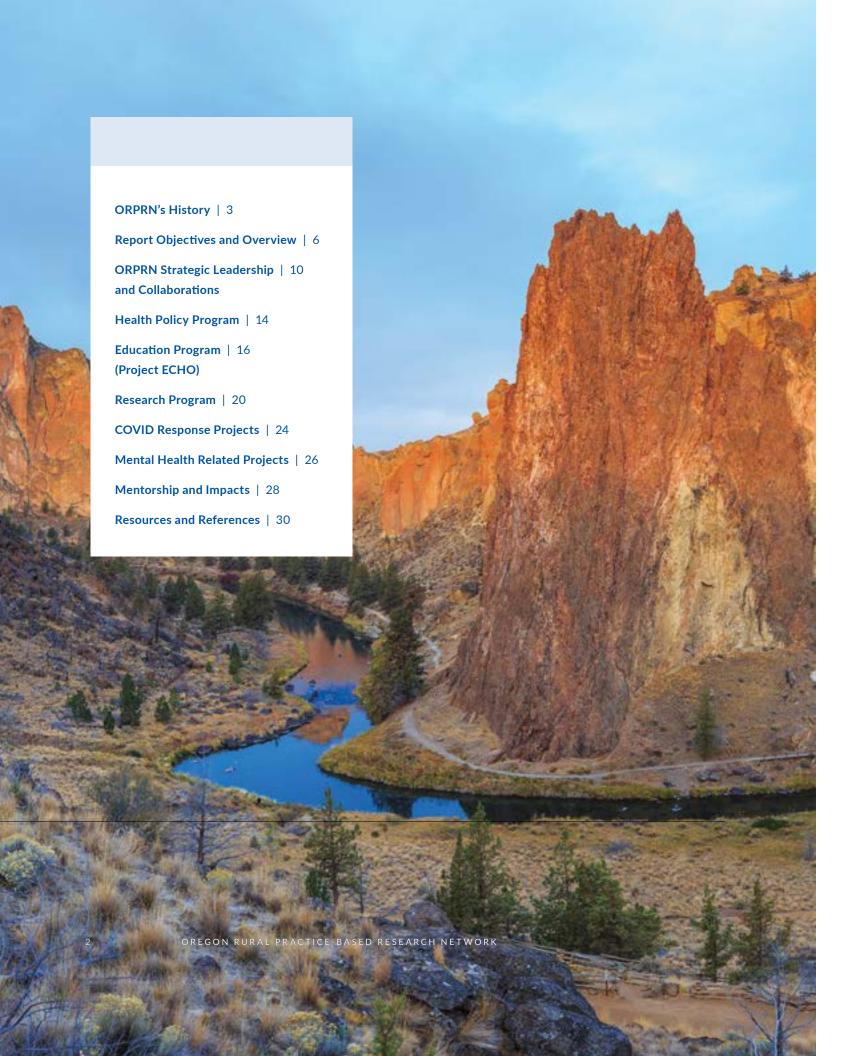
Oregon Rural Practice-Based Research Network (ORPRN)

July 1, 2019 - June 30, 2023 | ORPRN Impact Report







ORPRN's History

The Oregon Rural Practice-based Research Network (ORPRN) was founded in 2002 by LJ Fagnan, MD, and five clinicians from rural Oregon on the roof of Emma Jones Hall at Oregon Health & Science University (OHSU). Initially guided by a 9-member steering committee of rural primary care clinicians, early network activities served as a lifeline for rural independent clinics across the state with projects that described clinical care and supported integration of novel concepts in practice (e.g., patient centered medical homes, nurse care managers).

ORPRN's work was and continues to be guided by the following tenants:

- Clinicians will not get home later for dinner than they do now,
- Participation will not be a financial drain and it will be stimulating and fun, and
- Projects produce results that clinicians and staff will be proud of

By 2011, ORPRN had grown to include
13 staff members serving 49 clinics and
over 157 member clinicians across most
Oregon counties. In 2012, the ORPRN
steering committee modified network
bylaws to include service to clinics in
urban and suburban areas who also
reported experiencing challenges
with practice transformation and
implementation. Pioneering leadership in
these early years was provided by Anne
King, MBA; LeAnn Michaels, BS; and
Melinda Davis, PhD, who developed early
network infrastructure, hired and built

the regional Practice Enhancement & Research Coordinator (PERC) roles, launched the first network trials, and expanded projects to include community-based research. Together, the team established a culture of collaboration and trust that guides ORPRN activities today.

▼ ORPRN 2011 staff retreat.



Leadership and Operations Today

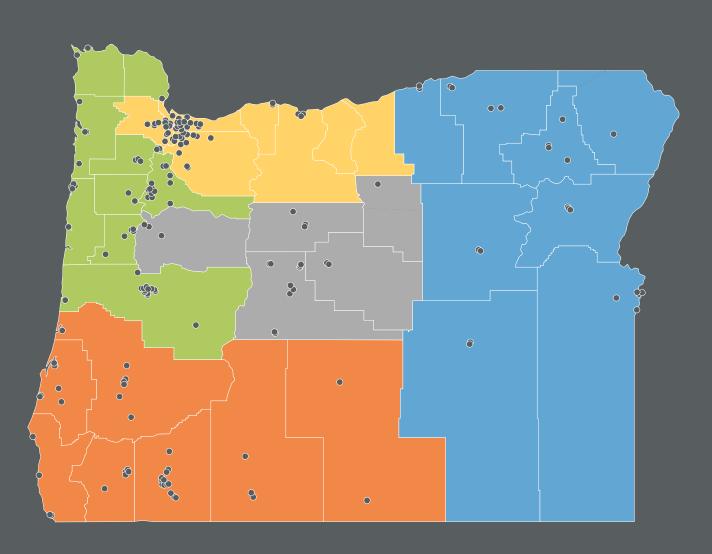
Between Fall 2019 through Spring 2023
ORPRN grew from 25 to nearly 70 staff
members working with about 400 of the
800 primary care clinics in Oregon (see
Figure 1). Network activities during
the COVID-19 pandemic and civil rights
movements was navigated by ORPRN
Director Nancy Elder, MD (2018 – 2022)
with support from Dr. Davis (Director
2022 – present), Ms. King (Associate

Director Health Policy), Ms. Michaels (Director of Clinical Trials through 2023), Maggie McLain McDonnell, MPH (Director of Education) and Alisa Jackson (Department Administrator). Network activities continue to be guided by a 14-member advisory board of primary care clinicians, staff, public health and health system leaders from rural Oregon. A number of ORPRN workgroups were established in 2020 to facilitate staff engagement in operations.

► ORPRN staff retreat 2023.



Figure 1. Clinic Engagement and Reach 2019 - 2023



- Central Oregon
- Eastern Oregon
- North Coast and Willamette Valley
- Portland Metro and Columbia Gorge
- Southern Oregon

Report Objectives and Overview

This report highlights key projects and initiatives conducted in ORPRN from July 2019 – June 2023 to demonstrate the scope, reach and impact of network activities. This time period is concurrent with the COVID-19 pandemic and highlights the network's ongoing commitment to the founding tenets and mission to "improve health outcomes and equity for all Oregonians through community partnered dialogue, research, coaching, and education."

ORPRN's work over the past three years has been organized around three key program areas:

- Health Policy
- Education
- Research



Network funding totaled more than \$8M in 2022 and encompasses 50 active projects across the program areas (see Figures 2 and 3). Between 2019-2023, network staff have reached over 230 clinics in research or quality improvement work, worked with 52 community partners and programs, and engaged directly or indirectly over 67,300 patients in clinical trials or other research efforts. Projects engaged and were led by 11 faculty across 5 departments at OHSU. Last year alone, ORPRN staff and collaborators have published 27 manuscripts and given 37 regional or national presentations in topic areas ranging from mental health, cancer prevention, clinical quality improvement, and unique health care stressors in rural areas. Project staff even provided expert testimony (more than 4 times in the past year) to the Oregon state legislature on health topics related to this work.

Figure 2. Funding Through the Years 2019-2022

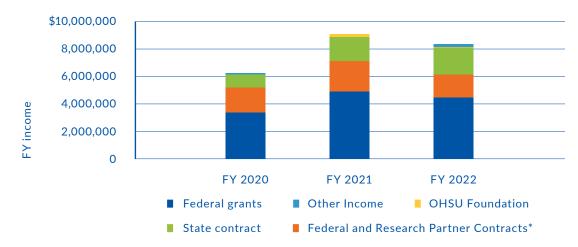
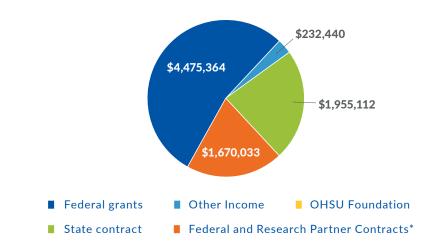


Figure 3. ORPRN Funding by Source 2022, Total: \$8.3M

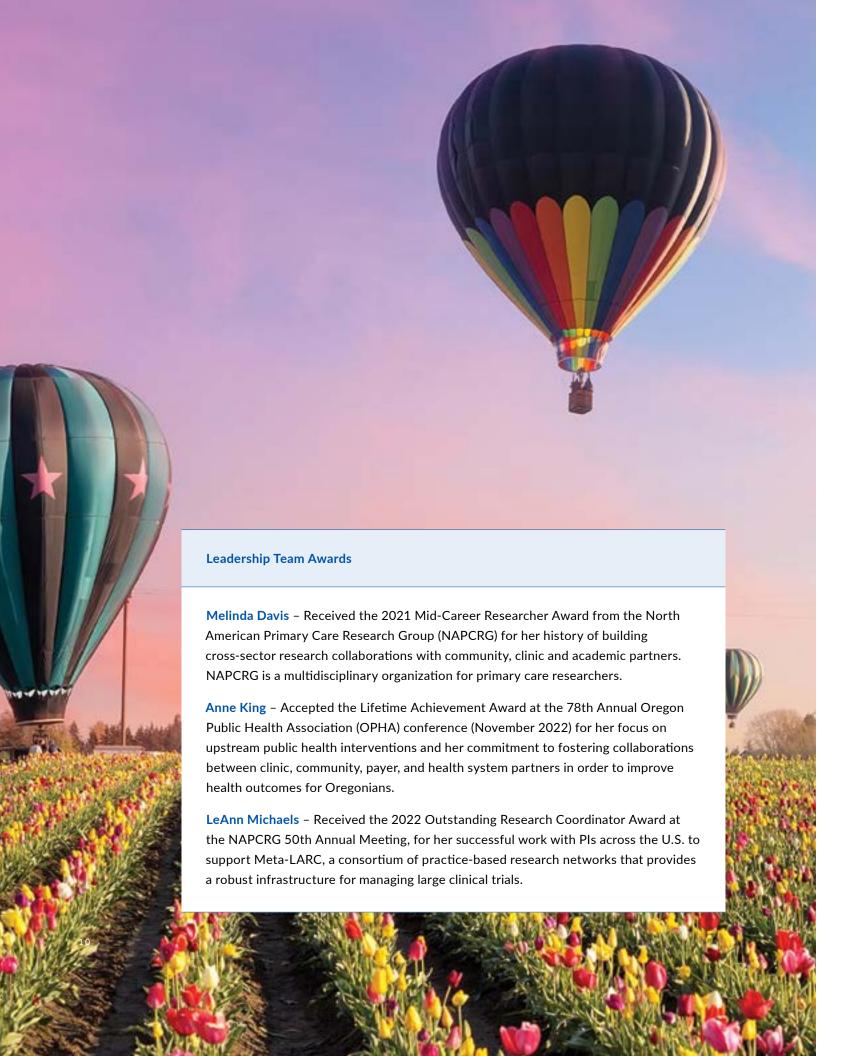


^{*}Federal and Research Partner Contracts include funding from the Patient Center Outcomes Research Institute (PCORI) and cross-institutional collaborations. Other income is primarily other research foundations and internal OHSU collaborations.

The pages that follow highlight key projects and impacts from ORPRN's three program areas between July 2019 – June 2023. We also spotlight projects addressing COVID-19 and mental health across our programs. Figure 4 summarizes the impacts of our work in the areas of academic achievements, community and public health programs, and with individual partners and participants.



8



ORPRN Strategic Leadership and Collaborations

Health care and research has been in a state of rapid change and it is an evolving landscape. We have built teams and ways of doing business to be nimble and respond to the many pressures and opportunities in primary care and public health. The network continues to have strong champions outside the organization guiding our work.



ORPRN Advisory Board

Notable to ORPRN's success is the engagement and guidance from the 14-member ORPRN Advisory board, contributions of our 10 core and affiliate investigators, and partnership with multiple departments, schools, centers and programs in and outside of OHSU. ORPRN works with the Advisory Board members and staff to refine its program agenda. Board members also share research, educational and healthcare initiative opportunities with peers and colleagues to encourage participation.

Learn more about the ORPRN Advisory Board

Apply to join our team of advisors.

Visit www.ohsu.edu/oregon-ruralpractice-based-research-network/
advisory-board for more information.

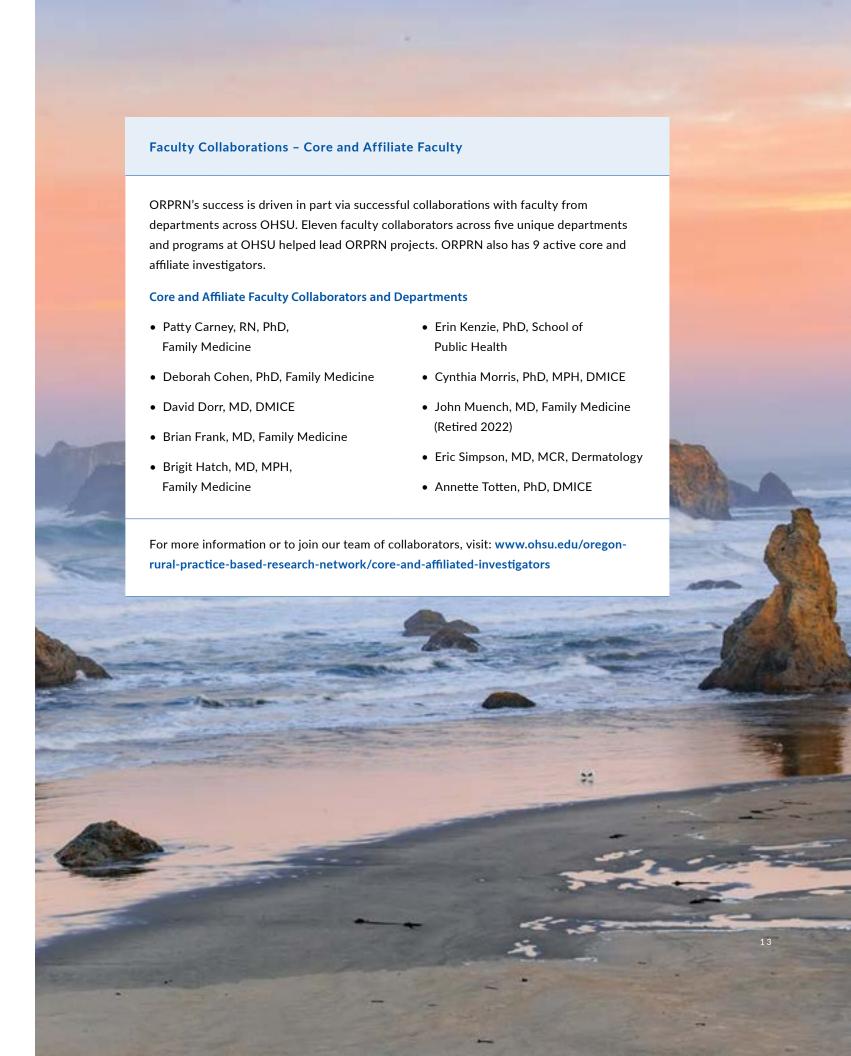
Advisory Board Members: Kelli Bosak. LCSW, North Bend Medical Center; Monica DeMasi, MD, **Providence Family** Medicine Residency Milwaukie; Kate McKenna, MD, MPH, One Community Health, Hood River; Elizabeth Powers, MD, Winding Waters Clinic; Robert Law, MD, Lower Columbia Clinic, Astoria; Brenda Riojas, PA, RD, Chemawa Indian Health Center. Not pictured: Stephanie Laudert, MD; Keli Dennis, BS; Korey Ham, DNP, NP-C; Brigit Hatch, MD; Scott Graham, DO; Lenora Waconda, MPH.

■ 2023 ORPRN

Internal Workgroups

The Leadership team has also internally built structures to inform organizational decisions. Internal workgroups were initiated in 2020 in response to COVID-19 and social justice needs. The staff have a very collaborative spirit at ORPRN and people at all levels of seniority want to be involved in the direction and decisions of the network. Leadership realized ORPRN would be a stronger organization if we heard from more voices. A communications team works with all the workgroups, Leadership team, ORPRN staff, and the various projects to maintain external communications about ORPRN events and activities. With 42 participating staff members in 2022, the following workgroups helped ORPRN stay focused on our mission and build relationships with our many partners across the state:

- The Diversity, Equity, Inclusion, and Anti-Racism Workgroup strives to create an anti-racist organization that adopts, promotes, and upholds policies and practices that stand in direct opposition of racism and promote racial acceptance and equity both in our work place and the individuals and communities at-large whom we serve. In 2022, almost 30 staff members took part in ORPRN sponsored anti-racism study groups in addition to all the staff who took more formal training classes in unconscious bias, equity, and inclusion.
- The Recruitment & Engagement
 Workgroup refines and implements
 protocols for recruitment and
 engagement of research partners
 involved in ORPRN work, including
 relationship building, internal and
 external communications with partners,
 and coordination across projects.
 Monthly meetings share strategies,
 technical tools, and recruitment advice
 for new and ongoing projects.
- The How We Work Workgroup aims to enhance job satisfaction and quality of work through removing barriers and promoting a positive work environment.
- The Strategic Planning Workgroup reviews and makes recommendations to inform ORPRN's strategic goals and outcomes.



Health Policy Program (Established 2017)

The Health Policy Division is led by Anne King, MBA, Associate ORPRN Director, and Nancy Goff, MPH, Director of Health Policy. This division started in 2015 and was formally established in 2017 with funding of the Accountable Health Communities Study by the Center for Medicare and Medicaid Innovation (CMMI). As of April 2023, the Health Policy Division is staffed by 14 team members working on 13 projects that engage health plans, clinics, community-based organizations, and patients.

Accountable Health Communities Study

Led by Bruce Goldberg, MD (PI) and Anne King, MBA (Project Director), the Accountable Health Communities Study, between 2018 - 2022, partnered with Medicaid health plans, health systems, and clinics and clinical organizations across Oregon to screen more than 25,000 patients for unmet social needs, and connect those with needs to navigator services and community social services and resources. Given clinic and health level stressors during the pandemic, the screening model in some locations shifted from leveraging existing clinical team members (medical assistants, front desk, community health workers (CHW), social workers) to using a team of 20+ staff and students to support screening and connecting those with needs to navigator services provided by clinical

systems and 211info. This approach was well received and provides opportunities for future cross-sector collaborations to ensure patients' social needs are met.

EOCCO Community Benefits Program

Since 2015, ORPRN has administered the Eastern Oregon Coordinated Care Organization's (EOCCO) community grants programs, which have funded 293 projects for a total of over \$15M. In the past year, this program awarded grants to 20 organizations which provided services to over 30,000 Eastern Oregonians. Projects are designed to address community needs and to support evidence-based interventions, such as supportive housing, CHW training and workforce development, preventive services improvement, and increased access to care. ORPRN coordinates

review, selection, and administration of the projects and provides technical assistance to improve the capacity of community organizations. ORPRN partnered with EOCCO and the USDA to obtain a new refrigerated food truck for the Harney County food pantry. A similar partnership is underway with the Oregon Food Bank to support the Ontario food bank.

Technical Assistance and Education for Medicaid Flexibilities

The Health Policy Program supports
Coordinated Care Organizations (CCOs)
in a variety of Medicaid payment
flexibilities. These payment structures
enable CCOs to invest in health care
quality, social determinants of health
(SDOH), and the social needs of their
members. ORPRN presents educational
conferences, webinars, and learning
collaboratives. ORPRN staff also provide

one-on-one and group technical assistance to help payers plan and implement these investments, as well as navigate the rules surrounding them.

One such program, the Supporting Health for All through REinvestment (SHARE) is an Oregon legislative requirement that CCOs invest a portion of their net income in projects that address health inequities and the social determinants of health and health equity. In 2022, CCOs designated almost \$27M in such projects. Innovative investments have focused on creating cross-sector partnerships to convert motels to short-term supportive housing, increasing the capacity of community agencies to address social needs, renovating parks and playgrounds to encourage physical activity, expanding produce access programs, and supporting at-risk families with parenting resources and supports.

Overall SHARE Designations*

SHARE designation year	2021	2022
Number of CCOs participating in SHARE	13	15
Total SHARE designations (all CCOs)	\$4,062,545	\$26,885,457
Smallest CCO designation amount	\$57,992	\$48,578
Largest CCO designation amount	\$750,000	\$19,855,000
Average designation amount per member month	\$0.85	\$1.15

^{*}Note: This chart includes designations for each year, not actual spending. CCOs have three years to spend each year's designation. www.oregon.gov/oha/HPA/dsi-tc/Documents/2022-SHARE-Spending-Plan-Report.pdf

OREGON RURAL PRACTICE-BASED RESEARCH NETWORK

Plan-Report.pdf

Education Program (Established 2017)

Led by Maggie McLain McDonnell, MPH, ORPRN's Educational Program includes workforce development activities and the Oregon ECHO Network (OEN). OEN launched in 2017 as a statewide resource for Project ECHO (Extension of Community Healthcare Outcomes) and is currently led by Ms. McDonnell and Clinical Advisor Jonathan Betlinski, MD. Project ECHO is a tele-mentoring education model developed to build the capacity of primary care clinicians to manage health conditions that they typically refer to specialty care. Today, this model is also used to educate clinical teams and other participants on topics ranging from practice transformation to improving clinical workflows to training community health workers. The approach uses an "all teach, all learn" model to discuss de-identified cases and share evidence-based approaches to manage complex conditions and improve quality of care.

The OEN provides program offerings determined and supported by a collaborative group of community partners including the Oregon Health Authority, health plans, and health systems across Oregon. Since 2018 OEN has offered



more than 33 unique programs that have reached over 6,000 total participants (see Figure 5). ECHO program topics span the full spectrum of primary care: from child psychiatry to geriatric care to substance use disorder to gender affirming care. Notably, the number of ECHO programs more than doubled in 2020, including novel programming related to COVID-19. Health equity has been a key driver for OEN's philosophy and programming with a focus on addressing health disparities among rural, aging, BIPOC, LGBTQ+ and other minoritized populations across Oregon. We highlight two novel areas for ECHO Programming below.

Figure 5. ECHO Programs Reach 2019 - 2023

Period	ECHO Program	COVID ECHO	Community of Practice	Yearly Totals
Winter 2019	151			151
Spring 2019	129			129
Fall 2019	259			259
Winter 2020	240			240
Spring 2020	176	1,377		1,553
Summer 2020		697	33	730
Fall 2020	425		83	508
Winter 2021	471	396		867
Spring 2021	248			248
Summer 2021			40	40
Fall 2021	458		48	506
Winter 2022	333			333
Spring 2022	267			267
Fall 2022	519		62	581
Winter 2023	473			473
Spring 2023	444		25	469
Total	4,593	2,470	291	7,354

Health Equity, Access and Quality Improvement Project Using Project ECHO in Rural Oregon (HEAL-OR)

ORPRN built on its established ECHO systems and process to lead a 5-year, HRSA funded award to advance health equity, access and quality improvement in rural Oregon. The funding places special emphasis on six rural counties in Oregon (Hood River, Gilliam, Sherman, Wasco, Baker, and Umatilla). To support the project, OEN developed a Rural Advisory Panel with representatives from each of the six counties who provide feedback and guidance on developing ECHO programs that best serve their population. The HEAL-OR grant will support the delivery of 3 ECHO programs per year, and the first one, a 12-session HEAL-OR Diabetes Care for Whole Person Health ECHO, launched in the Spring of 2022. Revamped to better serve the HEAL-OR mandate, this Diabetes Care ECHO offered topics like "Overcoming Barriers in a Rural Setting," "Nutrition and Patient Engagement in Latinx Communities," and "Structural Racism in Health Care."

The HEAL-OR program is also supporting a program focused on Long COVID care. This ECHO program is a collaborative effort with OHSU's Long COVID clinic and provides an opportunity for clinicians and health professionals serving rural and underserved patients to learn from a multi-disciplinary team of experts treating the emerging disease-state of Long COVID. Session topics included mental health with Long COVID, Long COVID in children, and physical therapy protocols, with an overall lens of health equity.

Public Health Preceptor ECHO

OEN has developed a model for supporting preceptor skill development, first for physicians (2021), then for public health (2023) and now expanding to dental (anticipated spring 2024). The Public Health Preceptor ECHO is a collaborative effort between two Oregon schools of public health: OHSU-PSU and Oregon State University. The ECHO had at least 21 participants for each of the 6 sessions. In addition to boosting preceptor's confidence to support public health students, two known outcomes so far include a grant submission to establish a hub for student internship stipends and the OHSU Office of Learner Placement and Housing opening housing to public health students in rural communities. During the final session, 18/20 participants expressed interest in the group meeting at least quarterly in the coming year for ongoing peer learning.



Research Program (Established 2012)

Led by Melinda Davis, PhD, MCR, ORPRN provides a unique resource to OHSU researchers by supporting the design and implementation of pragmatic clinical trials and randomized controlled trials using a decentralized design with affiliated clinics and communities. ORPRN also conducts studies that blend participatory research and implementation science in clinic and community settings to advance health and health equity. As of June 2023, the research team includes 30 members and more than 11 faculty collaborators across OHSU. Of the research team members, 9 staff members can support bilingual activities in English and Spanish, 7 are regionally located across the state, and the overall team represents the diversity of the patients and communities ORPRN serves. Between July 2019 – June 2023, the research team supported projects which engaged over 145 clinics, enrolled more than 3,246 direct participants in clinical trials, and reached 67,300 people including all the trials and practice-based research studies. The majority of projects in the research program prioritize reaching clinics and patients in rural and frontier communities.

ORPRN also serves as the host site for the Meta-network Learning and Research Center (Meta-LARC). Meta-LARC was established in September 2012 through an AHRQ Center of Excellence in Primary Care Practice-based Research and Learning and has grown to a consortium of nine PBRNs in the U.S. and Canada as of April 2023. As of Fall 2022, the research program is also aligned with the Oregon Clinical and Translational Research Institute (OCTRI) through leadership of the Collaboration and Community Program and support for pragmatic trials.

What is Participatory Implementation Science?

20

See defining article led by Dr. Ramanadhan (Harvard), Davis and colleagues from the Mentored Training in Dissemination and Implementation Research in Cancer (MT-DIRC) here: www.ncbi.nlm.nih.gov/pmc/articles/PMC5858707/

Advanced Care Planning (ACP)

Annette Totten, PhD (PI) with support from LeAnn Michaels (former ORPRN Clinical Trials Program Director) received funding from the Patient-Centered Outcomes Research Institute (PCORI) in 2019 for The Meta-LARC Advanced Care Planning (ACP) Trial. The ACP trial was a comparative effectiveness study that used the Serious Illness Care Program (SICP) to compare a team-based to a clinician-focused ACP in 40 primary care practices in the U.S. and Canada. The ACP trial facilitated advance care planning with over 1200 patients with serious illnesses, including during the COVID pandemic.

"Moments like this draw me to geriatrics, moments that challenge me to find true balance among my love of diagnosis, medical management and my understanding of the social, emotional and psychological milieu of a patient, moments that allow me to practice real patient-centered care."

- ACP Clinical Participant

PATHFINDER 2

PATHFINDER 2 is a Multi-Cancer Early Detection (MCED) study led by Nima Nabavizadeh, MD with the OHSU Knight Cancer Institute and funded by GRAIL, Inc. The PATHFINDER 2 study tests sensitivity and specificity of a blood test to identify multiple cancers early. To enhance recruitment diversity, ORPRN provides support for clinic and patient enrollment in the Columbia Gorge Region

through a partnership with One
Community Health (OCH), a Federally
Qualified Health Center (FQHC). ORPRN
recruitment is conducted with OCH
and other community partners,
including The Next Door, Radio Tierra,
and via the OCH mobile medical unit.
As of May 2023, ORPRN has enrolled
over 300 participants into
PATHFINDER 2, of which 30% identify
as Hispanic. The ORPRN team has
supported cultural adaptations of
program outreach and recruitment
materials to encourage enrollment
of Spanish speaking participants.

▼ PATHFINDER 2 Study Team welcoming participants at a community outreach event.

21





A Community-Based Assessment of Skin Care, Allergies, and Eczema (CASCADE) Trial

CASCADE is a pragmatic randomized controlled trial (RCT) led by Eric Simpson, MD, MCR (Dermatology) and designed to answer whether daily application of lipid-rich emollient will prevent onset of atopic dermatitis (AD, eczema) in newborns compared to leaving skin natural. Between 2018-2021 the CASCADE study team enrolled 1,250 parent-infant dyads within 25 Meta-LARC clinics (ORPRN=10) and followed families for 2 years via survey and chart audits. The pragmatic design included families not pre-selected for atopic dermatitis risk, which means findings of the study may change skin care recommendations for newborns.

Screening More Patients for CRC Through Adapting and Refining Targeted Evidence-Based Interventions in Rural Settings (SMARTER CRC).

SMARTER CRC is a National Cancer Institute Moonshot award that is a robust collaboration between ORPRN and Kaiser Permanente Center for Health Research (MPIs: Melinda Davis, PhD and Gloria Coronado, PhD). SMARTER CRC consists of three phases: 1) adapting a population outreach mailed fecal test and patient navigation program to increase colorectal cancer screening and follow-up care for use in rural settings, 2) conducting a 2-arm pragmatic trial in partnership with three Coordinated Care Organizations (CCOs) and 29 clinics in rural Oregon to implement the outreach, and 3) using the ECHO model to support program scale-up to 120 clinics nationally. As of April 2023, program activities have reached over 10,000 patients in Oregon and 14 organizations associated with 310 clinics are currently participating in the scale-up project. Population outreach strategies that use direct mail or remote patient navigation can help overcome any structural barriers amplified during the pandemic.

Rural Adolescent Vaccine Enterprise (RAVE)

RAVE is a stepped wedge pragmatic trial funded by the American Cancer Society and led by Brigit Hatch, MD and Patty Carney, PhD (prior lead was LJ Fagnan, MD). RAVE is conducted in partnership with the State of Oregon Immunization Program and over 40 family medicine and pediatric clinics in rural Oregon providing care to adolescents. HPV immunization rates are notoriously low in Oregon (2017 HPV vaccine completion rate was 27.8%). RAVE is designed to improve HPV immunization rates in rural Oregon and to share findings nationally. ORPRN PERCs (practice facilitators) provide implementation support to each participating clinic's quality improvement team and support partnerships with regional communitybased organizations.



The MISSION Act's Impact on Rural Veteran Access to and Experience of Care (CARAVAN)

CARAVAN is a multi-year needs assessment funded by the Veteran's Rural Health Resource Center - Portland (VRHRC -Portland). Led by Dr. Davis, our team interviewed more than 40 rural veterans, Veteran service officers, clinicians and staff (in and outside the VA) to understand and design interventions to enhance rural Veteran access to care. Interviews were conducted prior to and during the pandemic. Findings highlight the complexity rural Veterans experience accessing care due to individual, organizational and system-level factors and the need for relational coordination across settings. Based on this foundational research, the team is now working to adapt and pilot a relational coordination intervention in one rural Oregon community with long-term goal to scale this intervention nationally to enhance patient access and provider/staff retention in rural VA and non-VA settings.

24

COVID Response Projects

During the COVID-19 health care emergency, ORPRN staff rapidly shifted multiple research, education and health policy program activities to comply with COVID-19 travel restrictions and respond to emerging health care and public health challenges across the state. In addition to adjusting our own work, ORPRN mobilized staff to support the COVID-19 response through education and technical assistance.

COVID-19 ECHO

ORPRN developed and delivered a COVID-19 Response ECHO starting on March 19, 2020, shortly after the state of emergency was declared and 6 days after requested by the Oregon governor's office. The average number of participants in the first 4 sessions was 718. Over 1,275 unique health professionals registered for at least 1 of the 11-total ECHO sessions reaching all 36 counties in Oregon as shown in Figure 6. Sessions provided information on the novel virus, information about how to address and where to get supplies, and helped organizations trouble shoot and support each other through dialogue in the chats and case examples. These sessions were often a life-line for public health, primary care and health system leaders in processing and responding to the early and later stresses of COVID.

COVID Vax Quality Assurance

ORPRN was also contracted to provide quality assurance support for the Oregon Health Authority (OHA) during vaccine delivery roll out. The team has met with ~800 facilities that deliver vaccine, many of which have been engaged for the first time (i.e., churches, fire departments). The team assesses workflows, vaccine storage, and documentation and provides technical assistance support where needed. This approach helps reach communities at risk for inequities in vaccine.

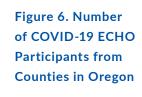
Building Immunity by Building Community

Supported by OHA, ORPRN worked together with Boost Oregon and the Oregon Academy of Family Physicians (OAFP) to bring vaccine confidence directly to communities through culturally and linguistically responsive, educational, clinician-led workshops. The objective was to engage with BIPOC and rural Oregonians to improve vaccine uptake among these populations. Public health activities acknowledged that many communities have been silenced or traumatized by government or healthcare institutions in the past and created partnerships for co-created solutions focused on equitable access to public health. This project trained clinicians, engaged community organizations, and created a toolkit of resources for participating clinicians. Between August 2022 and June 2023, 47 workshops were delivered to communities across Oregon either in-person at community events or virtually. In over 220

participant surveys from the workshops, more than half (77%) strongly supported COVID-19 vaccines and participants feelings about the vaccines improved as a result of taking the workshops and over half rated the workshops as excellent.

COVID Quick Primary Care Survey

ORPRN has supported distribution of the Quick COVID-19 Primary Care Survey, which was launched in March 2020 by the Larry A. Green Center to "better understand the response and capacity of US primary care practices to COVID-19, as well as the potential impact of the pandemic on primary care." First monthly, then decreasing in frequency as the pandemic progressed, the survey produced data for national, regional, and local audiences. To support Oregon's pandemic response, ORPRN has archived state-level data from the survey on its website (www.ohsu.edu/oregon-rural-practicebased-research-network/quick-covid-19primary-care-survey).



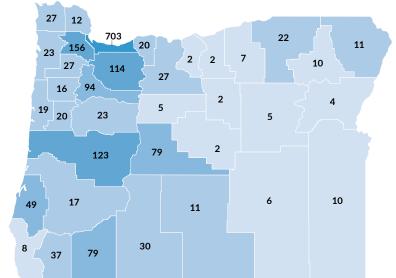


11-39

40-99

100-499

500+



Mental Health Related Projects

Since 2019, ORPRN has led over 116 ECHO programs (~1000 total sessions) and 29 research grants or contracts related to the Governor's three key priority areas (e.g., housing, behavioral health and recovery, and early learning). ECHO programs offered topics ranging from adult and child psychiatry to substance use disorder (>8 unique programs) to gender affirming care. ORPRN's research and health policy program's work addresses the breadth of needs in primary care and community settings and range from addressing unhealthy alcohol use or opioid prescribing in primary care, to supporting behavioral health integration, to implementing interventions to enhance screening and referral for unmet social needs or intimate partner violence, to enhancing the public health workforce to improving social and emotional learning in children. We highlight a few of these mental and behavioral health related projects below.

Unhealthy Alcohol and Substance Use (ANTECEDENT/PINPOINT)

Led by PIs Melinda Davis, PhD and
Brigit Hatch, MD, ANTECEDENT engages
>70 clinics in Oregon in improvement
of screening, brief intervention and
referral to treatment (SBIRT) for
unhealthy alcohol use (UAU). While a
leading cause of morbidity and mortality,
alcohol consumption and UAU increased
dramatically during the pandemic. This
work is a partnership between ORPRN,
SBIRT Oregon, and the Oregon Health
Authority in alignment with the CCO
SBIRT metric.

Diabetes Care (INTEGRATE-D)

INTEGRATE-D pilot tested a toolkit of strategies to implement the American Diabetes Association's position paper on the importance of providing psychosocial support for people with diabetes. Led by PI Deborah Cohen, PhD, the team provided training and support on approaches to assess for diabetes distress, depression, anxiety, and disordered eating in clinics having a range of integration models. ORPRN and the Department of Family Medicine collaborated to conduct mixedmethods evaluation during project implementation to understand capacity

for the project work, which was initiated early in the COVID pandemic, in 2020-2023.

Suicide Prevention

Suicide is a leading cause of death in the state of Oregon and the Oregon Health Authority (OHA) wishes to enhance offerings to better train and support primary care providers, especially those who are operating in rural and/or solo provider settings. OHA contracted with ORPRN for 12 months on PINPOINT Suicide Prevention to better understand rural Oregon primary care clinics' capacity and needs for support related to suicide prevention. The project team employed three modalities to capture Oregon primary care providers' feedback distributing a web-based survey circulated via email to clinics in the ORPRN network, conducting semi-structured one-on-one interviews with primary care providers, and convening a panel of providers to discuss suicide prevention efforts.

Mental Health Related Project ECHO Programs

Behavioral health is a core focus area for the OEN. Each quarter more than half of the ECHO program offerings (>8) focus on adult and child mental health, substance use disorder diagnosis and treatment, chronic pain management, gender affirming care, and related topics. Tailored programs have been developed for primary care clinicians and their team members, hospitalists, obstetricians, dentists, recovery peers, jail staff, and other learners.

"I'm so grateful for the work you all do to create this opportunity. It's probably hard for you to know the true impact it has on the ground for patients and providers as well. People are getting better care, and their health is improving, because of this work. Providers are feeling nurtured and empowered to keep going."

Adult Psychiatry I
 ECHO participant



Mentorship and Impacts

ORPRN has cultivated an environment where learners can conduct meaningful work in health care research, policy, and practice. We provide mentorship for students and collaborate with the Oregon Health Authority to employ Americorps VISTA members on a variety of projects. ORPRN routinely engages student workers; mentors medical, master's level and PhD candidates; and supports post-doctoral scholars and faculty learners in efforts to improve the health of rural Oregonians and advance health equity.

Annual ORPRN Resident Poster Session

Initiated in 2020, ORPRN hosts an annual peer-reviewed poster session at the Oregon Academy of Family Physicians meeting. Students, residents and fellows from around Oregon are invited to present scholarly posters from research, quality

improvement, education, workforce, practice facilitation or implementation projects in any subject related to primary care or pediatrics. Twenty posters have been presented in each year since 2020.





Learner Placements

Between 2019 and 2022, ORPRN had 38 student workers and 7 Americorp VISTA members working on our projects. We also regularly employ Build EXITO, serve as preceptors for MPH students, and involve medical students and residents in capstone projects build on ORPRN work, and employ PhD students. Last year alone, over 6 ORPRN staff members received advanced degrees and 5 staff members have been accepted into medical schools, PhD programs, or other health care related educational programs.



I wanted to let you know that I've been selected as a recipient of the APHA KP Community Health Scholarship! This scholarship will fully fund my graduate studies for the next two years and so I'm beyond thrilled! Thank you again for writing my letters of recommendation and [for the] mentorship I received when I was working at ORPRN. The AHC study and the research I did is what I wrote about in my essays and is an experience I often bring up. In one of the essay questions, it asked about how we can address the root causes of social determinants of health to improve health equity and how public health professionals and healthcare workers can collaborate to tackle this issue. This was so easy to answer because I learned so much from the AHC program and it was all I praised about. I also talked about what I hope that I can do to create a similar program in the future.

- ORPRN Build EXITO Scholar 2022

Resources and References

Oregon ECHO Network

Oregon ECHO Network. (n.d.). 2021-22 Annual Report. In Oregon ECHO Network. Retrieved July 11, 2023, from https://www.oregonechonetwork.org/aboutoen

McDonnell, M. M., Elder, N. C., Stock, R., Wolf, M., Steeves-Reece, A., & Graham, T. (2020). Project ECHO Integrated Within the Oregon Rural Practice-based Research Network (ORPRN). *Journal of the American Board of Family Medicine*, 33(5), 789–795. https://doi.org/10.3122/jabfm.2020.05.200051

Steeves-Reece, A., Elder, N. C., Graham, T. A., Wolf, M., Stock, I., Davis, M. M., & Stock, R. (2021). Rapid Deployment of a Statewide COVID-19 ECHO Program for Frontline Clinicians: Early Results and Lessons Learned. *Journal of Rural Health*, *37*(1), 227–230. https://doi.org/10.1111/jrh.12462

Steeves-Reece, A. L., Elder, N. C., Broadwell, K. D., & Stock, R. D. (2022). Clinicians' Core Needs in a Pandemic: Qualitative Findings From the Chat Box in a Statewide COVID-19 ECHO Program. *The Annals of Family Medicine*, 20(1), 51–56. https://doi.org/10.1370/afm.2762

Health Policy Program

Hatch, B. A., Kenzie, E., Ramalingam, N., Sullivan, E., Barnes, C., Elder, N., & Davis, M. M. (2023). Impact of the COVID-19 vaccination mandate on the primary care workforce and differences between rural and urban settings to inform future policy decision-making. *PLoS One*, *18*(6), e0287553. https://doi.org/10.1371/journal.pone.0287553

Oregon Health & Science University. (n.d.).

Quick COVID-19 Primary Care Survey. Oregon
Rural Practice-Based Research Network;
Larry A. Green Center. Retrieved July 11,
2023, from https://www.ohsu.edu/oregon-rural-practice-based-research-network/
quick-covid-19-primary-care-survey

Advanced Care Planning

Totten, A. M., Fagnan, L. J., Dorr, D., Michaels, L. C., Izumi, S. S., Combe, A., & Légaré, F. (2019). Protocol for a Cluster Randomized Trial Comparing Team-Based to Clinician-Focused Implementation of Advance Care Planning in Primary Care. *Journal of Palliative Medicine*, 22(S1), S-82-S-89. https://doi.org/10.1089/jpm.2019.0117

Participatory Implementation Science Overview

Ramanadhan, S., Davis, M. M., Armstrong, R., Baquero, B., Ko, L. K., Leng, J. C., Salloum, R. G., Vaughn, N. A., & Brownson, R. C. (2018). Participatory implementation science to increase the impact of evidence-based cancer prevention and control. *Cancer Causes & Control*, 29(3), 363–369. https://doi.org/10.1007/s10552-018-1008-1

Davis, M. M., Lindberg, P., Cross, S., Lowe, S., Gunn, R., & Dillon, K. (2018). Aligning systems science and community-based participatory research: A case example of the Community Health Advocacy and Research Alliance (CHARA). *Journal of Clinical and Translational Science*, 2(5), 280–288. https://doi.org/10.1017/cts.2018.334

PATHFINDER 2 and Multi-Cancer Detection Studies

Oregon Health & Science University. (n.d.).

Join the Pathfinder 2 Study to Find Cancer

Early. OHSU Knight Cancer Institute.

Retrieved July 11, 2023, from https://www.

ohsu.edu/knight-cancer-institute/joinpathfinder-2-study-find-cancer-early

Nadauld LD, McDonnell CH 3rd, Beer TM, et al. The PATHFINDER Study: Assessment of the Implementation of an Investigational Multi-Cancer Early Detection Test into Clinical Practice. *Cancers (Basel)*. 2021;13(14):3501. Published 2021 Jul 13. https://doi:10.3390/cancers13143501

Beer, T. M., McDonnell, C. H., Nadauld, L., Liu, M. C., Klein, E. A., Reid, R. L., Marinac, C., Lopatin, M., Fung, E.T., Schrag, D. (2021). Interim results of PATHFINDER, a clinical use study using a methylation-based multi-cancer early detection test. *Journal* of Clinical Oncology, 39(15_suppl), 3010-3010. https://doi:10.1200/JCO.2021.39.15_suppl.3010

Integrating Quality Improvement and Implementation Science

Davis, M. M., Gunn, R., Kenzie, E.,
Dickinson, C., Conway, C., Chau, A.,
Michaels, L., Brantley, S., Check, D. K., &
Elder, N. (2021). Integration of Improvement
and Implementation Science in PracticeBased Research Networks: a Longitudinal,
Comparative Case Study. Journal of General
Internal Medicine, 36(6), 1503–1513. https://
doi.org/10.1007/s11606-021-06610-1

CARAVAN Study

Patzel, M., Barnes, C., Ramalingam, N., Gunn, R., Kenzie, E. S., Ono, S. S., & Davis, M. M. (2023). Jumping Through Hoops:
Community Care Clinician and Staff
Experiences Providing Primary Care to
Rural Veterans. *Journal of General Internal Medicine*. Advance online publication.
https://doi.org/10.1007/s11606-023-08126-2

Kenzie, E. S., Patzel, M., Nelson, E., Lovejoy, T., Ono, S., & Davis, M. M. (2023). Long drives and red tape: mapping rural veteran access to primary care using causalloop diagramming. *BMC Health Services Research*, 22(1). https://doi.org/10.1186/s12913-022-08318-2

Sullivan, E., Zahnd, W. E., Zhu, J. M., Kenzie, E., Patzel, M., & Davis, M. (2022). Mapping Rural and Urban Veterans' Spatial Access to Primary Care Following the MISSION Act. *Journal of General Internal Medicine*, 37(12). https://doi.org/10.1007/s11606-021-07229-y

31

RAVE Early Study Findings

Carney, P. A., Hatch, B., Stock, I., Dickinson, C., Davis, M., Larsen, R., Valenzuela, S., Marino, M., Darden, P. M., Gunn, R., Ferrara, L., & Fagnan, L. J. (2019). A stepped-wedge cluster randomized trial designed to improve completion of HPV vaccine series and reduce missed opportunities to vaccinate in rural primary care practices. *Implementation Science*, 14(1). https://doi.org/10.1186/s13012-019-0871-9

Gunn, R., Ferrara, L. K., Dickinson, C., Stock, I., Griffith-Weprin, J., Wiser, A., Hatch, B., Fagnan, L. J., Carney, P. A., & Davis, M. M. (2020). Human Papillomavirus Immunization in Rural Primary Care. *American Journal of Preventive Medicine*, 59(3), 377–385. https://doi.org/10.1016/j.amepre.2020.03.018

CASCADE Protocol

Eichner, B., Michaels, L. A. C., Branca, K., Ramsey, K., Mitchell, J., Morris, C. D., Fagnan, L. J., Dolor, R. J., Elder, N., Hahn, D. L., Nease, D. E., Lapidus, J., Cibotti, R., Block, J., & Simpson, E. L. (2020). A Community-based Assessment of Skin Care, Allergies, and Eczema (CASCADE): an atopic dermatitis primary prevention study using emollients—protocol for a randomized controlled trial. *Trials*, 21(1). https://doi.org/10.1186/s13063-020-4150-5

ANTECEDENT/PINPOINT Protocol

Singh, A. N., Sanchez, V., Kenzie, E. S., Sullivan, E., McCormack, J. L., Hiebert Larson, J., Robbins, A., Weekley, T., Hatch, B. A., Dickinson, C., Elder, N. C., Muench, J. P., & Davis, M. M. (2022). Improving screening, treatment, and intervention for unhealthy alcohol use in primary care through clinic, practice-based research network, and health plan partnerships: Protocol of the ANTECEDENT study. *PLoS One*, *17*(6), e0269635. https://doi.org/10.1371/journal.pone.0269635

SMARTER CRC Protocol and Early Findings

Coronado, G. D., Leo, M. C., Ramsey, K., Coury, J., Petrik, A. F., Patzel, M., Kenzie, E. S., Thompson, J. H., Brodt, E., Mummadi, R., Elder, N. C., & Davis, M. M. (2022). Mailed fecal testing and patient navigation versus usual care to improve rates of colorectal cancer screening and follow-up colonoscopy in rural Medicaid enrollees: a cluster-randomized controlled trial. *Implementation Science Communications*, 3(1). https://doi.org/10.1186/s43058-022-00285-3

Coury, J., Coronado, G., Myers, E., Patzel, M., Thompson, J., Whidden, C., Davis, M. (2023) Engaging with rural communities for colorectal cancer screening outreach using modified Boot Camp Translation.

Progress in Community Health Partnerships.

Advance online publication. https://doi.org/10.21203/rs.3.rs-1340591/v1