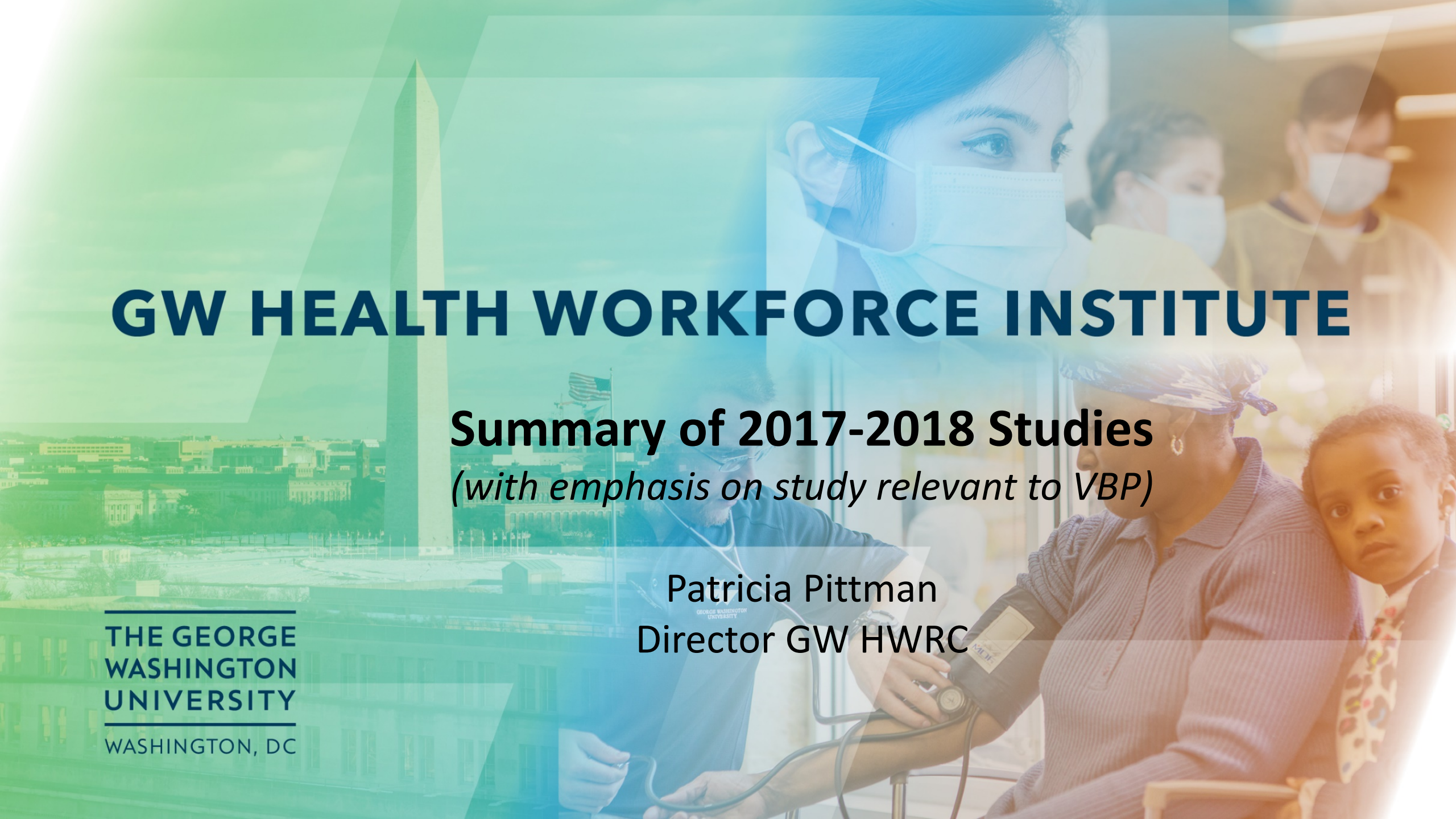

GW HEALTH WORKFORCE INSTITUTE

Summary of 2017-2018 Studies

(with emphasis on study relevant to VBP)

Patricia Pittman
Director GW HWRC

THE GEORGE WASHINGTON UNIVERSITY
WASHINGTON, DC

Optimal Staffing in Community Health Centers to Improve Quality of Care

Qian Luo, Avi Dor, Patricia Pittman

- 2014-2016 (post expansion) data from UDS, IRS, and BLS (3,149 center-year observations from 1,182 grantees).
- **Dependent variables:** percent of patients with diabetes or hypertension under control.
- **Part 1:** Production function approach, used 6 input factors: primary care physicians (PCPs), NPs and PAs (APCs), other medical support staff (mostly medical assistants), administrative staff, enabling staff, and capital.
- **Part 2:** Simulation-based cost effectiveness analysis using parameters estimated from regression. Latent profile analysis to categorize CHCs' best investment strategies (i.e. combination of factors) to maximize quality. Multinomial logit model to explore non-workforce CHC characteristics and county characteristics associated with the simulated best strategy.

Optimal Staffing Findings

- Direct quality effects of additional PCP (0.241 % pts) and APC (0.244 % pts) statistically significant and nearly identical. But PCPs contribute 25% more to volume (70% in revenue).
  - Nurses have a positive, but not statistically significant direct quality effect.
  - Other medical support staff have a negative, but not statistically significant direct quality effect.
  - Administrative and enabling staff have a negative and statistically significant negative quality effect.
  - Capital has a positive, but not statistically significant quality effect
- Latent profile analysis of simulation results: 4 optimal investment combinations:
  1. Mostly APC (8 APCs and 0.2 nurses) for 65% of CHCs
  2. APCs and nurses (4 APCs and 2.6 nurses) for 8% of CHCs
  3. Nurses and administrative staff and investing in capital (6.2 nurses, 2.5 administrative staff, and investing about $167,000 in equipment and buildings) for 12% of CHCs
  4. PCPs and nurses (about 3.5 additional PCPs, 0.7 nurses, and 0.3 administrative support staff) for 15% for CHCs.
- CHCs that serve smaller patient population, deal with less complex patients, are in nonmetropolitan area, and are in expansion states are more likely to fall into the “mostly APCs” or “APCs and nurses” strategies.

Optimal Staffing Conclusions

- Health workforce and capital configurations impact quality outcomes in primary care.
- Consistent with Year 1 productivity study, no single strategy is optimal for all centers.
- Under outcomes based payment scenarios, the most cost effective investment to improve quality for small, rural CHCs is additional APCs in combinations with part time nurse (73% of all CHCs).
- Nurses are in all 4 optimal strategies.

Are State Telehealth Policies Associated With The Use of Telehealth Services Among Underserved Populations?

Jeongyoung Park, Clese Erikson, Xinxin Han, Preeti Iyer

- Biannual survey of consumers commissioned by the AAMC 2013-2016 and ATA rankings.
- Found use increased dramatically with new modes such as live video, live chat, texting, and mobile apps in all groups.
- Live video communication from 6.6% to 21.6% and was most dominant among: 1) working age and higher income populations (for whom it may be more difficult to take time off from work), and 2) Medicare beneficiaries under 65 (who presumably have significant disabilities, and may, therefore, have more difficulty leaving the home because of physical limitations).
- Use less prevalent among Medicaid beneficiaries, low income, and rural populations.
- High scoring state telehealth policies, such as parity of coverage, not statistically significantly associated with increased usage after controlling for population characteristics.
- New kinds of incentives needed for poor and rural pops?

Effects of NHSC Clinicians on Staffing and Patient Visits

Xinxin Han, Patricia Pittman, Clese Erikson, Fitzhugh Mullan, and Leighton Ku

- Multivariate linear regression analyses to examine how changes in the number of NHSC primary care medical, dental and mental health clinicians affected the number of non-NHSC staff and patient visits in their respective service area.
- UDS and NHSC data: 1,023 federally qualified health centers from 2013-2016.
- After controlling for facility characteristics and local clinician supply, we found no association of NHSC with fewer non-NHSC clinicians.
- NHSC clinicians substantially bolster patient care capacity: on average, every additional NHSC FTE was associated with 2,321 (2%) more medical visits, 2,828 (9%) more dental visits and 1,364 (7%) more mental health visits per year.
- Medical visits per clinician similar for NHSC and non-NHSC clinicians, but NHSC dental clinicians produced about 1,000 more dental visits per clinician, and NHSC mental health clinicians produced about 500 more mental visits per clinician than non-NHSC staff.

NHSC Contributions to Medicare

Clese Erikson, Xinxin Han, Leighton Ku, and Patricia Pittman

- 2011-2015 NHSC participant data linked with the 2015 Medicare Part D.
- Active NHSC participants and recent alumni (ie practicing in zip that overlaps 80% or more with a geographic or population based HPSA) served approximately 1 million Medicare beneficiaries in HPSAs in 2015, and nearly half were duals.
- Compared to HPSAs with no active NHSC participants or recent alumni, current NHSC and alumni are practicing in high need HPSAs with scores of 14 and above, with higher percentages of uninsured and unemployed populations, Blacks, Hispanics, immigrants, and people living in poverty.
- Recent alumni are more likely to practice in HPSAs compared to other PCPs that bill Medicare Part D (51% vs 29%).
- In 121 of zip codes, they provided 100% of the Part D billings.

Physician Reported Staffing of RNs, LPNs, and MAs in Ambulatory Care

Denys Lau, Ellen Kurtzman, Patricia Pittman

- NAMCS analysis of workforce items 2013-2015
- Little change over time period. Approximately 70% have Mas, 38% RNs and 30% LPNs
- Larger practices and PCMH more likely to have all three.
- Primary care more likely to have all three than specialty sites
- Of 13 tasks, minor variation in who does what, but all three do all tasks.