Personalizing Tobacco Cessation: Utilizing Care Coordination to Augment Provider-based Screening & Counseling

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Background

Adults with HIV (PWHA) are 2-3 times more likely to smoke cigarettes than the general U.S. adult population (42.4% vs 15.1%, respectively).[1,2] Data suggests various factors contribute to higher smoking prevalence among PWHA, including lower socioeconomic status, previous or concurrent drug and alcohol use, age, education level, and co-existing depressive symptoms. For PWHA, smoking is associated with a decreased response to ARVs and serious health effects, including higher risks for cancer; COPD; heart disease; stroke; and other HIV-related infections.[3]

Research suggests that social support and a multidisciplinary approach to cessation may improve cessation results.[4] During medical visits, primary care providers (PCPs) have a unique opportunity to prescribe and promote brief, yet effective, smoking cessation interventions, including Nicotine Replacement Therapy, and Ryan White Care Coordination (RWCC) staff – trained in Health Education, Harm Reduction, and Motivational Interviewing – are equipped to augment providers' tobacco-use screening/counseling.

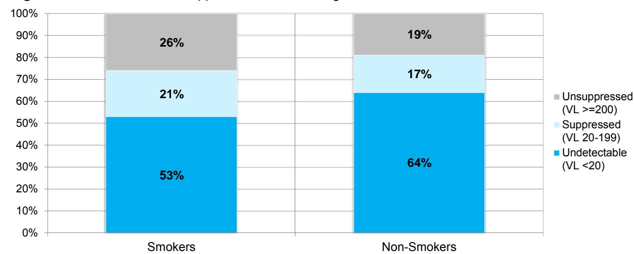
Problem

As of 3/1/17, 44% of active RWCC clients (279/639) were 'current smokers,' ranging from 41%-48% by IAM clinic. This prevalence is much higher compared to all HIV+ clients at the IAM (33%; [26%-41%]).

Figure 1: Smoking rates across populations.

Additionally, data suggests a correlation between Smoking Status and Viral Load Suppression for RWCC-enrolled IAM clients. Notably, those who smoke are more likely to be unsuppressed (VL>200) and less likely to be undetectable (VL<20).

Figure 2: RWCC Viral Load Suppression Rates among smokers and non-smokers.



Lastly, though Tobacco Cessation was added as a RWCC Health Promotion (HP) topic in 2015, only 23% of RWCC clients who smoke received the HP.

Reasons for Low Utilization of Tobacco-specific Health Promotion

- Outside of manual review of Intake/Reassessments, no standard way of tracking smoking status of RWCC clients
- No canned report exists to extract smoking behavior from eSHARE data, this requires an onerous data request from DOHMH
- A tobacco health promotion module was never created by DOHMH

Aim

The overall aim of this QI project was to improve the percentage of 'current smokers' who received Tobacco Counseling with RWCC staff, which was defined as completion of a new Tobacco Questionnaire, a tobacco cessation HP session, and a tobacco-specific case conference with clients' PCPs.

Methods & Goals

IAM's RWCC Tobacco Cessation QI Project was implemented over two PDSA cycles and included a three-pronged approach:

1) Targeted screening of clients' tobacco use
2) Personalized health education
3) Multidisciplinary tobacco-use counseling

PDSA Cycle 1 (June 2016-February 2017)

- Formation of QI Committee-unifying staff across three IAM RWCC programs
- Creation of a new Tobacco Cessation Health Promotion module
- Development of a Tobacco Cessation Questionnaire assessing history of smoking/cessation behavior and readiness to quit/reduce tobacco use
- Conduct case conferences with PCPs to share information gathered during counseling sessions

PDSA Cycle 2 (March 2017-August 2017)

- Simplified Tobacco Cessation Questionnaire, including improved Visual Analog Scale measuring readiness to quit/reduce tobacco use

Goals PDSA Cycle 2

1) ≥30% of smokers will complete 1 Questionnaire (8/1/16-8/31/17)
2) ≥50% of smokers will receive 1 Tobacco HP (3/1/17-8/31/17)
3) RWCC staff will conduct a Case Conference with PCP for ≥75% of clients who receive HP or complete Questionnaire (3/1/17-8/31/17)

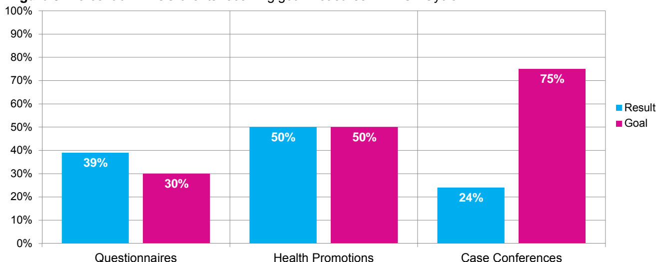
HP delivery and Questionnaire completion were tracked in eSHARE. Case Conferences with PCPs were documented in the hospital EMR. Monthly reports were pulled from both systems and sent to RWCC staff to direct progress toward project goals.

Results

At the end of PDSA Cycle 2:

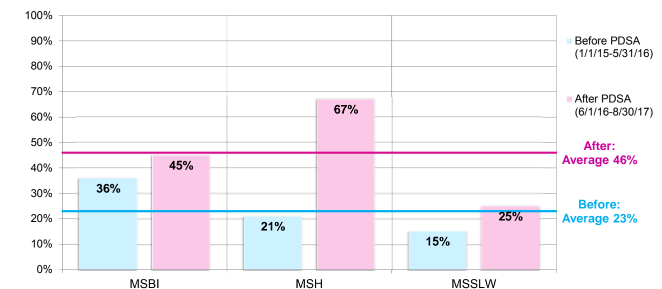
- **39%** of eligible RWCC clients completed a Questionnaire, meeting and exceeding our goal of 30%;
- **50%** received a Tobacco HP, meeting our goal of ≥50%;
- **24%** received a Tobacco Case Conference, falling significantly short of the initial goal of ≥75%.

Figure 3: Percent of RWCC clients receiving goal measures in PDSA Cycle 2.



Over the course of both PDSA cycles, the rate of RWCC clients who smoke receiving tobacco HP increased at every clinic site, doubling overall on average, and tripling at MSH.

Figure 4: Percent of RWCC clients receiving Tobacco HP, before and after QI project.



Conclusions & Next Steps

Possible Reasons for Under-Performance

- The percent completion rates of all three project indicators were inversely proportional to staff turnover, suggesting that QI efforts are most successful when programs have stable staffing and sufficient supervisory time to review progress. The MSBI and MSSLW programs experienced turnover in the PN and CC roles, leading to under-performance in all three project goals. Comparatively, the MSH program was more consistently staffed, leading to surpassed HP and Questionnaire goals, but falling short of the case conference goal.
- 69% of RWCC tobacco-using clients have a history of substance use; many reported using tobacco as a harm reduction technique, and as such, were unwilling to discuss their tobacco use further. Some PNs noted that they did not complete a Case Conference when a client reported being unready to quit or reduce tobacco use.

Other Lessons Learned

- Among those clients who were motivated to quit/reduce tobacco, RWCC staff often covered the tobacco HP multiple times. This suggests that this HP topic can be valuable throughout the often arduous cessation process.
- Preliminary Questionnaire data suggests that RWCC clients are likely to be in Pre-contemplation or Contemplation when considering quitting tobacco while being in Preparation/Action for tobacco reduction.
- Given the high frequency of client encounters in RWCC, staff often reported having more accurate information about clients' smoking habits than what was known to their PCP or captured in the EMR.

Next Steps

- The RWCC QI Committee will devise a strategy that ensures RWCC clients who smoke receive targeted tobacco counseling as a standard of care.
- Significant psychosocial and medical data are available to RWCC programs via eSHARE and the EMR. Future QI projects should explore how to ensure that HP sessions align better with clients' needs and behaviors.
- RWCC programs will further examine Smoking Status and VL Suppression.

Acknowledgements

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1) Centers for Disease Control and Prevention. Burden of Tobacco Use in the U.S. https://www.cdc.gov/tobacco/campaign/tips/resources/data/cigarette-smoking-in-united-states.html [last updated 2017 June 20; accessed 2017 Oct 2]. 2) U.S. Department of Health and Human Services. AIDS.gov: HIV and Smoking. https://www.hiv.gov/hiv-basics/staying-in-hiv-care/other-related-health-issues/smoking. [last updated 2017 May 15; accessed 2017 Oct 3]. 3) Kwong, J., & Bouchard, K. (2010). "Smoking cessation for persons living with HIV: A review of currently available interventions." *Journal of the Association of Nurses in AIDS Care*, 21(1): 3-10. 4) Centers for Disease Control and Prevention. Best Practices for Comprehensive Tobacco Control Programs – 2014. https://www.cdc.gov/tobacco/stateandcommunity/best_practices/index.htm. [last updated 2014 April 24, accessed on 2017 Oct 3].