Policy Brief | Addressing Smoking Cessation among People Living with HIV (PLWH)

Executive Summary. The Michigan Department of Community Health [MDCH] is working to comprehensively address the high rates of smoking among people living with HIV [PLWH] and smoking’s extreme negative health impact on this population. To inform MDCH’s approach, this policy brief describes the public health problem. Informed by literature reviews, key stakeholder interviews, and national best practices, recommendations for specific, state-initiated strategies are proposed. These strategies emphasize improving state surveillance systems, consumer and provider awareness, and access to cessation services. Overall, this broad range of proposals allows MDCH to build community knowledge, influence program and state policy, and effectively engage providers and consumers in addressing this problem.

Public Health Problem. Smoking among PLWH is a major public health concern--due to its high prevalence and its extreme negative impact on health and mortality. The prevalence of tobacco smoking among PLWH is 2-3 times higher than among the general population. According to a national surveillance study, the Medical Monitoring Project, 67% of PLWH in Michigan smoke, compared to the state average of 23%.1

Health Risks of Smoking for PLWH. PLWH are disproportionately affected by smoking in terms of morbidity, mortality, and productively; smoking independently reduces life expectancy for PLWH by 12.3 years compared to PLWH who do not smoke.2 Since the HIV virus attacks the body’s immune system, PLWH who smoke are at an even higher risk for tobacco-related conditions than smokers who are not HIV-positive. These conditions include various types of cancers, pneumonia, oral candidiasis, and emphysema.2,3 Smoking has also been shown to accelerate the progression to Stage 3 HIV--known as AIDS.4 For PLWH taking antiretroviral drugs, smoking can have an additional detrimental effect by: (1) Reducing the effectiveness of HIV medications; (2) Increasing the likelihood of complications from medications; (3) Increasing the risk of heart disease, heart attack, or stroke.5

Importance of Focusing on Cessation. In addition to the severe health impacts of smoking, HIV providers and key stakeholders should prioritize cessation efforts among PLWH for several reasons:
- Quitting smoking before the age of 40 reduces the risk of dying from smoking related disease by approximately 90%.5
- Clinician intervention studies indicate that sessions as brief as 3 minutes have a positive impact on abstinence rates for current smokers.6
- Like the general population of smokers, the majority of PLWH who smoke want to quit. In one study of 123 HIV patients who smoked, 63% expressed interest in quitting.7

Evidence-Based Tobacco Cessation Strategies. There is significant evidence supporting behavioral, pharmacotherapy, and environmental smoking cessation interventions that can be integrated into the care and treatment regimens of HIV-positive individuals:
- 5 A’s of Brief Smoking Interventions. This method is conducted by a provider as part of a brief but essential smoking cessation intervention (3-10 minutes) for patients identified as smokers, and is meant to initiate a discussion about smoking, create an action plan, and arrange follow-up.13,14
- Motivational Interviewing. This more intensive form of counseling can last up to an hour and is directed towards patients who are not ready to quit smoking. The provider emphasizes the 5 R’s of smoking cessation: relevance, risks, rewards, roadblocks, and repetition.13
- Quitlines (Telephone and Text Messaging). Intervention studies that have piloted proactive phone counseling and text message counseling for smoking cessation have demonstrated significantly higher abstinence rates at 6 months.15,16
- Online Cessation Program. Computer-tailored smoking-cessation programs generally demonstrated promising effectiveness. Positively Smoke Free is an 8-week, web-based pilot program that addresses topics such as coping with comorbid conditions, pharmacotherapy, and finding appropriate social support.17,18
- NRTs. Nicotine replacement therapies [NRT] provide a low dose of nicotine to reduce individual’s withdrawal symptoms. NRTs include gum, transdermal patch, and prescription pills. All forms of NRTs have been found to positively increase successful quit attempts by up to 50%.19
- Combined Approaches. As established in the research literature, pairing a behavioral support
component with nicotine replacement therapy has proven most successful. At every medical encounter, all smokers should be offered smoking cessation counseling.\(^\text{14}\)

- **Smoke-Free Air Laws.** To date, research supports that smoke-free air and campus policies have the potential to positively impact smoking prevalence, successful quit attempts, and adverse health outcomes like acute myocardial infarction.\(^\text{20,21}\)

**Challenges to Smoking Cessation for PLWH.** Despite the high prevalence and health risks involved, there are significant barriers to smoking cessation efforts from the perspective of HIV-positive consumers, HIV providers, and health departments:

- **HIV Consumers:** (1) Lack of knowledge about the health effects of smoking on disease progression and available free or low-cost cessation services\(^\text{8}\); (2) Smoking can be used as a coping mechanism to deal with the stress, anxiety, and depression often caused by living with HIV/AIDS\(^\text{3}\); (3) PLWH are often dealing with comorbid psychiatric and substance use issues that can increase nicotine dependence and negatively impact readiness to quit.\(^\text{9,10}\)

- **HIV Providers:** (1) Lack of awareness among HIV providers of their patients smoking status; (2) Lack of HIV provider training on smoking cessation strategies and lack of access to existing free or low-cost cessation services\(^\text{5}\); (3) HIV providers face many competing patient priorities (e.g. retention in medical care, viral load suppression, patient socio-economic concerns and other comorbidities).

- **Health Departments:** (1) Targeting tobacco control efforts to PLWH requires cross-collaboration between two sections in a health department that have traditionally not worked together in the past – the Tobacco Control and HIV Care Sections. This new partnership requires increased and constant communication; (2) The available Michigan budget for tobacco control and cessation support is 2.1% of the CDC recommendation.\(^\text{11}\)

Effective strategies need to appropriately respond to these consumer, provider, and system-level barriers.

**Key Stakeholders for Addressing Smoking among PLWH in Michigan.** With services for PLWH provided by a variety of different organizations, smoking cessation efforts involve interdisciplinary participation. Key organizations that should be involved in the implementation of these recommendations include:

- Departments within MDCH and local health departments of interest: Tobacco Control Section and HIV/AIDS Care Section
- HIV advisory and planning groups: Michigan HIV/AIDS Council (MHAC) and Southeastern Michigan HIV/AIDS Council (SEMHAC)
- HIV service organizations: HIV/AIDS Resource Center (HARC), Lansing Area AIDS Network (LAAN), local clinics with HIV providers
- Other community-based organizations and educational institutions: The AIDS Education and Training Center at Wayne State University and other organizations invested in this issue

**Strategies and Recommendations.** Informed by existing research evidence, discussions with key stakeholders, and national best practices, preliminary recommendations to MDCH are organized into four target areas:

- Improve state data on smoking prevalence among PLWH across time
- Increase awareness of this issue among providers and consumers
- Improve access to existing cessation services available within Michigan
- Pilot specific interventions within a subset of HIV programs

These strategies vary in their scope, reach, and required resources for implementation and maintenance.

**Improve Prevalence Data.** Across the state, there is insufficient prevalence data on smoking among PLWH. This information needs to be collected to better determine the scope of the problem and to support prioritization efforts and funding allocation by key stakeholders and policy makers. Two near-term approaches to enhance surveillance include:

- **Increase prevalence data captured through CareWARE:** Use CareWARE reporting software, currently used by all HIV clinical and supportive services receiving Ryan White funding, to capture smoking status of PLWH. This data field is currently available but not mandated or reliably completed by providers. MDCH HIV program staff will determine if this field should be mandated or if strong
recommendations alone can positively alter the frequency with which this information is collected and acted upon.

- **Collect data on quit attempts and methods through the Medical Monitoring Project:** Expand information collected through the Medical Monitoring Project (MMP) survey. While the MMP assesses current smoking status of HIV patients, additional survey questions should gauge consumer interest in cessation services and analyze utilization of existing cessation strategies. To accomplish this aim, three additional questions to amend to the MMP survey include:
  1. Have you attempted to quit smoking in the past? Number of quit attempts?
  2. How did you try to quit? (e.g., using NRT, going cold-turkey, counseling, etc.)
  3. Are you currently thinking about or interested in quitting smoking?

**Increase Awareness.** Increasing awareness of the public health problem among both consumers and HIV providers is necessary to increase prioritization of this issue in Michigan. Increasing awareness can impact the public’s knowledge of the problem and potentially influence future funding efforts as well.

General materials to be developed by MDCH to increase awareness:

- **HIV and Smoking Fact Sheet(s).** Develop a brief fact sheet and/or booklet describing the key health impacts of smoking among PLWH. MDCH can adapt these fact sheets for both provider and consumer audiences and include relevant cessation support resources.

HIV provider-specific strategies to increase awareness include:

- **Expand Provider Training.** Integrate relevant educational resources into the AIDS Education and Training Center (AETC) training materials. All Ryan White funded clinical and supportive service providers across the state undergo AETC training. Incorporating materials that clearly describe the health impact of smoking among PLWH and resources to help providers support cessation will address the barriers outlined above.

- **Engage HIV Provider Organizations Across the State.** Bring smoking prevalence data and health impact research to statewide HIV provider organizations and advisory groups. These groups are key stakeholders in clinical prioritization and funding distribution. As an initial effort, MDCH can specifically reach out to HARC in Ann Arbor and LAAN in Lansing. MDCH can also present health impact data at all the upcoming Ryan White funding stream-specific provider meetings. Provider audiences should include clinical case managers, social workers, program administrators, and clinicians.

- **Share Work with Health Professionals at Upcoming Conferences.** Submit abstracts, conduct poster presentations, and attend relevant conferences related to HIV and/or Tobacco control. These efforts will increase awareness among health professionals of the public health problem and MDCH’s interest in addressing it.

Consumer-specific strategies to increase awareness include:

- **Consumer focus groups.** Partner with a consumer HIV advocacy group within Michigan to run statewide consumer focus groups. These focus groups can address consumer identified barriers to cessation and/or barriers to accessing resources. Additionally, focus groups can identify location and population-tailored strategies. A potential partner for MDCH in this effort in the Detroit Metropolitan area is SEMHAC.

**Increase Access.** Increasing access to available smoking cessation resources within Michigan is critical to increase resource utilization among PLWH. This issue of accessibility is intertwined with lack of awareness.

- **Cessation Resource Fact Sheet.** Develop an updated, consolidated list of free and low-cost smoking cessation resources on the MDCH website. This will allow Michigan residents to easily access and learn about available free or low-cost nicotine replacement therapies, other smoking cessation medications, and social support or counseling resources.

- **Provider-Facing Website.** Develop a provider-facing website to increase Michigan provider counseling capacity and access to current cessation resources. The website should be easily maneuvered and provide behavioral and motivational interviewing strategies to approach the topic of smoking with patients. This web resource should also include current information on smoking cessation medications; since there are a variety of medications, it can be difficult for providers to keep track of brands, dosage amounts, and recommended frequency of use.

- **Marketing Materials at Point of Care.** Develop and provide consistent and updated marketing
materials on available smoking cessation programs at the point of care to increase access and utilization of these resources. Federally qualified health centers, primary care clinics, and health departments can all play a role in informing patients, particularly PLWH, of the local and national-level resources linking them to telephone, text, or online counseling, as well as to classes or smoking cessation medications.

A Pilot Approach. To support provider-level innovation and the local application of evidence-based cessation strategies, MDCH should release a request for proposals (RFP) to all Ryan White funded HIV providers to develop and implement a pilot addressing this public health issue. Results from the pilot will inform future state-level approaches and roll-out.

- **Step 1.** Identify funding sources to support pilots across the state. Potential funders to investigate include: (1) American Legacy Foundation; (2) Health Resources and Services Administration; (3) The Kresge Foundation; (4) The Community Foundation for Southeast Michigan.
- **Step 2.** Conduct a multi-stakeholder meeting to develop the specific components of the RFP and to inform providers interested in this pilot of the upcoming opportunity. While the RFP will be open to all sites across the state, identifying specific providers in areas of high HIV prevalence should be a priority. These areas include the City of Detroit, Washtenaw County, Kent County, Ingham County, and Berrien County - the local health department jurisdictions with the top 5 highest HIV rates in the state.12
- **Step 3.** Create clear RFP performance standards with stakeholder buy-in. Specific performance standards include:
  - **Target Audience:** PLWH who smoke tobacco
  - **Service Delivery Protocol:** Varied
    - Proposed interventions must be evidence-based and include both a behavioral support component and access to nicotine replacement therapy.
    - Interventions can be delivered through either/both on-site and online mechanisms; on-site cessation services could include cessation classes, one-on-one counseling, and/or cessation support groups for PLWH.
  - **Data Collection and Reporting:**
    - Monthly participation rates
    - Smoking abstinence rates should be collected and reported at 4 and 7 months
  - **Evaluation Components:**
    - Provider and consumer satisfaction with intervention program
    - Longitudinal comparison of smoking abstinence rates
- **Step 4.** Release RFP

Conclusion. Given the high prevalence and severity of health risks involved, MDCH should prioritize addressing smoking cessation for PLWH. Although there are significant barriers that must be overcome to effectively address this issue, examples of services and programs for PLWH exist across the country. The recommendations described in this report range in resource requirements, with some requiring little to no funding. MDCH’s next steps should be to convene both the Tobacco Control and HIV Care Sections to assess which strategies are feasible now, and what needs to be looked into in further detail.

This policy memo was developed by Meredith Baumgartner, Sana Syal, and Sonia Zhang-MPH candidates at the University of Michigan School of Public Health.

**Sources.**


