TITLE: Applying the Patient Demographic Data Quality (PDDQ) Framework to Reduce Duplicate Patient Records: Findings from a Pilot Study

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STUDENT SUBMISSION: No

TOPIC/TARGET AUDIENCE: Community Health Centers that are experiencing the burden of duplicate patient records and would like to learn of ways of collecting quality patient demographic information in electronic health records (EHR).

ABSTRACT: Objectives: To carry out a pilot study to implement and evaluate a data management model framework aimed at improving the quality of patient demographic information in electronic health records (EHRs). Outcomes included changes in both duplicate record creation rates and PDDQ implementation scores.

Study Design/Methods: Clinics from three Community Health Centers were recruited. Baseline assessments were carried out to document clinics' current data quality practices, patient registration workflows, staffing structures, and processes for identifying duplicate patient records. A demographic data quality improvement intervention based on the Patient Demographic Data Quality Framework was developed and implemented. Data Quality Teams (DQTs) were identified at each clinic to implement the intervention. Training materials were developed and delivered to DQT staff via teleconferences to guide them in implementing PDDQ practices. Duplicate record creation rates, PDDQ scores and qualitative measures were collected pre- and post-intervention.

Results: Training and procedures for collecting demographic information varied by clinic (e.g., whether patients verbally confirmed their information, how changes to patient information were handled, how race, ethnicity, and gender were collected). Key variables influencing the creation of duplicate records included: unknown or imprecise date of birth; variation in the recording of last names; and missing social security numbers. Clinics participating in the intervention experienced moderate increases in their PDDQ scoring from baseline to follow-up (3.5 - 7 points), and modest to moderate relative decreases in duplicate creation rates (7.7% - 31.3%).

Conclusions/Impact on Health Centers: Accurate patient matching is important for patient safety and care coordination, as well as for high quality analytics, reporting, and research. Results from this pilot study suggest that, for a modest investment, impactful improvements can be made in demographic data quality and duplicate creation rates using a standardized data quality framework.

OBJECTIVE(S): Describe and discuss findings from a pilot study to implement and evaluate a data management model framework aimed at improving the quality of patient demographic information in electronic health records (EHRs). The learner in the audience will learn about how to decrease duplicate record creation rates among community health centers and assure patient safety through accurate patient matching using a standardized data quality framework.

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