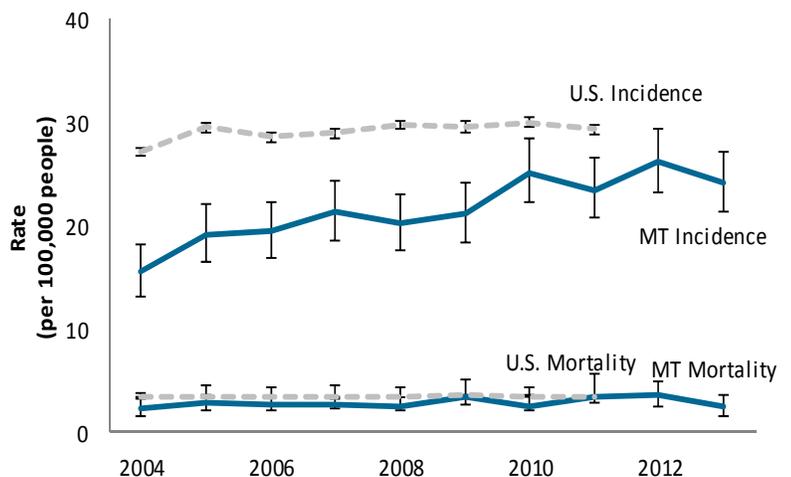


Skin cancer is the most common type of cancer in the United States.¹ There are three types of skin cancer -- squamous cell, basal cell, and melanoma. Melanoma is the most deadly type of skin cancer and is the only type of skin cancer reportable by state law to the Montana Central Tumor Registry. This surveillance report describes melanoma incidence, mortality and risk factors for the disease.

During 2004-2013, approximately 240 Montanans were diagnosed with melanoma each year.¹ Melanoma was the 5th most common cancer among Montana men and 6th among Montana women. Nearly all (99%) melanoma cases in Montana occurred among Whites; less than five cases occurred among American Indians in Montana each year. The incidence rate of melanoma in Montana was statistically lower than the incidence rate in the United States from 2004 to 2011 (the most recent years of data).² Melanoma incidence has increased significantly over the last decade in both Montana and the United States (Figure 1). This trend likely reflects changing patterns in exposure to ultraviolet (UV) light, medical practice patterns (more early diagnosis), and more complete reporting of melanoma by dermatologists to the cancer registry.

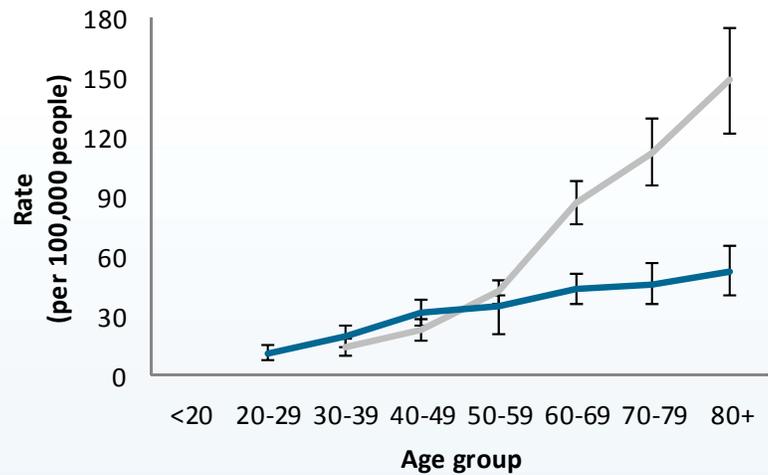
Mortality trends due to melanoma have not significantly changed in the past decade (Figure 1). From 2004-2013, approximately 32 Montanans died of the disease each year.³

Figure 1. Age-adjusted incidence and mortality of invasive melanoma skin cancer in Montana^{1,3} and United States², 2004-2013



*U.S. incidence and mortality rates are for white non-hispanic race only.

Figure 2. Age-specific incidence rate of invasive melanoma by sex in Montana¹, 2009-2013



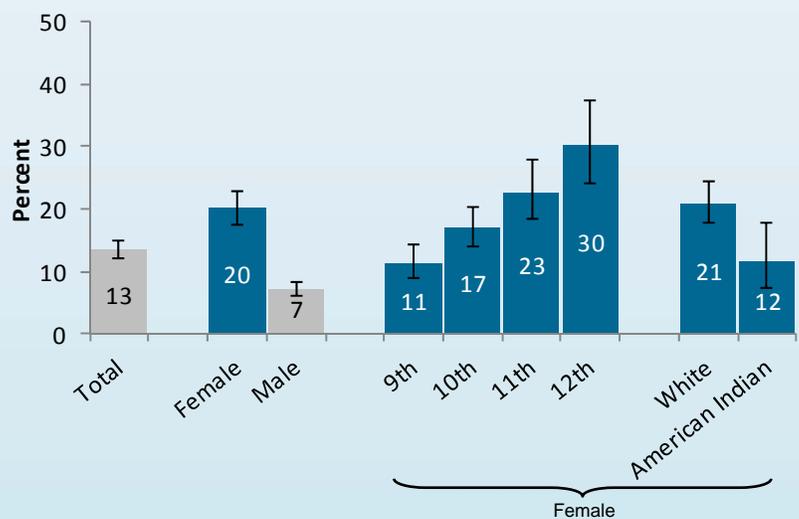
- Over 75% of melanoma cases were diagnosed among persons 50 years or older (Figure 2).
- Melanoma incidence was greater among women than men in age groups younger than 50 years (Figure 2).
- In age groups 50 years and older, melanoma incidence among men surpassed that of women (Figure 2).

Melanoma among adolescents and young adults

Melanoma was the 2nd most common form of cancer among adolescents and young adults in Montana.¹ During 2009-2013, approximately 29 adolescents and young adults between the ages of 15 and 39 years were diagnosed with melanoma each year in Montana.¹ Two out of three melanoma cases (64%) in this age group occurred among women. Melanoma that occurs at a young age may indicate excessive, intermittent exposure to UV light (from sources such as sun or indoor tanning devices) among individuals prone to developing melanoma.⁶

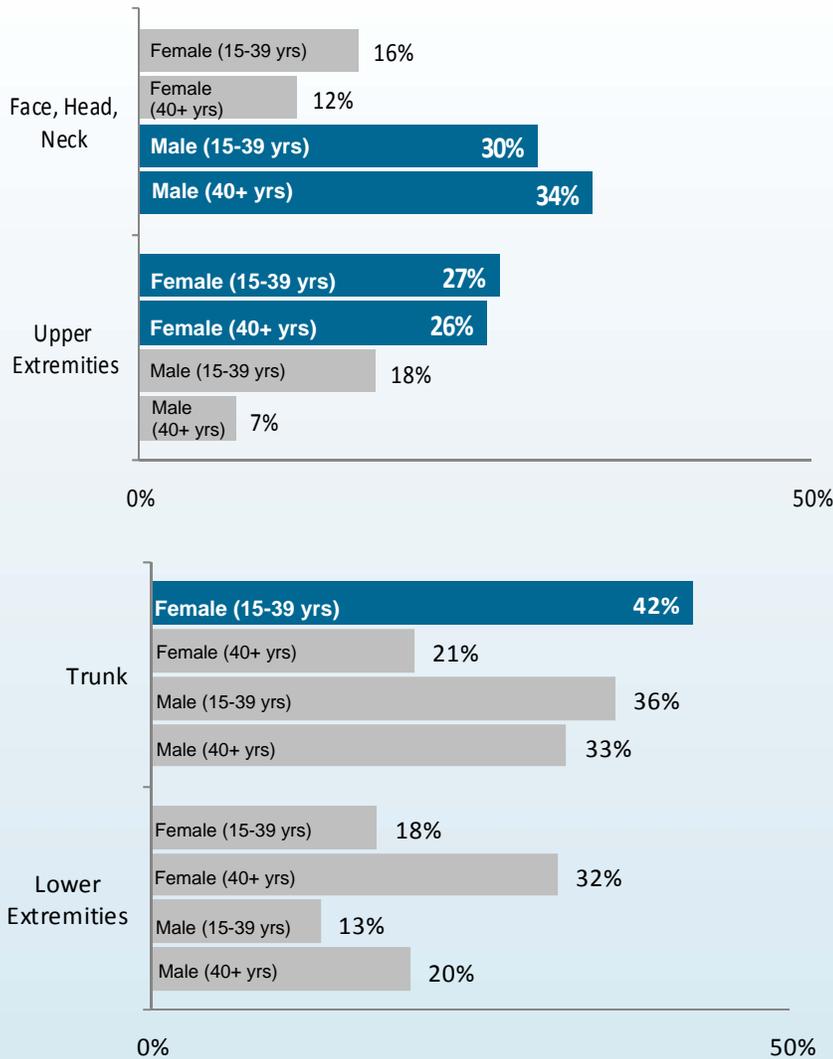
- In 2013, use of indoor tanning devices was significantly more prevalent among female high school students than among males (Figure 3).
- Use of indoor tanning devices became more prevalent with increasing grade among female high school students (Figure 3).
- Use of indoor tanning devices was significantly more prevalent among female White students than among female American Indian students. (Figure 3)

Figure 3. Percent of high school students in Montana who reported that they used an indoor tanning device[†] one or more times in the past 12 months⁴, 2013



[†] such as a sunlamp, sunbed, or tanning booth

Figure 4. Body site distribution of invasive melanoma by sex and age group in Montana², 2004-2013



Between 65% to 90% of melanomas are caused by exposure to ultraviolet light.⁵ The distribution of melanoma by body site may relate to patterns of UV light exposure.

Male compared to Female

- More males than females were diagnosed with melanoma of the face, head, and neck (Figure 4).
- More females than males were diagnosed with melanoma of the upper extremities (Figure 4).

Adolescent and Young Adult compared to Adult

- Among females aged 15 to 39 years with melanoma two in five (42%) were diagnosed with melanomas of the trunk while only 21% of females 40 years or older present in this body region (Figure 4).
- Because the trunk is usually unexposed to UV light, melanoma in this area of the body suggests intermittent and intense UV light exposure -- like the exposure experienced when tanning.⁶

Risk Factors for Melanoma

- Exposure to sun light through work and play
- A history of sun burns, especially early in life
- A history of indoor tanning
- Lighter skin color
- Skin that burns, freckles, reddens easily, or becomes painful in the sun

References

1. Montana Department of Public Health and Human Services, Montana Central Tumor Registry, 2004-2013.
2. Surveillance, Epidemiology, and End Results (SEER) Program (www.seer.gov). SEER*Stat Data-base: Incidence-SEER18 Regs Research Data, Nov 2013 Sub (2000-2011), National Cancer Institute, DCCPS, Surveillance Research Program, Surveillance Systems Branch, released April 2014, based on the November 2013 submission.
3. Montana Office of Vital Statistics, 2004-2013.
4. Montana Youth Risk Behavior Survey, 2013.
5. Centers for Disease Control and Prevention, National Center for Chronic Disease Prevention and Health Promotion, Division of Cancer Control and Prevention, Available at: http://www.cdc.gov/cancer/skin/basic_info/index.htm
6. Weir HK, Marrett LD, Cokkinides V, Barnholtz-Sloan J, Patel P, Tar E, et al. Melanoma in adolescents and young adults (ages 15-39 years): United States, 1999-2006. *J Am Acad Dermatol*;65(5 Suppl 1):S38-49.

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Avoid unprotected exposure to sunlight, seek shade, and never indoor tan.

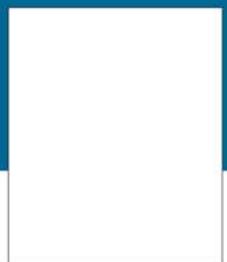
Wear sun protective clothing, including a long-sleeved shirt, pants, a wide-brimmed hat, and sunglasses year-round.

Apply broad-spectrum sunscreen with a sunburn protection factor (SPF) of 30 or higher

Routinely examine your whole body for changes in your skin and report concerns to a healthcare provider

Educate your family and community about the need to be Sun A.W.A.R.E.

Action: Be Sun A.W.A.R.E.



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