## Building Blocks to Health Workforce Planning: Data Collection and Analysis

#### Presented by: Jean Moore, DRPH

Director Center for Health Workforce Studies School of Public Health | University at Albany, SUNY jean.moore@health.ny.gov

October 22, 2015

National Governors Association Health Workforce Policy Academy Closing Meeting

Washington, DC



### The Case for Health Workforce Data Collection

- Need to better understand supply and distribution of current health workforce
- Need to assess the adequacy of primary care capacity
- Need to understand the relationship between access to care and health workforce availability



#### What Workforce Data Are Needed?

- Workforce supply
- Educational Pipeline
- Demand for workers



#### Survey of State Health Workforce Data Collection Activities

- Growing interest in developing state health workforce data collection and monitoring systems
  - driven in part by health reform initiatives that are reshaping health care service delivery and health workforce demand
- HWTAC launched an on-line survey of states about their health workforce data collection activities on
  - Supply
  - Demand

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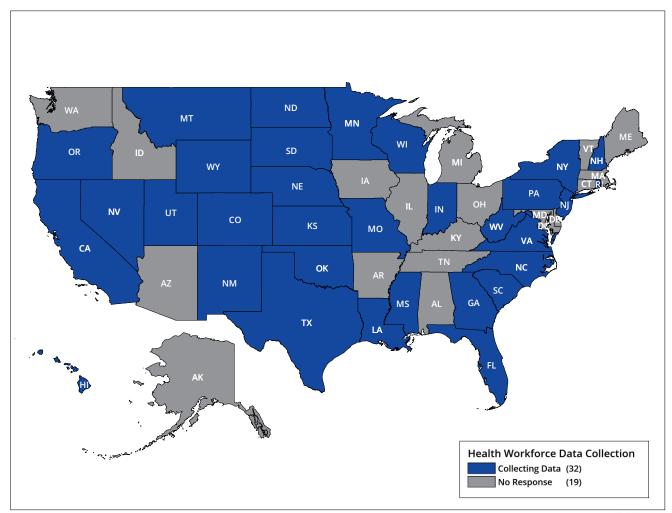


### Who Collects Workforce Data?

- State agencies
- State universities
- Nursing centers
- Area Health Education Centers



#### To Date, 40 Organizations in 32 States Report Collecting Health Workforce Data



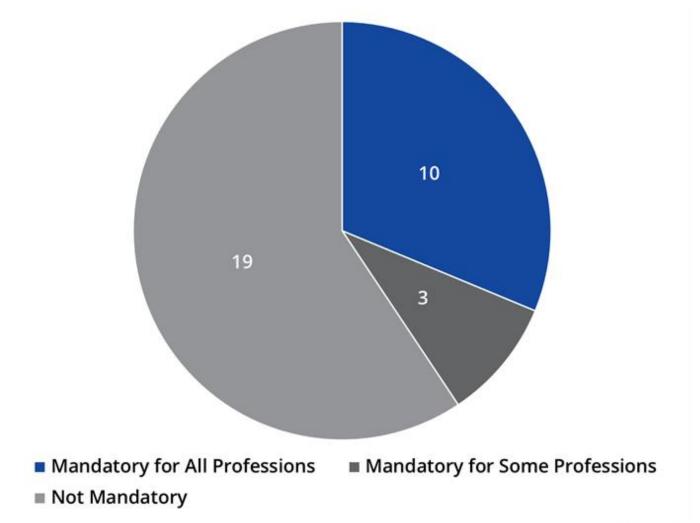


#### Health Workforce Supply Data Collection

- Professions vary by state:
  - Physicians (27 states)
  - Nurse practitioners (23 states)
  - Dentists (22 states)
  - Registered nurses (22 states)



#### Health Workforce Supply Data Collection Mandatory, Voluntary or Both?





#### **Supply Data Collection Strategies**

- 26 states collect supply data routinely in conjunction with licensing/relicensing
- 8 states report using recurring surveys that are not associated with licensing process
- Some states report different data collection strategies for different professions

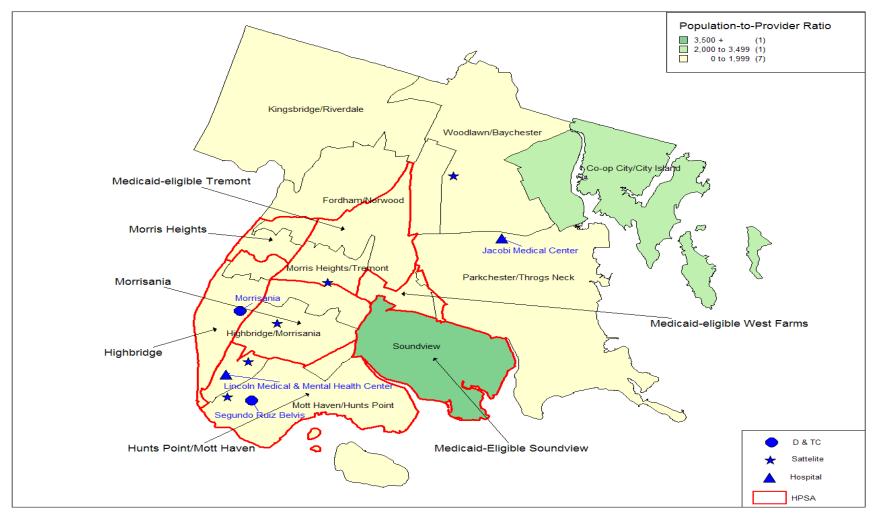
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#### What Supply Data Variables are Collected?

- Most states report collecting health professional supply data on:
  - Demographics characteristics (30 states)
  - o practice characteristics (30 states) and
  - educational background (26 states)
- 25 states collect health professional supply data in all three of these categories



#### Using Survey Data in Small Area Analysis of Primary Care Capacity





#### Other Sources of Health Professions Supply Data

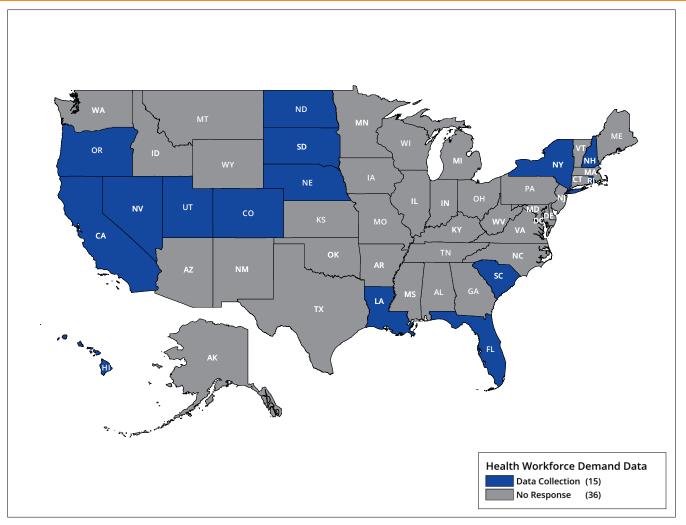
- American Community Survey
- Bureau of Labor Statistics

Occupational Employment Statistics

- National Practitioner Identifier
- AMA Masterfile
- Propriety databases (e.g., SK&A)



#### Organizations in 15 States Collect Health Workforce Demand Data





#### Health Workforce Demand Data Collection: Professions, Settings and Variables

- Most frequently targeted professionals: registered nurses (10 states), physicians (9 states), nurse practitioners (9 states), and licensed practical nurses (9 states)
- Most frequently targeted settings: hospitals (10 states) and nursing homes (8 states)
- Most frequently collected variables: vacancies (11 states), recruitment difficulty (10 states), turnover (9 states) and retention difficulties (4 states)

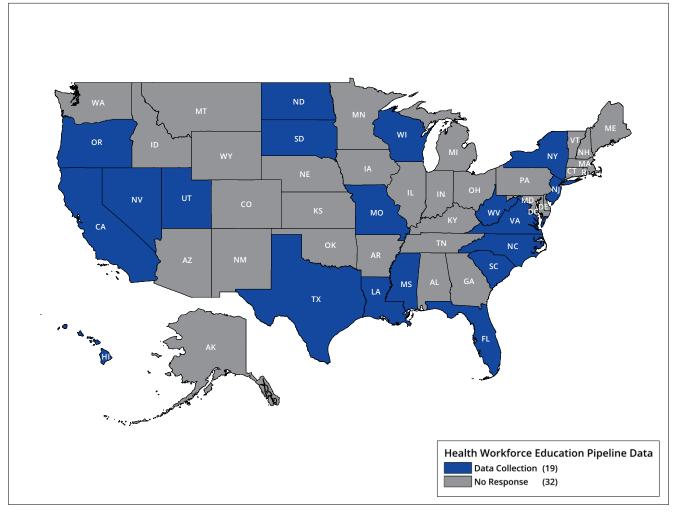


#### Demand Surveys Provide Evidence of HWF Recruitment and Retention Issues

- Involves collaborations with provider associations
- In 2015, NY providers reported:
  - All providers: experienced RNs hard to recruit, but newly trained RNs are not
  - Hospitals: Hard to recruit and retain clinical laboratory technologists, HIT staff and medical coders
  - Nursing homes and home health: Hard to recruit occupational therapists, physical therapists, speech language pathologists, dieticians/nutritionists

 Community health centers: Hard to recruit dentists, http://chws.algeriatric nurse practitioners and psychiatric for studies
practitioners

#### Organizations in 19 States Collect Information About the Health Workforce Educational Pipeline





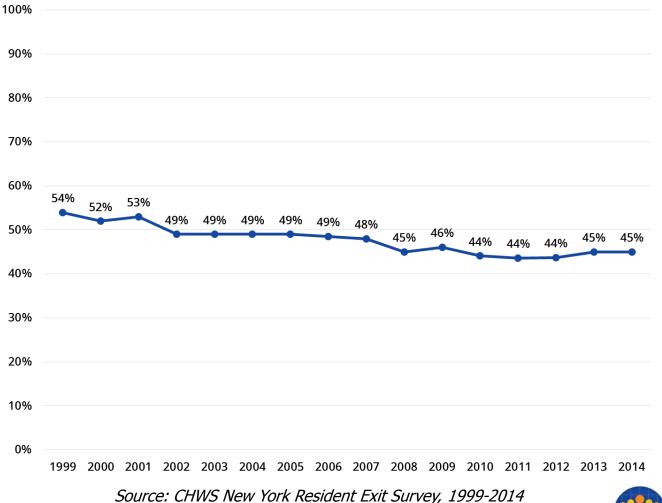
#### Educational Pipeline Data Collection Strategies

- Educational pipeline data collection is most likely for registered nurses (13 states), physicians (11 states), and licensed practical nurses (10 states)
- Data collection is recurring in 17 states
- Data are collected from education programs in 15 states and from individuals in training in 7 states
- Most states report collecting information on graduation rates (17 states), enrollment rates (15 states) and the demographic characteristics of trainees (13 states)

 A small number of states report collecting information on about trainees' post-graduation plans (4 states) and job market experiences (1 state)
http://chws.albany.edu

#### Resident Exit Survey Tracks In-State Retention of New Physicians Who Complete Training in NY

Percent of new physicians with confirmed practice plans in New York







#### **Emerging Data Sources: Claims Data**

City/ Town	Total Patients Receiving Dental Services	Mean Commuting Distance to Dental Provider in Miles
Abbot		
All Patients	282	25.7
Patients With MaineCare	57	26.1
Patients with Private Dental Insurance	225	25.6
Acton		
All Patients	932	16.0
Patients With MaineCare	172	18.6
Patients with Private Dental Insurance	760	15.4
Addison		
All Patients	253	27.0
Patients With MaineCare	90	27.9
Patients with Private Dental Insurance	163	26.5
Albion		
All Patients	942	12.2
Patients With MaineCare	216	21.5
Patients with Private Dental Insurance	726	9.4
Alfred		
All Patients	1744	9.4
Patients With MaineCare	180	10.5
Patients with Private Dental Insurance	1564	9.3



Supply Data Collected as Part of Licensing Process: What Are the Issues?

- Value of MDS data to licensing bodies
- Data ownership and data sharing
- Funding sources
- Mandatory or optional?



#### Data Use/Data Sharing

- Who owns the data?
- Who has access to data?
- What are data sharing rules?
  - Data use agreements
  - IRB approval
  - Sign off on publicly released reports or journal articles



#### Funding Strategies: One Size Does Not Fit All

- Licensing fee increases
- Annual state appropriation
- Private foundations
- In-kind contributions of state stakeholders
- Revenues generated through data requests



#### Recommendations

- Build collaborations with key stakeholders
- Help stakeholders appreciate the value of timely and accurate data
- Build support for health workforce data collection and analysis
- Disseminate, disseminate, disseminate....
- Stay relevant to state-specific issues



# **Thank You**

# **Questions?**

