

Addressing Diabetes Care in Rural Oregon Through the Oregon Rural Practice-based Research Network

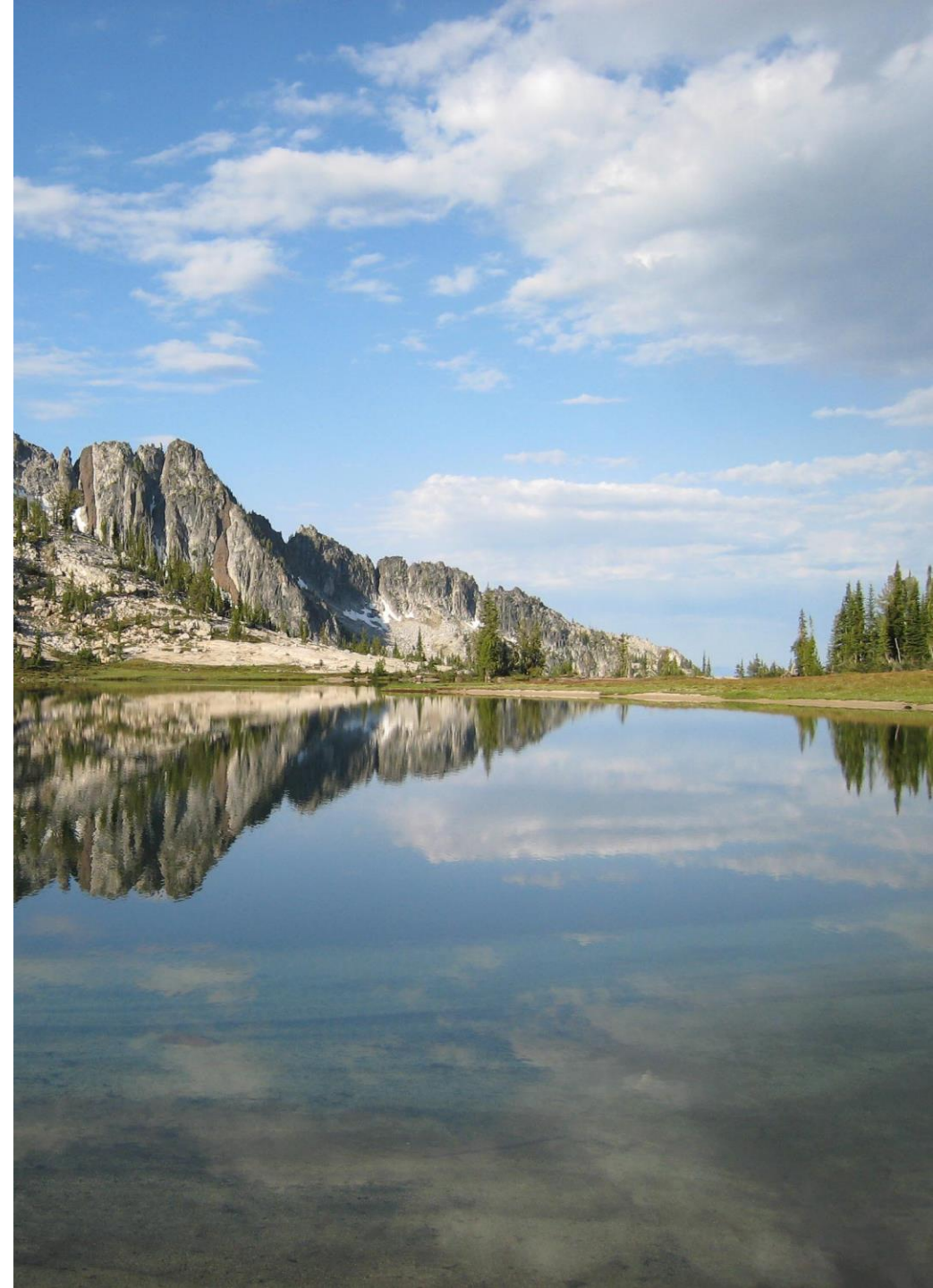
Briana Arnold, Research Project Manager
Martha Snow, Senior Research Project Manager
Nancy Goff, Director of Health Policy
ORPRN

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Meet today's presenters:



Nancy Goff, MPH
Director of Health
Policy



Martha Snow, MPH
Senior Research
Project Manager



Briana Arnold, MPH
Research Project
Manager

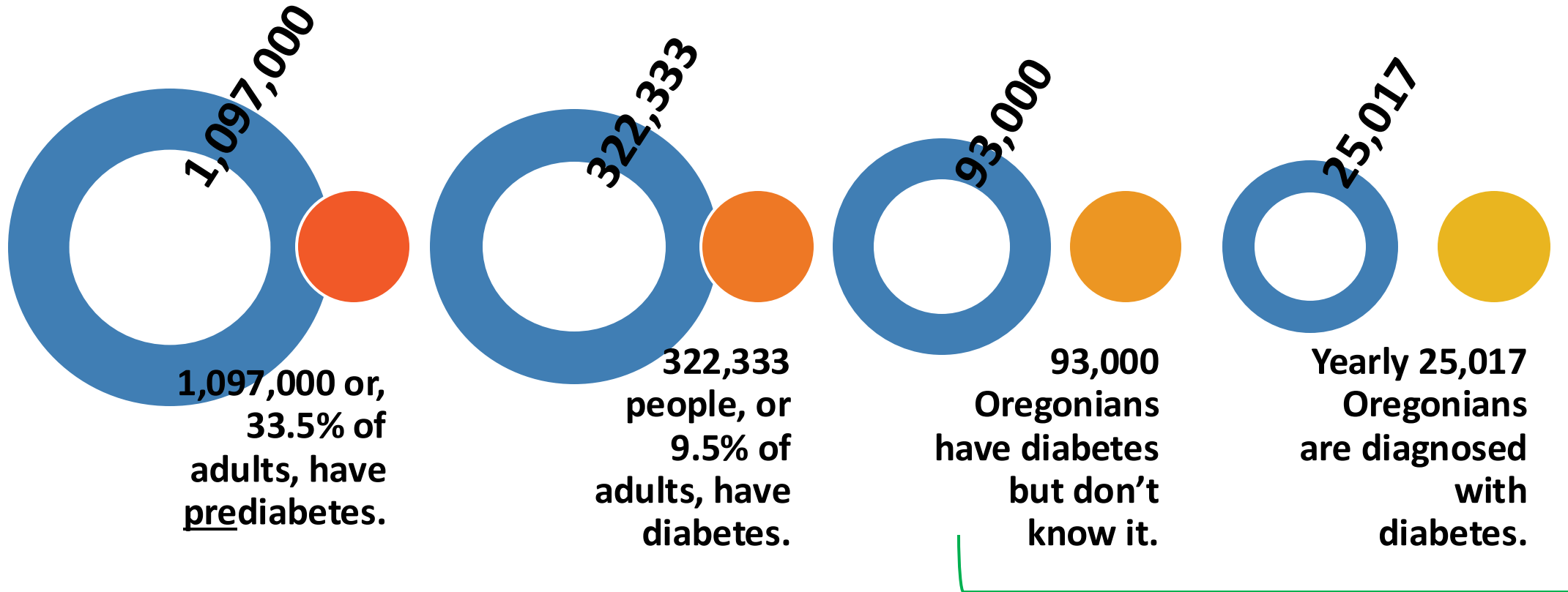


Agenda

- Diabetes overview
- ORPRN's three-pronged approach to diabetes care
 - Research
 - Education
 - Health Policy
- Key Takeaways and Resources
- Q & A

Complexity of Diabetes

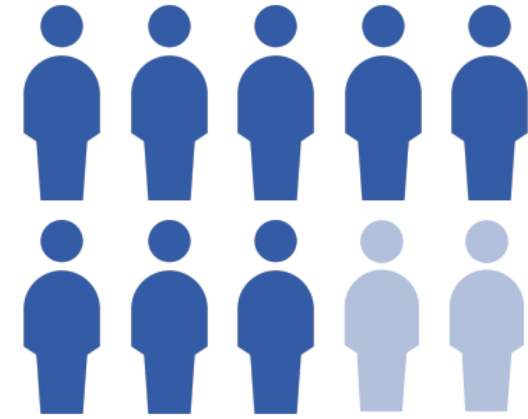
Impact



Health burden

In Oregon:

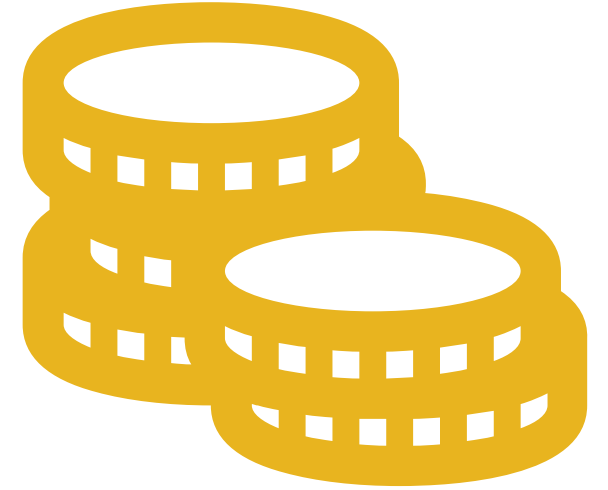
- 320,000+ adults diagnosed with diabetes
- ~400,000 adults diagnosed with prediabetes
- **Eighth-leading cause of death**
- Challenging comorbidities



More than **8 in 10**
adults with prediabetes
don't know they have it

Financial burden

- Expenses 2.3 times higher than those without
- In Oregon
 - \$3.1 billion direct medical expenses for people with diabetes
 - \$1.2 billion indirect costs due to lost productivity



Inequitable Rates of Diabetes: Economic Disparities

Insurance	Rate of Diabetes (age-adjusted)
OHP members	13% ⁹
Non-OHP members	8% ⁹
Income	Rate of Diabetes (age-adjusted)
Oregonians, household incomes of less than \$25,000/year	15% ¹⁰
Overall adult population in Oregon	8% ¹⁰

Inequitable Rates of Diabetes: Racial Disparities

Race/Ethnicity	Rate of Diabetes
Black and African American	15% ¹¹
Latino/a/x	14% ¹¹
American Indian and Alaskan Natives	13% ¹¹
Pacific Islander, not Latino/a/x	13% ¹¹
Asian, not Latino/a/x	10% ¹¹
White	8% ¹¹

About ORPRN

Oregon Rural Practice-based Research Network (ORPRN)

ORPRN's mission is to improve health for all Oregonians through community engaged research, education, and policy.

Research



Health Policy



Education





Approach

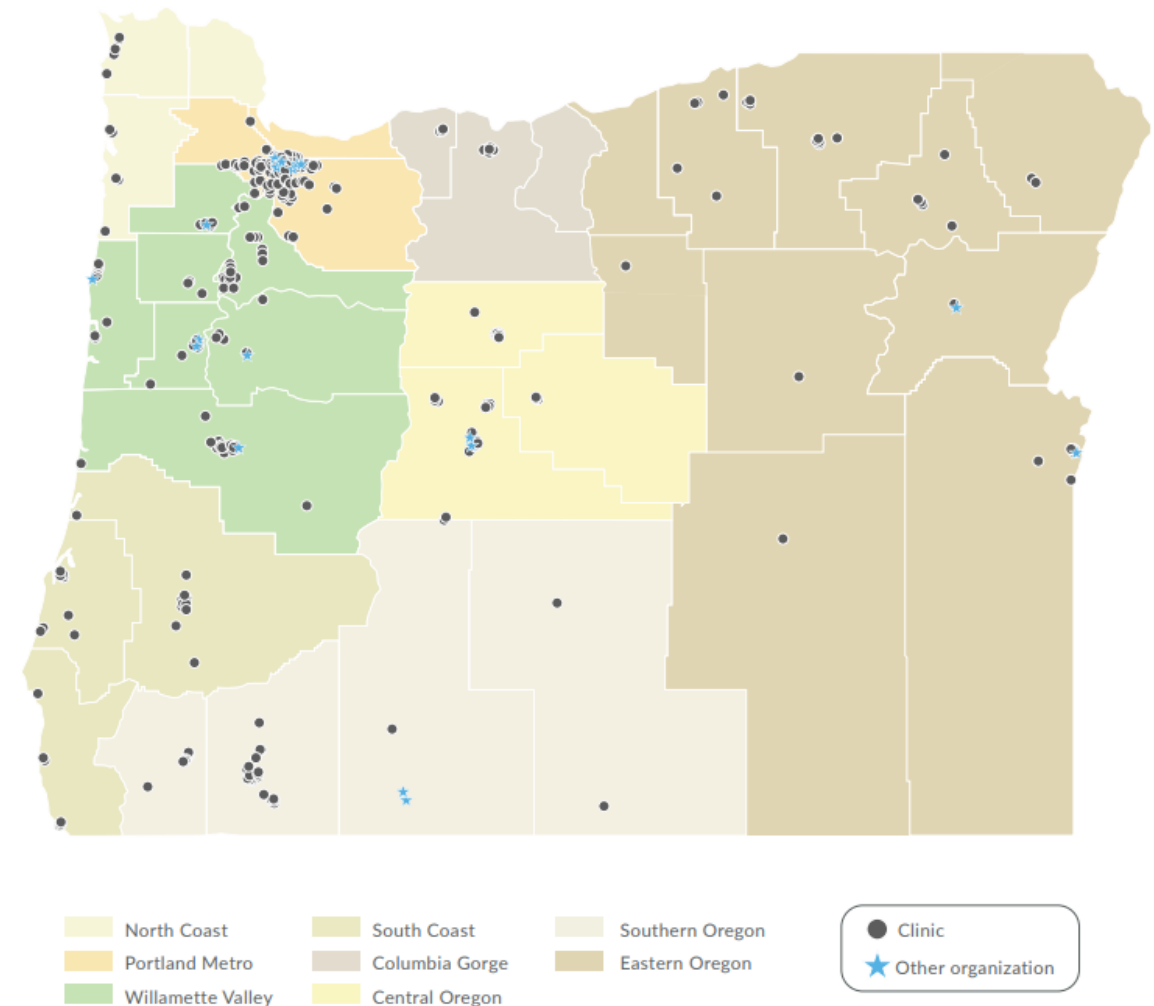
20+ years of experience working with partners in rural and low-resourced settings to identify and implement evidence-based research, education, and policy solutions

- Host listening sessions to hear from rural communities about their priorities and needs
- Improve access to care for rural and low-resourced patients
 - Ex: cancer screening through blood tests
- Offer timely and relevant education for health professionals
- Rapid dissemination of best practices
- Supporting payer, clinics and community organizations to implement statewide systems and policy changes

Reach & Impact

Since 2019, we've worked with:

- Over **400** primary care clinics (50% rural or frontier)
- **All 16** of Oregon's Coordinated Care Organizations (CCOs)
- Over **5,200** unique learners in education programs
- Nearly **70,000** individual patients, including
 - Rural/frontier
 - American Indian
 - Hispanic/Latino
 - Low income
 - Uninsured
 - People with disabilities



ORPRN by the numbers

2018-2024



18

ACADEMIC PUBLICATIONS



27

CONFERENCE PRESENTATIONS
AND POSTERS



\$6,862,321

TOTAL GRANT
DOLLARS AWARDED



16

TOTAL FUNDERS ENGAGED



2019-2023

Impact Report



77

TECHNICAL ASSISTANCE
(TA) EVENTS HELD



4

NEW POLICIES DEVELOPED



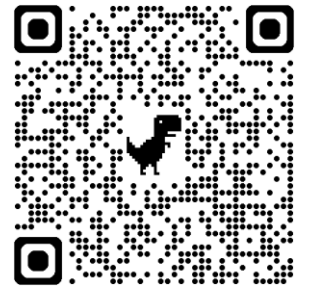
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POLICY GUIDANCE
DOCUMENTS CREATED



37

ECHO PROGRAMS



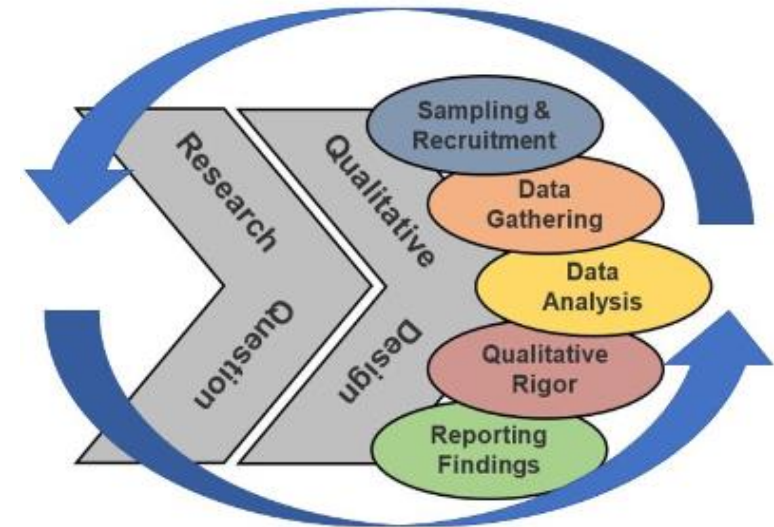
2023-2024

Impact Report

Research

Research Program

- Established 2012
- ≈30 staff (8 live in rural communities)
- 15 OHSU faculty collaborators
- Community-based pragmatic clinical trials on lifespan topics
 - Newborn skincare
 - Kindergarten readiness
 - Prevention
 - Advance care planning
- Blend 1) Implementation Research and 2) Quality Improvement to address primary care topics
 - Substance use
 - Chronic pain
 - Immunizations
 - Dementia
 - Type 2 diabetes
 - Cancer screening



See ORPRN Active Projects Flyer
for full list of projects

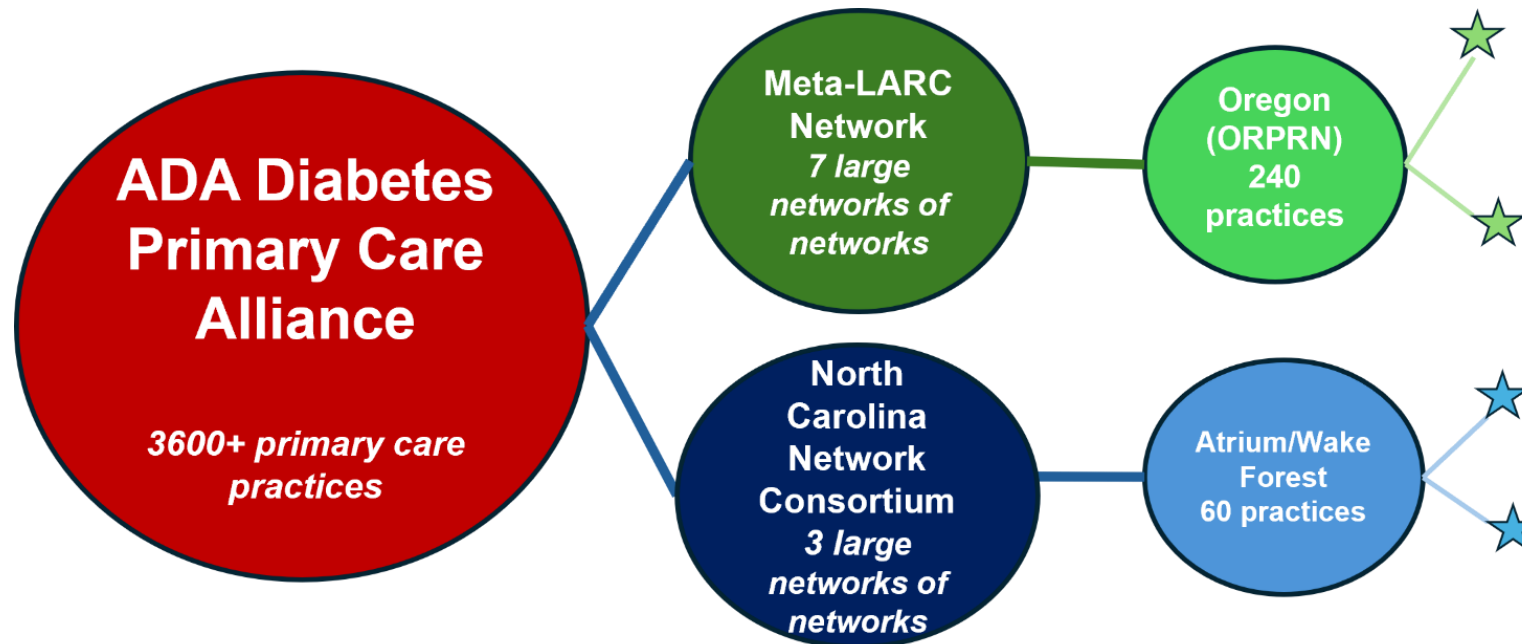
Affiliated with National Practice-Based Research Networks (PBRNs)

Groups of primary care clinicians and practices working together to answer community-based health care questions and translate research findings into practice.



<https://www.ahrq.gov/cpi/about/otherwebsites/PBRN/pbrn.html>

Current Diabetes Research in Rural Oregon



★ = Individual primary care practice

- ORPRN joined in 2024
- Focused on testing effectiveness of training modules for Community Health Workers (CHWs)

ADA CHW Interactive Modules



Institute of Learning

Select Language ▼
Google Translate

Login



PROGRAM

Quality Improvement for Community Health Workers

OVERVIEW

Quality Improvement (QI) is a systematic approach to identifying problems and finding solutions. It is a powerful tool used in health care to improve health care services and improve patient outcomes. This 3-module series is designed to introduce QI to you as a community health worker (CHWs) and provide you tools in which to enhance care in primary care offices.

Complete all three courses to claim your certificate of completion.

LEARNING OBJECTIVES

- Recognize the insights that you as a CHW will bring to the QI process
- Understand the various ways that you as a CHW can use QI to help the practices and organizations where they work
- Use the six steps of the QI journey to create improvements in your home and workplace
- Identify people in your organization with whom you can work on quality improvement projects

Register Now

All modules free at [ADA's Institute of Learning](https://www.ada.org/learn)

- QI for CHWs
- CHW Diabetes Education Program
- Changing the Conversation on Obesity
- Healthy Eating with Diabetes

CHW Training Research Implementation

1. Recruit primary care clinic(s) already working with CHWs
2. Train two CHWs with type 2 diabetes patient panel
 - Focus on home BP support
3. Collect and analyze clinical data
 - Year of birth, gender, race, ethnicity, visits, conditions, medications, blood pressure, height, weight, various labs, community health worker referrals with 24 month look back period
4. Collect and analyze qualitative data from CHWs
 - How do patients receive information and support for home BP monitoring?
 - What are their barriers?
 - What information provided in the slides/video feel most helpful in working with your patients?
 - What additional information about home BP monitoring would assist you or your patients?

Clinic CHW Enrollment: *One Community Health*

- Federally Qualified Health Center & Rural Health Center
- 4 clinics focused on serving the underserved
- 75% OCH patients who reported their incomes were under 200% FPL
- 10 total CHWs, 3 CHWs focused on diabetes
- 4,500 patients with diabetes
- **CHW training modules completed Feb 2025**



One Community Health, Hood River, OR

Preliminary Findings: Quantitative Data

- 6 intervention sites (CHW trainings) vs 13 control clinics (no CHW trainings)
- Baseline data currently available (examples below)

Metric (N=# clinics)	Intervention: North Carolina (N=2)	Intervention: Oregon (N=4)	Control: FQHCs (N=9)	Control: Private Practices (N=4)
# of patients with diabetes seen in 2024	2,706	2,596	4,377	374
Mean HbA1c	7.7 (7.6 - 8.0)	7.5 (7.1 - 7.7)	7.7 (7.7 - 7.8)	7.0 (6.9-7.3)
% with BP <140/90	68.4% (65.1 - 71.6)	67.8% (64.7 - 71.6)	87.6% (82.5 - 91.6)	81.0% (79.4 - 84.4)
% on a statin/GLP-1 and/or SGLT-2	50.2% 948.9 – 66.5)	26.3% (10.8 – 38.9)	61.5% (52.1 – 73.8)	78.6% (78.6 – 78.7)

Preliminary Findings: Qualitative Data

1. How do patients receive information and support for home BP monitoring?

- Information and support come from several different people within the clinic: CHW, CDE RN, RN team that facilitate BP checks, and PCP that prescribe BP medications

2. What are their barriers?

- Unless ordered by PCP or RN, CHWs do ask about home BP monitoring.
- Only 25-50% patients check their BP at home even if they have a blood pressure monitor
- Patients unable to afford BP machine

3. What information provided in the slides/video feel most helpful in working with your patients?

- Home BP checks can be 5mm Hg less than clinic BP
- Confirm patients are taking their home BP in an appropriate manner (Position, technique)

4. What additional information about home BP monitoring would assist you or your patients?

- Plain language for patients to follow instructions and recommendations
- How to help patients with coexisting chronic conditions prioritize their care (home BP not most urgent)
- Advice on nutrition and physical activity

Preliminary Recommendations

1. **Provide patients with information on how to obtain free home BP devices**
2. **Ensure patients understand proper technique in plain language**
 - BP cuff is on bare skin
 - Both feet flat on the floor
 - How to read and understand BP values
3. **Update workflow to collect patients home BP**
 - Some monitors have easy access to usage history
 - Encourage patients to keep a daily log and bring it to their visits.
4. **Share free CHW training modules with your care teams**

Past Diabetes Research in Rural Oregon

INTEGRATE-D

Funder: National Institute of Diabetes and Digestive Kidney Diseases

Lead Study Team: OHSU

Locations: Portland Metro, Southern, and Eastern Oregon

Primary Objective

- Test feasibility to support practices in implementing the ADA recommendations for integrated psychosocial and medical care for people with Type II Diabetes Mellitus

Results

- Developed toolkit to support for clinics
- Assessed diabetes distress and how it is distinct from anxiety/depression
- Increased self-management support for patients
- Need to expand study to larger sample of clinics

		Continuum of psychosocial issues and behavioral health disorders in people with diabetes	
		Nonclinical (normative) symptoms/behaviors	Clinical symptoms/diagnosis
Phase of living with diabetes	Behavioral health disorder prior to diabetes diagnosis	None	<ul style="list-style-type: none"> • Mood and anxiety disorders • Psychotic disorders • Intellectual disabilities
	Diabetes diagnosis	Normal course of adjustment reactions, including distress, fear, grief, anger, initial changes in activities, conduct, or personality	<ul style="list-style-type: none"> • Adjustment disorders*
	Learning diabetes self-management	Issues of autonomy, independence, and empowerment. Initial challenges with self-management demonstrate improvement with further training and support	<ul style="list-style-type: none"> • Adjustment disorders* • Psychological factors affecting medical condition**
	Maintenance of self-management and coping skills	Periods of waning self-management behaviors, responsive to booster educational or supportive interventions	<ul style="list-style-type: none"> • Maladaptive eating behaviors • Psychological factors** affecting medical condition
	Life transitions impacting disease self-management	Distress and/or changes in self-management during times of life transition***	<ul style="list-style-type: none"> • Adjustment disorders* • Psychological factors ** affecting medical condition
	Disease progression and onset of complications	Distress, coping difficulties with progression of diabetes/onset of diabetes complications impacting function, quality of life, sense of self, roles, interpersonal relationships	<ul style="list-style-type: none"> • Adjustment disorders* • Psychological factors ** affecting medical condition
	Aging and its impact on disease and self-management	Normal, age-related forgetfulness, slowed information processing and physical skills potentially impacting diabetes self-management and coping	<ul style="list-style-type: none"> • Mild cognitive impairment • Alzheimer or vascular dementia
		All health care team members (e.g., physicians, nurses, diabetes educators, dieticians) as well as behavioral providers Behavioral or mental health providers (e.g., psychologists, psychiatrists, clinical social workers, certified counselors or therapists) Providers for psychosocial and behavioral health intervention	

Current Research Opportunities in Rural Oregon



Funder: Patient-Centered Outcomes Research Institute

Lead Study Team: University of Iowa

Location: Statewide, Oregon

Primary Objective

- The **Self-Measured Blood Pressure (SMBP)** study will compare two ways of delivering SMBP to improve blood pressure in older adults living with multiple chronic diseases:
1) with pharmacist assistance vs 2) without pharmacist assistance.

Benefits for the clinic

- Receive \$5,000 per year
- Receive training and support in implementing SMBP strategies aligned with Target BP™
- Potential for pharmaceutical coordination and support including billable services guidance

Expectations for the clinic

- Share a list of eligible patients and help facilitate patient enrollment and data collection
- Work with 20 enrolled patients to deliver the randomized SMBP strategy
- Engage with patients for 12 months of SMBP intervention, followed by 12 months of follow up



Currently recruiting primary care clinics that:

- ✓ Provide care to adults aged ≥ 65 years
- ✓ Have providers who prescribe medications
- ✓ Agree to participate in SMBP training and study follow up

Education

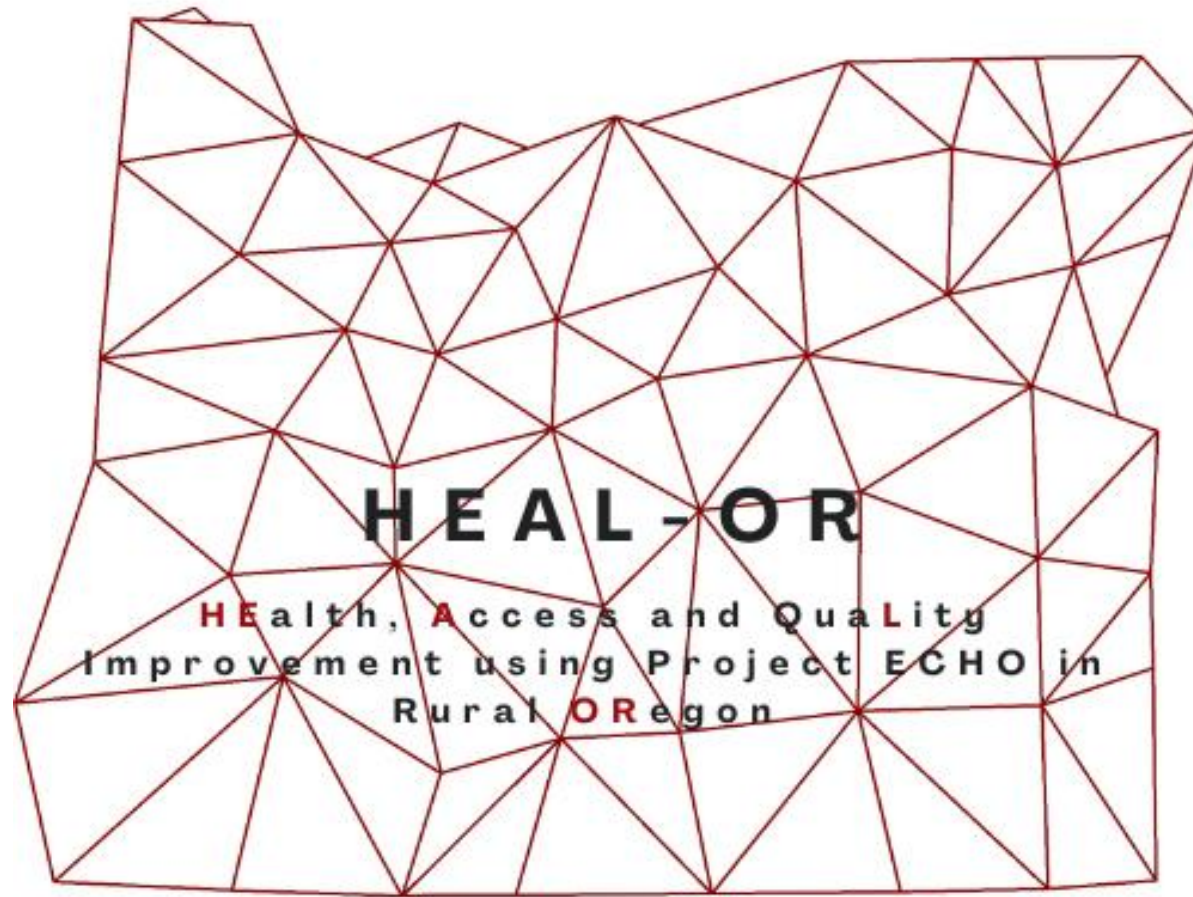
What do we do?



MetaECHO conference

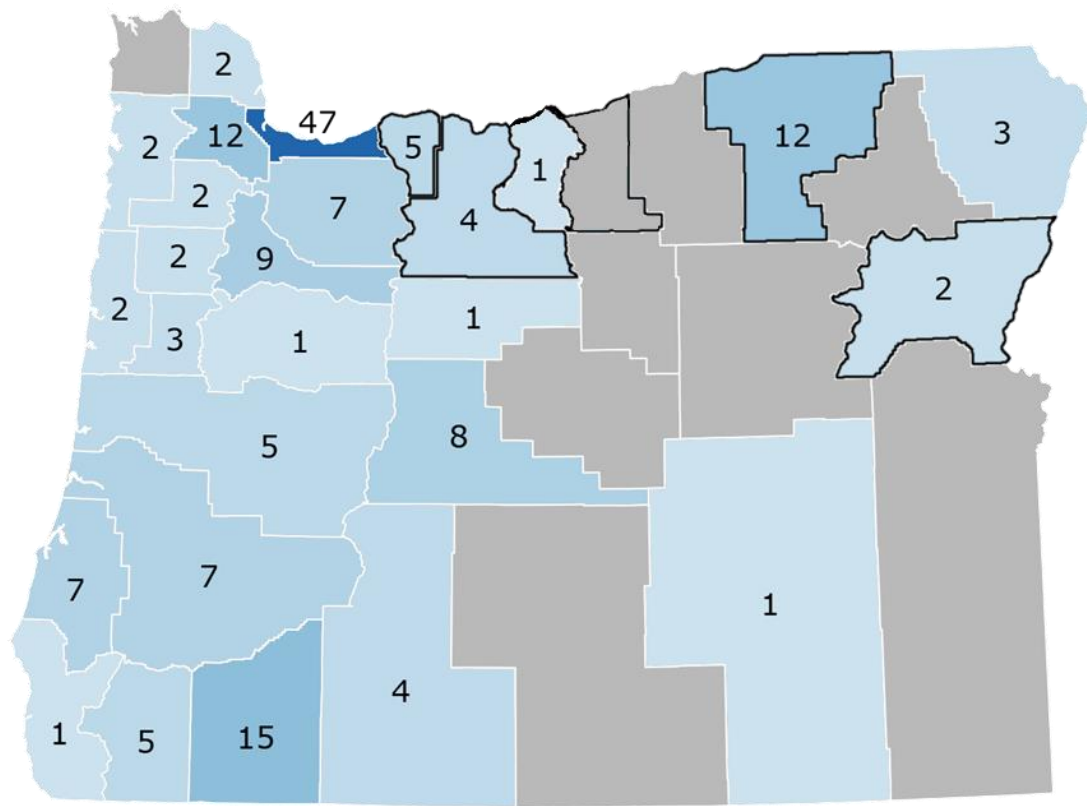


Staff Retreat



This ECHO program was funded by grant number 6 U3IRH43509-04-02 from the Office for the Advancement of Telehealth, Health Resources and Services Administration, DHHS.

Diabetes ECHO reach in Oregon



N = 172, unique Oregon participants

197 registered and approved

- **8** Administrative Staff
- **9** Behavioral Health Provider (PSS, LCSW, LCP)
- **71** Clinical Staff or Healthcare Provider (MD, PA, NP, ND, CADC II, RD, LPN/RN, OT)
- **26** Doctor of Pharmacy (PharmD) or RPh
- **25** Health Outreach, Coordination, and/or Education (RN, CMA, CHW, Care Coordinator)
- **10** Nursing Facility Staff
- **34** Other*
- **1** Peer/Certified Recovery Peer
- **7** Public and Environmental Health (MD, BS)
- **6** Student

Focus counties:

- Baker (n= 2)
- Gilliam (n= 0)
- Hood River (n= 5)
- Sherman (n= 1)
- Umatilla (n= 12)
- Wasco (n= 4)

Who joins the ECHO?

Four cohorts since 2022 (one per year in spring)

- **Registrants:** 197 unique individuals
- **Attendees:** 154(78%) attended at least one session
- **Average participant attendance:** 6 of 12 sessions
- **Geographic reach:** 25 Oregon counties
- **Demographics:** 65% White; 10% Hispanic and/or Latino/a/x; 11% Asian

The way healthcare professionals learn in ECHO



ECHO Curriculum

#	Topic	Date	Speaker
1	Destigmatizing Diabetes	4/02/25	Eric Wiser
2	Structural Racism in Health Care	4/09/25	Zoraya Uder
3	Atypical Presentations of Diabetes	4/16/25	Farahnaz Joarder
4	Diabetes, Patient Engagement, and Motivation	4/23/25	Sharon Allen
5	Overcoming Barriers in a Rural Setting	4/30/25	Kelsie Flynn Bostwick
6	Nutrition & Patient Engagement in Latinx Communities	5/07/25	Zoraya Uder
7	Cardiovascular Disease & Diabetes	5/14/25	Ashley Harris & Farahnaz Joarder
8	Physical Activity & Diabetes	5/21/25	Don Kain
9	Diabetes & Mental Health Co-Morbidities	5/28/25	Sharon Allen
10	Creative Ideas When Cost Is A Barrier	6/04/25	Kelsie Flynn Bostwick
11	Insulin therapy	6/11/25	Kristin Childress & Farahnaz Joarder
12	Harm Reduction in Diabetes Care Management	6/18/25	Eric Wiser

Destigmatizing Language

Instead of	Try
Diabetic	Person with or (living with) diabetes
Victim, suffer, stricken, afflicted, diagnosed	Has concerns about Has other priorities right now
Difficult, challenging	Person with or (living with) diabetes
Obese	Has excess weight Has obesity

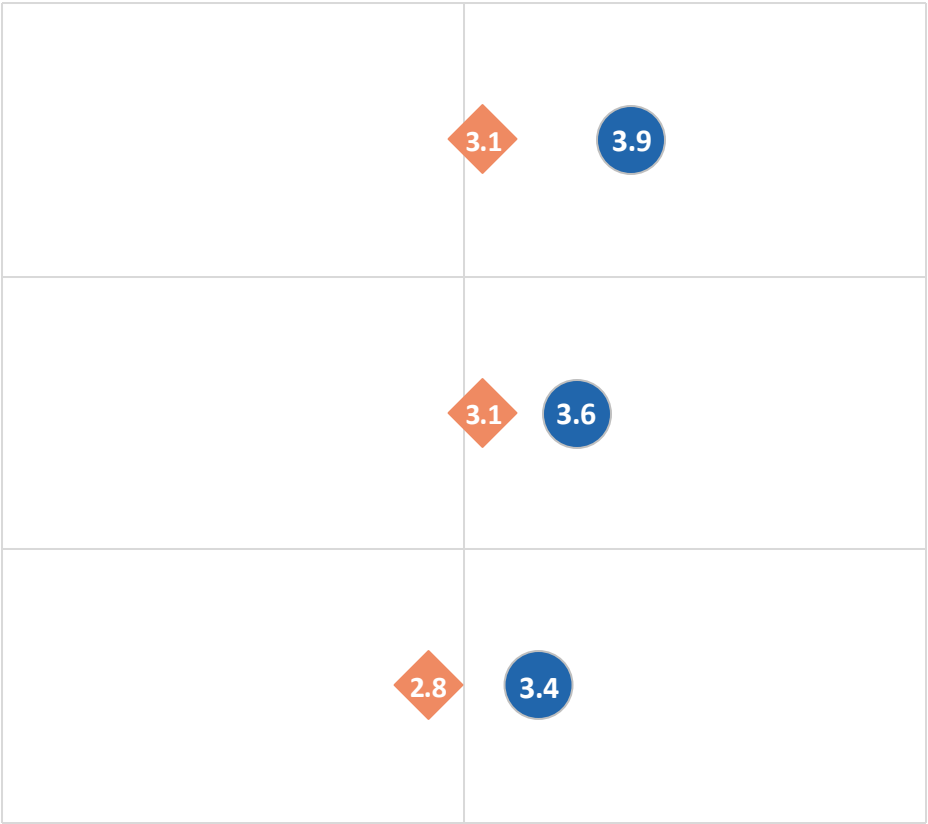
What providers learned: big jumps

MANAGING complications and/or comorbidities of diabetes in patients or client

PREVENTING complications and/or comorbidities of diabetes in patients or clients

Using "Diabetes: HbA1C Poor Control" CCO incentive metric to better understand how practice serves patient population with diabetes

N =65



Not at all confident (1) Extremely confident (5)

Sharing knowledge

Shared knowledge or resources learned about in this ECHO within org

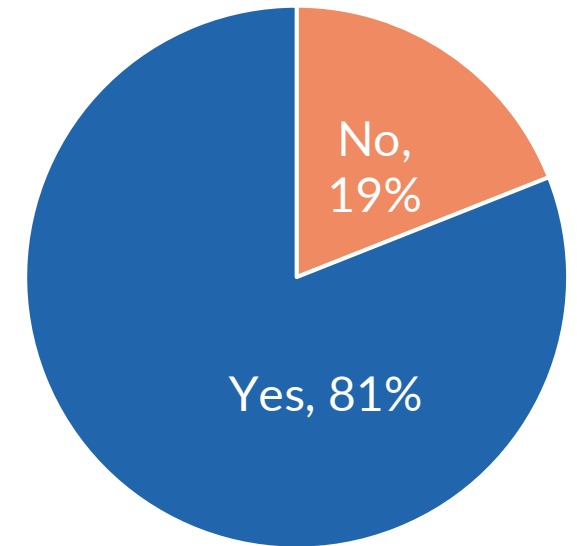


Shared knowledge or resources learned about in this ECHO beyond org



N = 72

Planned Practice Changes

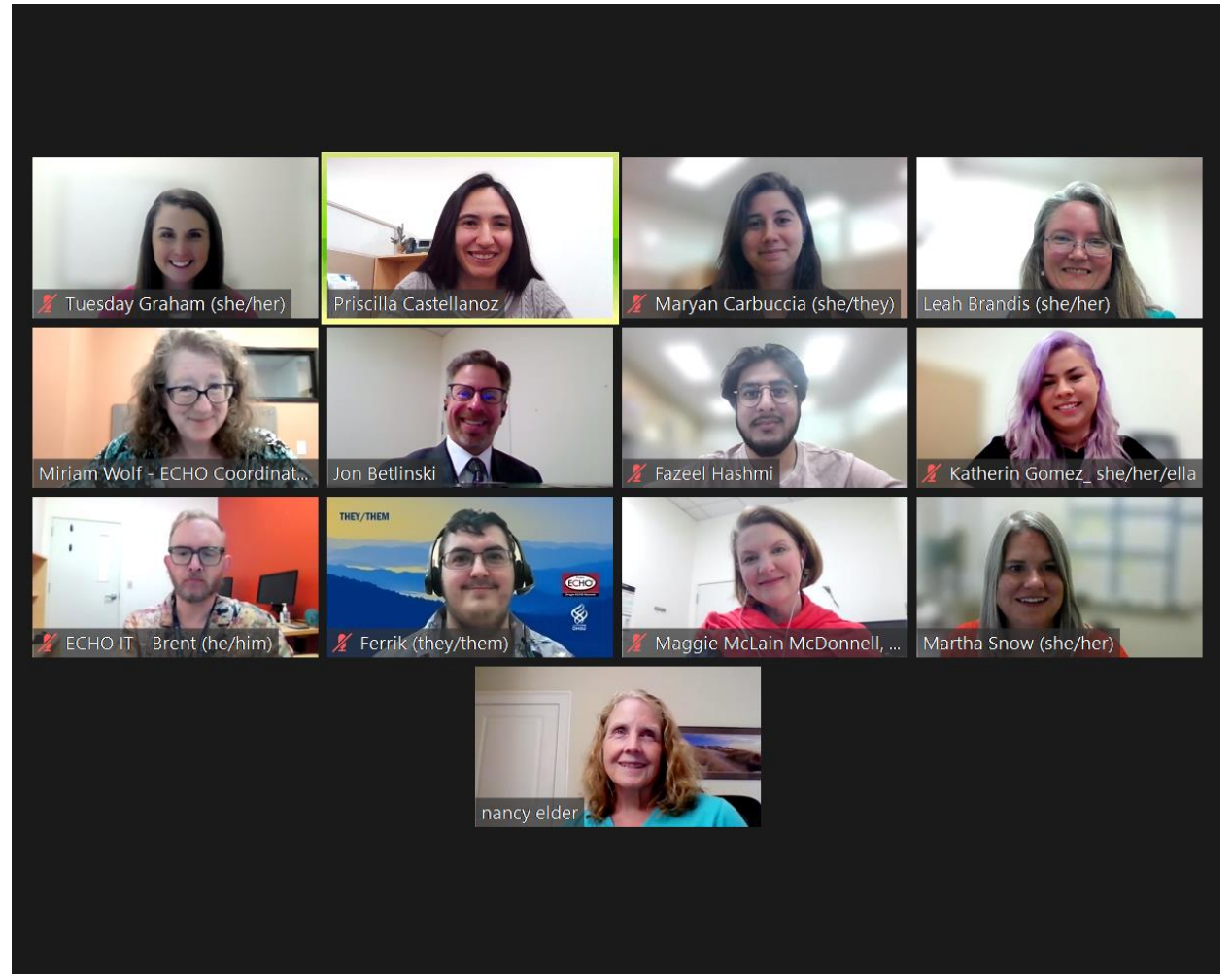


N = 132; Average survey response per individual: 6 sessions

Liked best:

“It served as a good reminder that **visits are not one size fits all**. It's easy to caught in this check box, care gap filling mentality.”

- Diabetes ECHO Participant



Health Policy

Health Policy

- Established 2017
- ≈8 staff (2 live in rural communities)
- Support policy and systems changes that advance **health care transformation** in Oregon.
 - **Outreach and engagement:** Uplift community perspective in developing and implementing health care policies and programs
 - **Education:** Translate health policies and programs into accessible information & action
 - **Technical assistance and expertise:** Conduct research, provide subject matter expertise and one-on-one coaching (practice facilitation) to promote evidence-based best practices and quality improvement
 - **Relationship building:** Help build trust and bridges among health care providers, health insurers, community-based organizations, and policy makers
 - **Capacity building:** Extend the capacity and reach of our partners' policy efforts



What is the National DPP?

- Established by the Centers for Disease Control and Prevention (CDC) to address growing problem of prediabetes and type 2 diabetes
- A one-year, evidenced-based program that teaches participants positive lifestyle changes
- Focus on helping participants manage their prediabetes and reduce the risk of developing type 2 diabetes

Did you know:?

In 2010 Congress authorized the CDC to establish the National DPP to offer evidence-based, cost-effective interventions in communities across the country to prevent type 2 diabetes.

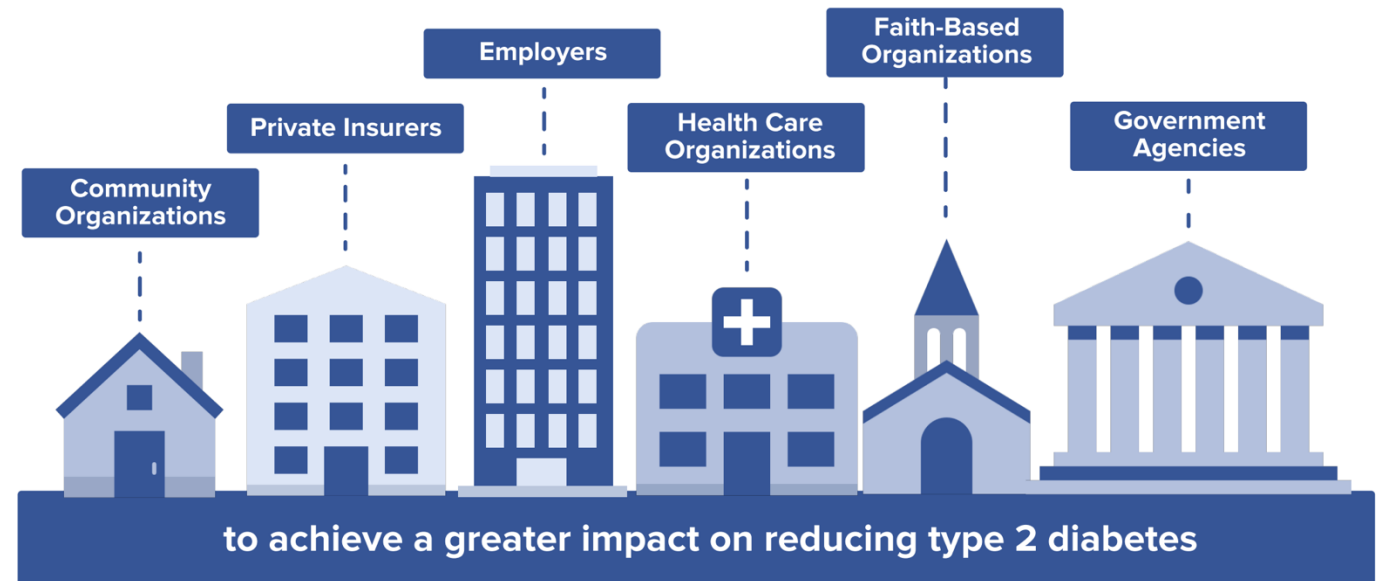
National DPP and health equity



- OHA's vision is to eliminate health inequities by 2030
- National DPP helps to **prevent** disease for all people, and **reduce** the unequal burden of diabetes and chronic disease for those that are racially, socially or economically marginalized
- Expanding access to National DPP services enables evidence-based health services to be available in all communities

Evidence and benefits

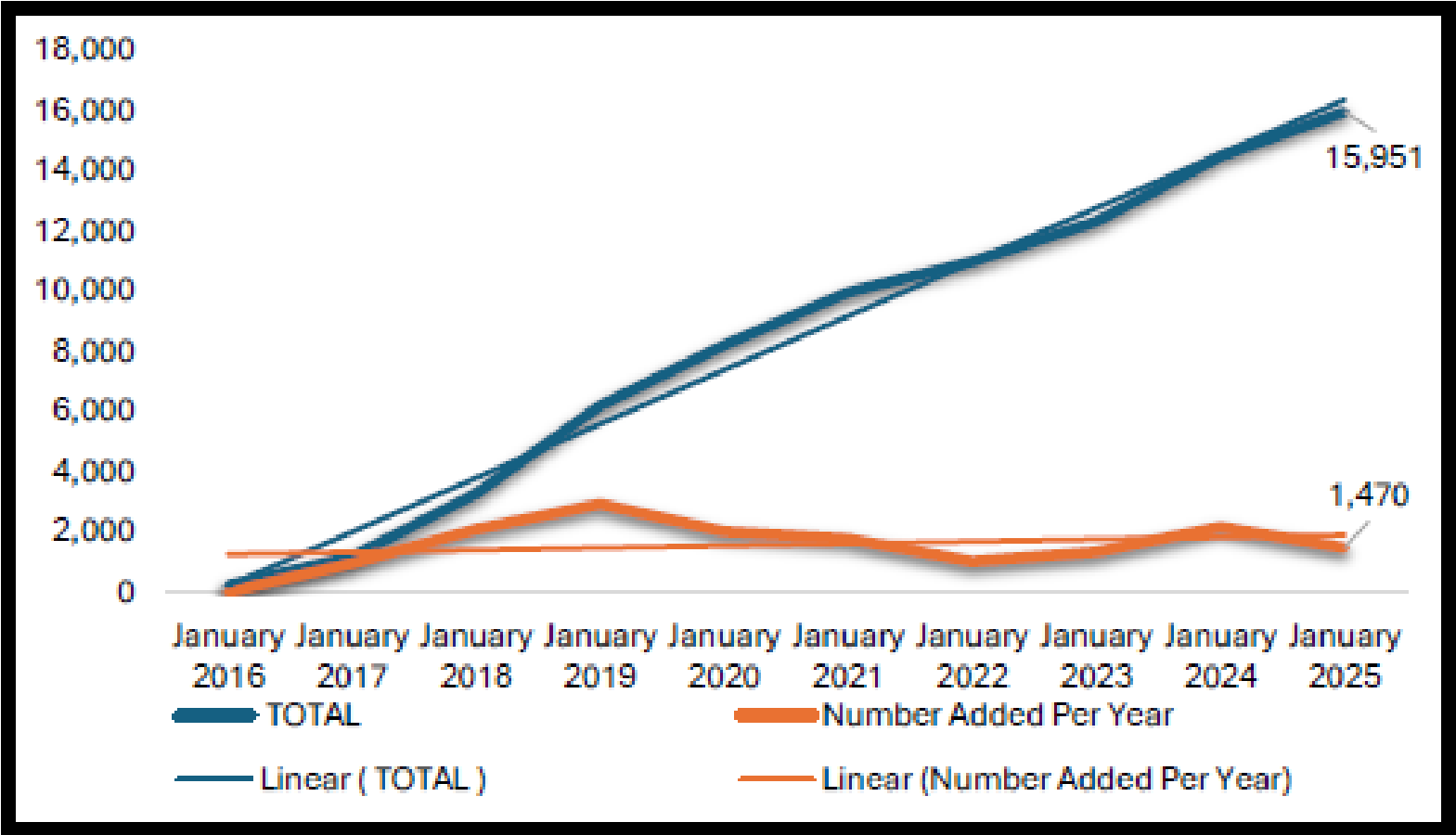
- A public-private partnership model
- Proven to prevent or delay type 2 diabetes in adults with prediabetes
- Studies show participants lower their chance of developing type 2 diabetes by 58% for people 60 and under, and 71% for those over age 60.¹⁴



National DPP in Oregon

- Oregon Health Authority (OHA) recognizes prediabetes as an issue affecting Oregon communities
- In January 2019, Oregon Medicaid/the Oregon Health Plan (OHP) began coverage of National DPP
- OHA encourages Care Coordinated Organizations (CCOs) to work with communities they serve to support implementation of National DPP across Oregon

Oregon DPP Enrollment, Cumulative and Annual



Source: CDC enrollment data from the Diabetes Prevention Recognition Program, prepared by OHA Health Promotion and Chronic Disease Prevention

Increasing participation in the Diabetes Prevention Program in Oregon

- Despite the evidence that DPP works, it is not highly utilized in Oregon
- The health policy team's approach is to work in partnership with OHA to identify and address policy and systems barriers to DPP participation

Survey CCOs to understand needs

Please choose your top two priorities from the following list that you believe would best complement your CCO's efforts in advancing the National DPP for OHP members.

- Convening CCO staff directly responsible for National DPP to share strategies/barriers amongst each other
- Gathering and sharing information on successful National DPP program delivery conducted in Oregon and other states
- Continued education on billing and coding practices for OHP CCO and OHP Fee-for-Service (FFS) participants
- Developing strategies on collaborating with CBOs and establishing them as Type 63 (encounter only) Provider Type
- Designing and delivering webinars on patient engagement strategies
- Developing strategies for provider engagement and referral patterns
- Consulting on culturally responsive access strategies to advance health equity

Sharing keys to success

Maryland and Michigan's approaches:

- Assess readiness of partners
- Pilot test with a small group
- Enlist champions
- Use data to identify beneficiaries
- Provide technical assistance to Managed Care Organizations
- Set up electronic referrals



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Success Story: Maryland Medicaid Demonstration Project for Diabetes Prevention

Background

The Maryland Medicaid Demonstration Project aimed to address the disproportionate risk of type 2 diabetes among Medicaid beneficiaries. With

Implementation and Partnerships

In June 2016, Maryland received a two-year grant from the National Association of Chronic Disease Directors (NACDD). This funding facilitated the collaboration between Maryland



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Success Story: Michigan Medicaid Demonstration Project for Diabetes Prevention

Background

In 2015, the Michigan Department of Health and Human Services (MDHHS) began exploring solutions to

Implementation and Partnerships

As a first step, MDHHS surveyed MCOs to assess current efforts around diabetes prevention. Second, MDHHS attended a MCO

Insurance coverage

- OHP, Medicare and some commercial payers cover the one-year National DPP program
- If patients and their National DPP leader desire additional time to support lifestyle changes and type 2 diabetes risk-reduction, OHP can cover an additional year of the program
 - Questions about the second year of coverage through the OHP can be directed to medicaid.programs@odhsoha.oregon.gov

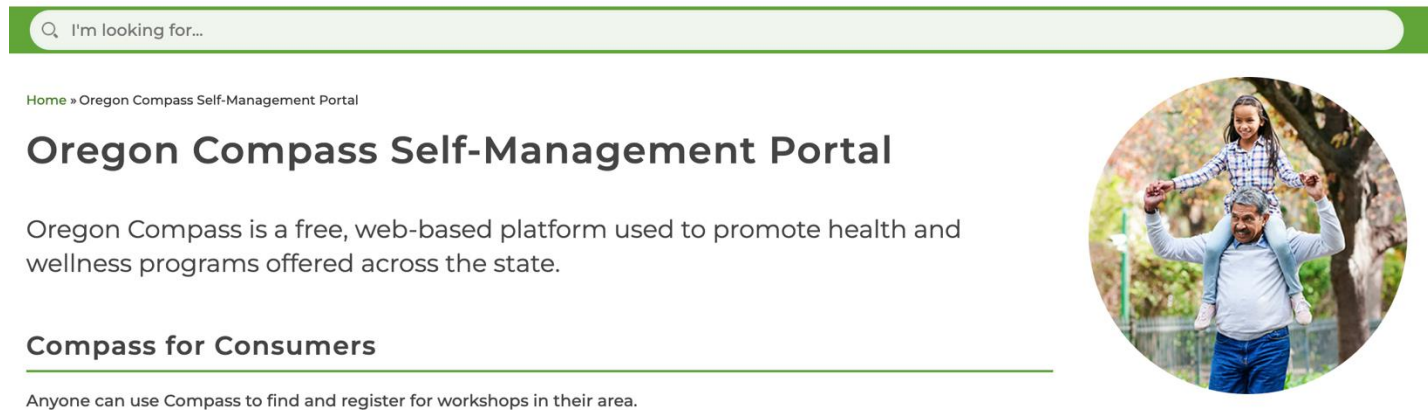


Insurance coverage: What is covered by OHP

- Two years of the national DPP program
- Up to 52 sessions over two years (In-person or Distance learning), or 24 months (Online) over two years
- All modalities covered



Referrals to National DPP



- Individual healthcare providers can refer patients to National DPP programs in their communities
- OR-
- Patients can enroll at the Oregon Compass Self Management Portal

National DPP modalities

- The National DPP must be provided by a CDC recognized organization that is recognized in the modality offered
- The National DPP Program can be delivered using any of the four modalities
 - In person
 - Distance learning
 - Online
 - Combination of the above

Choosing a modality: Cultural considerations

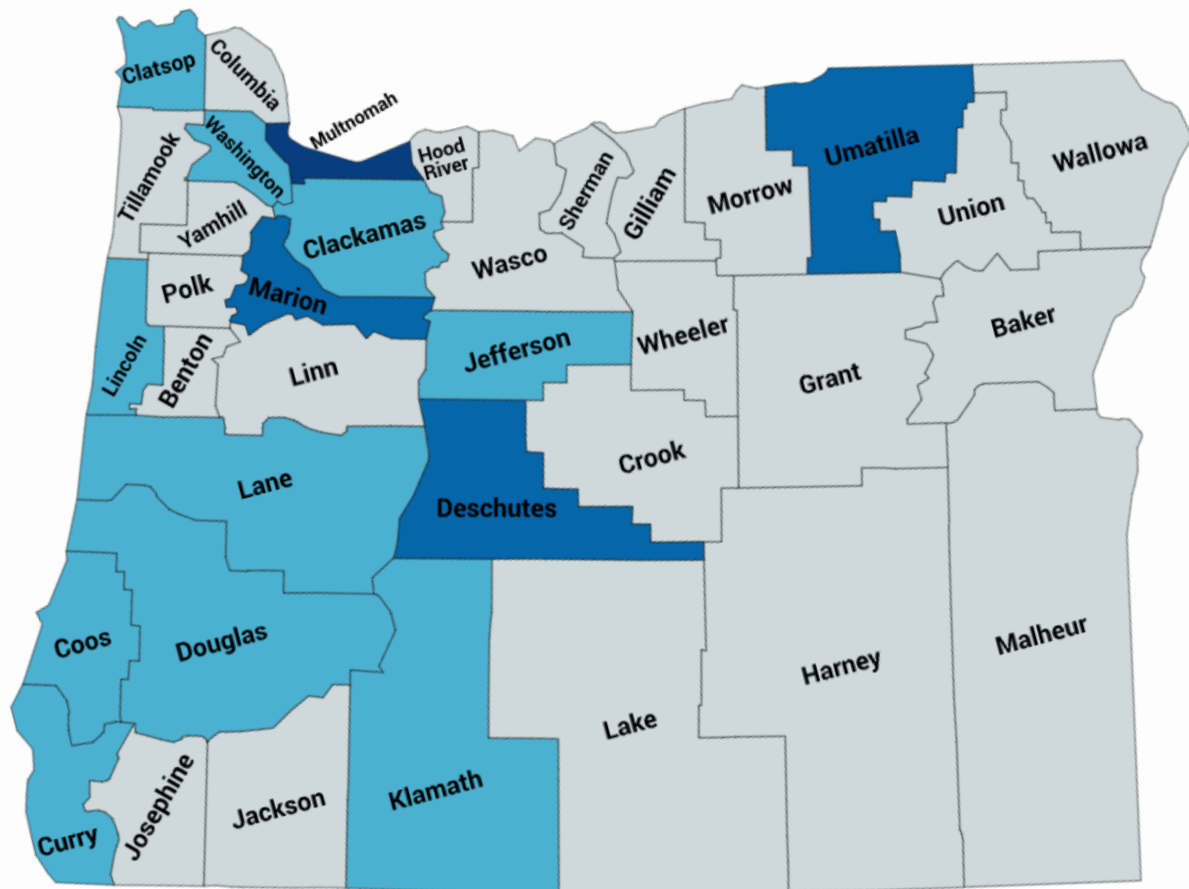
- Health equity and retention
 - OHA's Health Promotion and Chronic Disease Prevention Section recommends CCOs contract with one or more National DPP organization to offer multiple modalities, depending on the communities served.
- Cultural relevance and options for Native communities
 - OHA encourages CCOs to partner with CDC-Recognized National DPP organizations that offer culturally and linguistically relevant services in their communities
 - Many Tribal Health and Urban Indian Health Programs have been using CDC-recognized DPP curriculum for many years and are now becoming CDC-recognized National DPP organizations.



Choosing a modality: Billing considerations

- National DPP organizations are recognized by modality and must be billed to the OHP by their modality
- In-person and distance modalities are billed at a different cadence than the Online modality
- Weight loss verification methods and payment approval vary by modality
- Medicare and OHP reimburse for different modalities
- CDC-recognition status may impact eligibility for reimbursement (Medicare v. Medicaid)

CDC-recognized National DPP program providers in Oregon



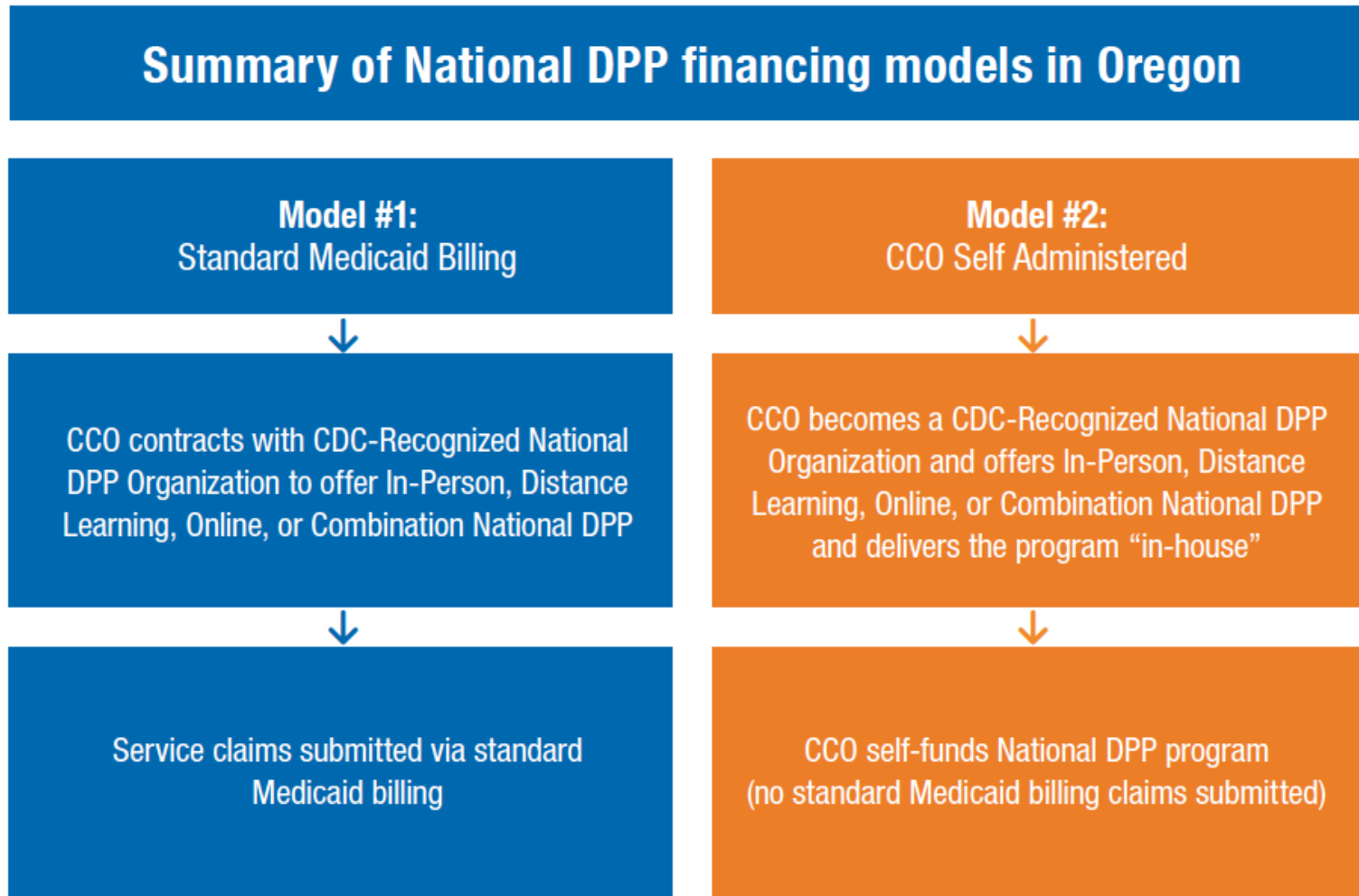
Number of
CDC-recognized DPP
programs

- At least one program
- 3-9 programs
- 10 or more programs

*Note that some of the providers offer virtual options that are open to anyone in Oregon regardless of geographic location (e.g., Oregon Wellness Network, Providence, Moda)

For CDC-recognized National DPP program providers, please visit the [National Registry of Recognized DPP organizations](#)

Summary of National DPP financing models



Billing and Coding for DPP

- Billing procedures determined by individual CCOs
- Traditional Medicaid enrollable providers must be contracted and credentialed with each CCO they partner with
- Details about how to bill for different provider types and modalities, reimbursement rates, etc. can all be found in the billing guide on the OHA website

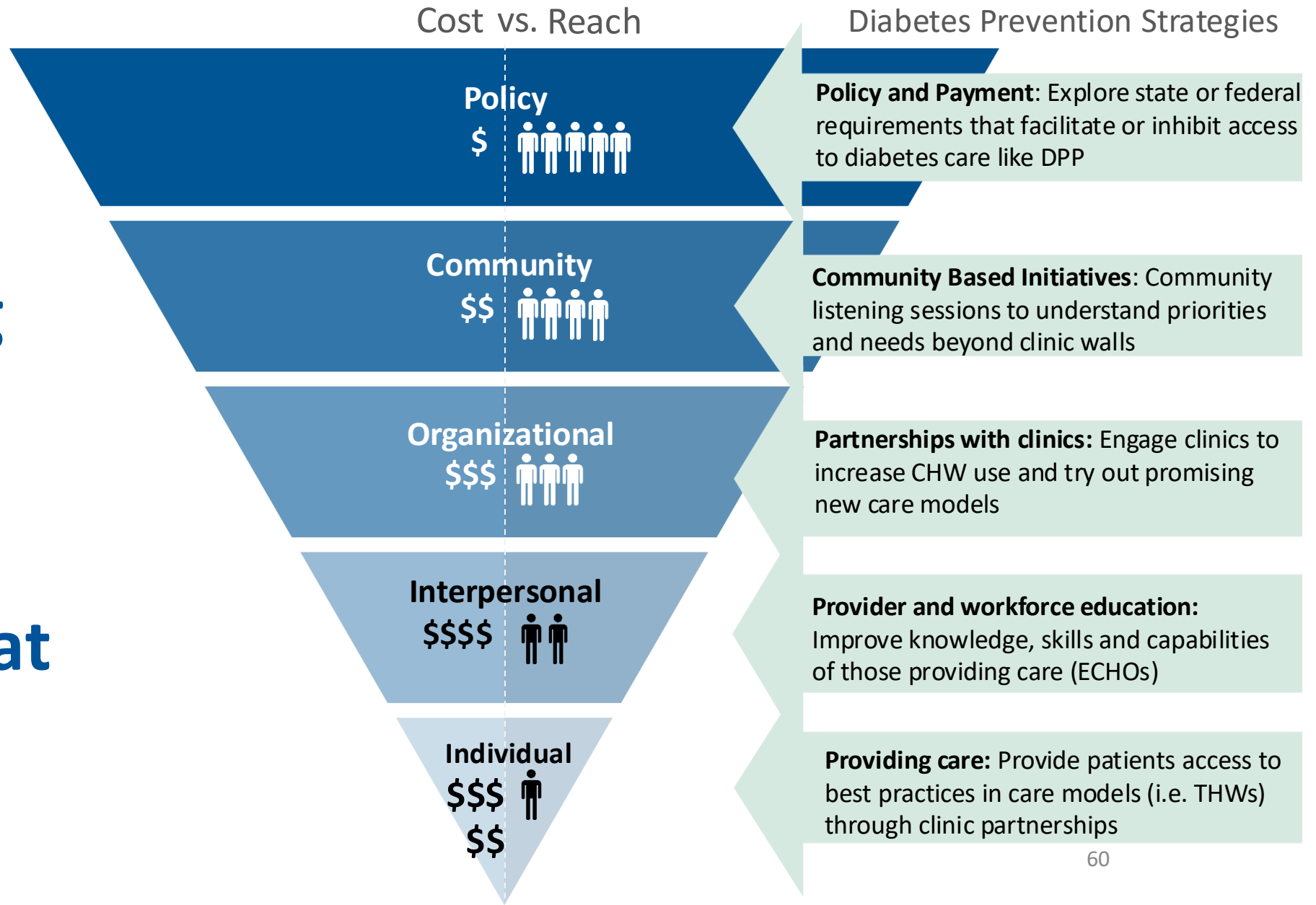
Medicaid Benefits in Oregon for National Diabetes Prevention Program

2023 Companion Guide for Coordinated Care Organizations
and Oregon Health System Partners Serving Oregon Health Plan Members



Diabetes work: Connecting the dots

Changing
complex
systems
requires
working at
all levels



Key Takeaways

- Multiple methods to address diabetes
- Identify local, state, and national priority areas
- Diversify funding streams to support work
- Conduct ongoing quality improvement and evaluation of diabetes programs
- Strategize free training and CME to support clinical care teams
- Leverage billing pathways

Resources

- Browse ADA CHW and other training modules: [ADA's Institute of Learning](#)
- Read about Psychosocial Care for People with Type 2 Diabetes: [<https://pubmed.ncbi.nlm.nih.gov/40578908/>](#)
- Sign up for an ECHO program: [<https://www.oregonechonetwork.org/>](#)
- Review the OHA Diabetes Prevention Program resources: [<https://www.oregon.gov/oha/hpa/dsi-tc/pages/diabetes-prevention-program.aspx>](#)
- Register for ORPRN's monthly email newsletter: [<https://www.ohsu.edu/oregon-rural-practice-based-research-network/contact-us>](#)

Contact

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Thank you

ORPRN is led by Dr. Melinda Davis, PhD, MCR

To learn more about ORPRN visit:

www.ohsu.edu/oregon-rural-practice-based-research-network

