

*What do we know about:

- What job changes are occurring (in CHCs and in hospitals)?
- 2. What evidence is there that they are associated with payment policies such as PCMH, EHRs, ACOs, Medicaid Expansion?
- 3. What have we learned about the effect of these changes on expanded roles, productivity, job substitution and outcomes?

* GW studies unless alternative source cited

Health Workforce

Changes in CHCs 2007-2013: Growth and Diversification

Workforce Changes

- Overall ratio of staff-to-patients in CHCs increased by 10.4%
- Largest among allied: All Medical 12%, Other Health 30.4%, Enabling 6.9%, Administrative 3.6%
- Dramatic increases among mental health and dental staff, less among substance abuse and actually fell as percent of all "Other Health"
- In terms of PCPs, relative decline in Physicians. (34% growth for physicians, but NPs/PAs at 74%, Nurses 43%, MAs 60%)

Changes in Hospitals 2010-2014: Skill Mix Shifts

- Increased employment of PAs and NPs from 55% to 63%.
- Little knowledge of how to use them (privileging)
- RNs steady per patient/acuity.
- Overall slight decline in support staff.
- Very significant substitution of high and middle skilled clinical nonlicensed personnel with lower skilled staff.

What are we Learning About Which Policies Are Driving Workforce Changes?

- PCMH: strong association with NP/PA hiring and productivity increase in CHCs, not w/ nurses other medical staff or enabling.
- EHR: adoption in CHCs reducing productivity for 3 years then rebounds. It is driving hiring of "other" (IT staff and MAs), and expansion of roles.
- ACO: Self-reported surveys and qualitative studies suggests ACOs driving changes (more nurses, care coordinators, outreach).
 - But ACOs report change is slow due to bandwidth. AHA and Premier data do not show changes; ACO
 hospitals use NP/PAs and care coordinators less.
- Medicaid Expansion: when isolated, only modest increase. Greater increases in APPs and nurses compared to non expansion states that have greater increases in OTHER (MAs)
- NP SOP Reforms: No evidence of increased NP staffing or productivity in CHCs, but reduces MDs and increases PAs.
 - No evidence of relationship with privileging in hospitals.

A few reflections based on our research...

- In hospitals, current down skilling strategies could increase nurse burnout and affect outcomes, eg patient satisfaction.
- Hospitals have much to learn about using NPs and PAs in hospitals.
- In primary care, shortages of physicians is driving demand for NPs.
 With growth of retail and urgent care, NP shortages may be looming.
- ACOs are part of a long term shift that requires long term workforce planning. Better change management processes needed.