

Community Health Program Planning 2011 – Field Action Report

Optimus Healthcare: Smoking Cessation and HIV in a Connecticut-based Community Health Center

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Background

The high rate of smoking among HIV/AIDS patients is a particularly important concern given negative health effects associated with cigarette consumption in people living with HIV/AIDS (PLWHA). Smoking increases the risk of HIV-related complications including cancer, cardiovascular disease, oral complications, and various pulmonary diseases. Smoking cessation can significantly decrease the risks of cardiovascular disease among HIV patients. Despite these findings, there have been few programs that target smoking cessation within a specific HIV patient population. Optimus Health Care, the largest community health center network in Connecticut, provides care to over 350 HIV patients through their Ryan White Department (RWD). Optimus does not currently have a smoking cessation program for their RWD clients, but have determined that this should be a priority. This project was intended to provide research and baseline data on Optimus Health Care's HIV/AIDS smoking population to help guide future development of a smoking cessation program.

Objectives

This project had four main objectives:

1. **Complete literature review** from reputable sources that will inform the work of the project.
2. **Perform chart review** of all available HIV/AIDS patient charts to gather community health center site-specific information on demographics, smoking behaviors, and smoking records.
3. **Develop and conduct telephone survey** to assess smoking behaviors, motivations to quit, and preferences for interventions among Optimus RWD patients.
4. **Integrate results of literature review, chart review, and questionnaire to make recommendations for Optimus** around future smoking cessation interventions for their HIV/AIDS patients.

Methods

Chart Review: 357 HIV+ patient charts were reviewed in Bridgeport (Barnum and Park City), Stamford, and Stratford, CT. Data collected included medical record number, sex, race, ethnicity, smoking status, smoking frequency, and the most recent year the smoking status was documented.

Survey: 43 surveys were completed. Optimus case managers attempted telephone contact with 70 of the 105 identified HIV+ smokers in the Optimus Bridgeport-based HIV+ population. Of these 70, 20 were unreachable, 4 refused to participate, and 3 were incarcerated for a final response rate of 61%. The survey addressed seven main components of smoking and smoking cessation, including (1) general smoking information and past attempts at smoking cessation, (2) attitudes towards smoking as it related to the patient's HIV status, (3) nicotine dependence using the Fagerstrom Test for Nicotine Dependence, (4) overall willingness to quit smoking, (5) intrinsic and extrinsic motivators to quit smoking, (6) reasons that smokers may not want to quit, and (7) preferred smoking cessation methods. Data was exported into Excel and SAS for analysis.

Key Findings/Results

Chart Review

- *Demographics:* Average age of patients was 45.6 years. 59% of the population was Male. 48% of the population was Black. 47% of population was Hispanic.
- *Smoking Status:* Prevalence of smoking was found to be 45%. Percentage of smokers varied widely across community health center sites: 24% at Stratford, 40% at Stamford, 45% at Park City, and 52% at Barnum.
- *Smoking Frequency:* Among smokers, patients smoked an average of 12.2 cigarettes per day. The median smoking frequency was 10.0 cigarettes per day.
- *Smoking Documentation in Charts:* 13% of charts did not document tobacco use. 50% of charts reviewed had documented tobacco use within the last year.
- *Smoking burden:* Four groups were identified as contributing almost 60% of the smokers, when smokers were analyzed by age, race, and gender: (1) Black Males age 45-64, (2) Black Females age 45-64, (3) Hispanic Males age 45-64, (4) Hispanic Males age 25-44.

Smoking Burden*

Race Age Groups	White		Black		Hispanic		Other	
	Male	Female	Male	Female	Male	Female	Male	Female
13-24	0.00%	0.00%	0.64%	0.64%	1.28%	0.00%	0.00%	0.00%
25-44	4.49%	1.92%	5.13%	4.49%	14.74%	5.13%	0.64%	0.64%
45-64	7.05%	5.13%	16.67%	14.10%	14.74%	8.97%	0.64%	0.00%
>65	0.00%	0.00%	0.00%	0.00%	0.64%	0.00%	0.00%	0.00%
Total	11.54%	7.05%	22.44%	19.23%	31.41%	14.10%	1.28%	0.64%

*Note: Disease Burden was calculated as number of smokers in the demographic/ number of total smokers. There were 156 smokers identified in charts that were reviewed. Disease Burden over 10% are shown in bold.

- *Prevalence of smoking:* Seven groups were identified as having at least 50% prevalence of smoking, when smokers were analyzed by age, race, and gender: (1) White males ages 25-44, (2) White females ages 25-44, (3) White females ages 45-64, (4) Black Males age 45-64, (5) Black females ages 13-24, (6) Hispanic males ages 13-24, and (7) Other males ages 45-64.

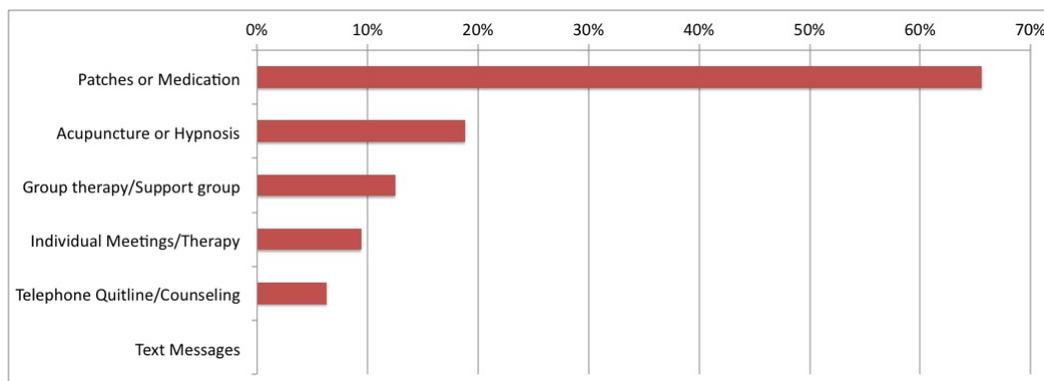
Prevalence*

Race Age Groups	White		Black		Hispanic		Other	
	Male	Female	Male	Female	Male	Female	Male	Female
13-24	0.0%	0.0%	25.0%	50.0%	66.7%	0.0%	0.0%	0.0%
25-44	57.1%	66.7%	38.1%	28.0%	43.4%	47.1%	50.0%	50.0%
45-64	45.5%	75.0%	54.2%	42.3%	41.1%	41.2%	100.0%	0.0%
>65	0.0%	0.0%	0.0%	0.0%	33.3%	0.0%	0.0%	0.0%
Total	50.0%	72.7%	46.7%	37.5%	42.6%	42.3%	66.7%	33.3%

*Note: Prevalence was calculated as number of smokers in a certain demographic / number of RWD patients in the same demographic. Patients without documentation of smoking status were counted as non-smokers. Thus these prevalence estimates are a minimum

Survey

- **Smoking Behavior:** 74.4% of respondents smoke cigarettes every day. 54.3% have tried to quit smoking for more than 24 hours (most for less than one month).
- **Smoking Burden:**
 - 45.7% felt that smoking is a bigger burden in their life than HIV/AIDS on a daily basis.
 - 40.0% of respondents answered that the statement “*smoking helps me cope with having HIV/AIDS*” is always true.
 - 71.4% of respondents answered that the statement “*I need to quit smoking to live as long as I can with HIV/AIDS*” is always true.
 - 45.7% of respondents answered that the statement “*Living with HIV/AIDS is too stressful to consider trying to quit smoking right now*” is always true.
- **Motivations to Quit:** Most common responses to level of motivation to quit smoking were moderate (5 on a scale of 1 to 10), with 9 people (21%), and high (10 on the same scale), with 10 people (23%). Seventy five percent of respondents ranked motivation as 5 or higher.
- **Nicotine Dependence:** 45.7% of respondents were scored in the High or Very High levels of the nicotine dependence scale. There is significant association between gender and nicotine dependence level; males are more likely to have higher nicotine dependence levels than females at the .05 significance level ($p = 0.0352$).
- **Smoking Cessation Preferences:** The four most popular cessation methods were: (1) nicotine patches and medication (65.6% interest), (2) acupuncture or hypnosis (18.8% interest), (3) group therapy or support group (12.5% interest), and (4) individual meetings with social worker or individual therapy (9.4% interest).



Conclusions and Recommendations

These results provide an initial description of attitudes toward smoking and smoking cessation within Optimus' RWD Bridgeport population. Five recommendations for a future smoking cessation program are as follows:

1. **Target the four sub-groups identified as high-risk groups:** A smoking cessation intervention should target the subgroups with the highest prevalence of smokers: (1) Black Males age 45-64, (2) Black Females age 45-64, (3) Hispanic Males age 45-64, and (4) Hispanic Males age 25-44 will be most effective.
2. **Systematize tobacco use documentation:** Observations of missing and outdated tobacco use documentation in patient charts should inform future efforts to create a standardize tobacco-use documentation system.
3. **Recognize differences in motivation and dependence:** Although a majority of patients are motivated to quit (75% rated their motivation “5” or higher), there is also a significant population with less motivation. Differences in nicotine dependence, including that men have higher nicotine dependence, should be taken into account when designing an intervention.

4. **Emphasize HIV/smoking interaction in education:** The fact that 77% of respondents listed health risks as reasons to quit smoking indicate that most patients are knowledgeable about the health risks of smoking. However, half of respondents thought that HIV/AIDS would kill them before smoking, which means that patients could use further education on how being a smoker impacts your health as an HIV patient.

5. **Include nicotine patch and medication in smoking cessation strategy:** There is a demonstrated interest in medically-based smoking cessation strategies; therefore, nicotine patches and medication should be a vital component to Optimus' overall smoking cessation strategy for their HIV/AIDS population.

Limitations

The project had three main limitations. One limitation is that the survey sample size was extremely small (only 43 surveys completed). A second limitation is that survey respondents were not selected at random. A third weakness was survey design. Only 1 of 7 sections consisted of a validated questionnaire. Furthermore, validity of the survey may have been compromised in the translation process due to lack of professional translation and back-translation. Unfortunately, many of these limitations were determined by project resource constraints.

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Resources

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