

## BACKGROUND

Medical scribes are trained personnel who accompany health care providers during visits to provide documentation and administrative support. Previous studies have focused on benefits such as reducing the physician time spent per patient and increasing patient volume. These studies may have missed financial benefits conferred through mechanisms independent of seeing more patients such as:



Giving providers additional time to address more medical problems and/or more complex problems allowing high level of service (LOS) billing



Giving providers additional time to address pay-for-performance quality measures



Prompting providers additional time to use decision support tools for risk coding

## RESULTS

- Scribed (n=17) and non-scribed (n=76) providers are similar in demographic characteristics (gender, race, and training completion year) and outpatient clinical FTE.
- The patients seen by scribed providers were more likely to be white and more likely to have a language of care that was English than non-scribed providers. They were also more likely to have an in-patient admission.
- Outcomes were defined as
  - At least 1 hierarchical condition category (HCC) code billed
  - Level of service code of 4 or 5 indicating a visit where more complex issues were handled
  - Breast cancer screening (mammography)
  - Cervical cancer screening (Papanicolou smear)
  - Colon cancer screening (hemoccult testing or colonoscopy)

**Scribe implementation is associated with increased level of service coding, risk (HCC) coding, and pay-for-performance quality measures (breast and colon cancer screenings) in a primary care setting.**

### Preliminary Key Findings

Between the pre and post periods, preliminary findings show that scribed providers have:

- A **3.6%** greater change in level of HCC coding (p<.01)
- A **9.2%** greater change in level of service coding (% of visits that are level 4 or 5) (p<.01)
- A **4.9%** greater change in colon cancer screenings ordered when due (p=0.04)
- A **4.0%** greater change in breast cancer screenings ordered when due (p=0.01)

compared to non-scribed providers, adjusting for patient demographic characteristics.

## METHODS

### Study Design:

Observational study comparing change in outcomes before (July 2017 to June 2018) and after (July 2018 to 2019) scribe implementation between scribed providers and non-scribed providers in a primary care setting.

### Intervention:

14 medical scribes working with 17 providers received training on decision support tools, pay-for-performance quality measures and risk coding. Scribes documented patient encounters, recorded medical and social histories and physical exam findings, and transcribed discussions of treatment plans and PCPs' instructions to patients. Participation in scribe intervention was optional for providers.

### Analysis:

- Data extracted from EMR
- Difference-in-differences analysis
- Adjusted for patient demographics (age, gender, race/ethnicity)
- Accounted for repeated measures (multiple visits by the same patients) and patients nested within the same providers

## DISCUSSION

- There is an increased demand on the time of PCPs due to increased documentation required in the EMR and pressure to meet pay-for-performance (P4P) requirements.
- Our study suggests that scribes are associated with additional financial benefits aside from increased volume, providing a mechanism to increase risk coding, LOS billing, and P4P, despite increased demands on primary care visits.
- This added support, without increased volume, may reduce provider burnout (and associated costly turnover), leading to synergistic financial benefits.