# Case Study

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## Oregon Works to Improve Type 2 Diabetes Metrics through Legislation and Strategic Partnerships

*As part of Oregon's approach to reduce the burden of obesity, diabetes, and other chronic diseases, the state has developed and incentivized new healthcare delivery systems such as coordinated care organizations, shifted state-provided insurance programs to value-based payment methods, and funded the development of closed-loop referral systems to evidence-based self-management programs.*

**Background**

America's Health Rankings, a state-by-state annual assessment of various health and public health metrics, ranked Oregon 11th overall in diabetes.[1] However, the state still struggles with managing the prevalence of type 2 diabetes. The Oregon Health Authority, which oversees most of Oregon's health-related programs, estimated that 9.4 percent of Oregon adults in 2013 had been diagnosed with diabetes; this number is higher when considering undiagnosed cases.[2] There are disparities in the prevalence of diabetes within demographic categories such as income, education, and race/ethnicity that mirror national trends.[3] For example, the prevalence of diabetes among African-Americans in Oregon is over three times the prevalence of non-Latino whites (Figure 1).[4] Like many chronic diseases, diabetes is difficult to treat, expensive to manage, and can result in excess medical expenditures and reduced workplace productivity.[5] It is also associated with poor health outcomes like kidney damage, vision loss, and high cholesterol.[6]

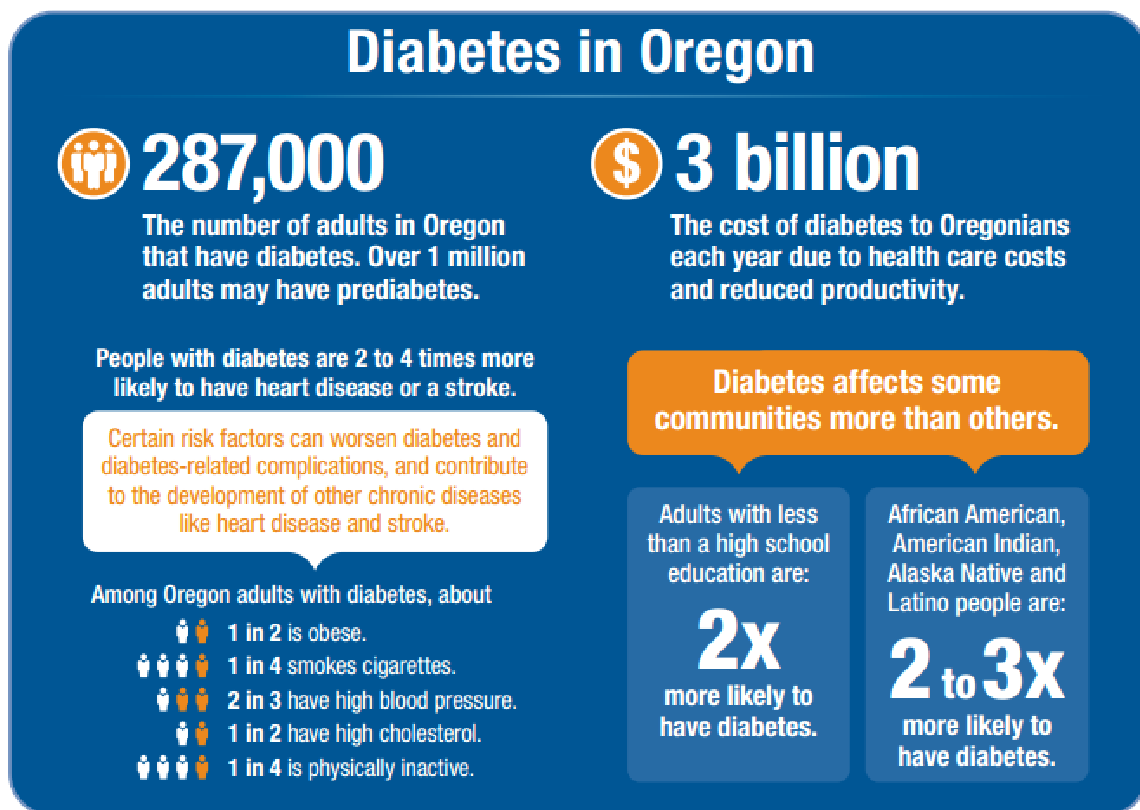


*Figure 1: Diabetes in Oregon*

**Legislative Framework**

Much of Oregon's work on diabetes prevention and control has been shaped by key pieces of legislation. HB 3486, passed in 2007, required the Oregon Department of Human Services to establish a diabetes task force comprised of department officials and various other stakeholders in order to develop a strategic plan to slow the rate of diabetes. Partners on this taskforce were public health and healthcare professionals, diabetes educators, and individuals from organizations such as the American Diabetes Association. As a result, the Strategic Plan to Slow the Rate of Diabetes was presented to the Oregon State Legislature in 2009. Using infrastructure and lessons learned from the state's previously successful work on tobacco prevention, this plan outlined six key actions for the state and policymakers to address: fund obesity prevention and education; address underlying health inequities; provide consumers information to make healthy food choices; enact a healthy schools act; consider health in land-use and transportation policies; and reform healthcare to improve quality.[7] Oregon's diabetes action plan legislation (SB 169), established in 2013, required mandatory reporting of the progress on key actions of this plan. As a result of this bill, the Public Health Division of the Oregon Health Authority produced the Oregon Diabetes Report in 2015, which provided a population level overview of diabetes statistics in Oregon and progress updates on key actions identified in the strategic plan.

Within this legislative framework for diabetes prevention and control, key partners at the state, regional, and local level work together to achieve common goals. This case study describes key partners in Oregon and multi-level actions taken by those partners, such as supporting diabetes self-management programs and incentivizing population and personal health targets.

**Key Partners**

*Oregon Public Health*

Oregon's state public health agency, the Oregon Health Authority, provides core public health programs across the state. Notably, they assure evidence-based self-management programs are available throughout Oregon by collecting and monitoring program delivery data, and by providing technical assistance and training for local public health agencies (LPHAs) and coordinated care organizations (CCOs). They also provide funding for various LPHA programs and collaborations to support policy, system, and environmental change strategies for the prevention, early detection, and self-management of chronic diseases.

*Local Public Health Agencies*

Oregon's public health system is de-centralized, resulting in the role of each county LPHA being slightly different. Many LPHAs function as conveners for stakeholders and provide coordination to public health partnerships. Some are involved with the actual delivery of self-management programs.

*Community-based Organizations*

In addition to LPHAs, community-based organizations such as hospital networks, the YMCA, public health foundations, and councils of governments deliver chronic disease self-management programs (SMPs). SMPs such as Stanford Living Well, Oregon Tobacco Quit line, and Walk With Ease are offered throughout the state. Specific to diabetes, LPHAs offer the evidence-based, prevention-oriented National Diabetes Prevention Program and the Diabetes Self-Management Program, a sub-program of Stanford Living Well.

*Coordinated Care Organizations*
Oregon delivers the state Medicaid program, the Oregon Health Plan (OHP), through coordinated care organizations (Figure 2). Generally, a system of coordinated care provides individuals in a local area who are covered under a health plan with access to physical, behavioral, and other types of care. About 19 percent of OHP members have been diagnosed with diabetes, and in 2013, a statewide record review estimated that 28 percent of those OHP patients were not in control of their diabetes.[8]

Figure 2: Oregon Coordinated Care Model uses various strategies (colored circles) to achieve the triple aim.

*Community Health Centers*
Community health centers provide healthcare to individuals covered by CCOs, which encompasses most OHP members. Providing services to this population poses particular challenges given that the population may face issues such as housing, job, or income instability and food insecurity. In addition to providing primary care, community health centers provide clinical care to individuals with diabetes and are able to refer the appropriate individuals to self-management programs.

*Legislators*
The Oregon legislature has public health champions who are committed to passing health legislation. Additionally, working with the legislature is necessary to complete other public health work. For example, the legislature authorized Oregon's Health Information Exchange and established a public corporation to serve as its legal entity.

*Public Employees and Oregon Educators Benefit Plans*
Benefits to those covered under the Public Employees' Benefit Board (PEBB) and Oregon Educators Benefit Board (OEBB) are delivered via a CCO model. These plans use a value-based insurance design to determine copayments and coverage. Under this design, financial incentives (i.e. lower-cost sharing or complete coverage) are provided for services that are efficient, such as preventive care or treatments to manage chronic disease. Benefit plans may also have higher cost-sharing for preference sensitive procedures, or when outcomes could be achieved at a lower cost. Five percent of their covered members have been diagnosed with diabetes.[9]

**Multi-Level Actions**
Oregon undertook the following actions at the state, local, and organizational level in their comprehensive approach to improving diabetes prevention and control.

*Incentivize population and personal health targets.*
In Oregon, financial incentives are given to CCOs that meet pre-specified quality metrics. This has driven CCOs work to improve their member health and processes. Additionally, health plans administered by the Oregon Health Authority (PEBB, OEBB, and Medicaid) have shifted their payments towards value-based purchasing or bundled payments. Because of this, PEBB and OEBB offer insurance plans with no

cost-sharing for drugs to maintain chronic conditions and cover diabetes education and self-management programs (NDPP, Better Choices Better Health). PEBB also incentivize their members to participate in a broad-based wellness program known as the Health Engagement Model with a small monthly incentive payment to participants. Individuals who participate are required to complete a health assessment and complete two preventive health actions annually (e.g. joining a weight reduction program, obtaining preventive screenings, and physical activity monitoring programs). If members choose not to participate, they have slightly higher deductibles. OEBB also incentivizes members to participate in a broad-based wellness program known as Healthy Futures with reduced deductible or copays for participants who complete a health assessment and two healthy activities (e.g. Weight Watchers, preventive screening).

*Use data to improve identification of undiagnosed or high-risk groups, quality of care, and patient follow-up.*

In Oregon, financial incentives are available for CCOs that meet population health goals, such as having a low percentage of patients with poor HbA1C control.[10] The Oregon Health Authority pays incentives from a quality pool (e.g. 4% of aggregate payments to all CCOs in calendar year 2015) if CCOs meet specific metrics set by the state. Health Share CCO, located in the Portland metropolitan area, reinvested their financial incentives into improvements for their data analytics infrastructure. These analytics allow them to identify and target high-risk groups for treatment or prevention. For example, undiagnosed diabetics could be identified and referred to a diabetes self-management program, or those identified as pre-diabetic could work to prevent their condition from developing further.

*Test payment models for self-management programs.*

Most self-management programs are dependent on grant-based funding which greatly limits the availability and sustainability of programs.[11] To this end, various stakeholders in Oregon are working to change reimbursement mechanisms. CCOs such as Health Share strive to use preventive healthcare to improve population health outcomes, thereby improving their bottom line and potentially receiving additional incentives from the state. To make SMPs more accessible to individuals, CCOs are working to line up reimbursement mechanisms. Additionally, PEBB is examining how private insurers who cover their members could be reimbursed for self-management programs. By lining up reimbursement mechanisms, the availability and sustainability of self-management programs can be greatly improved.

***Self-management programs*** are designed to educate patients and increase their ability to manage their own health problems. Through these programs, individuals can build skills to manage their disease on a daily basis and manage its impact on activities and emotions.

*Establish closed-loop referral pathways and promote evidence-based chronic disease self-management programs.*

In 2015, the Oregon Health Authority used federal funds to prevent and control diabetes, heart disease, obesity and associated risk factors (CDC's DP13-1305) to improve chronic disease management across the state through the Sustainable Relationships for Community Health (SRCH) grant for communities. In the first round of SRCH, grants were awarded to five communities throughout the state to strengthen cross-sector partnerships to improve outcomes and reduce disparities in chronic diseases such as obesity. For the second round of SRCH, two new

***Closed-loop referral pathways*** are pathways that link referred individuals to a necessary program or service and then provide the referring partner with feedback such as participation status.

communities were awarded grants, with three continuing the work with expanded areas of focus. Requirements of the grant include collaborating with community partners, gathering local data, developing an implementation plan to reduce the local chronic disease burden, and the promotion of evidence-based chronic disease SMPs.[12] Patients who attend SMPs have shown improvements in their overall health and wellbeing through outcomes such as fewer outpatient and ER visits and increased energy and ability to participate in daily life activities.[13] Funding from this grant goes toward the development and piloting of closed-loop referral pathways for tobacco cessation, SMPs, and colorectal cancer screenings. Through these efforts, the SRCH initiative goal is to improve community health outcomes and help CCOs with reporting quality measures, including National Quality Forum measure 0059 (NQF 59).[i] Funded recipients must promote community-clinical linkages, and include collaboration among partners such as LPHAs, CCOs, clinical delivery organizations, and providers of SMPs in order to promote long-term commitment to community-clinical linkages. Through increasing closed-loop referral systems, non-physician health workers in community and healthcare setting can work to support access to SMPs, and patients may be referred to community-based providers of SMP by either CCOs or clinics. Therefore, the main aspects of this grant will lead to stronger community-clinical linkages.

Creating ***community-clinical linkages*** is the process of forming partnerships between organizations such as clinical providers, community organizations, and public health agencies to improve the health of people and communities.

*Recommend policies to improve diabetes prevention and treatment.*
In their 2015 Oregon diabetes report, the Oregon Health Authority's Public Health Division recommends the state legislature dedicate funds to implement the key actions outlined in the Strategic Plan to Slow the Rate of Diabetes. Most of this funding would be put towards developing an obesity prevention and education program. Recommended policies include increasing health plan coverage for education and supplies (initially recommended in the 2009 strategic plan), increasing referral practices to self-management programs such as the National Diabetes Prevention Program, and adopting land use and transportation policies that consider health as a priority.

**Sustainable Systems Change**
Through systematic, continuous work of these multi-level partners, Oregon aims to achieve lasting successes that will reduce the burden of diabetes and other chronic diseases in the state.

*Improved organization at the local level.*
Partnerships formalized through the SRCH grant established and formalized mutually beneficial relationships as the result of actions such as a point-of-contact coordinator, data-sharing agreements, and memorandums of understanding. In Lane County, a memorandum of understanding served to delineate the roles and responsibilities for each partner, which in turn provided a more positive and productive working relationship.

*Closed-loop referral systems.*
As a result of the SRCH grant, closed-loop referral systems for managing chronic disease were developed in many local areas. In Lane County, the closed-loop system involves the local CCO (Trillium), community

[i] The NQF 59 measure is the percentage of patients 18-75 years of age with diabetes who had hemoglobin A1c > 9.0% during the measurement period.

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health center, and SMP provider (Lane County Council of Governments). After receiving referrals from the CCO or health center, the SMP provider followed-up and contacted individuals about enrolling in a program. The SMP provider then collected information on enrollment, participation, and completion which was returned to the referrer. This information was then used to further work with patients on goal setting or other healthcare options.

*Increases in referrals to self-management programs and self-management program reach.*
In Lane County specifically, having a formalized partnership, SMP coordinator, and referral process increased the initial enrollment in SMPs such as Living Well with Diabetes. In 2013, 56.1 percent of adults with diabetes had participated in a SMP. Furthermore, in a 2015 report, 11,851 individuals participated in a chronic disease SMP during 2006-2013.[14] In 2013, 11 organizations offered the National Diabetes Prevention Program, 26 organizations offered diabetes self-management education programs, and five counties offered Stanford diabetes self-management programs.[15]

*Increased use of data to improve quality of care.*
Using their financial incentives from the state, Health Share CCO was able to improve their ability to identify high-risk or undiagnosed diabetic patients. By identifying these patients, they can be referred to useful programs and learn to manage their chronic disease.

**Next Steps**
In order to continue improving diabetes prevention and control, Oregon key partners have identified necessary next steps.

*Work to involve all populations.*
Medicaid and state employees are important and large populations in Oregon. However, to continue improving diabetes and other health metrics, all populations need to be reached. Individuals covered through Medicare or private insurance, as well as rural populations, are important segments of Oregon's total population to include in work to prevent diabetes and chronic disease.

*Ensure future continuity of partnerships.*
Local partnerships and coalitions will work to involve more stakeholders to ensure sustainable and robust partnerships. For example, involving additional providers of SMP would give patients a wider variety of options and increase accessibility. To continue the success from the first year, the Public Health Division is funding a second round of five grantees to strengthen partnerships among local public health, clinics, and CCOs.

*Continue to pursue reimbursement for evidence-based chronic disease self-management programs.*
To improve the sustainability and spread of evidence-based self-management programs, stakeholders will continue to build the case for health plan reimbursement. This is a priority because the state currently supports many programs but can't guarantee funding indefinitely.

*Standardize clinical protocols in community health clinics.*
By standardizing the criteria and process of referrals, all individuals meeting certain criteria can be appropriately referred to SMP. Currently, the referral process is subjective based on a provider's belief in or knowledge of SMP programs and their effectiveness. Managing chronic disease can be a secondary concern for providers who are serving a population that may have many additional health needs.

*Strengthen infrastructure for aggregate data collection for quality improvement.*
The Oregon Health Authority tracks a subset of quality measures, including NQF 59 (hemoglobin A1C Poor Control), among CCOs to assess the effectiveness of diabetes care. The state proposed an incremental approach and is committed to establishing a reporting platform for the reporting process.

**Lessons Learned and Considerations for States**
*Partners should be realistic about timelines and expectations*.
When working with chronic disease, it is difficult to see a large impact immediately. Stakeholders should be patient and expect setbacks such as difficulty in the initial stages of the partnership and program dropout.

*Use diabetes as a starting point to work with legislators.*
Diabetes is a very visible and well-known disease. Therefore, most legislators have a good baseline idea of the problems and issues surrounding diabetes, which is a good way to lay groundwork for future chronic disease prevention efforts.

*Work to garner buy-in from individuals in each organization of the partnership*.
Individuals within each organization must understand the need and reason for the work being done. For example, providers may not refer patients to SMPs unless they believe in the effectiveness of programs and the validity of evidence surrounding them. Additionally, individuals from each partner should be impactful enough to make and influence decisions.

*Structure models and programs to address multiple diseases*.
Structuring new systems to be applicable to multiple diseases is especially important when considering the limited availability of resources for public health programs. Future programs can leverage effective systems to their advantage if they are constructed effectively.

**Conclusion**
Key pieces of policy laid a legislative framework for Oregon's work around diabetes prevention and treatment. Through the actions of many partners working towards the common goal of reducing the burden of diabetes across the state, sustainable systems changes and key recommendations have emerged.

**Tools and Resources**

- QTAC Compass System. QTAC Compass: web-based data management tool developed by the Quality and Technical Assistance Center of New York. The program manages partners, schedules, and data forms and is able to generate reports on useful measures such as participant demographics and completion rates.
- HB 3486. 2007 legislation requiring the diabetes taskforce to outline a strategic plan.
- Strategic Plan to Slow the Rate of Diabetes. The result of HB 3486 and interdisciplinary work of diabetes stakeholders.
- Senate Bill 169. 2013 legislation requiring a report on accomplishments of diabetes strategic plan.
- Oregon Diabetes Report. Oregon's 2015 report on the burden of diabetes and progress on the key actions of the Strategic Plan to Slow the Rate of Diabetes.

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- [Quality Pool Methodology](). 2015 quality pool instructions from the Oregon Health Authority detailing how CCOs were scored and incentives dispersed.
- Memorandum of Understanding among Lane County, Trillium Community Health Plan, and Lane Council of Governments in Lane County, OR.
- Closed-loop referral schematic in Lane County, OR.

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