The Data Disconnect Making sense and use of the data available for rural workforce planning

> March 26, 2018 Northwest Regional Rural Health Conference Spokane, WA

> > Sue Skillman, Deputy Director University of Washington Center for Health Workforce Studies



## Some key questions

- What are the workforce data that are relevant to describing rural health workforce needs?
- How can data help to strengthen our workforce stories and messages for rural areas?
- What do the stories from the Health Workforce Sentinel Network tell us?
- How do we apply the data to make an impact?

And what questions are we asking of the data?

# Goal: Alignment of health workforce supply/demand/need

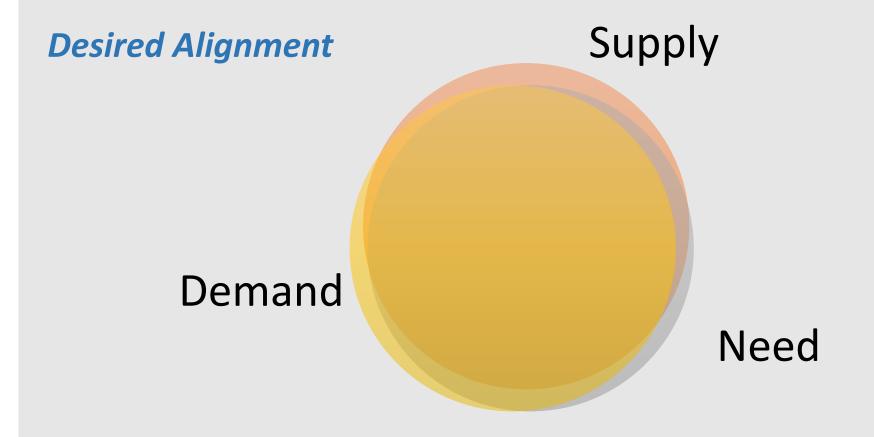
### Inefficient Alignment



workforce/services

## Demand Need

## **Goal: Alignment of health workforce supply/demand/need**



## How can using data help improve alignment?

### Examples of the types of data used in health workforce planning:

Workforce supply

- Measures of supply size and distribution (headcounts/FTEs)
- Education/training completions (new entrants)
- Training for incumbent workers (new skills)
- Measures of turnover (replacement workers)
- Tracking of career advancement/career pathways

### Workforce demand

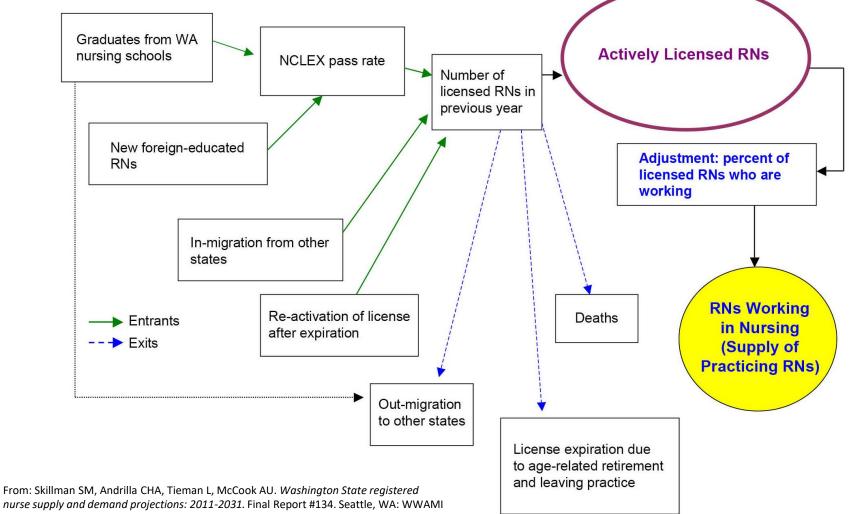
- Job vacancies (headcounts/FTEs)
- New roles for workforce, new skills required by employers
- Available treatments
- Insurance/payment availability

### Population needs

- Disease prevalence
- Population's healthcare seeking/use behavior
- Prevention/care services

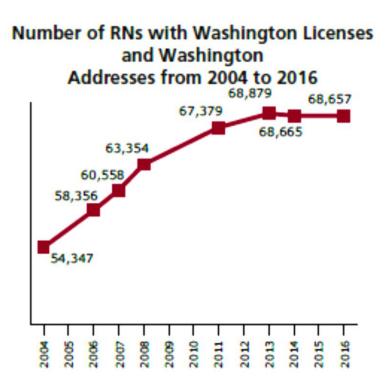
## Workforce planning data: Supply

Model: Annual change in practicing RN supply

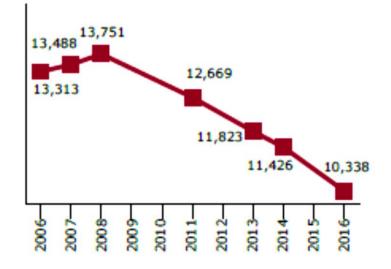


Center for Health Workforce Studies, University of Washington; Dec 2011.

### Basic data can help look into the future



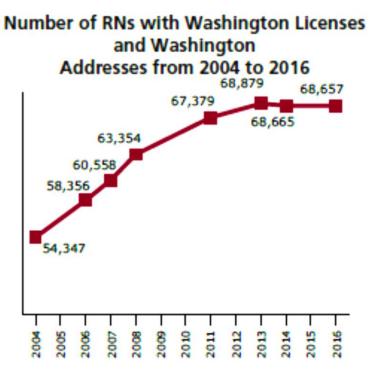
#### Number of LPNs with Washington Licenses and Washington Addresses from 2006 to 2016

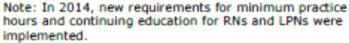


Andrilla CHA, Skillman SM. Washington State data snapshot: registered nurses (RNs). Seattle, WA: WWAMI Center for Health Workforce Studies, University of Washington, Jun 2016. Andrilla CHA, Skillman SM. Washington State data snapshot: licensed practical nurses (LPNs). Seattle, WA: WWAMI Center for Health Workforce Studies, University of Washington, Jun 2016.

## Basic data can help look into the future: but interpret

cautiously and engage stakeholder network





#### Andrilla CHA, Skillman SM. Washington State data snapshot: registered nurses (RNs). Seattle, WA: WWAMI Center for Health Workforce Studies, University of Washington, Jun 2016.

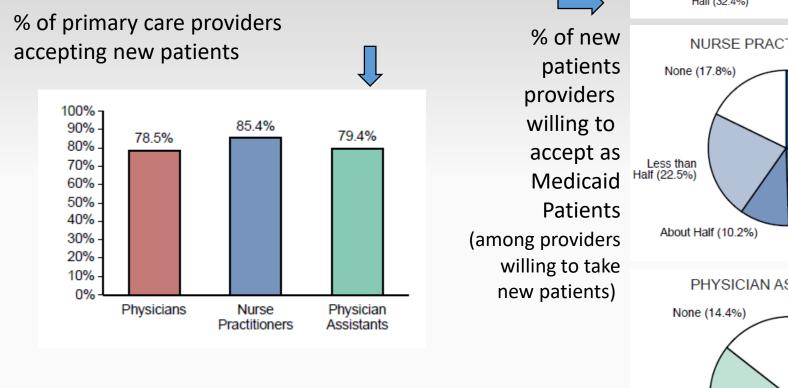
Number of LPNs with Washington Licenses and Washington Addresses from 2006 to 2016



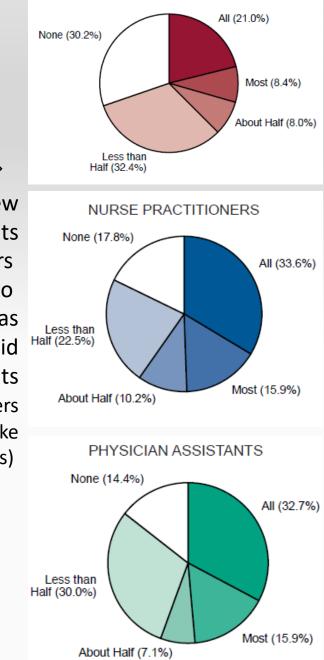
Note: In 2014, new requirements for minimum practice hours and continuing education for RNs and LPNs were implemented.

Andrilla CHA, Skillman SM. Washington State data snapshot: licensed practical nurses (LPNs). Seattle, WA: WWAMI Center for Health Workforce Studies, University of Washington, Jun 2016.

# Workforce Data: Know if your supply is available/willing to meet demand



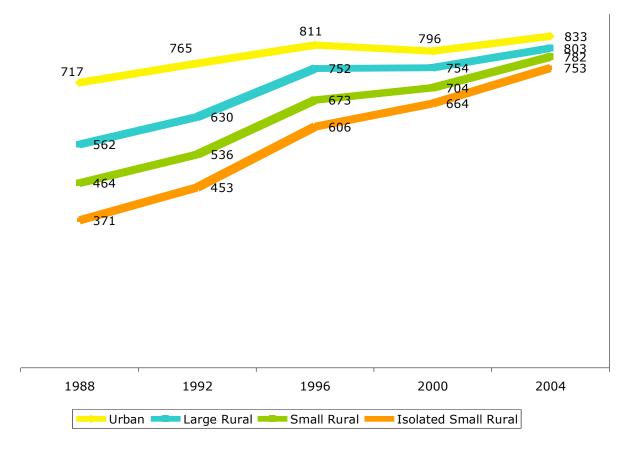
Skillman SM, Fordyce MA, Yen W, Mounts T. <u>Washington State primary care</u> <u>provider survey, 2011-2012: summary of findings.</u> Seattle, WA: WWAMI Center for Health Workforce Studies, University of Washington; Aug 2012.



PHYSICIANS

## Supply: Which workforce is the rural workforce?

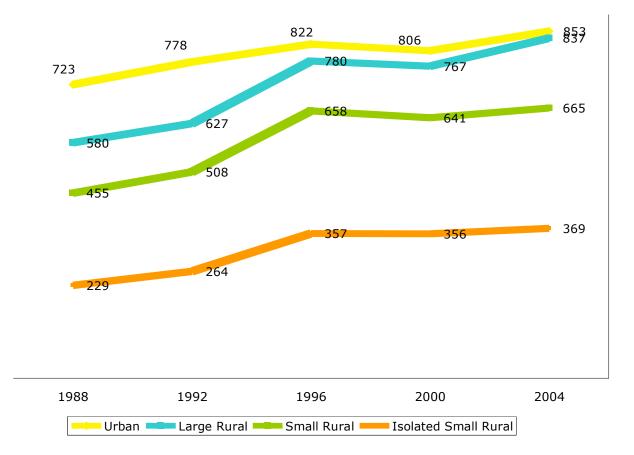
Number of RNs per 100,000 population in the U.S. by RN residence



Skillman SM, Palazzo L, Hart LG, Butterfield P. Changes in the rural registered nurse workforce from 1980 to 2004. Final Report #115. Seattle, WA: WWAMI Rural Health Research Center, University of Washington, Oct 2007.

## Supply: Which workforce is the rural workforce?

Number of RNs per 100,000 population in the U.S. by RN work location



Skillman SM, Palazzo L, Hart LG, Butterfield P. Changes in the rural registered nurse workforce from 1980 to 2004. Final Report #115. Seattle, WA: WWAMI Rural Health Research Center, University of Washington, Oct 2007.

### Great supply data for starting a conversation

**TABLE 2.** Distribution, Age, and Sex of Psychiatric ARNPs in Washington by Accountable Community of Health

Advanced Registered Nurse Practitioners	N	Population	Rate per 100,000	Mean Age	% (N) >55 Years	% (N) Female
Statewide*	530	7,183,700	7.4	53	51.9 % (275)	87.2% (462)
Accountable Community of Health (ACH) †						
Pierce County	60	844,490	7.1	53	58.3% (35)	86.7% (52)
North Sound	61	1,206,900	5.1	57	67.2% (41)	90.2% (55)
King County	214	2,105,100	10.2	50	44.4% (95)	89.7% (192)
Better Health Together	41	587,770	7.0	54	53.7% (22)	87.8% (36)
Cascade Pacific Action Alliance	38	614,750	6.2	57	65.8% (25)	86.8% (33)
Greater Columbia	43	710,850	6.0	52	46.0% (20)	86.0% (37)
Southwest Washington	31	493,780	6.3	53	48.4% (15)	77.4% (24)
Olympic Community of Health	25	367,090	6.8	55	60.0% (15)	88.0% (22)
North Central	17	252,970	6.7	50	41.2% (7)	64.7% (11)

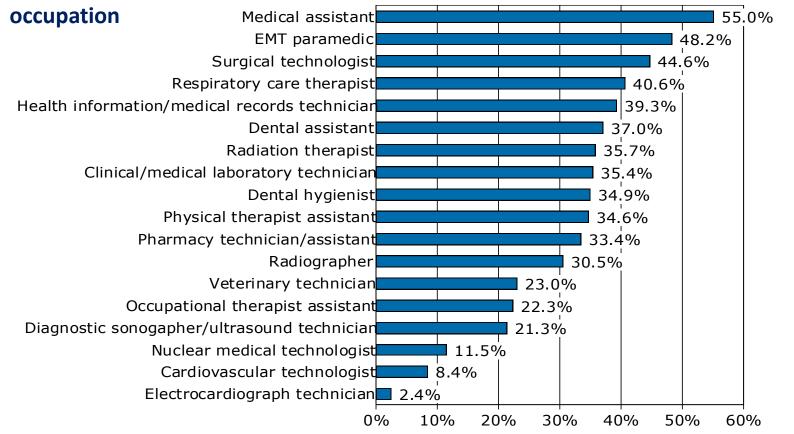
#### Data source: Washington State Health Professions Licensing (DOH)

Possible relevant questions: Are the ARNPs working in the ACH of their license address? Are they all actively working in BH? Of those that do – do they have skills needed now to provide the most up-to-date evidence based care? Do they serve populations with Medicaid coverage? Is North Sound in shortage and King in surplus of psych ARNPs?

Gattman NE, McCarty RL, Balassa A, Skillman SM. Washington State Behavioral Health Workforce Assessment. Washington Workforce Training and Education Coordinating Board, Dec 2017. http://depts.washington.edu/fammed/chws/wp-content/uploads/sites/5/2018/01/wa\_bh\_workforce\_fr\_dec\_2017.pdf

### **Consider location of relevant education and training resources**

### U.S. rural populations within a 60-Minute Drive of a RRCCAH\* program by allied health

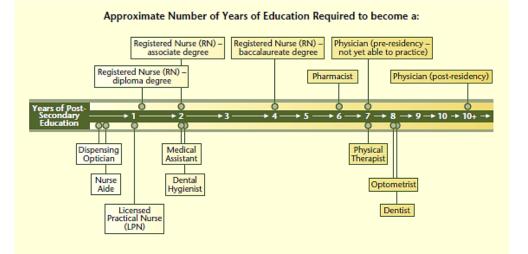


\*Rural-relevant community college allied health program (occupations most likely to be employed in rural settings)

Skillman SM, Keppel GA, Patterson DG, Doescher MP. The contributions of community colleges to the education of allied health professionals in rural areas of the United States. Final Report #136. Seattle, WA: WWAMI Rural Health Research Center, University of Washington, Oct 2012.

## Growing the health workforce can take time

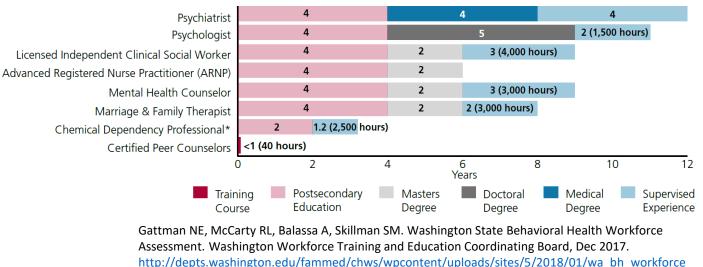
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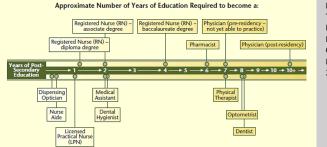
From: Skillman SM, Patterson DG, Lishner DM, Doescher MP. The Rural Health Workforce: Data and Issues for Policymakers in Washington, Wyoming, Alaska, Montana, Idaho. Issue #1: The Rural Health Workforce: Challenges and Opportunities. Policy Brief #146.1. Seattle, WA: WWAMI Rural Health Research Center, University of Washington; 2013

14

#### Behavioral health occupations: Typical education and supervised experience requirements

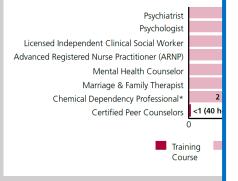


## Growing the health workforce can take time



From: Skillman SM, Patterson DG, Lishner DM, Doescher MP. The Rural Health Workforce: Data and Issues for Policymakers in Washington, Wyoming, Alaska, Montana, Idaho. Issue #1: The Rural Health Workforce: Challenges and Opportunities. Policy Brief #146.1. Seattle, WA: WWAMI Rural Health Research Center, University of Washington; 2013

#### Behavioral health occupations: Typic



Gattman NE, McCarty RL, Balassa A, Skillman SM. Washingt Assessment. Washington Workforce Training and Education http://depts.washington.edu/fammed/chws/wpcontent/up c 2017.pdf A focus on retention is sometimes a better workforce strategy than increasing education capacity

- Solutions to health workforce supply problems often don't require turning up the education/training "spigot"
- Improving skills and enhancing roles of the incumbent workforce (those already employed) can be more efficient and effective than growing more professionals...
  - AND keep experienced people in the workforce

### **Relevant data to assess health workforce supply**

### *Question topics:*

- A. Supply size and distribution
- B. Clinically active providers
- C. Patient populations served
- D. Education/training completions and graduations
- E. Any question you want to ask

### Data Source Examples:

- National Census & survey data (ACS, CPS, OES, AMA physician Masterfile, NSSRN) (A, B, D)
- National Provider Identifier (NPI) (A, B)
- State professional license registries (A, B if collected, D sometimes)
- Claims data (B, C)
- Electronic health records (B, C)
- Integrated Postsecondary Education Data System (IPEDS) (D)
- Direct collection/surveys (E)

### Relevant data to assess health workforce demand

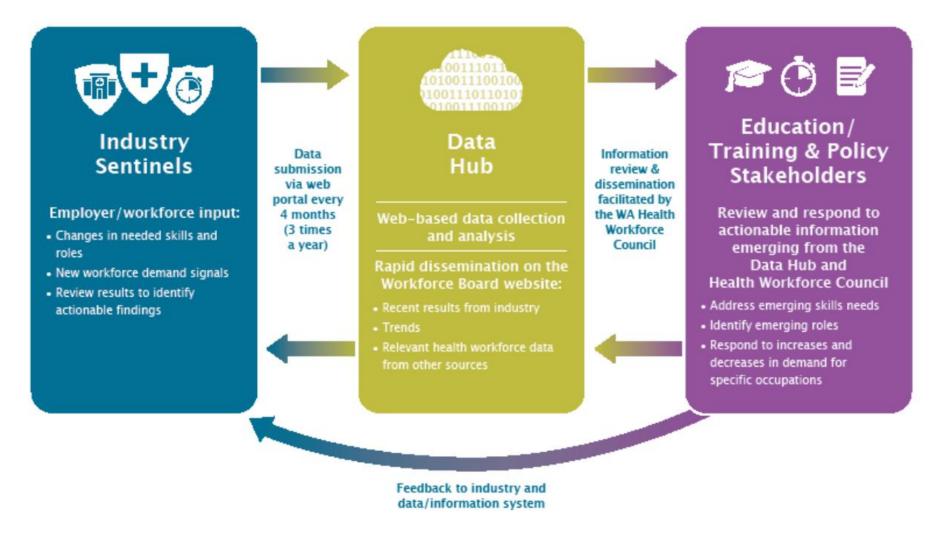
### **Question topics:**

- A. Which sector/setting employing which occupations
- B. Job vacancy rates
- C. Turnover rates
- D. Skills/roles most needed by employers
- E. Changes in occupations, skills and roles in demand

### Data Source Examples:

- Bureau of Labor Statistics/WA Employment Security Dept (A, B)
- Claims data (A, E)
- Direct collection/surveys (A, B, C, D, E)

### Washington's Health Workforce Sentinel Network



## Funding

### <u>Initial:</u> Washington State *Healthier Washington* Initiative (CMMI SIM grant & CMS DSRIP – Medicaid Transformation), subcontract

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.

### <u>Current:</u> Workforce Innovation and Opportunity Act (WIOA) Governor's Discretionary Funds

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







## **Sentinel Network Project Team**



<u>University of Washington CHWS</u> 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





## **Registration and questions**

### **Registration Information**

Sentinel employers first "register" by providing:

- facility type(s) where employed, and
- locations (counties)

Registration information populates subsequent question logic

For each facility type, Sentinels prompted to select occupations (based on SOC codes) that experienced recent change in demand

A Sentinel's registration data is saved for the next reporting period.

## **Registration and questions**

### Questions

*Recently (in the past 3–4 months):* 

- Occupations experiencing exceptionally long *vacancies*
- Occupations with increased or decreased <u>demand</u>
- *New occupations* that they did not previously employ
- <u>New roles</u> for existing employees
- Changes in <u>orientation/onboarding procedures</u> for new employees
- Changes in **training priorities** for existing employees

### AND qualitative input about which, how, and reasons why

## Sentinel data collection dates

Round 1: Jun/Jul 2016	Round 3: Apr/May 2017		Round 5: June 2018?		
No	ound 2: ov/Dec 016	Round 4: Sept/Oct 2017		Round 6, 7 Dates to be determined	

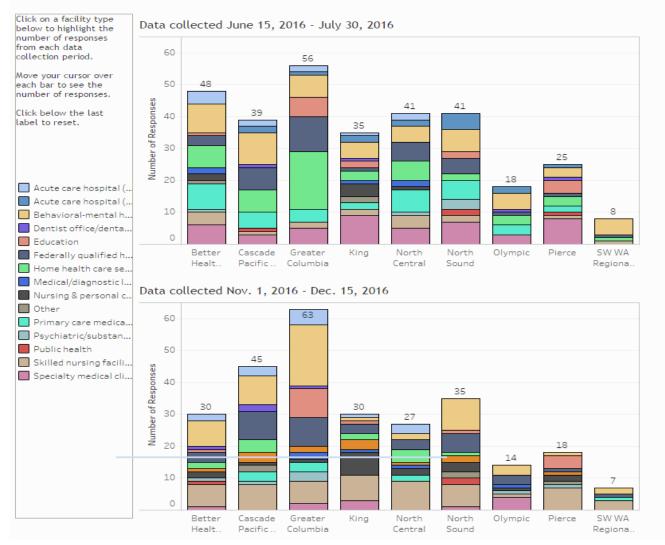
Phase I Phase II

## **Responses from Sentinels**

Facility Type	July 2016	Nov 2016	May 2017	Sept 2017
Behavioral-mental health clinic/outpatient mental health and substance abuse clinic	26	30	16	33
Skilled nursing facility	17	28	11	14
Federally qualified health center (FQHC) or community clinic providing care free or on sliding fee scale	19	18	19	23
Nursing & personal care facility (not a Skilled Nursing or Intermediate Care Facility)	7	15	6	4
Acute care hospital (25 beds or fewer)	10	12	8	7
Education	10	10	5	1
Primary care medical clinic (not FQHC or community clinic)	19	7	8	4
Intermediate care facility	1	7	5	2
Specialty medical clinic	29	6	6	3
Home health care service	11	4	7	6
Psychiatric/substance abuse hospital	3	4	0	10
Medical/diagnostic laboratory	5	3	5	4
Public health	4	3	5	2
Dentist office/dental clinic	3	3	0	4
Other	1	3	11	2
Acute care hospital (more than 25 beds)	12	1	6	4
Total	177	154	118	127

## Response counts by facility type and geography

Note: Each facility could serve clients/patients in more than one county, which is why the totals in the chart below are greater than the totals in the table above.



## Why do we need to hear from Sentinels?

## Case study:

## **Medical Assistants**

## Example: A surplus of medical assistants?

#### Health Workforce Council



#### 2016 Annual Report



#### December 2016

Workforce Training and Education Coordinating Board 128 10th Avenue SW | PO Box 43105, Olympia, WA 98504 360-709-4600, www.wtb.wa.gov

### Washington State Health Workforce Council Report:

<u>Medical Assistants</u> Educational output:\* 2,821 MAs Job Vacancies:\*\* 592 MAs

\*Integrated Postsecondary Education Data System (IPEDS, National Center for Education Statistics) 2015

\*\*Current Employment Statistics (CES, Bureau of Labor Statistics) Quarterly Census of Employment and Wages (QCEW, Bureau of Labor Statistics) 2019-2024

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Career Resources	Click here to see all questions asked of Sentinel	<u>s</u> .			
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Washington Career Bridge Find the education & training you need to get the job you want			New Occu	pations	

Vacancies Demand Increase	Demand Decrease	Onboarding	Training	New Roles
	New Occupations	5		

#### Vacancies

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)	Data Collection Date(s)	Number of Occupations to Display
Federally qualified health center (FQHC) or co 🔻	(AII) •	•
(AII)		A
Acute care hospital (25 beds or fewer)		
Acute care hospital (more than 25 beds)		
Behavioral-mental health clinic/outpatient mer	tal health and substance abuse clinic	
Dentist office/dental clinic		
✓ Federally qualified health center (FQHC) or com	munity clinic providing care free or on slidi	ng fee scale
Higher Education / Research		
Home health care service		
Intermediate care facility		
Medical/diagnostic laboratory		

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### Exceptionally Long Vacancies by Facility Type

Facility Type(s) Federally quali		ter (FQHC) or co ▼	Data Collection Date(s) Number of Occupations to Display   (All) •
Occupation	is with Exce	eptionally Long Vacancie	S
Click on an oc to view reaso		Cmd + Click on multiple occup	ations)
Sept. 6, 2017	Federally	Medical Assistant	
- Oct. 15,	qualified	Dental Assistant	
2017 health		Nurse, Registered	
	center (FQHC) or	Physician/Surgeon	
	community	Mental Health Counselor	
	clinic	Nurse Practitioner	
	providing care free or on sliding	Chemical Dependency Pro	
		Dentist	
	fee scale	Psychologist - Clinical, Co	
		Social Worker, Clinical	
Apr. 1, 2017	Federally	Physician/Surgeon	
- May 15,	qualified	Social Worker, Clinical	
2017	health center	Mental Health Counselor	
	(FOHC) or	Dental Assistant	

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.
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- 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 (Al	a Collection Da I)	te(s) ▼	Nun	nber of Occupations to Display O	
Occupations with Exceptionally Long Vacancies					Reasons for Exceptionally Long Vacancies			
Click on an oco to view reaso	1 (	Cmd + Click on multiple	e occupations)		ove your curso ected occupat		s to read comments for the	
Sept. 6, 2017 - Oct. 15, 2017	Federally qualified health center (FQHC) or	Medical Assistant Dental Assistant Nurse, Registered Physician/Surgeon			Sept. 6, 2017 - Oct_15 [Medical A	qualified	h expectations on experience	
	community clinic providing	Mental Health Counse Nurse Practitioner Chemical Dependency			Apr. 1, 2017 - May 15, 2017	Federally qualified health cent	Salary/wag Recruitmen	
	care free or on sliding fee scale	Dentist Psychologist - Clinica Social Worker, Clinica			Nov. 1, 2016 - Dec. 15, 2016	Federally qualified health center (FQH	Not enough Salary/wag [No reason	
Apr. 1, 2017 - May 15, 2017	Federally qualified health center (FQHC) or	Physician/Surgeon Social Worker, Clinica Mental Health Counse Dental Assistant			June 15, 2016 - July 31, 2016	Federally qualified health center (FQH	Recruitmen	

## Washington State's Sentinels report --

### **Medical Assistants**

<u>By facility type</u>: MAs were among the top occupations with exceptionally long vacancies reported by

- FQHCs/community clinics
- Other primary care clinics
- Specialty medical clinics
- Acute care hospitals (<25 beds)

By geography: MAs were among occupations with exceptionally long vacancies

- July 2016: 8 of 9 ACHs
- Nov. 2016: 9 of 9 ACHs
- April 2017: 9 of 9 ACHs
- October 2017: 8 or 9 ACHs



## Changes in onboarding & training priorities

### **Medical Assistants**

Examples of comments:

### EHR/HIT

- EHR training/more EHR skills
- Knowledge of quality data tracking
- Onboarding curriculum tailored to focus on EHR competency and documentation of clinical measures.

### Other Skills

- Gathering SO/GI [sexual orientation/gender identity] demographics
- Enhanced training to work to full scope of role
- Expansion of customer service training
- Organization-wide training and implementation of AIDET\* customer service model; increased localized trainings on integration of care with an emphasis on a care team based approach to healthcare and synchronization of services

<sup>\*</sup>Acknowledge, Introduce, Duration, Explanation, and Thank You.

## Sentinels suggest solutions

### **Medical Assistants**

Examples of comments:

- We have an MA Trainer they are paired with. We also do an MA apprenticeship program to grow our own.
- [We developed] a residency program for MAs.
- Looking at partnering with a local college.

## Demand for medical assistants

## Sentinel Network signals that there's not a statewide surplus of MAs that meet the hiring needs of employers

*Next steps to investigate with stakeholders:* 

- Explore if there's a drop-off between MA program completion and certification
- Skills/preparedness variability in completers from different education programs
- Possible need for remote/distance education for MAs?
- Expansion of apprenticeships?
- More information needed on specific skills that MA candidates lack for some employers:
  - EHR/HIT more that can be provided in education programs?

## **Sentinel Network**

## **Highlights of Other Findings**

## Washington State's Sentinels report --

### **Behavioral Health Occupations**

Chemical dependency professionals (CDPs) and substance abuse and behavioral disorder counselors

### By facility type:

The combined occupations of chemical dependency professionals (CDPs) and substance abuse and behavioral disorder counselors were the top occupation with exceptionally long vacancies recently reported by:

- Large hospitals
- Behavioral health clinics
- Psychiatric/ substance abuse hospitals

They were also among the top 10 occupations listed with long vacancies at FQHCs.

### **Examples of reasons for exceptionally long vacancies:**

- Low wages and difficult working conditions, increased client acuity, lack of qualified candidates.
- Integration with managed care means many new positions do not exclusively require CDP/ Substance Abuse skills and there has been a flood of new positions on the market, leading to a shortage.
- Many CDPs have obtained dual licensure and have opted to be employed under Mental Health due to higher pay in that area.
- Long licensing process, including supervision requirements.

## Washington State's Sentinels report --

### **Registered Nurses**

### Examples of reasons for RNs' exceptionally long vacancies:

### **RNs in Hospitals**

- New grads looking for acute care wage and experience; workforce does not meet demand.
- Difficulty in recruitment for more rural areas; lack of experienced specialty nurses who wish to come to a rural area.
- Nights hard to fill.
- Too many open positions elsewhere and traveling companies are scooping up what is out there promising them almost \$100 an hour.

### Long Term Care (home health, skilled nursing, nursing and personal care)

- Not enough RN's for all the facilities and hospitals and a new regulation requiring skilled nursing facilities to have 24 hour RN coverage (SNF)
- Nursing homes are unattractive to potential candidates, low candidate pool, competition with local hospital (pay/environment) (NH)
- A local hospital opened over 100 RN positions. Severe impact on community. Not enough RNs to fill open positions.
- Lack of experienced RNs willing to work in this capacity (HH)
- Multiple new jobs being opened to RNs. (SNF)
- Wage compression from new minimum wage (SNF)

## Demand for registered nurses

Sentinel Network signals include:

- RNs are in high demand across healthcare sectors
- EHR/HIT related skills are among ongoing training needs
- Experience remains important to employers
- Nurses follow better salaries

Next steps :

- Engage more discussion with stakeholder partners
- Solutions explore:
  - Turn up the education "spigot"?
  - Enhance skills/roles of incumbent RNs?
  - Focus on retention strategies?

## Sentinel Network Phase II

Funded February 2018 through June 2019, in partnership with the Washington Workforce Board



Washington State Workforce Training And Education Coordinating Board

Currently working with Washington's Health Workforce Council on improvements to increase effectiveness

### Considering:

- Additional formats to display findings
- Less frequent data collection
- Methods for greater engagement with response panel and stakeholders (to lead interpretation and dissemination of findings)
- More options for user interaction
- Possible customizable modules
- Long term sustainability plan

# How do we apply health workforce data to make an impact?

- Examine the data (supply/demand/need) to identify signals
- Work with your partners to interpret and validate findings
- Enlist the stakeholder network to develop strategies and solutions



Feedback to industry and data/information system

## Questions and discussion

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