

# Smoking cessation in an urban HIV clinic

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## Abstract

The morbidity and mortality caused by AIDS for people living with HIV (PLWH) has significantly decreased due to advances in antiviral therapy, but lung cancer continues to burden this population. More than 40% of PLWH used tobacco in 2016 which was greater than the national rate of about 14%, prompting effective interventions to reduce these modifiable risk factors. We conducted a retrospective study of smoking cessation in PLWH at the Partnership Comprehensive Care Practice, Division of HIV/AIDS at DUCOM. We aimed to evaluate whether the frequency of contact with the clinic nurse would be associated with successful smoking cessation at 12 weeks and 24 weeks after starting the program.

## Introduction

- Lung cancer is the most common non-AIDS-related cancer among PLWH, occurring at a younger age and after shorter exposure to cigarettes compared to the general population. [2]
- Combined pharmacotherapy and behavioral support interventions are effective in achieving tobacco cessation in the general population. [3]
- These smoking interventions need to be tailored for use in PLWH, because the group faces significant barriers to smoking cessation compared to the general population. [4]
- There are limited studies of smoking cessation interventions that have been conducted with PLWH. One randomized trial demonstrated that the success of varenicline is highly dependent on adherence; therefore, more studies are needed to explore ways to improve adherence. [5]
- Our study aims to contribute to current knowledge by determining whether close smoking cessation follow-ups with a clinic nurse will be associated with improved quit rates in PLWH.

## Methods

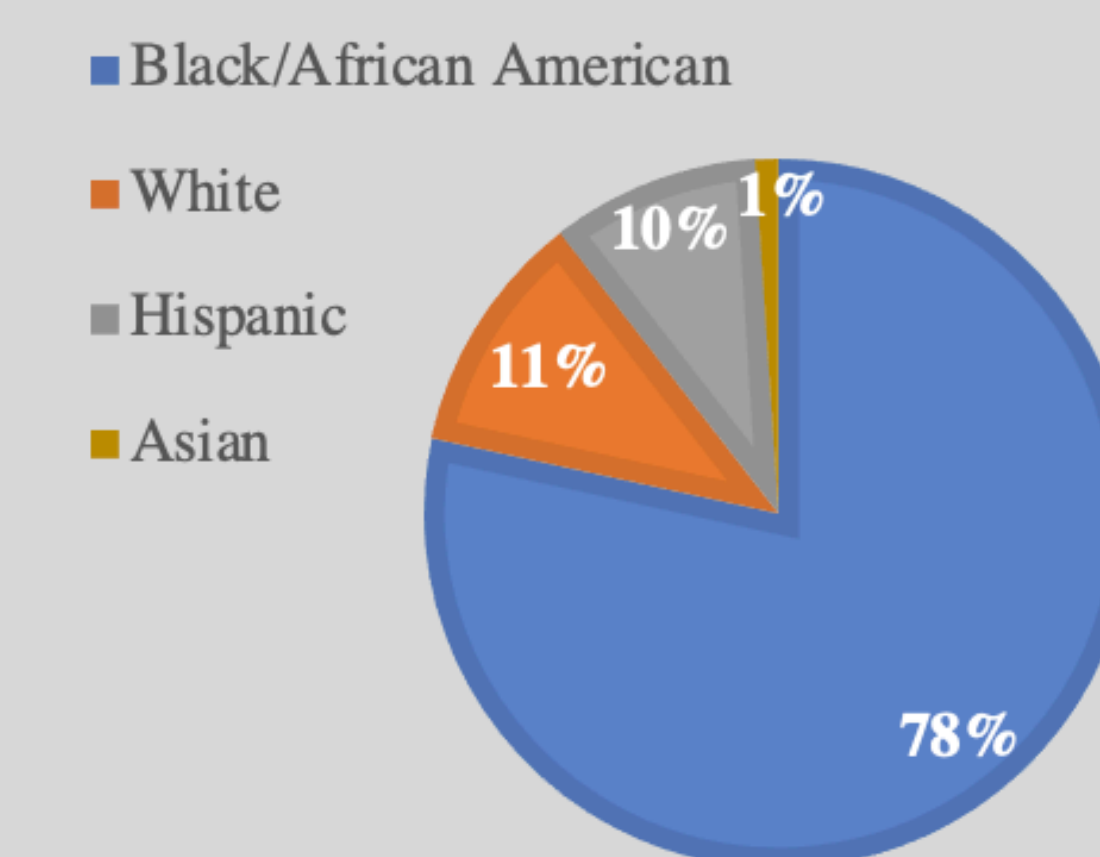
Retrospective chart review assessed PLWH prescribed SC medications in 2019 at Partnership Comprehensive Care Practice (PCCP) of Drexel University, an HIV urban clinic. Providers could refer patients to a trained RN for weekly SC follow-ups starting in 2019. We compared patients followed by the RN and physicians to patients who only saw their physician on whether they quit smoking or reduced cigarettes. Data collection conducted through Research Electronic Data Capture database. Data analyzed through R programming language.

## Results

### PCCP Demographics of the 1681 patients that were seen in 2019...

Gender	Total	Col. %	Ages 18 - 24	Ages 25 - 44	Ages 45 - 64	Age 65+
Male	1094	65.1	16 (72.7%)	455 (66.8%)	525 (62.1%)	98 (73.7%)
Female	587	34.9	6 (27.3%)	226 (33.2%)	320 (37.9%)	35 (26.3%)
<b>Total:</b>	<b>1681</b>	<b>100.0</b>	<b>22 (1.3%)</b>	<b>681 (40.5%)</b>	<b>845 (50.3%)</b>	<b>133 (7.9%)</b>

### RACE/ETHNICITY



274 (16.3%) of PCCP patients were prescribed smoking cessation medication.

		Reduced N=55	Not reduced N=53	p-value
<b>Gender</b>	Male	35 (63.3%)	29 (54.7%)	P = 0.45
<b>Race</b>	Black	44 (80.0%)	43 (81.2%)	p = 0.97
<b>Age</b>		54.0 (41.0, 59.0)	53.0 (48.0, 57.0)	p = 0.71
<b>Medication</b>	Chantix	14 (25.5%)	9 (17.0%)	p = 0.19
	Nicotine	24 (43.7%)	32 (60.4%)	
<b>Referral to RN</b>	Yes	30 (54.4%)	17 (32.1%)	p = 0.055
	No	25 (45.6%)	33 (62.3%)	
<b>CD4+</b>		119.0 (64.5, 164.0)	106.0 (44.0, 152.0)	P = 0.39
<b>Viral load</b>	< 20	37 (67.2%)	32 (60.4%)	P = 0.59

## Discussion

274 patients at PCCP were prescribed SC medication, which included nicotine replacement, Chantix (varenicline), or bupropion. There were 60 exclusions resulting in 214 total observations. 117 patients had follow-up data available at 24 weeks, of which 47 (40.2%) patients were referred to the RN. Of the patients with data at 24 weeks, 11 (23.4%) patients quit smoking with the RN versus 8 (11.4%) patients who were not referred with an odds ratio of 2.4, 95% CI (0.9, 6.62), p=0.13. Overall, 30 (63.8%) patients reduced or quit smoking at 24 weeks with the RN compared to 25 (43.1%) patients not referred with an odds ratio of 2.5, 95% CI (1.06, 5.95), p=0.055.

## Conclusions

Despite providers addressing SC, prescribing appropriate therapy, and having an RN available, only 9% of 214 patients quit smoking at 24 weeks. Although the association between weekly follow-ups with the RN and reduced smoking trended toward significant, new strategies are needed for sustained smoking cessation. Limitations of our study included varying documentation by providers.

## References

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