

The Rural Healthcare Workforce Then and Now: Evidence and Policy Themes

Milbank Memorial Fund
Reforming States Group Meeting
Portland, OR
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WWAMI Rural Health Research Center – 30 years

- Policy-relevant research on rural health
- Focus areas: rural health workforce, access to high quality care
 - Primary care
 - Rurally-relevant specialties
 - Behavioral health
 - Home health
 - Prehospital emergency care
 - Cancer, OB care
 - Other topics
- Funded since 1998 by Federal Office of Rural Health Policy, HRSA, HHS



University of Washington Center for Health Workforce Studies



- Currently – hosts two HRSA-funded Health Workforce Research Centers
 - HWRC on the Allied health workforce (since 2013)
 - HWRC on Health equity and workforce diversity (new! Sept. 2018)
- Other studies funded by various sources (examples)
 - Washington Workforce Board, Governor Inslee, WA Health Care Authority,
 - Washington Center for Nursing, Maine Medical Center, Arcora Foundation
- Mission: to elevate the importance of workers in the delivery of healthcare in policy discussions. UW CHWS -
 - Conducts health workforce research to inform health workforce planning and policy
 - Provides consultation to local, state, regional and national policy makers on health workforce issues
 - Develops and refines analytical methods for measuring health workforce supply and demand

Rural PREP



- **The Collaborative for Rural Primary care Research, Education, and Practice**
- Mission: Improve and sustain rural health through community engagement and research in primary care health professions education
- Aims
 - Conduct and promote research
 - Disseminate research, tools, best practices
 - Build a community of practice
- UW, Ohio U, U of North Dakota + partners
- Funded by Division of Medicine and Dentistry, HRSA, HHS

Acknowledgments and Disclaimer

- This research was supported by
 - the Federal Office of Rural Health Policy (FORHP),
 - National Center for Health Workforce Analysis (NCHWA), and
 - the Division of Medicine and Dentistry (DMD),in the Health Resources and Services Administration (HRSA),
U.S. Department of Health and Human Services (HHS)

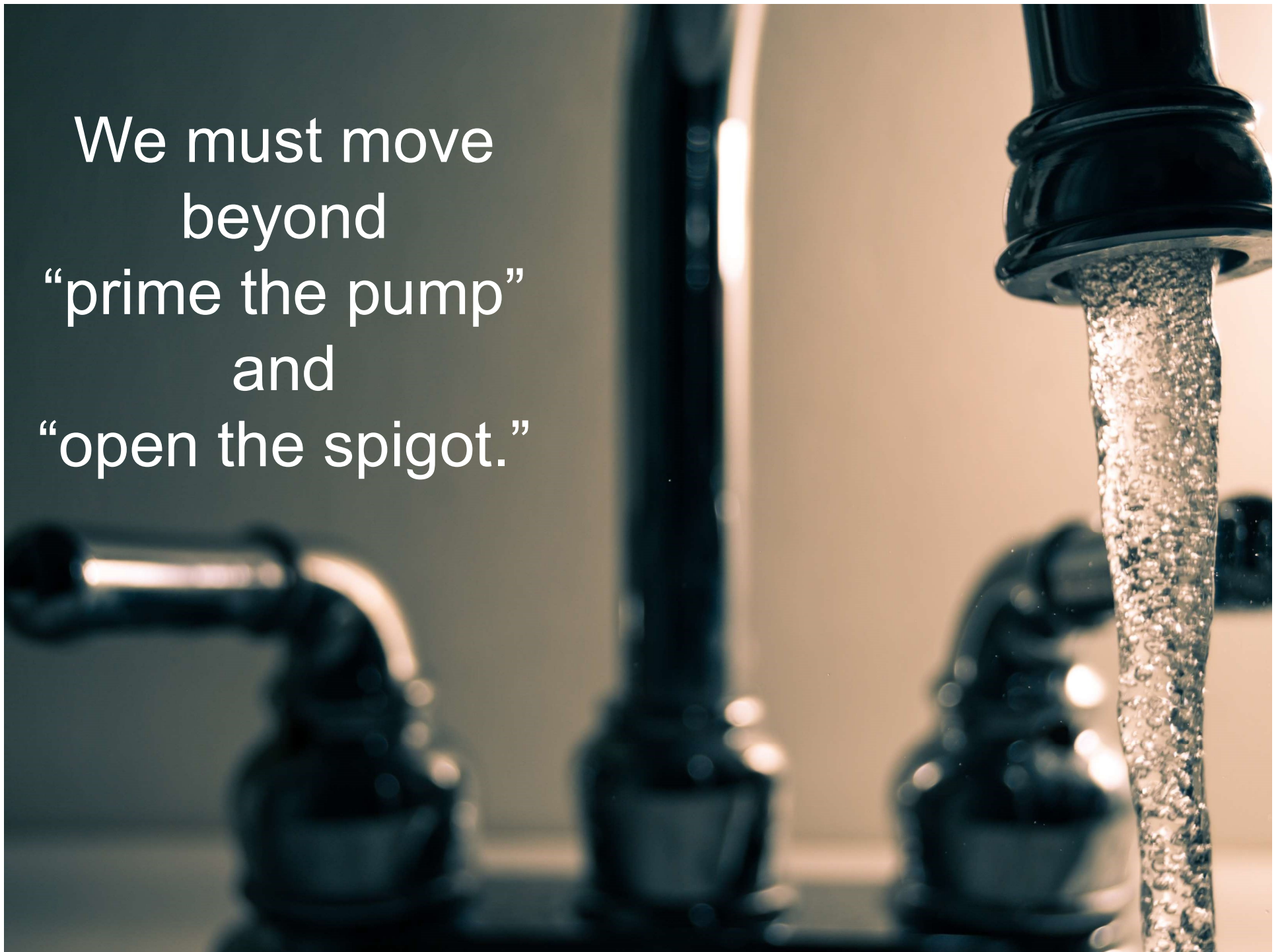
Under cooperative agreements #U1CRH03712, #U81HP27844, #UH1HP29966.

- The information, conclusions and opinions expressed in this presentation are those of the authors and no endorsement by FORHP, NCHWA, DMD, HRSA, or HHS is intended or should be inferred.

Outline

1. Research studies: How much rural training do U.S. residencies provide?
2. Microresearch funding opportunity
3. Discussion

We must move
beyond
“prime the pump”
and
“open the spigot.”



Health workforce policy and planning **then**

Then (and now)

- Health workforce planning in professional silos
- Physicians, dentists at the top → focus on medical, dental schools
- Head counts to determine shortage/surplus

Health workforce policy and planning **now**

Then (and now)

- Health workforce planning in professional silos
- Physicians, dentists at the top → focus on medical, dental schools
- Head counts to determine shortage/surplus

Now (and future)

- **Integration**: healthcare teams
- Consider **all team members** (entry level to most highly trained)
- Focus on **skills, roles, and training** needed by incumbents and new entrants
- Measure adequacy by health **outcomes** and patient **access**
- Think beyond health workforce → **human resources for health** (includes support services)

New thinking:

**Flexible use
of human
resources for
health**



Alone on the Range, Seniors Often Lack Access to Health Care



Paula Span

THE NEW OLD AGE APRIL 8, 2016



Mrs. Kolacny lives in a remote part of Wyoming, about 30 miles from Red Lodge, Mont.

Janie Osborne for The New York Times

Practice volumes and content: similarities and differences among rural NPs, PAs, and physicians (primary care)

- While PAs and NPs aren't substitutes for physicians, where scope of practices overlap, productivity is similar (esp. if control for age, sex and location).
- In addition, PAs and NPs see more Medicaid patients.

TABLE 2. Average Weekly Number of Outpatient Visits and Types of Visits Among Rural Primary Care Providers

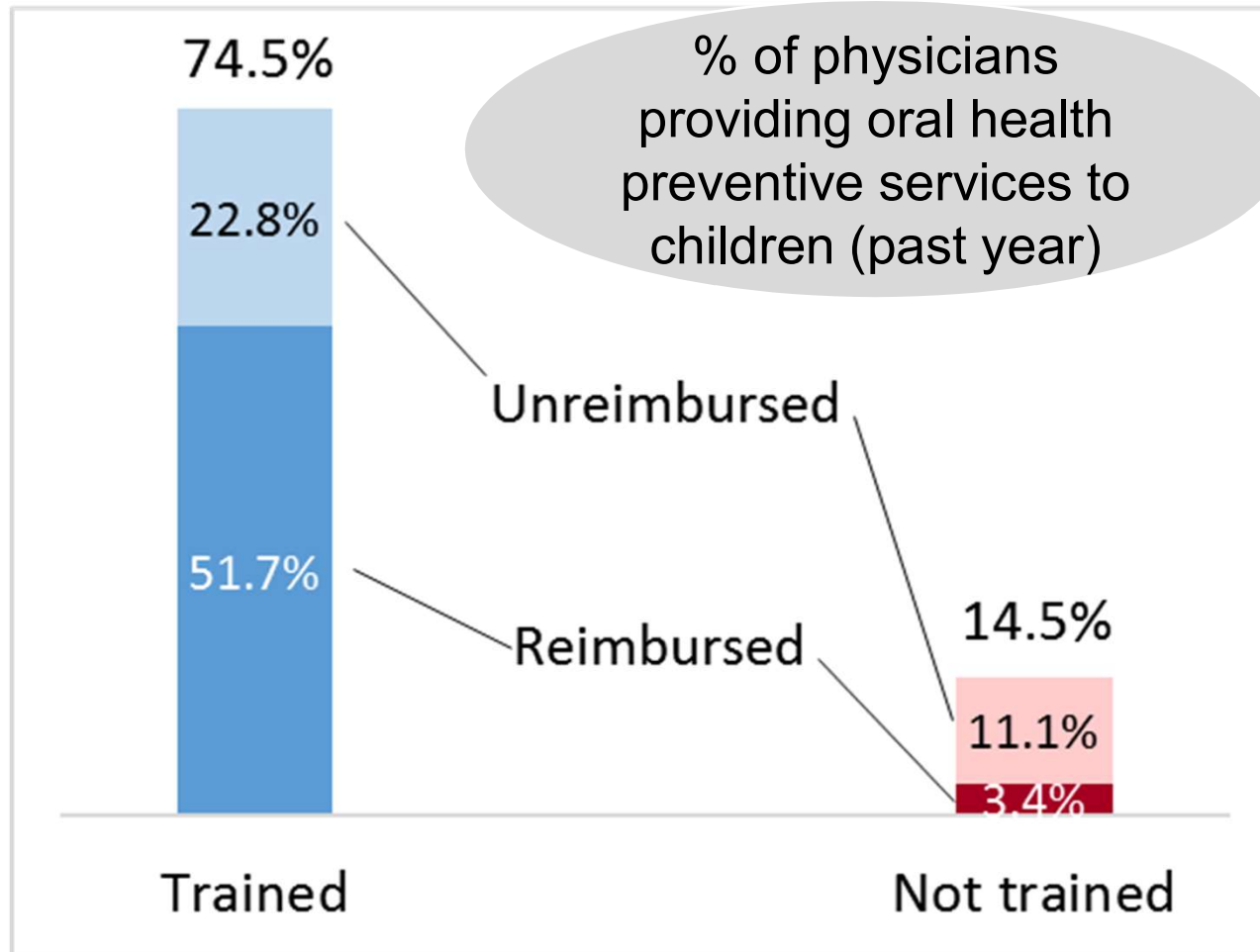
	Physicians	PAs	NPs	<i>P</i>
n	788	601	918	
Mean weekly office visits (95% CI)	84.6 (81.4–87.7)	78.1 (74.3–82.0)	63.5 (60.8–66.2)	<0.001
Mean weekly hours of direct patient care (95% CI)	39.1 (38.1–40.1)	39.0 (38.0–39.9)	34.9 (34.1–35.6)	<0.001
Mean weeks not seeing patients (95% CI)	4.4 (4.1–4.8)	4.0 (3.6–4.4)	3.5 (3.4–3.7)	<0.001
Mean weekly well-child visits (95% CI)	12.6 (10.4–14.9)	8.0 (6.8–9.2)	7.4 (6.6–8.2)	<0.001
Mean weekly prenatal care visits (95% CI)	2.3 (1.3–3.3)	1.1 (0.5–1.6)	2.1 (1.5–2.7)	0.064
Mean weekly minor procedures (95% CI)	5.4 (4.7–6.0)	6.7 (5.8–7.6)	5.1 (4.4–5.7)	0.007

CI indicates confidence interval; NP, nurse practitioners; PA, physician assistants.



Doescher MD, Andrilla CHA, Skillman SM, Morgan P, Kaplan K. ***The contribution of physicians, physician assistants, and nurse practitioners toward rural primary care.*** Med. Care 2014;52(6):549-56.

WA family physicians and pediatricians **with oral health training** provide oral health services and get reimbursed more often than those **without training**



Rural behavioral health workforce: opioid use disorder (OUD)

- Physicians, NPs, and PAs can all prescribe buprenorphine for OUD, with a Drug Enforcement Agency (DEA) waiver.
 - The initial authorization of NPs and PAs to prescribe (under the CARA Act) has recently been made permanent
- BUT many providers do not have waivers: **more than half** of all rural counties (56.3%) didn't have even a **single** waived provider at the end of 2017.
- Providers with waivers don't always use them.

= Huge potential to expand access to OUD treatment

Andrilla CHA, Moore TE, Patterson DG, Larson EH. *Geographic Distribution of Providers With a DEA Waiver to Prescribe Buprenorphine for the Treatment of Opioid Use Disorder: A 5-Year Update*. J Rural Health. Epub ahead of print. June 20, 2018.

Rural physicians report barriers to treating patients with OUD using buprenorphine

	Overall
Diversion/misuse concerns	48.5%
Lack of available mental health services	44.5%
Time constraints	40.6%
Lack of specialty backup	31.5%
Attraction of drug users to the practice	30.3%
Financial concerns	29.1%
DEA intrusion	13.7%
Resistance from practice partners	13.5%
Lack of confidence in ability to manage opioid use disorder	9.7%
Lack of patient need	2.3%

Andrilla CHA, Coulthard C, Larson EH. **Barriers rural physicians face prescribing buprenorphine for opioid use disorder.** Ann Fam Med. 2017;15(4):359-62.

New findings: How rural physicians overcome barriers to OUD treatment

THE JOURNAL OF **RURAL HEALTH**



ORIGINAL ARTICLE

Overcoming Barriers to Prescribing Buprenorphine for the Treatment of Opioid Use Disorder: Recommendations from Rural Physicians

C. Holly A. Andrilla, MS; Tessa E. Moore, BS; & Davis G. Patterson, PhD

WWAMI Rural Health Research Center, Department of Family Medicine, University of Washington School of Medicine, Seattle, Washington

Andrilla CHA, Moore TE, Patterson DG. *Overcoming barriers to prescribing buprenorphine for the treatment of opioid use disorder: recommendations from rural physicians.* J Rural Health. Epub ahead of print. October 19, 2018.

Flexibility: New ways to develop a new workforce and retool the existing workforce

- Medical assistants
 - **Apprenticeships** being used to gain new entrants as well as to upskill other incumbent workers
 - UW CHWS study in progress
 - MAs in Washington state: **New roles**
 - Behavioral health screening
 - Dual role translator
 - Patient navigator
 - Patient panel manager
 - Case manager



Skillman SM, Dahal A, Frogner BK, Andrilla CHA. ***Frontline workers' career pathways: A detailed look at Washington State's medical assistant workforce.*** Medical Care Research and Review. (in press).

Community paramedicine connects patients to care and community resources

- Rural community paramedics (EMTs and/or paramedics) work to
 - improve disease management
 - reduce ED visits
 - reduce hospital (re)admissions
 - reduce EMS/healthcare use and costs
 - improve patient satisfaction

Patterson DG, Coulthard C, Garberson, LA, Wingrove G, Larson EH. ***What is the potential of community paramedicine to fill rural health care gaps?*** *J Health Care Poor Underserved*. 2016;27(4A):144-158.

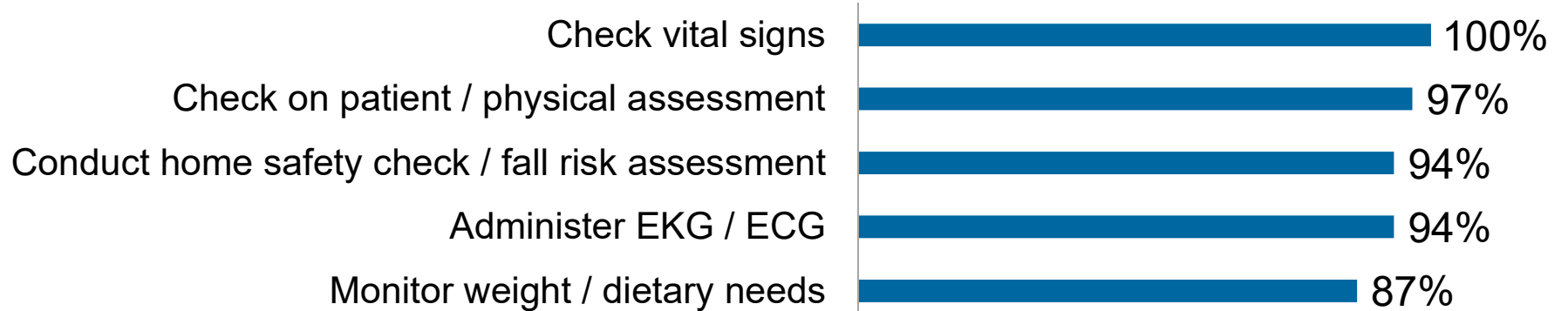
What Is the Potential of Community Paramedicine to Fill Rural Health Care Gaps?

Davis G. Patterson, PhD
Cynthia Coulthard, MPH
Lisa A. Garberson, PhD
Gary Wingrove
Eric H. Larson, PhD

Abstract: Community paramedicine (CP) uses emergency medical services (EMS) providers to help rural communities increase access to primary care and public health services. This study examined goals, activities, and outcomes of 31 rural-serving CP programs through structured interviews of program leaders and document review. Common goals included managing chronic disease (90.3%); and reducing emergency department visits (83.9%), hospital admissions/readmissions (83.9%), and costs (83.9%). Target populations

Rural Community Paramedicine Services

Assessment services



Laboratory services



Rural Community Paramedicine Services

Preventive care services

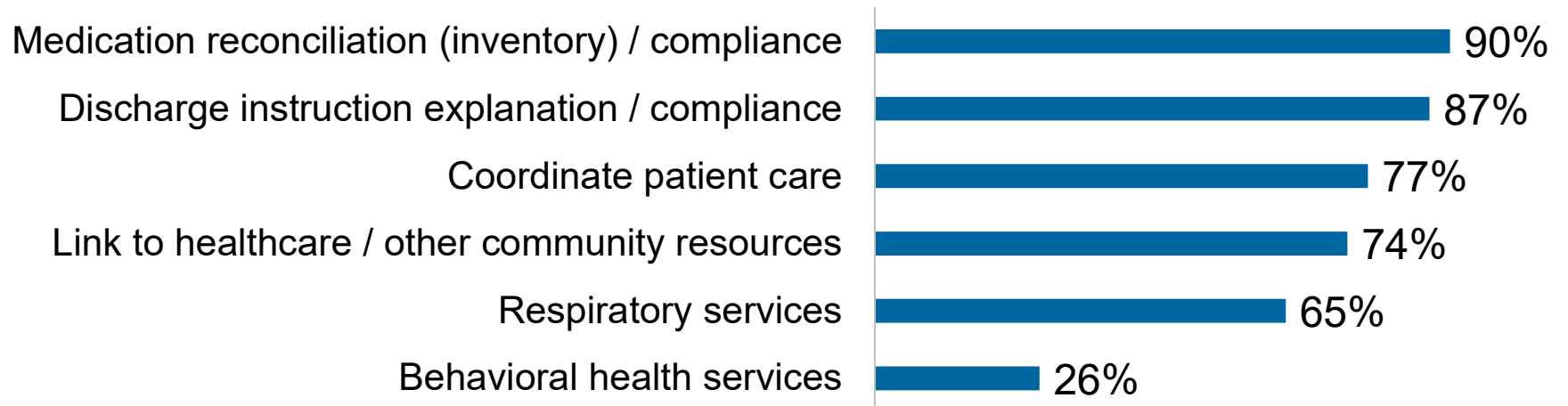


Acute care services



Rural Community Paramedicine Services

Other services





**Rural-centric
health workforce
education and training**

Rural-centric solutions needed

- Health equity requires us to put rural and underserved populations at the center
 - More rural health professionals
 - More urban providers who know the rural context of patients referred to them
- Create incentives to support rural place-based education/training
 - New funding models for rural training
 - Accreditation fixes (especially for GME)

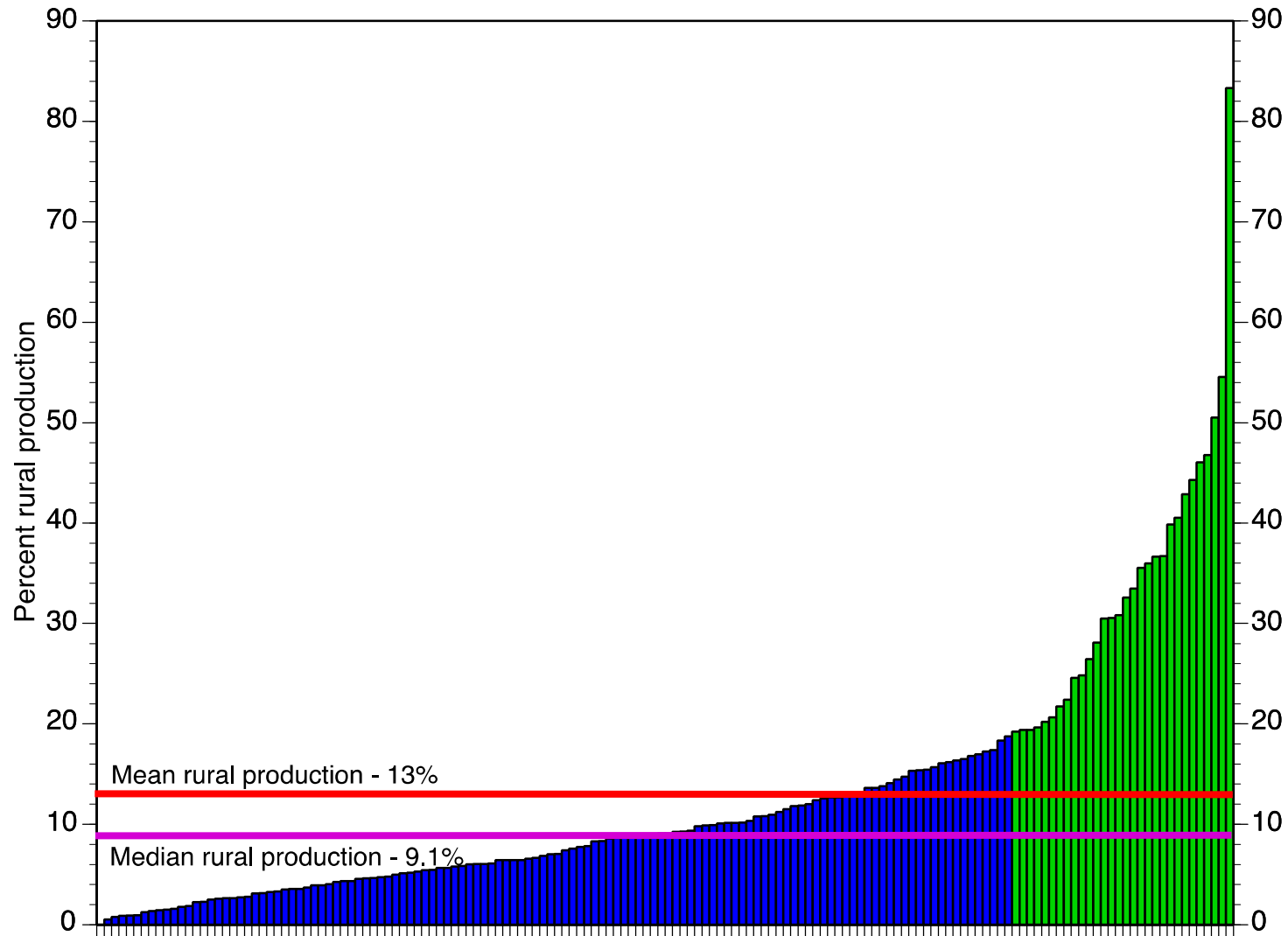
Conventional wisdom

- Recruiting students from a rural background is the most important way to build a rural workforce.

Conventional wisdom meets reality

- Not EITHER/OR but BOTH/AND:
 - Recruiting students from a rural background IS an important way to build a rural workforce
 - But rural students alone won't be enough:
 - Not enough rural students with preparation needed for health careers
 - Some rural students will be “lost” to urban practice
 - Rural exposure needed for all students/trainees:
 - Need to stimulate urban students to think about rural practice (esp. those with rural interest)
 - Need urban providers with rural competencies
 - Thus educational transformation needed, not just producing more

What program factors yield more rural physician assistants?



Programs with high production of rural PAs are more likely to...

- Report training rural PAs is “very important” to program goals/mission
- Actively recruit rural students
- Provide rural didactic curriculum
- Require rural family medicine rotations during clinical training

Larson EH, Coulthard C, Andrilla CHA. ***What Makes Physician Assistant Training Programs Successful at Training Rural PAs?*** Policy Brief #164. Seattle WA: WWAMI Rural Health Research Center, University of Washington, Jun 2018.

How can we support rural graduate medical education (GME)?

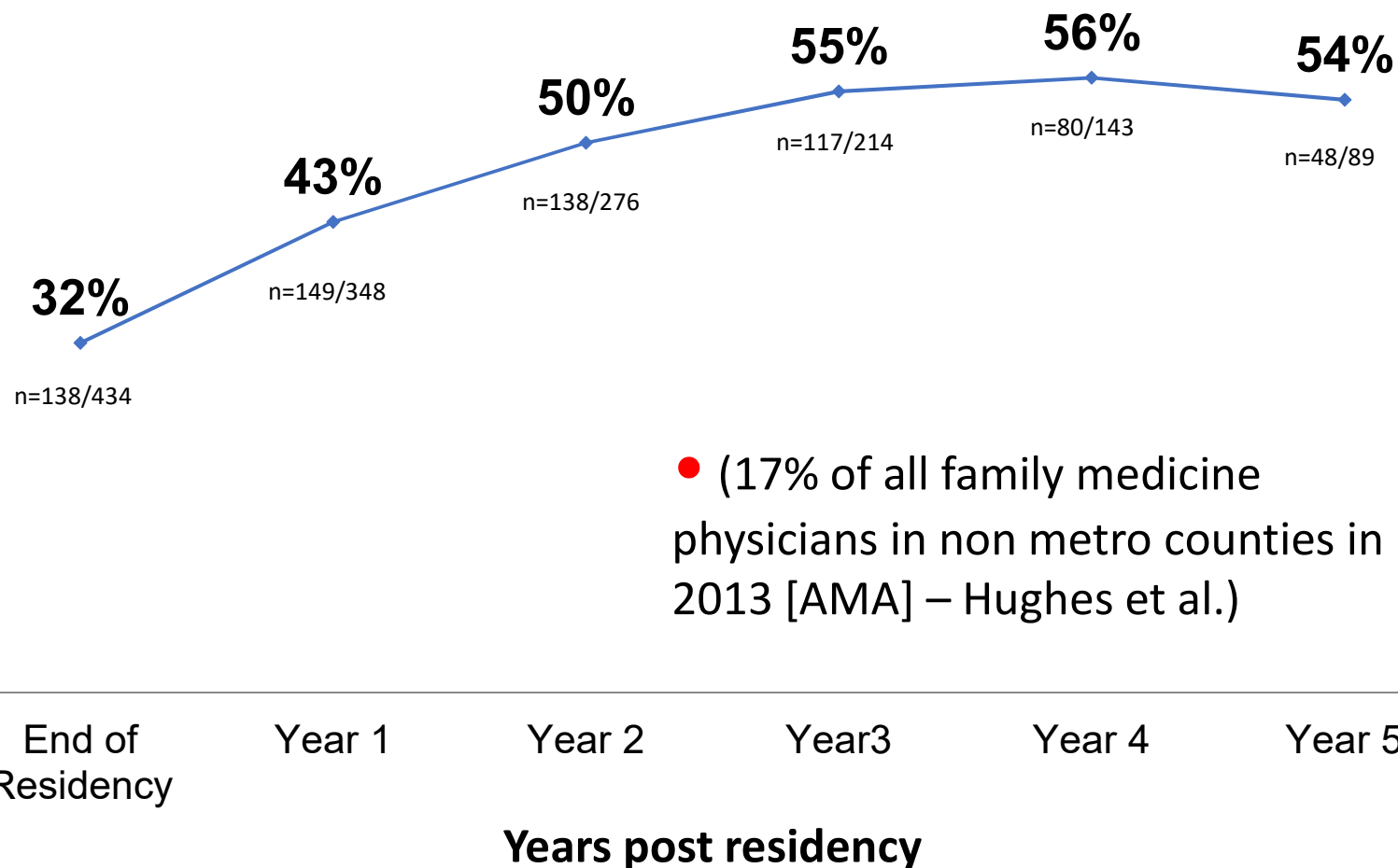
- Rural residency programs face significant financing, accreditation, and other challenges
- Family medicine “rural training tracks” and other rural-centric program models
 - Very few but better rural output than other programs
- Extremely few residency programs in other rurally-relevant specialties

Evans D, Patterson DG, Andrilla CHA, Schmitz D, Longenecker R. ***Do residencies that aim to produce rural family physicians offer relevant training?*** Family Medicine. 2016;48:596-602.

Patterson DG, Schmitz D, Longenecker R, Andrilla CHA. ***Family medicine Rural Training Track residencies: 2008-2015 graduate outcomes.*** Seattle, WA: WWAMI Rural Health Research Center, University of Washington. Feb 2016.

Patterson DG, Longenecker R, Schmitz D, Skillman SM, Doescher MP. ***Policy Brief: Training Physicians for Rural Practice: Capitalizing on Local Expertise to Strengthen Rural Primary Care.*** Seattle, WA: WWAMI Rural Health Research Center, University of Washington; Jan 2011.

2-3 times as many recent graduates of *rural-centric* family medicine residencies in rural practice (vs. all FM physicians)



Clinical training challenges

- Scarce rural clinical training sites:
 - How do we create incentives to develop more?
 - How do we use (ration) the ones we have?
 - Who “gets” to do rural training?
- Health system consolidation:
 - Rural clinical training viewed as a cost
 - Distant corporate decision-makers may not support rural training sites
 - Loss of clinical training programs a disincentive for rural clinicians motivated to be educators
 - Loss of teaching component - possible negative impact on quality of care
- States need regulatory levers to influence these arrangements.

The Rural Advantage

- Rural healthcare providers have always had to be flexible, stretch resources, and innovate.
- But they need partners and policies to achieve the goals of access to care and health equity.

State initiatives to address health workforce needs

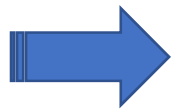


Health Workforce Assessment: Research/Policy Partnership in Washington State



UW CHWS' and Washington's Workforce Board
Responding to health workforce assessment needs

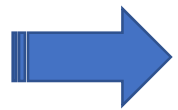
Recent projects



- Washington State Behavioral Health Workforce Assessment
- Washington Health Workforce Sentinel Network

Washington State Behavioral Health Workforce Assessment

- Health care transformation – more integration of behavioral health and physical health
- Critical shortages of access to mental health care services



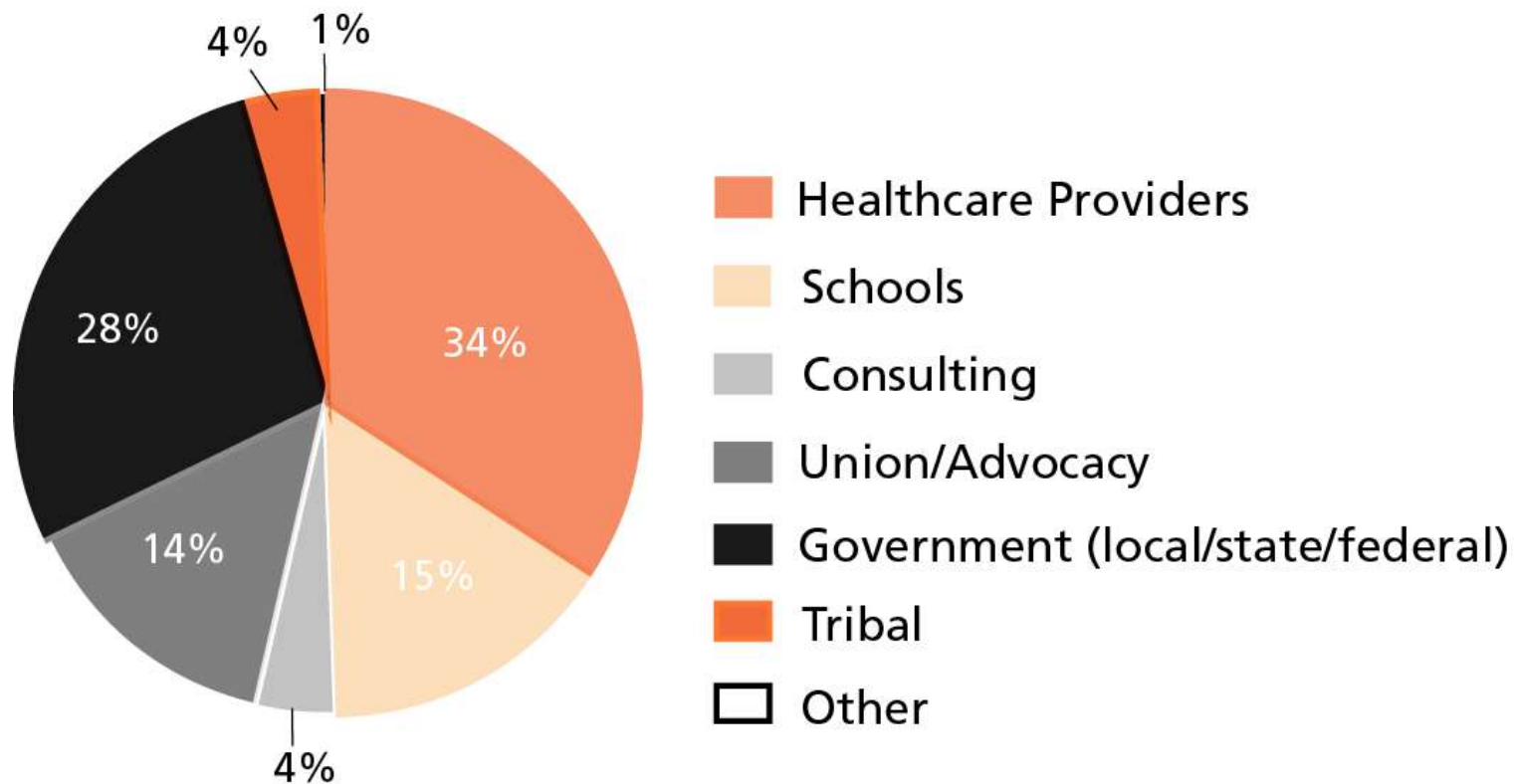
Led to Workforce Board advocacy to use WIOA
Governor's discretionary funds

Goal 1: Assess workforce-related barriers to accessing behavioral health services in Washington.

Goal 2: Create a recommended action plan to address behavioral health workforce needs.

Assessing Washington State's behavioral health workforce: Barriers & policy solutions

Stakeholder input – Nearly 200 diverse participants



Gattman NE, McCarty RL, Balassa A, Skillman SM. *Washington State Behavioral Health Workforce Assessment*. Washington Workforce Training and Education Coordinating Board, Dec 2017.

Who makes up the behavioral health workforce?

Traditional mental health and substance use treatment providers

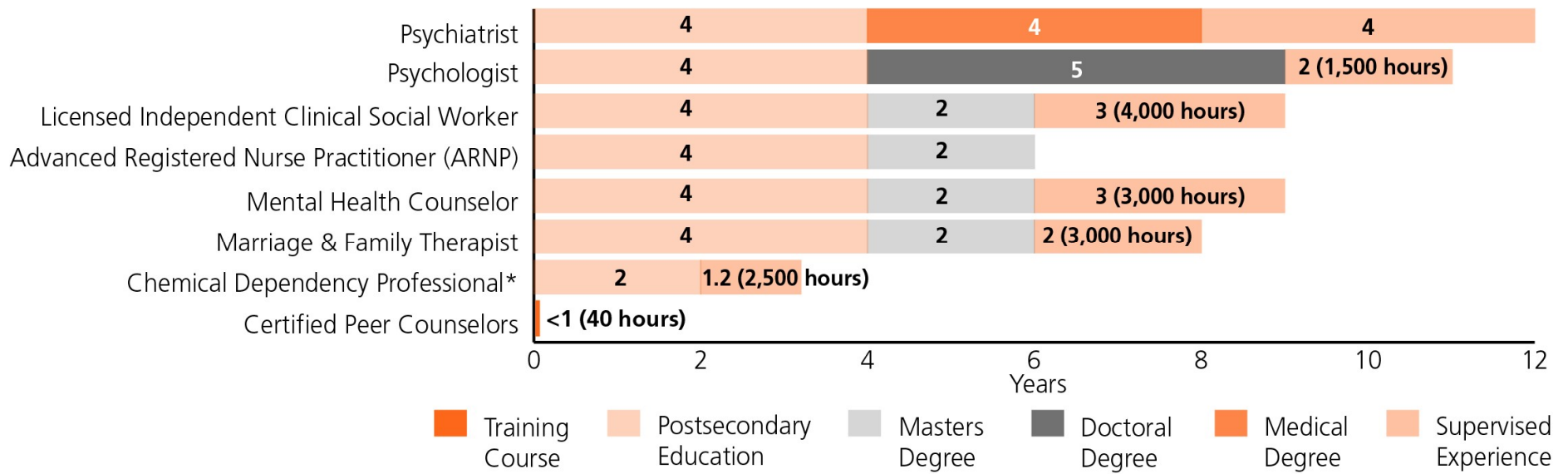
- Agency affiliated counselor
- Certified advisor
- Certified counselor
- Chemical dependency professional
- Hypnotherapist
- Licensed marriage & family therapist
- Licensed mental health counselor
- Psychiatrist
- Psychologist
- Licensed social worker, advanced
- Licensed social worker, independent clinical
- Sex offender treatment provider
- DBHR-certified peer counselor

Everyone else

“Medical professionals in physical healthcare settings may provide behavioral health services as well, in conjunction with their primarily medical care roles. These professionals are not as easily recognizable as behavioral health providers, complicating the process of quantifying and describing the overall workforce.”

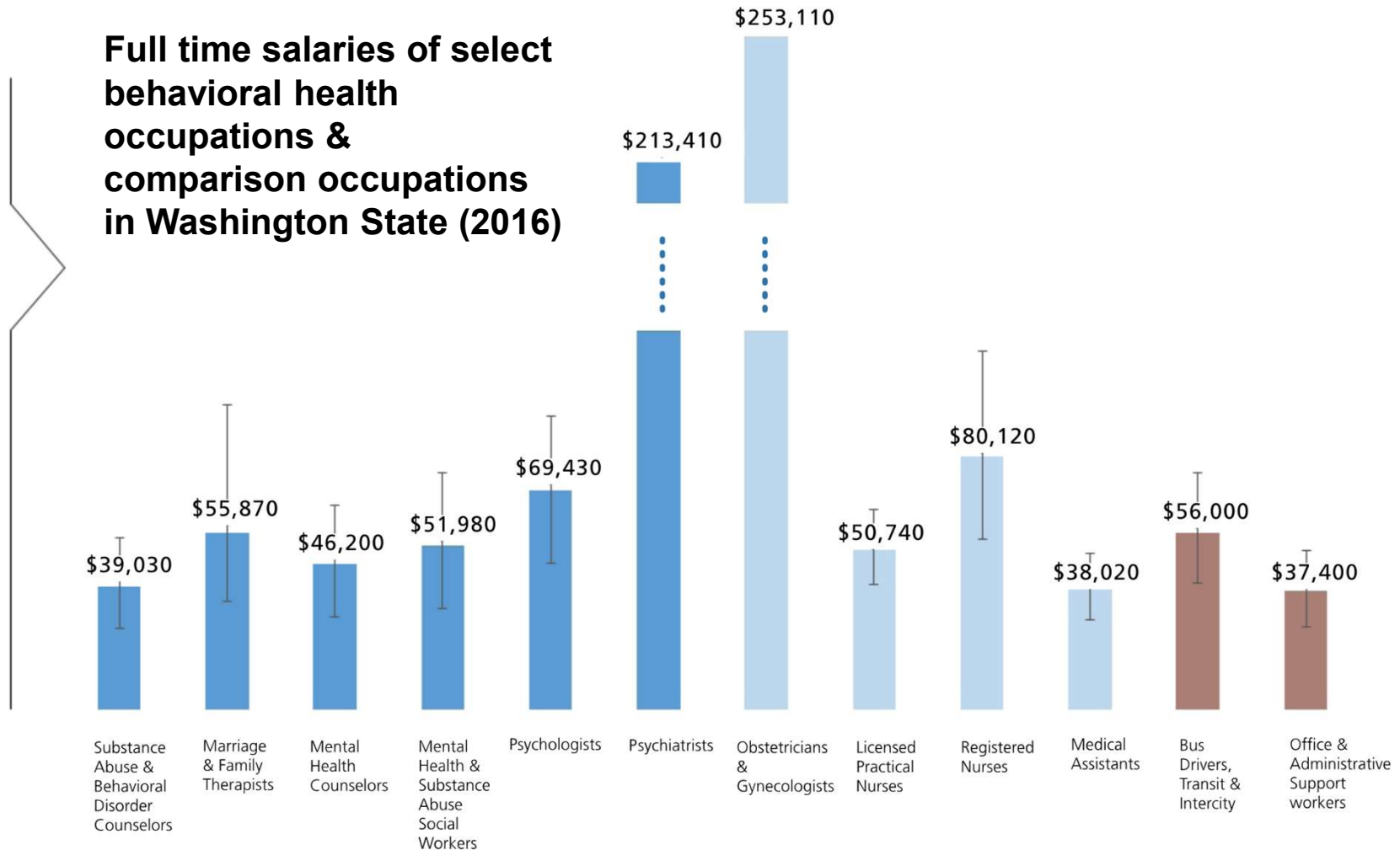
Washington State's behavioral health workforce: Education and training

The length of typical education and clinical training required for behavioral health professionals in Washington State varies greatly by occupation.



Gattman NE, McCarty RL, Balassa A, Skillman SM. *Washington State Behavioral Health Workforce Assessment*. Washington Workforce Training and Education Coordinating Board, Dec 2017.

Washington State's behavioral health workforce



Gattman NE, McCarty RL, Balassa A, Skillman SM. *Washington State Behavioral Health Workforce Assessment*. Washington Workforce Training and Education Coordinating Board, Dec 2017.

Recommendations



The report put forward 45 specific recommendations to the Governor, the State Legislature, and other governmental and non-governmental organizations with the following objectives:

- (1) Adjust reimbursement rates to better support competitive recruitment and retention of a skilled behavioral health workforce.**
- (2) Promote team-based and integrated (behavioral and physical health) care.**
- (3) Increase access to clinical training and supervised practice for those entering behavioral health occupations.**
- (4) Expand the workforce available to deliver medication-assisted behavioral health treatments.**
- (5) Improve workforce supply, distribution and diversity.**

A Novel Way to Obtain and Deploy Health Workforce Demand Data: The Washington State Health Workforce Sentinel Network

Project Team



University of Washington CHWS

Susan Skillman, Project Director

Ben Stubbs, Research Analyst

Amy Clark, Web Computing Specialist

JP Paredes, Program Coordinator

Davis Patterson, Evaluation Director



Washington State Workforce Board

Eleni Papadakis, Executive Director

Nova Gattman, Legislative Director

Sentinel Network's purpose

The workforce is key to healthcare transformation.

We need early signals of changes in the occupations, skills, and roles needed to deliver quality care in order to respond appropriately.

The Sentinel Network supports efficient and effective health workforce preparation and deployment by:

- Identifying emerging signals of health workforce demand needs/changes
- Rapidly disseminating information to education, training and policy partners who can take action based on findings

www.wasentinelnetwork.org

Funding

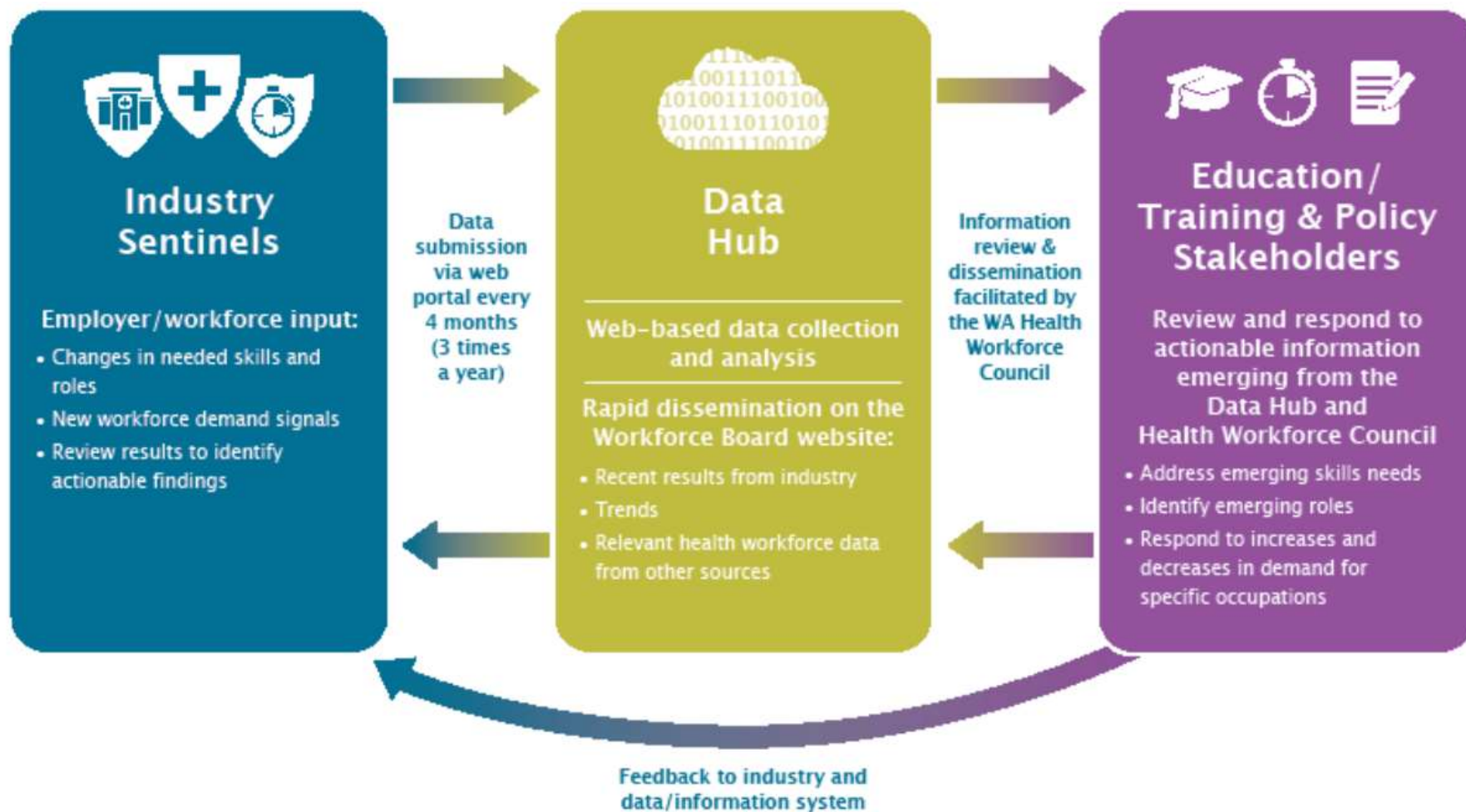
Initial: Washington State *Healthier Washington* Initiative (CMMI SIM grant & CMS DSRIP – Medicaid Transformation), subcontract (2016 – summer 2018)

The project described was supported by Funding Opportunity Number CMS-1G1-14-001 from the U.S. Department of Health and Human Services, Centers for Medicare & Medicaid Services. The contents provided are solely the responsibility of the authors and do not necessarily represent the official views of HHS or any of its agencies.

Current: Workforce Innovation and Opportunity Act (WIOA) Governor's Discretionary Funds (**through June, 2019**)

To: Washington State Workforce Training and Education Coordinating Board, subcontracting with University of Washington Center for Health Workforce Studies

Washington's Health Workforce Sentinel Network



WA Health Workforce Sentinel Network

Questions

Recently (in the past 3–4 months):

- Occupations experiencing exceptionally long **vacancies**
- Occupations with exceptional **turnover**
- Occupations with increased or decreased **demand**
- **New occupations** that they did not previously employ
- **New roles** for existing employees
- Changes in **orientation/onboarding procedures** for new employees
- Changes in **training priorities** for existing employees
- Indication of whether facility primarily serves **urban, rural** or **both**

AND qualitative input about which, how, and reasons why

Screen shot – Sentinel Network dashboard

Sentinels were asked: "Recently (in the past 3-4 months), has your facility type experienced exceptionally long vacancies for any open position? If yes, for which occupations and what are possible reasons why?"

- I. Select a facility type(s) to begin exploring data. Ctrl/Cmd + Click to show multiple facility types.
- II. Select the data collection period(s) and the number of occupations to show for the selected facility type(s)..
- III. Reasons: Click on an occupation (or Ctrl/Cmd + Click on multiple occupations). Move your cursor over the bars to see respondents' comments.

Exceptionally Long Vacancies by Facility Type

Facility Type(s)

Federally qualified health center (FQHC) or co... ▾

Data Collection Date(s)

(All) ▾

Number of Occupations to Display

○

Occupations with Exceptionally Long Vacancies

Click on an occupation (Ctrl/Cmd + Click on multiple occupations) to view reasons

Sept. 6, 2017 - Oct. 15, 2017	Federally qualified health center (FQHC) or community clinic providing care free or on sliding fee scale	Medical Assistant	<div style="width: 10px; height: 10px; background-color: #90EE90; border: 1px solid #000;"></div>
		Dental Assistant	<div style="width: 10px; height: 10px; background-color: #90EE90; border: 1px solid #000;"></div>
		Nurse, Registered	<div style="width: 10px; height: 10px; background-color: #90EE90; border: 1px solid #000;"></div>
		Physician/Surgeon	<div style="width: 10px; height: 10px; background-color: #90EE90; border: 1px solid #000;"></div>
		Mental Health Counselor	<div style="width: 10px; height: 10px; background-color: #90EE90; border: 1px solid #000;"></div>
		Nurse Practitioner	<div style="width: 10px; height: 10px; background-color: #90EE90; border: 1px solid #000;"></div>
		Chemical Dependency Pro..	<div style="width: 10px; height: 10px; background-color: #90EE90; border: 1px solid #000;"></div>
		Dentist	<div style="width: 10px; height: 10px; background-color: #90EE90; border: 1px solid #000;"></div>
		Psychologist - Clinical, Co..	<div style="width: 10px; height: 10px; background-color: #90EE90; border: 1px solid #000;"></div>
		Social Worker, Clinical	<div style="width: 10px; height: 10px; background-color: #90EE90; border: 1px solid #000;"></div>
Apr. 1, 2017 - May 15, 2017	Federally qualified health center (FQHC) or community clinic providing care free or on sliding fee scale	Physician/Surgeon	<div style="width: 10px; height: 10px; background-color: #90EE90; border: 1px solid #000;"></div>
		Social Worker, Clinical	<div style="width: 10px; height: 10px; background-color: #90EE90; border: 1px solid #000;"></div>
		Mental Health Counselor	<div style="width: 10px; height: 10px; background-color: #90EE90; border: 1px solid #000;"></div>
		Dental Assistant	<div style="width: 10px; height: 10px; background-color: #90EE90; border: 1px solid #000;"></div>
		Medical Assistant	<div style="width: 10px; height: 10px; background-color: #90EE90; border: 1px solid #000;"></div>

Reasons for Exceptionally Long Vacancies

Move your cursor over the bars to read comments for the selected occupation(s)

Sept. 6, 2017 - Oct. 15, 2017	Federally qualified health center (FQHC) or community clinic providing care free or on sliding fee scale	Not enough..	<div style="width: 10px; height: 10px; background-color: #90EE90; border: 1px solid #000;"></div>
		Recruitmen..	<div style="width: 10px; height: 10px; background-color: #90EE90; border: 1px solid #000;"></div>
Apr. 1, 2017 - May 15, 2017	Federally qualified health center..	Salary/wag..	<div style="width: 10px; height: 10px; background-color: #90EE90; border: 1px solid #000;"></div>
		Recruitmen..	<div style="width: 10px; height: 10px; background-color: #90EE90; border: 1px solid #000;"></div>
		[No reason ..	<div style="width: 10px; height: 10px; background-color: #90EE90; border: 1px solid #000;"></div>
Nov. 1, 2016 - Dec. 15, 2016	Federally qualified health center (FQH..	Not enough..	<div style="width: 10px; height: 10px; background-color: #90EE90; border: 1px solid #000;"></div>
		Salary/wag..	<div style="width: 10px; height: 10px; background-color: #90EE90; border: 1px solid #000;"></div>
		[No reason ..	<div style="width: 10px; height: 10px; background-color: #90EE90; border: 1px solid #000;"></div>
June 15, 2016 - July 31, 2016	Federally qualified health center (FQH..	Not enough..	<div style="width: 10px; height: 10px; background-color: #90EE90; border: 1px solid #000;"></div>
		[No reason ..	<div style="width: 10px; height: 10px; background-color: #90EE90; border: 1px solid #000;"></div>
		Other	<div style="width: 10px; height: 10px; background-color: #90EE90; border: 1px solid #000;"></div>

[Medical Assistant] high expectations on experience

Value of the Sentinel Network approach

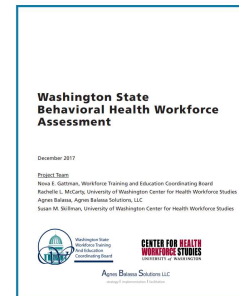
- Rapid turnaround signals of workforce demand changes
- Relatively inexpensive
- Provides “how and why” behind signals
- Identifies skills needed
- Highlights local conditions that may make hiring difficult
- Engages the full network of stakeholders needed to identify and solve workforce problems

Examples of use of Sentinel Network findings

- **Informed Washington State Behavioral Health Workforce Assessment**

Gattman N, Reule R, Balassa A, Skillman SM, McCarty RL, Schwartz MR. Washington's Behavioral Health Workforce Assessment: Project Phase I. Fall. Washington State Workforce Training and Education Coordinating Board, Nov 2016.

<http://depts.washington.edu/fammed/chws/wp-content/uploads/sites/5/2016/11/FINAL-BH-Workforce-Assessment-Phase-I-Report-2016.pdf>



- **Reported in-depth by Washington Health Workforce Council**

<http://www.wtb.wa.gov/Documents/2017HWCReport-FINAL.pdf>



- **Accountable Communities of Health exploring SN use in monitoring health workforce demand in state healthcare transformation regions**



- **State Community College Health Programs Deans and Directors group engaged in interpreting findings**



- **HR Directors groups very interested in findings**
- **Being considered for use in other states**

Action steps

- **Listen to rural voices:** rural needs are often different from urban, and from each other.
- **Be an urban ally:** rural healthcare also needs urban champions.
- **Use evidence** to help choose policy options to maintain and improve rural healthcare.
- **Build bridges** across health care and labor sectors, and academic institutions.
 - The health workforce is key to economic development, human resources AND access to health care. Bring all together into the solution room.
- **Try new approaches:** Rural can be nimble. Rural communities are good places for innovation with relatively few resources.
- **Support the health** of all communities because we really are “all in this together.”
 - The numbers will always show more absolute healthcare needs in urban areas. But we need to preserve the vitality of rural communities by ensuring access to the most needed health care services in or near those communities.

National Rural Health Day is tomorrow, November 15!

November 15, 2018

#powerofrural

National Rural
Health Day

Celebrating the Power of Rural!





TM

IT'S NOT JUST A DAY, IT'S A MOVEMENT.

www.powerofrural.org/

Resource handout



Rural Primary Care and Workforce Resources

compiled by
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Susan M. Skillman, MS, sskillman@uw.edu
University of Washington

Reforming States Group Regional Meeting
November 14, 2018
Portland, OR

Rural Health and Health Workforce Information and Resources

University of Washington Center for Health Workforce Studies: <https://depts.washington.edu/fammed/ehw/>
Washington State Health Workforce Sentinel Network: <http://www.wasentinelnetwork.org/>
WWAMI Rural Health Research Center: <https://depts.washington.edu/fammed/rhrc/>
Collaborative for Rural Primary care Research, Education, and Practice (Rural PREP): <https://ruralprep.org/>

Rural Health Professional Education and Training

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