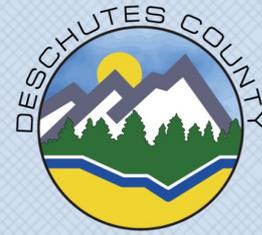


# Deschutes County Health Services Epidemiology Newsletter



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For more information, contact: Jennifer Faith, Deschutes County Epidemiologist  
Email: [Jennifer.Faith@deschutes.org](mailto:Jennifer.Faith@deschutes.org) | Phone: (541) 322-7163

## In this Issue: **Diabetes in Deschutes County**

This issue will focus on diabetes in our county, including risk factors, prevalence, mortality, and how diabetes relates to mental health.

Diabetes is a chronic disease in which blood sugar levels are above normal. Diabetes can cause health complications including blindness, kidney failure, and amputations of the lower limbs. The most common types of diabetes include:

### ○ **Type 1 diabetes**

Previously called "juvenile-onset diabetes," it accounts for around 5% of diabetes cases.

### ○ **Type 2 diabetes**

Previously called "adult-onset diabetes," it accounts for the majority (around 90-95%) of diabetes cases.

### ○ **Gestational diabetes**

Gestational diabetes occurs in some pregnant women. It develops in around 5% of all pregnancies and can cause problems for pregnant women and their babies. It can also increase the risk of developing Type 2 diabetes later in life.

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# Diabetes Risk Factors in Deschutes County

Many factors have been shown to influence the risk of developing diabetes. Some risk factors can not be controlled, such as age and having a family history of diabetes. Some risk factors can be modified or changed. Two of these modifiable risk factors are highlighted below.

## Obesity

Compared to other counties in Oregon, Deschutes County has one of the lowest percentages of obesity among adults. Still, over 30,000 adults in the county are considered obese.

Age-Adjusted Adult  
Prevalence of Obesity:  
BRFSS (2010-2013)

Oregon.....	26%
Deschutes County....	22%

In Oregon,

- Among adults considered obese: 16% have diabetes
- Among adults in the "normal" weight category: 3% have diabetes

Source: Oregon Diabetes Report, 2015

Prevalence  
of Obesity  
(Children)



Obesity is measured differently in children than in adults. The current prevalence of obesity among Deschutes County children is unknown. In Oregon, around 1 in 4 children aged 10-17 are considered "overweight or obese."

Source: National Survey of Children's Health, 2007

## Physical Inactivity

Only 1 in 4 adults in Deschutes County meet the CDC's guidelines for physical activity (BRFSS, 2010-2013). Many adults in the county do not get any physical activity at all.

Age-adjusted prevalence of adults  
who got no physical activity  
outside of work within the past  
month: BRFSS (2010-2013)

Oregon.....	18%
Deschutes County....	14%

Among Deschutes  
County Youth:

Around 6% of 8th graders and 13% of 11th graders reported that they got no physical activity.

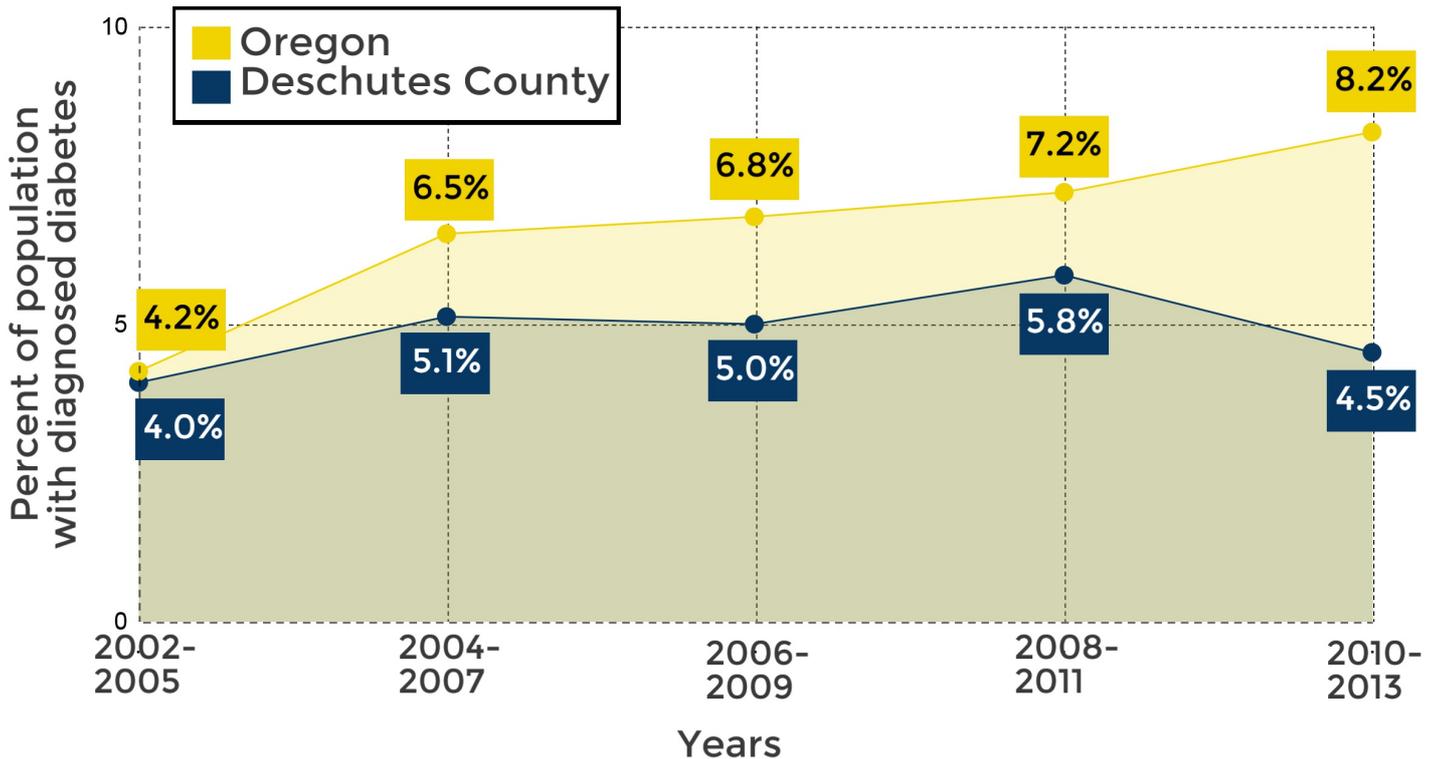
This is similar to students across the state.

Source: Oregon Healthy Teens Survey, 2013

# Diabetes Prevalence in Deschutes County

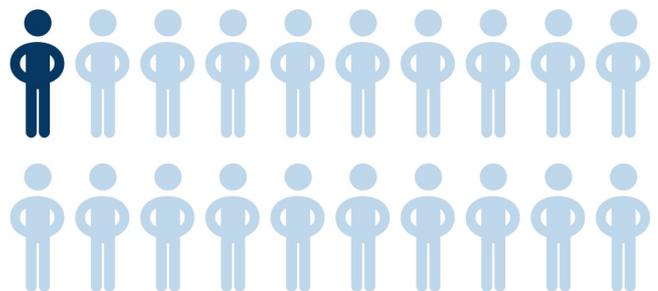
Around 4.5% of all adults in our county have diagnosed diabetes. This is lower than the proportion of all adults in Oregon (8.2%) and in the U.S. (9.7%) who have diabetes.

Figure 1: Age-Adjusted adult prevalence of diabetes in Deschutes County and Oregon, BRFSS (2002-2013)



Data over the past decade show that anywhere from 4.0% to 5.8% of adults in our county have diabetes.

Although we have lower rates than the state and in the U.S. as a whole, diabetes still affects around 7,000 (or 1 out of every 20) Deschutes County adults.



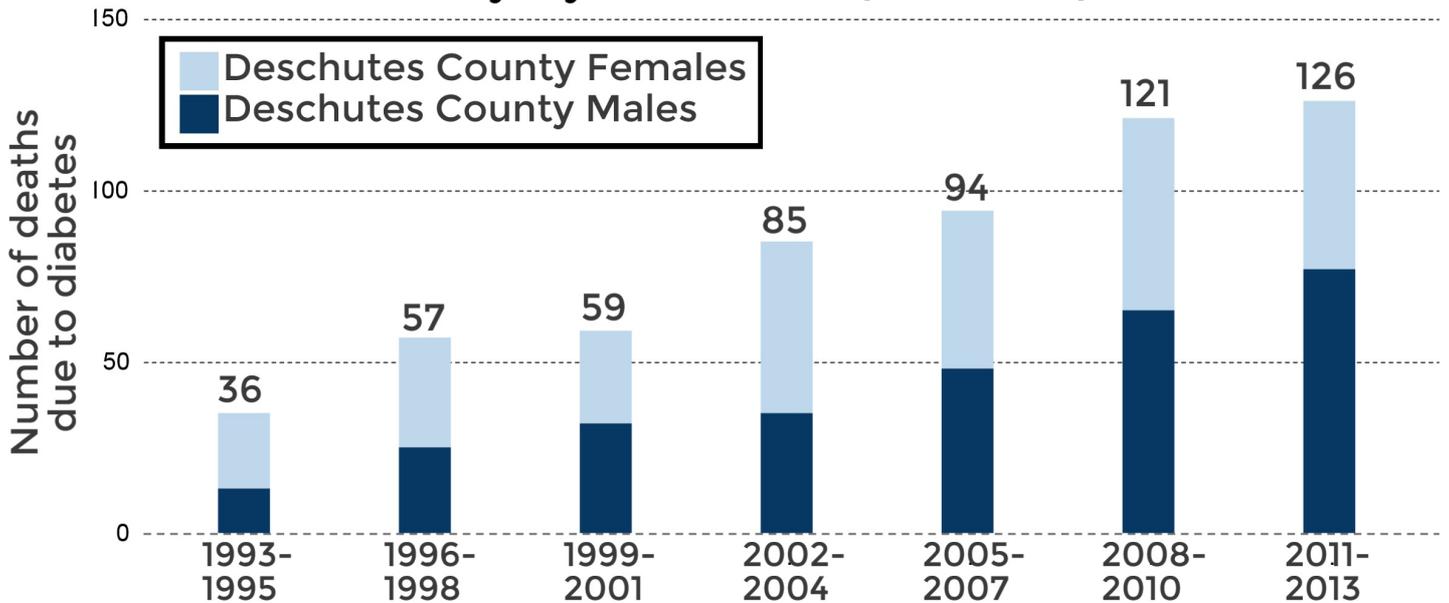
It is important to remember that these numbers only include diagnosed diabetes. It is estimated that over 100,000 Oregonians have diabetes and do not know it.

Over 1 million Oregonians are estimated to have prediabetes, a condition where blood sugars are higher than normal but not high enough to be considered diabetes.

# Diabetes Mortality in Deschutes County

The total number of deaths from diabetes has increased over time in our county. This increase is in line with our county's population growth. The overall mortality rate (or number of deaths per population) has not changed significantly over the past 20 years.

Figure 2: Number of deaths from diabetes in Deschutes County, by sex, OPHAT (1993-2013)

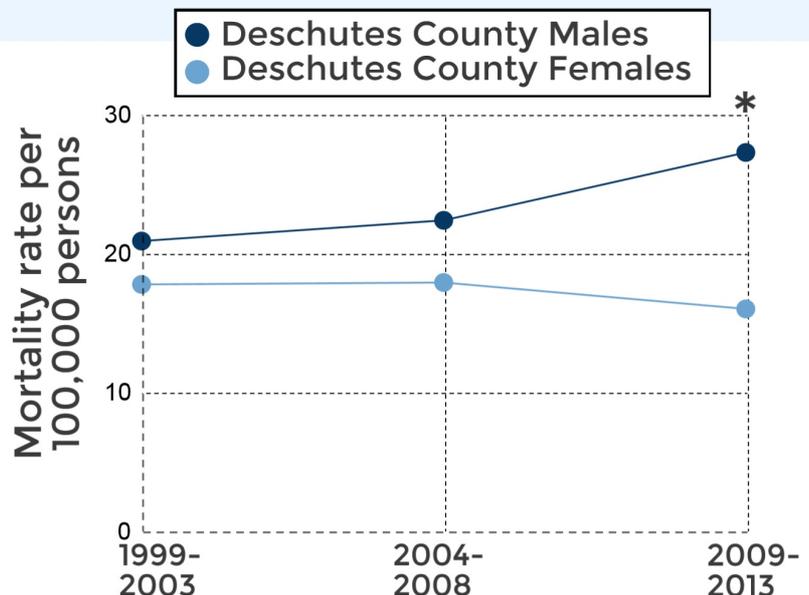


\* As noted above, the increase in number of deaths is due in part to the increase in the county population over time.

Since 1993, the total number of diabetes-related deaths in our county among females (282) is similar to the total number among males (295).

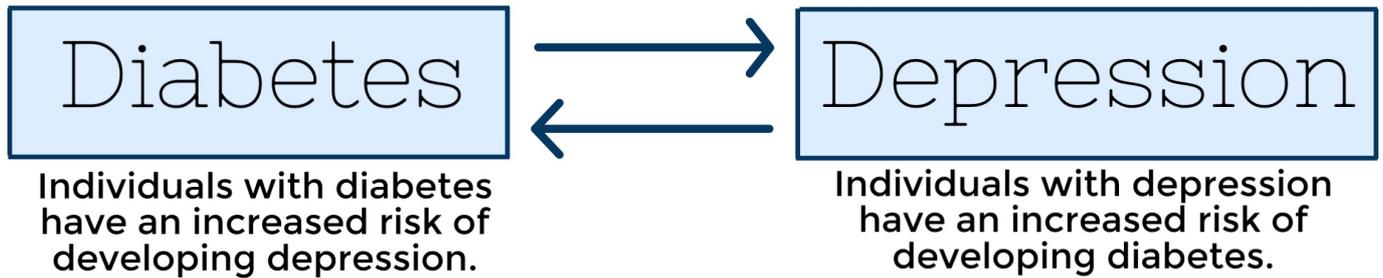
As seen on the graph below, however, Deschutes County males had a statistically significantly higher mortality rate from diabetes than females in recent years.

Figure 3: Age-adjusted mortality rates for diabetes in Deschutes County, by sex, OPHAT (1999-2013)



\* Indicates that diabetes mortality rate among males is statistically significantly higher than among females.

# Diabetes and Depression



**Why?** Causes are unclear, but research suggests that:

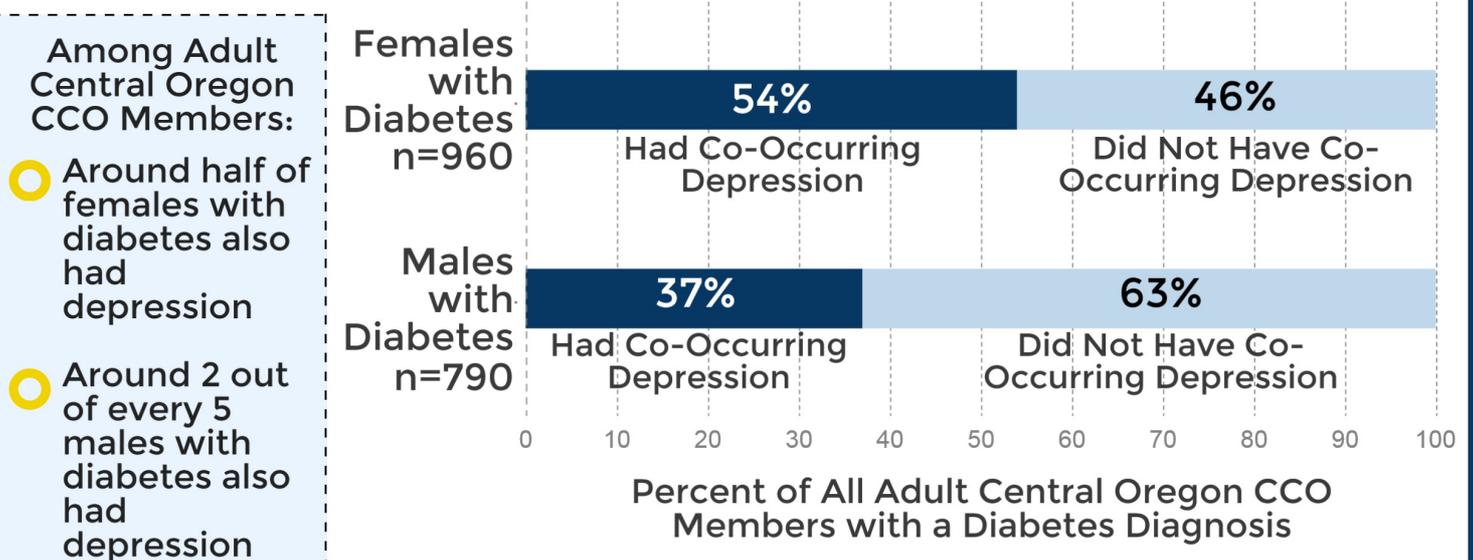
- Stress of managing diabetes may lead to symptoms of depression
- Depression may relate to behaviors that are risk factors for diabetes, like dietary changes and lack of exercise
- Diabetes may lead to other health problems that may lead to depression
- Depression may lead to other risk factors for diabetes, like abnormal stress hormones and metabolism

**Those who have depression and diabetes tend to have more severe symptoms of both conditions.**

For example, depression might affect a person's ability to manage his or her diabetes, including keeping up with a healthy diet, monitoring blood sugars, or seeking care.

Data from our Central Oregon Coordinated Care Organization (CCO), PacificSource, can provide insight on how often diabetes and depression co-occur among Oregon Health Plan members in our region.

**Figure 4. Adult Central Oregon CCO Members with a Diabetes Diagnosis who had Co-Occurring Depression**



Thank you to PacificSource for providing Central Oregon CCO data. The CCO member data above is based on claims information and includes those members who were identified as having had diabetes and/or depression between 1/1/16 and 7/31/16.

# Diabetes and SPMI

Serious and Persistent Mental Illness (SPMI) is associated with an increased risk of diabetes.

Why?

Research suggests that SPMI is associated with behaviors and factors that increase the risk of developing diabetes, including:



Smoking



Poor Nutrition



Lack of Exercise



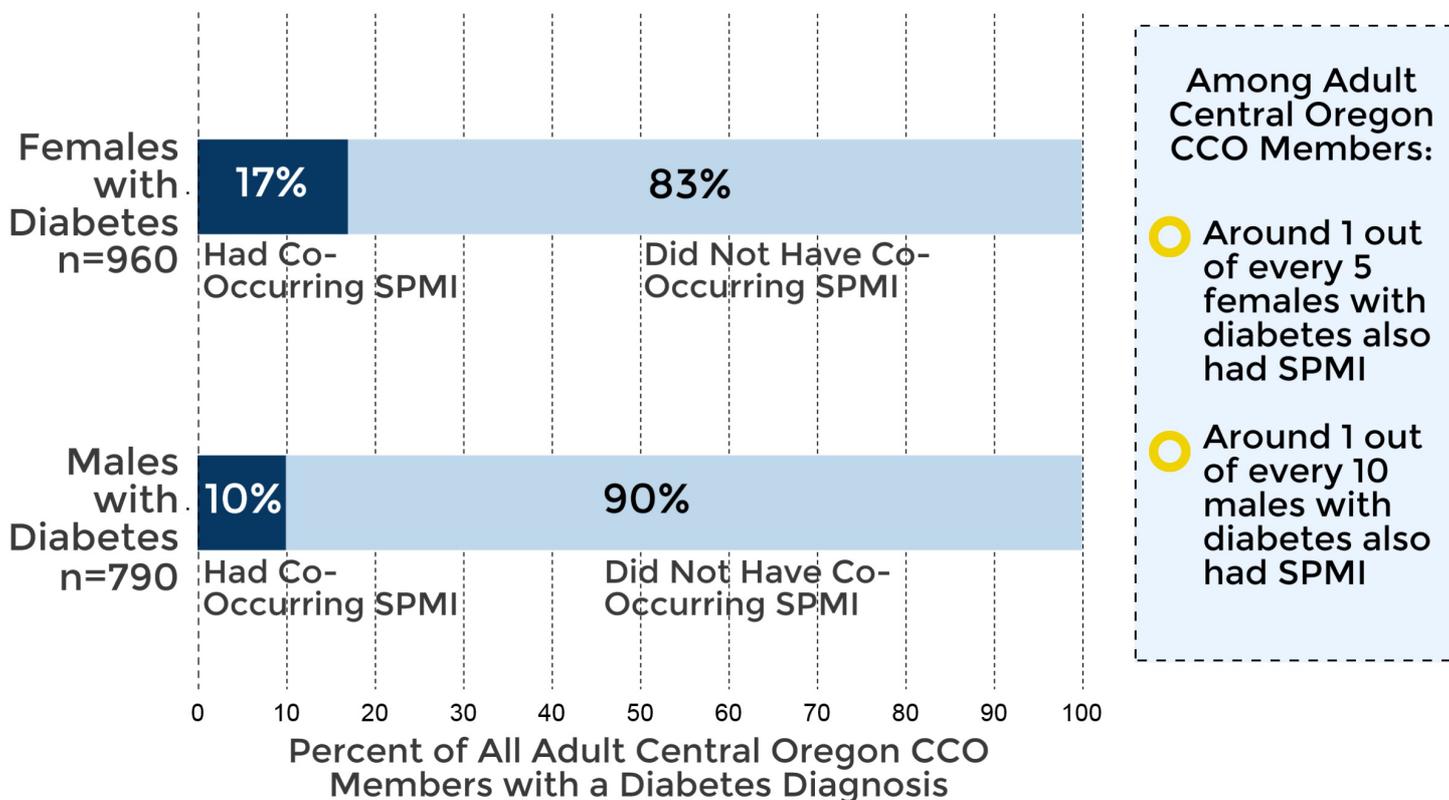
Obesity

**Because diabetes is often self-managed, management of diabetes may be more difficult in the context of SPMI.**

For example, those with SPMI might have difficulty seeking care, taking prescribed medications, monitoring blood sugars, or eating healthy foods.

Data from our Central Oregon CCO, PacificSource, can provide insight on how often diabetes and SPMI co-occur among OHP members in our region.

Figure 5. Adult Central Oregon CCO Members with a Diabetes Diagnosis who had Co-Occurring SPMI



Thank you to PacificSource for providing Central Oregon CCO data. The CCO member data above is based on claims information and includes those members who were identified as having had diabetes and/or SPMI between 1/1/16 and 7/31/16.

# Deschutes County Health Services: Program Spotlights

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Deschutes County Health Services has several programs designed to help those in our community prevent and manage diabetes. Two of these programs are highlighted below.

## Diabetes Prevention Program (DPP)

Deschutes County Health Services was recently awarded a grant from the Central Oregon Health Council to provide regional coordination for the Diabetes Prevention Program.

We work with multiple clinic and community partners in Central Oregon, including La Pine Community Health Center, St. Charles Health System, Crook County Health Department, Mosaic Medical, and Central Oregon Council on Aging (COCOA) to coordinate and implement the program.

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### Program Goal

To reduce the risk of developing diabetes in high-risk individuals through an intensive one-year lifestyle intervention.

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### Client Impact

The DPP is an evidence-based program that has been shown to reduce participants' risk for developing type 2 diabetes by over 50%. For participants over the age of 60, the reduction of risk is even higher.

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### How Does it Work?

All program participants are assigned two primary goals:

- 1 to achieve and maintain a weight loss of 7% of their initial body weight.
- 2 to achieve and maintain at least 150 minutes of moderate physical activity per week.

Lifestyle Coaches use group facilitation techniques, educational instruction, and demonstrations to empower participants to take charge of their health.

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For more information about the DPP, contact:  
Sarah Worthington, Healthy Communities Coordinator  
Phone: 541-322-7446 | E-mail: [Sarah.Worthington@deschutes.org](mailto:Sarah.Worthington@deschutes.org)

# Diabetes Self-Management Program (DSMP)

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Stanford's Diabetes Self-Management Program (DSMP) is one of the self-management programs that have been administered by Living Well Central Oregon since 2007.

The DSMP is distinctly different from the Diabetes Prevention Program (DPP). While the DPP focuses on prevention of diabetes, the DSMP is intended to help individuals already living with diabetes better manage their lives and avoid or reduce complications.

## Program Goal

To help individuals already living with diabetes better manage their lives, avoid or reduce complications, and improve their health despite the challenges of living with diabetes.

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## Client Impact

Throughout the DSMP, participants focus on building skills to manage their diabetes by sharing experiences and providing mutual support.

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## How Does it Work?

The DSMP is a 6-week workshop that includes content specific to diabetes, such as monitoring blood sugar. Interactive workshop sessions focus on problems common to individuals living with any chronic condition, including pain and fatigue management, nutrition, exercise, medication use, emotions, and the importance of communicating with providers.

Workshops are led by two trained facilitators. At least one of the facilitators has a chronic condition themselves.

For more information about the DSMP, contact:  
Sarah Worthington, Healthy Communities Coordinator  
Phone: 541-322-7446 | E-mail: [Sarah.Worthington@deschutes.org](mailto:Sarah.Worthington@deschutes.org)

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