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Title

24 month follow up evaluation of a systems-based strategy for providing tobacco cessation assistance in primary care

Priority 1 (Research Category)

Smoking Cessation

Presenters

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Abstract

Context: Primary care has an important role in identifying individuals that use tobacco, providing advice to quit and assisting cessation by referring to evidence-based resources such as state tobacco quitlines (QL).

Objective: To evaluate the degree to which provision of tobacco cessation care is sustained 24 months after implementation of an Ask-Advise-Refer strategy with an electronic referral to the QL for patients ready to quit tobacco.

Setting: Eight community primary care clinics in a Midwest safety-net health system.

Methods: A non-randomized stepped wedge study design was used to implement an intervention consisting of 1) changes to the electronic health record (EHR) referral functionality and 2) expansion of rooming staff roles to include performing tobacco cessation care tasks. Outcomes assessed from the EHR included asking about tobacco use, providing brief advice to quit and assessing readiness to quit. Generalized estimating equations (GEE) methods were used to compute odds ratios contrasting the pre-implementation (Pre-I) vs. 12, 18 and 24-month post-implementation (Post-I).

Results: A total of 305,665 patient visits were evaluated. Significantly higher odds of asking and advising were observed for all three Post-I periods compared to Pre-I rates, with rates either remaining steady or increasing over time. Asking about tobacco use Pre-I was 27.5% vs. 63.3% 24-months, OR 5.1 (95% CI 4.8-5.4). Advising tobacco users to quit at Pre-I was 45.0% vs. 79.0% 24-months, OR 3.6 (95% CI 3.1-4.1). Odds of assessing readiness to quit were higher across all three Post-I periods compared with Pre-I but declined after 12 months. Assessing readiness to quit Pre-I was 15.9% vs 35.4% at 24 months, OR 2.7 (95% CI 2.4-3.1). There was substantial variability across each outcome by clinical site with the greatest variability for assessing readiness; site-level performance at 24 months range was 9% - 74%.

Conclusions: Embedding a new process in the rooming workflow can result in substantial and sustained impact on tobacco assessment and provision of brief advice. Improvement in assessing patient readiness to quit was less successfully sustained and highly variable across clinical sites. EHR upgrade changes and staff and clinician turnover are disruptions that may negatively impact performance and additional implementation support strategies to reinforce positive performance and mitigate disruptions should be deployed and tested.