

The diseases and conditions that currently have the greatest impact on people in terms of death, illness, and disability are chronic diseases. Cancer, heart disease and stroke, obesity, arthritis, and diabetes are among the most prevalent, costly, and preventable of all health problems. Schools, workplaces, communities, policymakers, employers, and government officials are taking a closer look at policies, programs, and incentives to improve the health of their populations.

## CHRONIC DISEASE ACROSS THE NATION: THE FACTS

- Seven of every 10 deaths in the U.S. are caused by chronic conditions.
- Chronic conditions account for more than 75 percent of U.S. health care spending. These persistent conditions—the nation’s leading causes of death and disability—leave in their wake deaths that could have been prevented, lifelong disability, compromised quality of life, and burgeoning health care costs.
- Many chronic conditions can be prevented by not smoking, being physically active, and eating nutritious foods.

“Chronic diseases linked to obesity, poor nutrition, physical inactivity, and tobacco use are the leading causes of death and disability in our nation,” says Dr. Thomas Frieden, director of the Centers for Disease Control and Prevention.<sup>1</sup>

Access to high-quality and affordable prevention measures (including screening and appropriate follow-up) are essential steps in saving lives, reducing disability, and lowering costs for medical care.

## SOUTH DAKOTA CHRONIC DISEASE STATISTICS

Coordinated chronic disease prevention efforts in South Dakota (SD) can reduce the prevalence of chronic disease across the state population. The chronic disease data in the state is of great concern, evidenced by recent Centers for Disease Control and Prevention and vital statistics data<sup>2</sup>:

- In 2011, 45% of all deaths in the state were due to heart disease and cancer.*
- In 2011, 31% of adults had high blood pressure and 37% of adults had high cholesterol.*
- In 2011, nearly 10% of adults had been diagnosed with diabetes.*
- In 2011, 28% of adults were obese.*
- In 2011, 23% of adults were current smokers.*
- In 2011, 27% of South Dakotans participated in no leisure time physical activity.*

Living a healthy lifestyle greatly reduces a person’s risk for developing chronic disease. Chronic diseases and conditions – and their complications such as heart disease, cancer, stroke, diabetes, obesity, and arthritis – are not inevitable; they often can be prevented and controlled. Chronic diseases develop slowly over years and decades; understanding that the modifiable risk factors of tobacco use, poor nutrition, and physical inactivity can highly influence chronic conditions is an important step in prevention measures. The goal is to extend quality of life by preventing and delaying the onset and severity of chronic disease, pain, and disability and to prevent premature mortality caused by chronic disease.

The Robert Wood Johnson Foundation’s Commission to Build a Healthier America thinks state policies can make a difference in helping people stay healthy. “We need to cultivate a national culture infused with health and wellness—among individuals and families and in communities, schools and workplaces,” the commission said.

While good health depends largely on personal choice and responsibility, the commission added that “society’s leaders and major institutions can create incentives and lower barriers so that individuals and families can take steps to achieve better health... and to choose healthful behaviors, especially for those who face the greatest obstacles.”

**PREVENTION IS AN INVESTMENT  
AND THERE IS GROWING EVIDENCE  
THAT IT WORKS.**

## HEALTH INDICATORS

Health indicators describe or measure particular characteristics of a population, events, or other factors that affect health. Using health indicators to measure population health allows for tracking changes in health status over time for the same population and also for making comparisons with other populations.

Through a collaborative process, the SD DOH Office of Chronic Disease Prevention and Health Promotion (OCDPHP) identified the following health indicators as key information needs for a community assessing its chronic disease health.

**PHYSICAL INACTIVITY AND UNHEALTHY EATING CONTRIBUTE TO OVERWEIGHT AND OBESITY AND A NUMBER OF CHRONIC DISEASES, INCLUDING SOME CANCERS, CARDIOVASCULAR DISEASE, AND DIABETES.**

1. Long-term Outcomes
  - a. Chronic Health Indicators
2. Clinical & Community Care
  - a. Preventive Services
  - b. Access to Care
3. Health Behavior
  - a. Diet and Exercise
  - b. Tobacco Use
4. Physical Environment
  - a. Built Environment
5. Social Determinants of Health

The community health needs assessment process supported by the OCDPHP and the tools and resources included in the Toolkit are directed toward chronic disease prevention, promotion, and management.



## CHRONIC DISEASE RISK FACTORS IN SOUTH DAKOTA

### Physical Activity

Physical activity reduces the risk of many chronic diseases including heart disease, stroke, colorectal and breast cancers, and type II diabetes. It also helps maintain and control a healthy weight, and strengthens muscles, bones, and joints. While guidelines vary depending on health status, the 2008 Physical Activity Guidelines for Americans recommend that adults engage in 2.5 hours of physical activity per week to lower their risk of heart disease, stroke and other chronic conditions.

- 67% of South Dakota high school students did not attend physical education classes on at least one day.<sup>3</sup>
- 27% of South Dakota High School Students were physically active at least 60 minutes on 7 of past 7 days.<sup>3</sup>
- 54% of adults in South Dakota did not meet the aerobic physical activity guidelines in 2011.<sup>4</sup>



### Nutrition

Eating fruits and vegetables lowers the risk of developing many chronic conditions and can also help with weight management.

- 85% of high school students and 89% of adults in South Dakota consumed fewer than 5 fruits and vegetables per day.<sup>3</sup>

## State Indicator Report on Fruits and Vegetables, 2013 Behavioral Indicators<sup>5</sup>

	Adults				Adolescents			
<b>State 2011</b>	Pct. who report consuming fruits & Vegetables < 1 time daily		Median intake of fruits and vegetable (times per day)		Pct. who report consuming fruits & Vegetables < 1 time daily		Median intake of fruits and vegetable (times per day)	
	Fruits	Vegetables	Fruits	Vegetables	Fruits	Vegetables	Fruit	Vegetables
<b>SD</b>	39.6	26.3	1.0	1.5	41.2	38.8	1.0	1.1

### TOBACCO USE

Tobacco use is the single most preventable cause of death and disease in the United States. Each year, an estimated 438,000 people in the U.S. die prematurely from smoking or exposure to second hand smoke, and another 8.6 million have a serious illness caused by smoking. For every person who dies from smoking, 20 more people suffer from at least one serious tobacco-related illness.

- In 2011, 23% of adults and 23% of high school students in South Dakota reported being current smokers.<sup>4</sup>

"So many of our health problems can be avoided through diet, exercise and making sure we take care of ourselves. By promoting healthy lifestyles, we can improve the quality of life for all Americans, and reduce health care costs dramatically."

**Tommy G. Thompson,**  
former Secretary, DHHS<sup>3</sup>

### CHRONIC DISEASE MANAGEMENT

Your risk of having a chronic disease is increased by the risk factors of being overweight or obese, having high blood pressure, having elevated blood glucose levels, and having elevated lipids and cholesterol numbers. If your lifestyle includes tobacco use, eating an unhealthy diet, and being physically inactive your risks increase further.

School Height & Weight data is collected yearly to follow overweight and obese trends in SD youth.

### School Year 2011-2012 Overweight and Obese Body Mass Index for Age

Age	5-8 years	9-11 years	12-14 years	15-19 years	Totals
<b># of students</b>	20,030	15,477	11,286	3,286	50,078
<b>Overweight</b>	16.2%	16.7%	17.5%	15.3%	16.6%
<b>Obese</b>	13.8%	17.4%	17.1%	16.8%	15.9%
<b>Overweight and Obese Combined</b>	30%	34.1%	34.6%	32.1%	32.5%

SOURCE: South Dakota Department of Health Note: Due to changes in the CDC/WHO age and height references, these data cannot be compared to data in previous reports prior to the School Height and Weight for South Dakota Students 2000-2001 School Year.<sup>6</sup>

**Estimated Percentage and Number of Persons at Risk Due to Selected Factors  
(Ages 18 and Older Unless Otherwise Specified) - South Dakota BRFSS, 2011**

<b>Modifiable Risk Factor</b>	<b>Percentage</b>	<b># of people</b>
Overweight/Obese (BMI 25.0+)	64%	397,000
Body Mass Index - Obese	28.1%	175,000
No Leisure Time Physical Activity	27.0%	168,000
Cigarette Smoking	23.0%	143,000
Smokeless Tobacco Use	6.8%	42,000

Reducing the prevalence of these modifiable risk factors is an important part of reducing chronic disease morbidity and mortality in South Dakota. Our data associated with many chronic diseases shows that there is much room for improvement.



**CONCLUSION**

The evidence shows that chronic disease is an important health issue and it is growing in importance. Many people have multiple chronic diseases which makes their care more complex.

The South Dakota Department of Health (SDDOH) is committed to chronic disease prevention and health promotion. In 2012 the first ever Chronic Disease State Plan was developed to help guide all stakeholders in working together on cross-cutting efforts to reduce the burden of chronic disease in South Dakota. It addresses this burden of chronic disease and provides a roadmap of proven effective strategies for making change.

One of those strategies is to encourage community coalitions to develop and implement plans to address chronic disease by conducting a community health needs assessment and developing a community health improvement plan as a coordinated chronic disease prevention effort. *The South Dakota Good & Healthy Community Health Needs Assessment and Improvement Planning Toolkit* (the Toolkit) is geared to help coalitions assess, identify, and address the chronic disease data in their community. By using the assessment process to define these needs and assets, a community can prioritize strategies to target areas that enhance reach and impact.

The Toolkit reflects the commitment of the South Dakota Department of Health to meet community need with support for initiatives at the local level. The ultimate goal is to reduce premature mortality of SD residents by addressing the risk factors associated with chronic disease.

South Dakota residents can make changes, efforts, and improvements in their lifestyles to become and stay well. Working toward engaging and enhancing individuals and communities' ability to expand and practice evidence-based chronic disease prevention activities and promote change at the policy, systems, and environmental levels can prevent and reduce the burden of chronic diseases.

## Resources

Refer to the following resources for additional information on chronic disease prevention and promotion.

### Chronic Disease

CDC's Healthy Communities Program. Centers for Disease Control and Prevention.

Making Healthy Choices Easy Choices. The Obesity Prevention Source. Harvard School of Public Health.

## References

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