

IMPLEMENTING TOBACCO CESSATION TREATMENT FOR INDIVIDUALS WITH SERIOUS MENTAL ILLNESS:

A QUICK GUIDE FOR PROGRAM DIRECTORS AND CLINICIANS

Why Implement Tobacco Cessation Treatment for Individuals with Serious Mental Illness (SMI)?

• Individuals with SMI die several years earlier compared to those without mental illness, and smoking is a major contributing factor. Quitting tobacco use would substantially reduce high rates of morbidity and mortality due to cancers, cardiovascular conditions and respiratory diseases among individuals with SMI.

• Quitting smoking is one of the most important choices that one can make at any age. The physical health benefits begin almost immediately and grow over time.

• Quitting smoking has been found to have mental health benefits such as reduced depression, anxiety, and stress, as well as increased positive mood and quality of life.

• Tobacco use can interfere with psychiatric treatment, in part because some components of tobacco smoke accelerate the metabolism of most antipsychotic medications; as a result, therapeutic levels of drugs established in smoke-free hospitals become sub-therapeutic when clients resume smoking on discharge.

• Quitting smoking can increase clients' sense of mastery, helping them focus on taking additional steps toward a positive lifestyle.

Call to Action

1. Do you work in a mental health treatment facility such as a residential treatment program, or an outpatient treatment program?

2. Do you want to take action to reduce the use of tobacco products and tobacco-related diseases among your clients with SMI?

If you answered "yes" to these two questions, this guide can help you implement a tobacco cessation program for individuals with SMI. This objective will require staff time and resources, and it may also require a culture shift within your agency. It is worth the investment, however, because of the clear benefits that will accrue to your clients, their families, and your staff.

Overview of the Problem

• **Cigarette smoking is widespread among individuals with SMI.** The prevalence of smoking among individuals with SMI is nearly twice that of the general U.S. population -- 35.5 percent vs. 18.6 percent (SAMHSA, 2018). Individuals with SMI smoke more cigarettes, smoke more intensely, have greater nicotine dependence, and experience greater withdrawal symptoms when attempting to quit (McClave et al, 2010).

• Smoking shortens life expectancy among persons with SMI. Individuals with SMI die several years earlier, on average, compared to individuals without mental illness, and smoking is a major contributing factor. Fifty percent of deaths among individuals with SMI are due to cardiovascular conditions, cancers, and respiratory diseases, conditions that can be caused and/or worsened by smoking (Olfson et al, 2015; Callaghan et al, 2014; Kelly et al, 2011).

• Less than half of all mental health treatment facilities offer tobacco cessation services. In 2017, only 39 percent of mental health treatment facilities in the United States provided cessation counseling. Only about 25 percent of these facilities offered nicotine replacement therapy and/or other tobacco cessation medications. Furthermore, only one-half of mental health treatment facilities had smoke-free policies both inside and outside their facilities (SAMHSA, 2017). Providing clients who smoke with cessation counseling and medication significantly increases their odds of quitting, especially when they are provided together (Das and Prochaska, 2017; Tidey and Miller, 2015).

• Individuals with SMI who smoke want to quit, and can be successful in quitting. Research confirms that individuals with SMI who smoke are as likely as the general population to want to quit smoking, and are able to quit when a tailored tobacco cessation intervention is integrated into their mental health treatment. Individuals with SMI who smoke are as ready to quit as those without SMI, and can do so without jeopardizing their mental health recovery (Prochaska, 2011; Gilbody et al, 2019).

Adverse Impact of Tobacco Use on Mental Health

• Heavy smoking is a significant risk factor for major depression. Depression is twice as common in smokers compared to nonsmokers, and four times as common in heavy smokers (Klungsoyr et al, 2006). In fact, heavy smoking has been reported to predict the onset of major depression (Khaled et al, 2012).

• Daily tobacco use is associated with an increased risk of psychosis and an earlier age at onset of psychotic illness. The overall prevalence of smoking in individuals having their first episode of psychosis was three times higher compared to non-smokers (Gurillo et al, 2015). Individuals with first-episode psychosis have a high prevalence of tobacco use compared to non-smokers, having smoked for approximately 5 years on average prior to the onset of psychosis, with daily smoking predicting more psychotic episodes (Myles et al, 2012; Bhavsar et al, 2018).

• **Tobacco use is significantly associated with increased suicidal behavior.** Studies have found current smoking to be significantly associated with suicide ideations, suicide attempts, and completed suicides (Evins et al, 2017; Han et al, 2017). In fact, longer lifetime smoking (>40 years vs. <10 years) was associated with a two-fold higher odds of suicide (Balbuena and Templer, 2015).

• **Tobacco use can interfere with psychiatric treatment.** Smoking affects medication levels of several psychotropic medications. Components of tobacco smoke accelerate the metabolism of certain psychiatric medications, resulting in lowered blood levels and the need for higher medication doses (Prochaska, 2011). In addition, tobacco smoke also impacts the metabolism of medications used to treat opiate use disorder, such as methadone (Wahawisan et al, 2011). This chart shows drug interactions with tobacco smoke: *https://smokingcessationleadership.ucsf.edu/sites/smokingcessationleadership.ucsf.edu/files/Documents/FactSheets/Drug%20Interactions%20with%20Tobacco%20Smoke.pdf.*

Benefits of Providing Tobacco Cessation Interventions

• **Tobacco cessation is associated with positive mental health outcomes.** A meta-analysis of 26 studies found that smoking cessation was associated with reduced depression, anxiety, and stress, as well as improved positive mood and quality of life when compared with continuing to smoke (Taylor et al, 2014). The meta-analysis found that "the effect sizes are equal or larger than those of antidepressant treatment for mood and anxiety disorders." In addition, studies have shown that neither a reduction in smoking nor use of smoking cessation medications such as varenicline appear to result in a worsening of psychiatric symptoms in individuals with stable, treated SMI (Evins et al, 2015).

• **Tobacco cessation at any age is associated with physical health benefits.** Quitting smoking is one of the healthiest choices any smoker can make. Quitting has the following immediate and long-term benefits of quitting smoking:

- o Within 2 weeks to 3 months of quitting, the chance of having a heart attack begins to drop. Lung function begins to improve.
- o Within 1 to 9 months, coughing and shortness of breath decrease.
- o Within 1 year of stopping smoking, the risk of coronary heart disease is half that of a smoker.
- o Within 2 to 5 years, the chance of having a stroke is reduced to the same as that of a non-smoker.
- o Within 10 years, lung cancer risk is half that of a smoker, and
- o Within 15 years, the risk of coronary heart disease is the same as those who never smoked (CDC, 2014).

Implementation of Tobacco Cessation Treatment

• Identification, counseling, and medication are evidence-based practices to treat tobacco **dependence.** The combination of medication and counseling is more effective at treating tobacco use and dependence than either treatment alone. Clinicians should encourage all individuals attempting to quit to use both counseling and medication (Fiore et al, 2008).

• **Tobacco cessation treatment includes five key steps.** Train all members of the healthcare team in the 5A's model (Ask, Advise, Assess, Assist, and Arrange) for treating tobacco use and dependence. Healthcare Teams: Identify and treat every tobacco user seen in a mental health program using the 5A's model as recommended in the Clinical Practice Guideline Treating Tobacco Use and Dependence, developed by the Public Health Service of the Department of Health and Human Services (Fiore et al, 2008), as follows:



ASK about tobacco use. Identify and document tobacco use status for every client at every visit.

ADVISE to quit. In a clear, strong and personalized manner, urge every tobacco user to quit.

ASSESS willingness to make a quit attempt. Is the client willing to make a quit attempt at this t time?

ASSIST in quit attempt. For the client willing to make a quit attempt, offer medication and provide or refer for counseling or additional treatment to help the client quit. For clients unwilling to quit, provide interventions designed to increase future quit attempts (e.g., motivational interviewing).

ARRANGE follow-up. For the client willing to make a quit attempt, arrange follow-up contacts, beginning with the first week after the quit date. For clients unwilling to make a quit attempt, address tobacco dependence and willingness to quit at their next clinic visit.

Counseling. Tobacco cessation counseling can be delivered in individual, group, or telephone-based sessions. The effectiveness of the counseling is correlated with treatment intensity. When working with clients making a quit attempt, clinicians can offer practical counseling and social support, as described below (Fiore et al, 2008):

1. **Practical counseling** (problem solving/skills training) can include conveying basic information (e.g., nicotine addiction, withdrawal symptoms, quitting techniques, including use of cessation medications). Clinicians can help clients identify high-risk situations (e.g., triggers for smoking) and practice coping strategies for when they are in a high-risk situation.

2. **Social support** delivered as part of treatment can include encouragement and expressions of caring and concern (e.g., expressing belief in the client's ability to quit, acknowledging the difficulty of quitting, and noting that support is available from others and through cessation medications). Telephone quitline counseling is effective with diverse populations and has broad reach. All states have quitlines that are staffed by trained counselors to help smokers quit. This free telephone service can be reached at 1-800-QUIT-NOW (1-800-784-8669). In addition:

- For Veterans, support is available at 1-855-QUIT-VET (1-855-784-8838) and https://www.publichealth. va.gov/smoking/quitline.asp.
- For Hispanic Americans, support is available at 1-855-DÉJELO-YA, and
- For Asian Americans, support is available at http://www.asiansmokers.quitline.org/

Smokefree.gov offers tips, plans, text messaging programs, apps for 24/7 support, and other ways to get ready to quit and be smokefree for good. Tailored information and resources are offered for smokers who are pregnant, veterans, teens, Spanish speakers, or older adults. These resources can be found at www. smokefree.gov.

Motivational interviewing (MI) can be useful for smokers who are not ready to quit or who are ambivalent about quitting. Clinicians should advise all tobacco users to quit and assess a client's willingness to make a quit attempt. For clients who are not ready to make a quit attempt, clinicians can use MI techniques to encourage quitting tobacco use. This supportive and nonjudgmental approach is based

on engaging the client; focusing on a mutually agreed-on agenda that promotes change; evoking client motivations for change; and developing a change plan (Miller and Rollnick, 2013). MI is a directed, personcentered counseling style that is effective in helping clients change their substance use behaviors. The core MI skills of asking open questions, affirming, using reflective listening, and summarizing can enhance client motivation and readiness to change. Counselor empathy, which is shown through reflective listening and evoking change talk, is another important element of MI's effectiveness, and is associated with positive client outcomes. MI has been adapted for use in brief interventions and across a wide range of clinical settings and client populations.

Smoking Cessation Medications. There are seven FDA-approved medications for smoking cessation.

Five are nicotine-replacement therapies: Nicotine patch (over the counter) Nicotine gum (over the counter) Nicotine lozenge (over the counter) Nicotine nasal spray (prescription) Nicotine inhaler (prescription) Nicotine inhaler (prescription) Two are non-nicotine medications: Bupropion (Zyban®, by prescription only) Varenicline (Chantix®, by prescription only)

Healthcare providers should check prescription labeling information of the smoking cessation drugs available at Drugs@FDA to determine if there are any potential drug interactions (e.g., some patients using varenicline experienced a decreased tolerance to alcohol) or possible risks for specific populations (e.g., women who are pregnant or breastfeeding, individuals with diabetes, heart disease, asthma, or stomach ulcers). Healthcare providers should also review the product labels for drug warnings. For details, visit Drugs@FDA at https://www.accessdata.fda.gov/scripts/cder/daf/.

Note: E-cigarettes are not approved by the FDA as a quit smoking aid. More information on e-cigarettes is available at https://www.cdc.gov/tobacco/basic_information/e-cigarettes/index.htm.

Implementation of a Tobacco-Free Environment

Having a tobacco-free workplace (a) where all tobacco products (cigarettes, cigars, smokeless tobacco, chewing tobacco, e-cigarettes) are prohibited, (b) where smoking is prohibited on all facility premises (indoors and outside), and (c) where the policies apply to clients, visitors, and employees, sends the message to staff and clients that the organization's leadership and administrators are committed to the health and wellness of everyone. It also creates a supportive environment for those who want to quit using tobacco. Two steps in establishing a tobacco-free workplace are:

1. Once you have implemented tobacco cessation programs, establish the **policies and procedures required in a tobacco-free workplace.** Tobacco-free workplace policies should be clear and concise. They should clearly explain tobacco restrictions and how the policies will be enforced.



2. **Communicate the policies to all affected parties.** The tobacco-free workplace policies should be announced and communicated to all substance abuse treatment program staff, clients, and volunteers, as well as to visitors to the facility and grounds.

While many people fear that implementing a tobacco-free environment will be very difficult, the literature suggests that these fears are largely unfounded. In fact, the subsequent outcomes after implementation are typically quite favorable for both staff and clients.

Tobacco Cessation Integration Tips. SAMHSA recommends that mental health facilities adopt policies for tobacco-free facilities and grounds and integrate tobacco treatment into the care they provide. The following tips can help to ensure successful integration of these recommendations:

• Obtain the commitment of senior leadership and management. Having the commitment and support of the Board of Directors and senior management is paramount in successfully implementing a tobacco cessation program and a tobacco-free policy. Garnering their support prior to the start of the program is essential to promote and implement the program within the organization and in the community.

• **Identify a program champion.** This individual should be a dedicated staff member who can coordinate your agency's tobacco cessation and tobacco-free policy efforts.

• Create a planning committee and involve staff. This committee will develop written policies, procedures, and an implementation plan. It should include representation from staff members across the organization and across disciplines in order to address their concerns and leverage their clinical experience. Including medical team members is important so that medications for tobacco cessation can be made available as part of treatment. The committee can also troubleshoot issues that arise during implementation.

• **Implement an office-wide documentation system.** This ensures that tobacco use status is queried and documented for every client at every clinic visit. Expand vital signs documentation to include tobacco use (see example below).

VITAL SIGNS:			
Blood Pressure:	Pulse:	Weight:	
Temperature:	Respiratory Rate:		
Tobacco Use (circle one): Current Former Nev			Never

Assist staff members who want to quit tobacco use.

Look for opportunities to celebrate success.

• Set a start date for when the new policies will go into effect. The date should be far enough in advance to allow for staff training, raising awareness about the new initiative, offering and promoting cessation services, incorporating new treatment protocols into records, obtaining tobacco-free signage, and other necessary preparations. However, the start date should not be so far in the future that momentum is lost or that commitment to implementing the new policies can wane.

• **Roll-out awareness activities.** Before and after the start date, use a variety of information channels (e.g., agency emails, staff meetings, signage, client brochures, social media) to share information on new policies, procedures, and related items. Prior to the start date of the tobacco-free policy, implement a series of countdown activities to promote the changes and build awareness.

• **Track progress.** Measure progress against objectives by collecting data on tobacco use screening, cessation treatment utilization, and tobacco use status at discharge, as well as compliance with the tobacco-free policy.

• Ensure collaboration with all members of an individual's care team. For certain medications, which may include psychotropic medications, medications to treat opiate use disorders, or some medications for physical health conditions, the levels of medication in the blood stream will shift as the individual reduces their tobacco use. It is important that all providers, including substance use providers, psychiatrists, and primary care providers, are aware that the client plans to quit using tobacco so that they can support their cessation efforts and monitor the need for changes in doses and treatments.

Conclusion

Tobacco use is widespread among individuals with SMI, and the high prevalence of tobacco-related mortality among them is well-documented. Research shows that individuals with SMI who smoke are as interested in quitting as those without SMI and can do so without jeopardizing their mental health recovery. Quitting smoking is one of the most important choices that anyone can take to improve their health, and is beneficial for both physical and mental health. Furthermore, quitting smoking can have a broader positive influence on individuals with SMI; as they learn effective skills and techniques for smoking cessation, their sense of mastery and self-efficacy to make other healthy lifestyle changes can increase as well.

Tobacco cessation treatment should be an integral part of treating individuals with SMI. There is a critical need to engage mental health program directors and clinicians in efforts to increase access to evidence-based tobacco treatment for these individuals. For the numerous reasons cited within this guide, SAMHSA recommends the adoption of tobacco-free facilities/grounds policies and the integration of tobacco cessation treatment into the care provided to clients with SMI who smoke or use other tobacco products.



Resources

Addressing Tobacco through Organizational Change (ATTOC) Approach (https://medschool.ucsd.edu/som/psychiatry/research/ATTOC/approach/Pages/default.aspx) University of California School of Medicine Provides agencies with a 10-step process for improving tobacco use disorder treatment services.

Behavioral Health and Wellness Program (www.bhwellness.org/toolkits/Tobacco-Free-Toolkit.pdf) University of Colorado Anschutz Medical Campus, School of Medicine Offers DIMENSIONS: Tobacco Free Toolkit for Healthcare Providers.

FDA 101: Smoking Cessation Products (www.fda.gov/ForConsumers/ConsumerUpdates/ucm198176.htm) U.S. Food and Drug Administration This is a consumer brochure that provides information on smoking cessation products.

Final Recommendation Statement, Tobacco Smoking Cessation in Adults, Including Pregnant Women: Behavioral and Pharmacotherapy Interventions
(https://www.uspreventiveservicestaskforce.org/Page/Document/RecommendationStatementFinal/tobacco-use-in-adultsand-pregnant-women-counseling-and-interventions1)
U.S. Preventive Services Task Force
Provides recommendation grades for smoking cessation.

The Health Consequences of Smoking-50 Years of Progress: A Report of the Surgeon General

(www.surgeongeneral.gov/library/reports/50-years-of-progress/fact-sheet.html

Centers for Disease Control and Prevention, National Center for Chronic Disease Prevention and Health Promotion, Office of Smoking and Health

Offers a history of U.S. tobacco use and prevention and control efforts. Details the evidence for the health effects of cigarette smoking.

Million Hearts® Tobacco Cessation Protocols

(https://millionhearts.hhs.gov/tools-protocols/protocols.html)

Centers for Disease Control and Prevention

Provides a template and implementation guidance document to help institutions integrate tobacco cessation protocols into their clinical workflows.

Smokefree Apps

(www.smokefree.gov/tools-tips/apps)

Get 24/7 support with a Smokefree app for your smartphone. These free apps offer help just for you based on your smoking patterns, moods, motivation to quit, and quitting goals. Tag the locations and times of day when you need extra support.



Smokefree.gov (www.smokefree.gov) U.S. Department of Health and Human Services Provides smokers who want to quit with free or low cost, evidence-based smoking cessation information, quit smoking tools, and on-demand support.

SmokefreeTXT

(www.smokefree.gov/smokefreetxt)

SmokefreeTXT is a six-week test messaging intervention with one week of preparation messages based on U.S. Public Health Service Clinical Practice Guidelines for Treating Tobacco Use and Dependence.

Smoking Cessation Leadership Center/National Center of Excellence for Tobacco-Free Recovery

(https://smokingcessationleadership.ucsf.edu)

University of California, San Francisco

Offers presentations, publications, toolkits, factsheets, and videos including one on motivational interviewing in the context of tobacco cessation.

Stay Quit Coach

(www.mobile.va.gov/app/stay-quit-coach)

Stay Quit Coach is an app that is designed to help with quitting smoking. It is intended to serve as a source of readily available support and information for adults, who are already in treatment to quit smoking, to help them stay quit even after treatment ends. The app guides you in creating a tailored plan that takes into account your personal reasons for quitting. It provides information about smoking and quitting, interactive tools to help users cope with urges to smoke, and motivational messages and support contacts to help you stay smoke-free.

Tobacco Cessation FAQ Videos for Providers and Clients (www.bhthechange.org/resouces/tobacco-cessation-faq-videos-providers-clients) National Behavioral Health Network for Tobacco & Cancer Control National Council for Behavioral Health Provides 12 short videos that can be used for educational and informational purposes when providing tobacco treatment services to consumers.

services to consumers. Tobacco Recovery Resource Exchange

(https://tobaccorecovery.oasas.ny.gov/)

New York State Department of Health Tobacco Control Program

Offers training and technical assistance to support chemical dependence service programs to implement tobacco-free environment policies and to provide tobacco-dependence education and treatment interventions.

Treating Tobacco Use and Dependence: Quick Reference Guide for Clinicians, 2008 Update (www.ahrq.gov/sites/default/files/wysiwyg/professionals/clinicians-providers/guidelines-recommendations/tobacco/ clinicians/references/quickref/tobaqrg.pdf)

U.S. Department of Health and Human Services

Provides updated strategies and recommendations for addressing tobacco use.

What Are the Best Ways of Helping People with Serious Mental Illnesses Quit Tobacco? (https://smiadviser.org/knowledge_post/what-are-the-best-ways-of-helping-people-with-serious-mental-illnesses-quit-tobacco/)



SMI Adviser, a Clinical Support System for Serious Mental Illness American Psychiatric Association and SAMHSA Provides information on smoking cessation products that are helpful in achieving abstinence from tobacco dependence in people with serious mental illness, and do not worsen underlying psychiatric symptoms. Wisconsin Nicotine Treatment Integration Project (https://uwmadison.co1.qualtrics.com/jfe/form/SV_essYyhGhb4TT5o9) University of Wisconsin Center for Tobacco Research and Intervention Offers "Training for Systems Change: Addressing Tobacco and Behavioral Health," a 12-module, online, interactive tutorial that highlights the experience of behavioral health clinicians and administrators who have integrated tobacco treatment and policy.

1-800-QUIT-NOW (1-800-784-8669) (www.cdc.gov/tobacco/quit_smoking/cessation/pdfs/1800quitnow_faq.pdf) National Cancer Institute Connects individuals directly to their state's tobacco quitline.

References

Balbuena L, Templer R: Independent association of chronic smoking and abstinence with suicide. Psychiatric Services. 2015;66(2):186-192.

Bhavsar V, Jauhar S, Murray RM et al: Tobacco smoking is associated with psychotic experiences in the general population of South London. Psychological Medicine. 2018;48:123-131.

Callaghan RC, Veldhuizen S, Jeysingh T et al: Patterns of tobacco-related mortality among individuals diagnosed with schizophrenia, bipolar disorder, or depression. J Psychiatr Res. 2014;48:102-108.

Centers for Disease Control and Prevention: Benefits of Quitting, 2014 (https://www.cdc.gov/tobacco/quit_smoking/how_to_quit/benefits/index.htm).

Das S, Prochaska JJ: Innovative approaches to support smoking cessation for individuals with mental illness and cooccurring substance use disorders. Expert Rev Respir Med. 2017 October;11(10):841-850.

Evins AE, Cather C, Laffer A. Treatment of tobacco use disorders in smokers with serious mental illness: toward clinical best practices. Harvard Review of Psychiatry. 2015;23(2):90-98.

Evins AE, Korhonen T, Kinnunen TH, Kaprio J: Prospective association between tobacco smoking and death by suicide: a competing risks hazard analysis in a large twin cohort with 35-year follow-up. Psychological Medicine. 2017;47:2143-2154.

Fiore MC, Jaen CR, Baker TB et al: Treating Tobacco Use and Dependence: Quick Reference Guide for Clinicians, 2008 Update. Rockville, MD: U.S. Department of Health and Human Services, 2009.

Gilbody S, Peckham E, Bailey D et al: Smoking cessation for people with severe mental illness (SCIMITAR+): a pragmatic randomized controlled trial. Lancet Psychiatry. 2019;6:379-390.

Gurillo P et al: Does tobacco use cause psychosis? Systematic review and meta-analysis. Lancet Psychiatry. 2015



August;2(8):718-725.

Han B, Compton WM, Blanco C: Tobacco use and 12-month suicidality among adults in the United States. Nicotine & Tobacco Research. 2017;19(1):39-48.

Kelly DL, McMahon RP, Wehring HJ et al: Cigarette smoking and mortality risk in people with schizophrenia. Schizophr Bull. 2011;37:832-838.

Khaled SM, Bulloch AG, Williams JVA et al: Persistent heavy smoking as risk factor for major depression (MD) incidence– evidence from a longitudinal Canadian cohort of the National Population Health Survey. J Psychiatric Research. 2012;46:436-443.

Klungsoyr O, Nygard JF, Serensen T, Sandanger I: Cigarette smoking and incidence of first depressive episode: an 11-year, population-based follow-up study. Am J Epidemiol. 2006;163:421-432.

McClave AK, McKnight-Eily LR, Davis SP, Dube SR: Smoking characteristics of adults with selected lifetime mental illnesses: results from the 2007 National Health Interview Survey. Am J Public Health. 2010;100:2464-2472.

Miller WR, Rollnick S: Motivational Interviewing: Helping People Change (3rd ed.). New York, NY: The Guilford Press, 2013.

Myles N, Newall HD, Curtis J et al: Tobacco use before, at, and after first-episode psychosis: a systematic meta-analysis. J Clin Psychiatry. 2012;73(4):468-475.

Olfson M, Gerhard T, Huang C et al: Premature mortality among adults with schizophrenia in the United States. JAMA Psychiatry. 2015;72(12):1172-1181.

Prochaska JJ: Smoking and mental illness-breaking the link. NEJM. 2011 July 21;365(3):196-198.

Substance Abuse and Mental Health Services Administration. (2018). Key substance use and mental health indicators in the United States: Results from the 2017 National Survey on Drug Use and Health (HHS Publication No. SMA 18-5068, NSDUH Series H-53). Rockville, MD: Center for Behavioral Health Statistics and Quality, Substance Abuse and Mental Health Services Administration.

Substance Abuse and Mental Health Services Administration, National Mental Health Services Survey (N-MHSS): 2017. Data on Mental Health Treatment Facilities. BHSIS Series S-98, HHS Publication No. (SMA) 17-5049. Rockville, MD: Substance Abuse and Mental Health Services Administration, 2018.

Taylor G, McNeill A, Girling A et al: Change in mental health after smoking cessation: systematic review and meta-analysis. Brit Med J. 2014;4:348:g1151 doi:10.1136/bmj.g1151.

Tidey JW, Miller ME: Smoking cessation and reduction in people with chronic mental illness: state of the art review. Brit Med J. 2015;351:h4065 doi:10.1136/bmj.h4065.

Wahawisan J, Kolluru S, Nquyen T et al: Methadone toxicity due to smoking cessation – a case report on the drug-drug interaction involving cytochrome P450 isoenzyme 1A2. Ann Pharmacother. 2011;45(6):e34.doi:10 1345/aph 1P759.



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