Tobacco Use Among New York Adults Who Experience Frequent Mental Distress

RTI INTERNATIONAL

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Prepared for

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Executive Summary

In the United States, people who experience mental distress are disproportionately impacted by the burden of tobacco[1] use and secondhand smoke exposure. There is high comorbidity between tobacco use and mental health outcomes, representing a complex and likely bidirectional relationship. Furthermore, tobacco use, secondhand smoke exposure, and mental health are all influenced by a wide variety of social and commercial determinants of health. Certain populations face overlapping disparities in tobacco and mental health, including the LGBTQIA+ [2] community, American Indian/ Alaskan Native communities, and people who report low socio-economic status.

The New York Tobacco Control Program, (administered by the New York State Department of Health) aims to reduce tobacco use among all New York youth and adults, as well as advance health equity by addressing tobacco-related health disparities. As part of this commitment to advance health equity, the Program established a goal to reduce tobacco use among individuals who experience frequent mental distress, which is defined as experiencing stress, depression, or problems with emotions on 14 or more days out of the past 30 days. The Program uses a variety of methods to engage individuals who experience frequent mental distress in tobacco cessation services. While prevalence of cigarette smoking has decreased among people who experience frequent mental distress in recent years, disparities persist.

We analyzed patterns of tobacco use and other tobacco-related outcomes using state-level survey data by the experience of frequent mental distress. This report outlines the prevalence of self-reported frequent mental distress across demographic groups and describes tobacco use and purchasing behaviors, cessation behaviors, secondhand smoke exposure, and health outcomes among people who do and do not experience frequent mental distress.

In New York, reports of frequent mental distress are more common among members of the LGBTQIA+ communities, young adults (ages 18-24 years), adults enrolled in Medicaid, adults who are unemployed, adults living at or below the federal poverty level, and adults with multiracial backgrounds, defined as racial backgrounds other than exclusively White, Black, Asian, or Hispanic.

Compared to New York adults who do not experience frequent mental distress, adults who experience frequent mental distress are more likely to:

- Use tobacco products, including cigarettes, e-cigarettes, cigars, water pipes, and smokeless tobacco

[1] In this report, the term "tobacco" is used in reference to the use of commercial tobacco and not the traditional and ceremonial use of tobacco by tribes and Indigenous communities.

[2] LGBTQIA+ refers to lesbian, gay, bisexual, transgender, queer or questioning, intersex, asexual or agender, and other not uniquely cisgender, heterosexual identities.

- Use products that contain cannabis, including e-cigarettes with cannabis and blunts
- Show signs of nicotine dependence by smoking soon after waking
- Roll their own cigarettes
- Use over-the-counter cessation products (i.e., nicotine gum, patch, or lozenge)
- Be exposed to secondhand smoke in a house, car, or multi-unit housing (among non-smoking adults)
- Have asthma or chronic obstructive pulmonary disease (among smoking adults)

In New York, adults who experience frequent mental distress attempt to quit and receive cessation assistance from health care providers at similar rates as adults who do not experience frequent mental distress.

This report contextualizes quantitative findings with literature related to mental health, tobacco use, and related social and commercial determinants of health. Further, this report describes New York's tobacco control interventions intended to reach people who experience frequent mental distress, which will be further guided by the findings presented in this report.

Introduction

Tobacco-Related Disparities

Health is a fundamental human right that should be equally accessible to all. Monitoring and addressing tobacco-related disparities is critical to the pursuit of health equity- the state in which every person has a fair and just opportunity to attain their highest level of health.

Tobacco product use remains the leading cause of preventable disease and death in the United States, harming nearly every organ in the body (Cornelius et al., 2023; U.S. Department of Health and Human Services, 2014). While commercial cigarette smoking rates are declining nationally, its rate of decline varies across various population groups (Meza et al, 2023). Further, nearly one in five adults in the United States still reports tobacco product use, and due to a complex interplay of social and commercial determinants of health, certain groups of people continue to be disproportionately impacted by tobacco use and secondhand smoke (Cornelius et al., 2023). As a result, disparities persist in tobacco-attributable disease, death, exposure, and economic burden (CDC, 2023; U.S. Department of Health and Human Services, 1998).

Social and commercial determinants of health perpetuate tobacco-related disparities in the U.S.

Social determinants of health are the conditions in which people are born, grow, work, live, and age (e.g., economic stability, education, health care access, housing, social support), including the systems and institutions that affect daily living conditions (e.g., racism, policy, norms, and political structures) (CDC, 2024a). For example, health insurance status can impact access to evidence-based cessation services and the geographic areas in which people live can impact the extent to which they are protected by evidence-based tobacco control policies (Garrett et al, 2015; Rose et al, 2022).

Commercial determinants of health are the private sector activities, systems, and norms impacting public health, including for-profit products and services, market strategies, production externalities, and political activities (WHO, 2022). For example, the tobacco industry employs targeted marketing of tobacco products to specific populations (Acosta-Deprez et al, 2021; Bach

et al, 2024; CDC, 2024b) and spends millions of dollars lobbying policymakers to promote industry interests by resisting public health regulation (Acosta-Deprez et al, 2021; Bach et al, 2024; Hill et al, 2022). In addition, higher density of tobacco retailers is associated with increased tobacco use behaviors (Glasser & Roberts, 2021).

Structural inequities in social and commercial determinants of health influence tobacco-related disparities across a variety of intersecting factors such as race/ethnicity, immigration status, socioeconomic status, mental health status, geographic region, sexual orientation and gender identity, disability status, and age (Cornelius et al, 2023).

Tobacco and Mental Distress

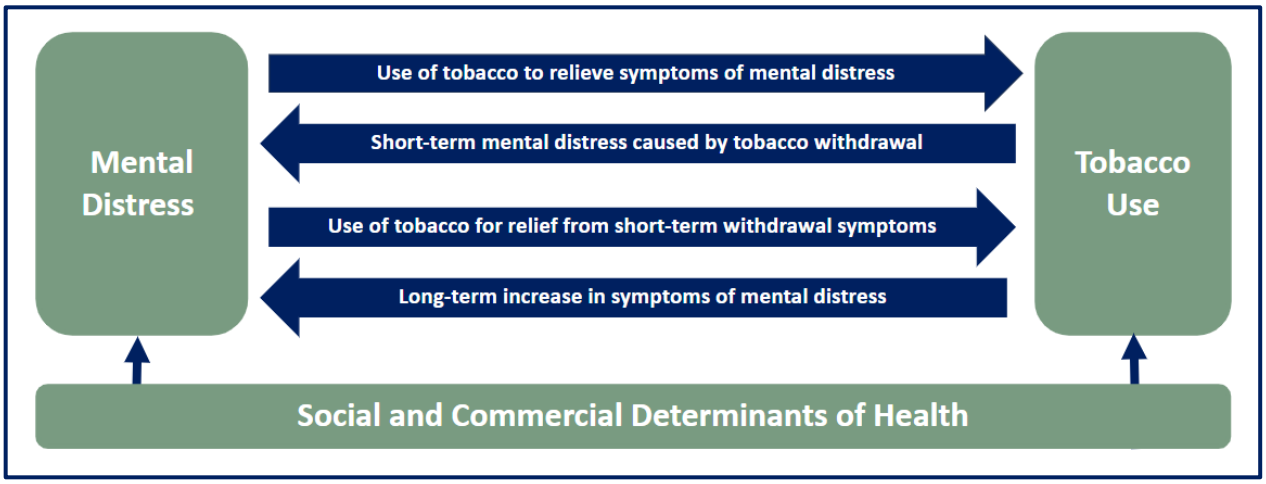
In the United States, 1 in 5 adults lives with a mental health condition (National Institutes of Health, 2024), and prevalence of mental distress has increased among adults since the onset of the COVID-19 pandemic (Pasquini & Keeter, 2022). Mental distress can emerge from diagnosable mental health conditions such as clinical depression, schizophrenia, or anxiety, but it can also emerge from situational factors such as chronic stress or trauma (Horwitz, 2007). Rising prevalence of mental distress has important tobacco-related implications, as populations facing mental distress tend to use tobacco products at higher rates than populations not facing mental distress (Cornelius et al, 2023; Loretan et al, 2022). However, the relationship between tobacco use and mental distress is complex, both likely influenced by each other as well as a breadth of underlying social and commercial determinants of health (**Figure 1**).

People who experience mental distress are disproportionately impacted by tobacco use, as tobacco use and mental distress have a complex and likely bidirectional relationship.

People experiencing mental distress may be more likely to use tobacco for immediate relief from symptoms of mental distress, as nicotine can create a temporary sense of relaxation (Sarafim-Silva et al, 2018). However, evidence indicates that tobacco use worsens mental distress in the long run. Once nicotine has been metabolized, a person experiences unpleasant withdrawal symptoms, including feelings of mental distress (Wu et al, 2023). Furthermore, evidence indicates that long-term tobacco use can increase stress as well as risk of depression and schizophrenia (Wootton et al, 2019). Mental distress can make it harder to quit using tobacco (Lawless et al, 2015; McKee et al, 2010), although

cessation is ultimately associated with improved mental health (Taylor et al, 2021).

Figure 1. Relationship between Mental Distress and Tobacco Use



Tobacco- and mental health-related disparities are both fueled by intersecting disparities in social and commercial determinants of health.

Similar inequities in social and commercial determinants underlie disparities across tobacco and mental health, leading to similar and compounding disparities by LGBTQIA+ identity, race/ethnicity, and socioeconomic status (American Psychiatric Association, 2017a; American Psychiatric Association, 2017b; Lawrence et al, 2013). Economic instability (Liu et al, 2014; Lund et al, 2021; Marbin et al, 2022; Titus et al, 2023), lack of access to basic health needs (Zhao et al, 2018), and discrimination (Arrazola et al, 2023; Sawyer et al, 2022; Walubita et al, 2022) can all compound an individual's chronic stress levels, and each of these factors have been linked to disparities in mental health and tobacco use. Further, the perception that tobacco use relieves mental distress has been embraced and fueled by the tobacco industry through targeted marketing to populations experiencing mental distress, including by promoting anxiety relief in advertisements, funding misleading studies, and providing product promotions to psychiatric facilities (CounterTobacco.org, 2023; Truth Initiative, 2017). Tobacco-related disparities among people facing mental distress are compounded by the intersectional nature of the structural inequities that underlie all health disparities.

New York Approaches to Reduce Tobacco Use Disparities Among Individuals Experiencing Frequent Mental Distress

The New York State Department of Health is committed to reducing the burden of tobacco and addressing tobacco-related health disparities through evidence-based, policy-driven, and cost-effective approaches to decrease tobacco initiation by youth, motivate people who smoke to quit, and eliminate exposure to secondhand smoke (New York State Department of Health, 2021). The New York Tobacco Control Program furthers this commitment through efforts such as media campaigns (for people who use tobacco and their health care providers), cessation benefits coverage, the New York State Quitline (which provides free coaching and nicotine replacement therapy to eligible New Yorkers), and community-level and health systems change interventions. The Program builds its programmatic approach on evidence including the Centers for Disease Control and Prevention's (CDC) Best Practices for Comprehensive Tobacco Control Programs (CDC, 2014) and Best Practices User Guide for Health Equity in Tobacco Prevention and Control (CDC, 2015), which both highlight tobacco-related disparities by mental health status as a key health equity focus.

New York has prioritized reducing tobacco-related disparities in adults who experience frequent mental distress, in recent years seeing declines that surpass set goals for 2024.

As part of the goals outlined in the New York State Department of Health 2019-2024 Prevention Agenda, New York aims to decrease the prevalence of cigarette use among adults who experience frequent mental distress from 26.0% to 20.1% by December 31, 2024 (New York State Department of Health, 2021). While everyone experiences mental distress sometimes, frequent mental distress is defined as experiencing stress, depression, or problems with emotions on 14 or more days out of the past 30 days (Slabaugh et al, 2017). In New York, tobacco use prevalence has consistently been higher among New York adults who experience frequent mental distress than among New York adults who do not experience frequent mental distress. However, in recent years, smoking prevalence among adults who experience frequent mental distress declined to 18.4% in 2022 (New York State Department of Health, 2024a), achieving the Prevention Agenda objective set for the year 2024.

In order to further address ongoing disparities in tobacco use prevalence among New York adults experiencing frequent mental

distress, the Program continues to explore how the burdens of tobacco use impact this population to inform future interventions. This report explores tobacco use and experiences of frequent mental distress among New York adults. This report:

- Highlights literature regarding mental health and tobacco use and related outcomes.
- Compares tobacco-related outcomes in New York among adults who experience frequent mental distress and adults who do not experience frequent mental distress.
- Describes New York tobacco control interventions intended to reach adults who experience frequent mental distress.

Methods

In this report we describe rates of frequent mental distress among demographic groups and tobacco-related behaviors among adults experiencing and not experiencing frequent mental distress in New York State. We contextualize these findings within the broad landscape of mental health, tobacco use, tobacco-related health outcomes, and social and commercial determinants of health through an examination of the current literature on these topics.

To explore the relationship between tobacco-related behaviors/outcomes and experiences of frequent mental distress among New York adults, we conducted an analysis of New York and national adult survey data containing measures related to mental health and tobacco using the following data sources: the New York Adult Tobacco Survey, the National Adult Tobacco Survey, and the Behavioral Risk Factor Surveillance System:

- We used demographic measures from the New York Adult Tobacco Survey and National Adult Tobacco Survey to explore reports of frequent mental distress by demographic variables.
- We used the New York Adult Tobacco Survey to analyze tobacco use and purchasing behaviors, cessation behaviors, and secondhand smoke exposure among New Yorkers by experience of frequent mental distress.
- We also used the Behavioral Risk Factor Surveillance System survey data to examine the chronic disease burden among New Yorkers by frequent mental distress and smoking status.

The frequent mental distress measure is based on a question used by CDC's Behavioral Risk Factor Surveillance System to assess perceived mental health and mental distress: "Now thinking about your mental health, which includes stress, depression, and problems with emotions, for how many days during the past 30 days was your mental health not good?". Responses of 14 or more days qualify as "frequent mental distress", a definition based on clinical guidance on the duration of symptoms for diagnosing depression and anxiety disorders (Borawski et al, 1998).

"Frequent mental distress" is one of many ways to measure mental health. The surveys used in this report prompted respondents to think about their mental health (including "stress, depression, and problems with emotions"), and asked them to report the number of days in the past 30 days that their mental health was "not good". Frequent mental distress was defined as having experienced 14 or more days of "not good" mental health in the past 30 days.

For analysis, we pooled data from 2020-2023 to ensure sufficient sample size for analysis and conducted statistical analyses to

compare the overall prevalence of tobacco use and purchasing behaviors, cessation behaviors, secondhand smoke exposure, and tobacco-related health outcomes between New York adults who experience frequent mental distress and adults who do not experience frequent mental distress. All differences in estimates by experience of frequent mental distress reported in text are statistically significant ($p < 0.05$). Further detail on data sources, measures, and analytic approach can be found in the **Appendix.**

Findings

Fewer than 1 in 7 New York adults experience frequent mental distress, aligning with the national rate.

Prevalence of Frequent Mental Distress

In New York, nearly 14% of adults report experiencing frequent mental distress during the past month. This is similar to the proportion of the adult population nationally who report experiencing frequent mental distress (**Figure 2**).

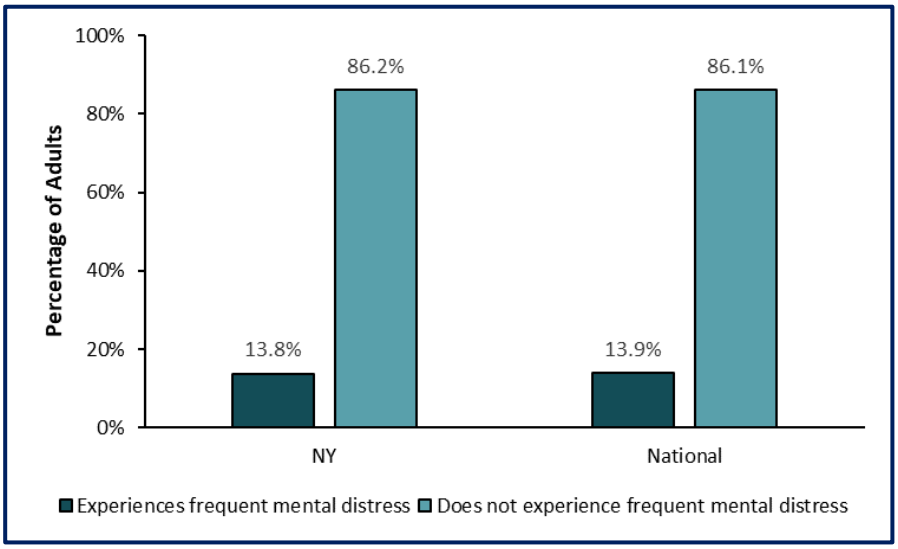


Figure 2. Frequent Mental Distress Status Among New York State and National Populations.

New York Adult Tobacco Survey & National Adult Tobacco Survey, 2020-2023 pooled

Demographic Characteristics of New York Adults who Experience Frequent Mental Distress

Fewer than 1 in 7 New York adults report experiencing frequent mental distress, but the prevalence of frequent mental distress varies by age, race/ethnicity, sexual orientation, gender identity, employment status, health insurance status, poverty level, educational attainment, and geographic region within New York.

We found elevated frequent mental distress among several demographic groups: young adults, adults with racial backgrounds other than exclusively White, Black, Asian, or Hispanic, adults who identified as LGBTQIA+ (which includes lesbian, gay, bisexual, transgender, queer, questioning, intersex, asexual, agender, and other sexual and gender identities that are not straight or cisgender), adults who are unemployed, adults enrolled in Medicaid insurance, and adults who live at or below the poverty line (**Table 1**).

Table 1. Percent of New York adults who experience frequent mental distress, by demographic characteristics. *New York Adult Tobacco Survey, 2020-2023 pooled*.

Variable	Percent
Overall	**13.8%**
Age*	
18-24	23.1%
25+	12.6%
Race/ethnicity*	
White, NH	13.6%
Black, NH	13.0%
Asian, NH	11.7%
Hispanic	15.0%
All other racial groups combined	18.0%
LGBTQIA+ identity*	
LGBTQIA+	30.3%
non-LGBTQIA+	12.1%
Sexual orientation*	
LGB	31.5%
Straight	12.2%
Gender identity*	
Man	11.0%
Woman	16.0%
Another gender	35.4%
Employment status*	
Employed	12.9%
Unemployed	21.0%
Not in labor force	13.7%
Health insurance status*	
Medicaid	21.2%
Uninsured	14.8%
Private	12.3%
Other public insurance	9.7%
Poverty level*	
Above poverty guideline	13.1%
At or below poverty guideline	21.2%
Educational attainment	
Less than high school	13.7%
High school or GED and higher	14.5%
Geographic region	
NYC	13.9%
Rest of state	13.7%

** The difference in prevalence of frequent mental distress across the groups within this variable is statistically significant.*

Young adults ages 18-24 reported frequent mental distress more often than adults 25 and older. Nationally, a rise in mental health distress and disorders among youth and young adults has been a growing concern, which has been associated with other social factors, such as effects of social media, social isolation through COVID-19, and other life stage stressors, such as pursuing a college degree or entering the workforce for the first time (Arnett et al, 2014; Brunette et al, 2023).

New York adults who identified as LGBTQIA+ had the highest prevalence of frequent mental distress across all socio-demographic factors we considered, where at least 1 in 3 (30.3%) reported frequent mental distress. Prevalence was highest among adults who identify with another gender outside of the man/woman binary. People who identify as LGBTQIA+ are at elevated risk for social and institutional discrimination and isolation, which can in turn impact other socio-economic factors, such as housing and food security (Tree et al, 2022; Wilson et al, 2020).

Like the LGBTQIA+ community, people who are American Indian/Alaskan Native, Black, Hispanic, Asian, or other people of color are also vulnerable to prejudice and discrimination. We found higher frequent mental distress among New York adults with multiracial backgrounds or racial backgrounds other than exclusively White, Black, Asian, or Hispanic.

Elevated frequent mental distress was also evident among New York adults who were unemployed, who had Medicaid insurance, and/or reported an income at or below the poverty line. Evidence shows that lower income is associated with increased stress, isolation, and mental health concerns, which is a common risk factor across each of these groups (Marbin et al, 2022; Titus et al, 2023).

Tobacco Use and Purchasing Behaviors

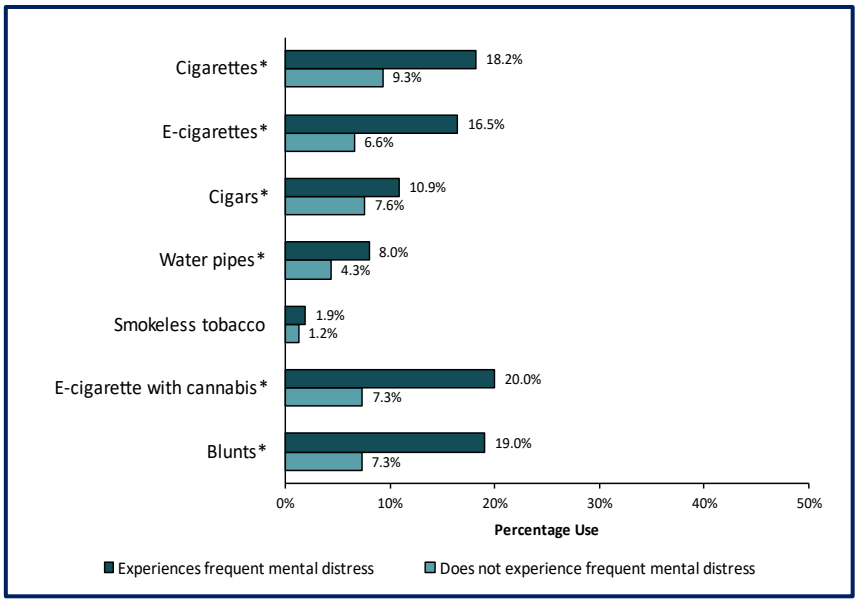
In New York, adults experiencing frequent mental distress report tobacco use more often than adults who do not experience frequent mental distress.

When assessing prevalence of tobacco use overall, we found that New York adults experiencing frequent mental distress more commonly report using tobacco products than adults who do not experience frequent mental distress (**Figure 3**). However, there were similar reports of menthol use between adults who experience frequent mental distress and adults who do not, both among adults who use cigarettes (51.9% vs. 48.6%) and adults who use e-cigarettes (11.2% vs. 8.7%).

Among adults who experience frequent mental distress, we also see higher use of products that include cannabis, such as blunts (cigar wrappers filled with cannabis) and e-cigarettes with cannabis (**Figure 3**). The 2021 legalization of adult cannabis use (New York State Senate, 2021) may have implications for tobacco use, as cannabis and tobacco are commonly used together (Hindocha et al, 2016) and there is high overlap between adults who use the two substances (Agrawal et al, 2012; Badiani et al, 2015, Rup et al, 2021). As with tobacco, people who experience mental distress are also more likely to use cannabis than people who do not experience mental distress (Hyman & Sinha, 2009; Lev-Ran et al, 2013).

Figure 3. Percent of New York adults reporting use of tobacco/cannabis products, by product type and by frequent mental distress status.

New York Adult Tobacco Survey, 2020-2023 pooled.



** Reported use of cigarettes, e-cigarettes, cigars, water pipes, e-cigarettes with cannabis, and blunts is significantly more prevalent among people who experience frequent mental distress than among people who do not experience frequent mental distress ($p < 0.05$).*

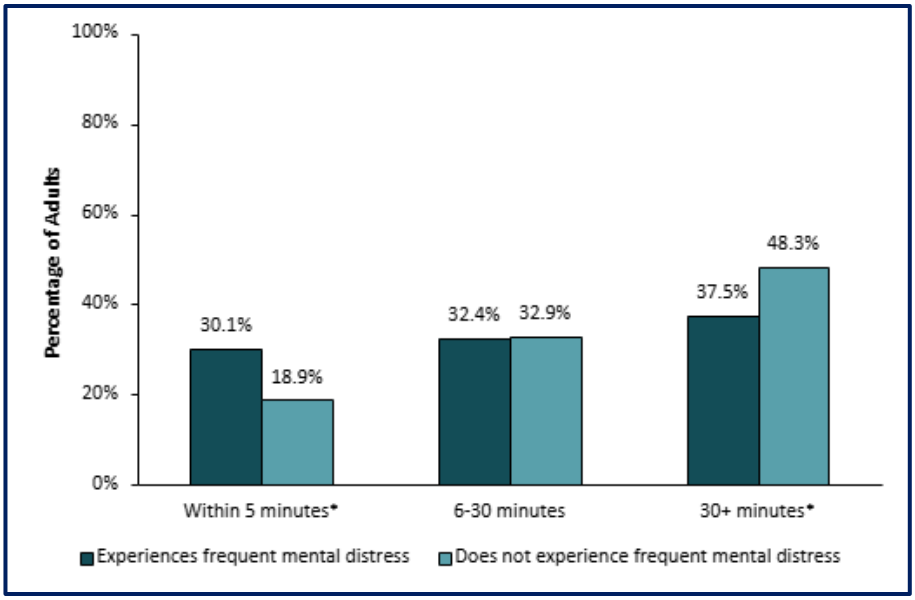
In New York, adults experiencing frequent mental distress are more likely to show signs of nicotine dependency than adults who do not experience frequent mental distress.

People who experience frequent mental distress are at increased risk for tobacco use, nicotine addiction, and poor health outcomes. Stress and tobacco use have a strong bi-directional relationship; stress can lead to smoking and other tobacco use (Sarafim-Silva et al, 2018), and tobacco and nicotine use can cause feelings of mental distress when the body experiences nicotine withdrawal (Lawless et al, 2015; McKee et al, 2010; Wootton et al, 2019; Wu et al, 2023).

People who experience frequent mental distress who smoke are also more likely to use tobacco products within the first 5 minutes of waking up and less likely to wait more than 30 minutes of waking than people who smoke who do not experience frequent mental distress (**Figure 4**), an indicator of nicotine dependence. Time to first cigarette has also been shown to be associated with negative health outcomes, such as lung disease (Gu et al, 2014, Sung, 2019).

Figure 4. Tobacco dependency (time to first cigarette) among New York adults who smoke cigarettes, by frequent mental distress status.

New York Adult Tobacco Survey, 2020-2023 pooled.



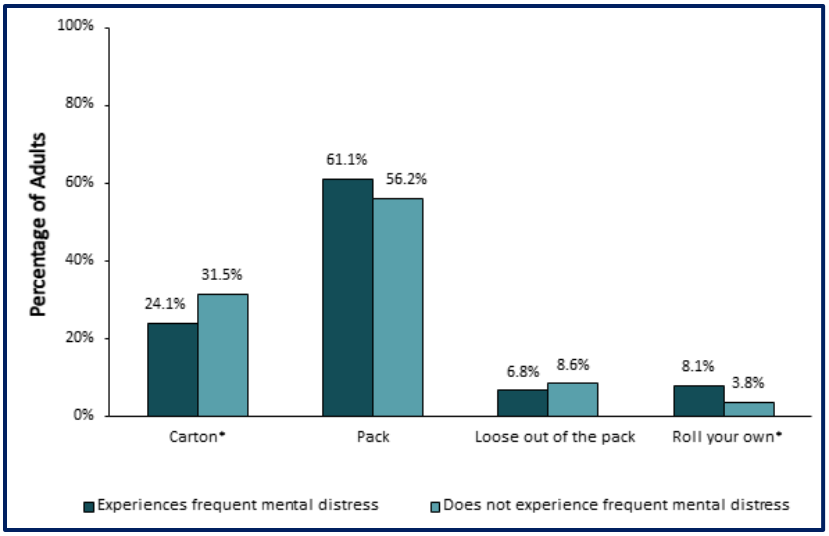
** Reported smoking within five minutes of waking is more common among adults experiencing frequent mental distress than adults not experiencing frequent mental distress. Waiting more than 30 minutes after waking to smoke is less common among adults experiencing frequent mental distress than among adults not experiencing frequent mental distress ($p < 0.05$).*

We also considered whether cigarette purchasing behaviors varied by experience of frequent mental distress. Overall, most New York adults who smoke cigarettes purchased cigarettes by the pack rather than in cartons, or as roll-your-own tobacco (**Figure 5**). Adults who experience frequent mental distress are less likely to buy cigarette cartons and more likely to roll their own cigarettes than adults who do not experience frequent mental distress (**Figure 5**). Evidence also shows that adults reporting lower levels of income are also more likely to buy cigarette packs compared to cartons and roll their own cigarettes (Cho et al., 2024; Joseph et al., 2018). As mentioned previously, adults who report they are living at or below the federal poverty line have increased prevalence of frequent mental distress, which may contribute to the differences we see in cigarette purchasing behaviors between adults who experience frequent mental distress and adults who do not.

New York adults who smoke most often buy cigarettes by the pack.

Figure 5. Type of cigarette product purchased among New York adults who report current smoking, by frequent mental distress status.

New York Adult Tobacco Survey, 2020-2023 pooled.



** Purchasing cigarettes by the carton is less common and rolling one's own cigarettes was more common among adults experiencing frequent mental distress compared to adults who are not experiencing frequent mental distress ($p < 0.05$).*

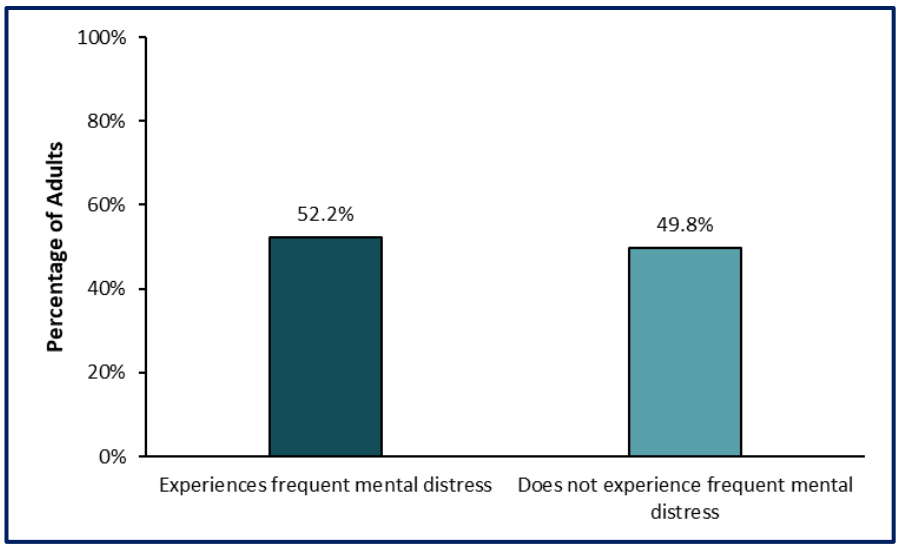
Cessation Behaviors

About half of New York adults who smoke cigarettes report having tried to quit in the past year, regardless of their frequent mental distress status (**Figure 6**). Smoking cessation is difficult and stressful due to physical and psychological components of nicotine addiction, so it is encouraging that even people experiencing frequent mental distress make quit attempts at similar rates to people who do not experience frequent mental distress.

In New York, adults who experience frequent mental distress attempt to quit at similar rates as adults who do not experience frequent mental distress.

Figure 6. Percent of New York adults with a past-year quit attempt among adults who report current smoking, by frequent mental distress status.

New York Adult Tobacco Survey, 2020-2023 pooled.



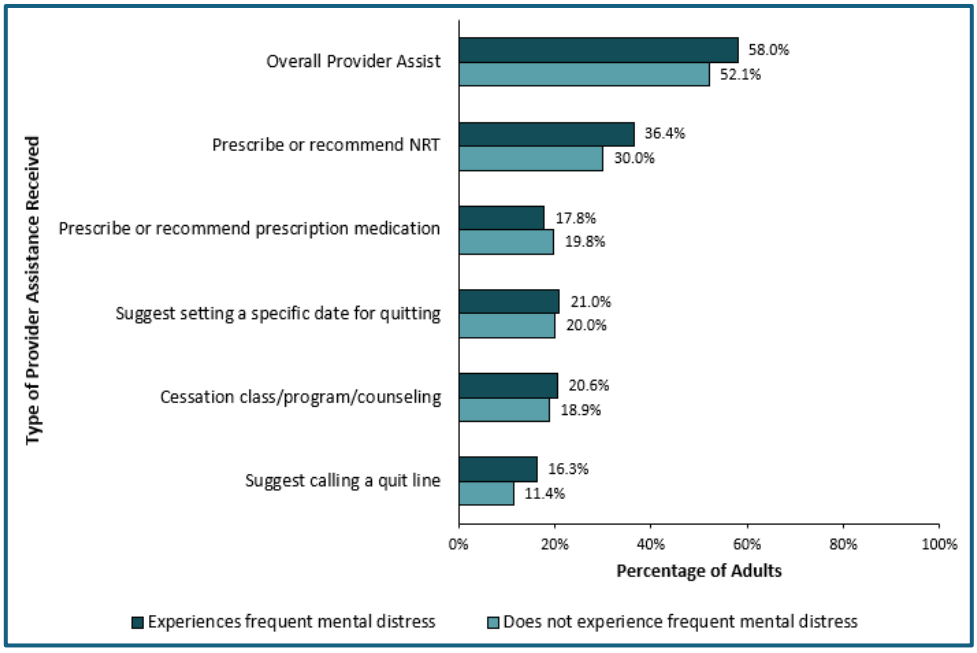
There are no statistically significant differences by frequent mental distress in the percent of adults who smoke and have made a past-year quit attempt.

In New York, most adults who smoke received cessation assistance from a health care provider, with similar assistance offered across adults who do and do not experience frequent mental distress.

More than half of New York adults who smoke reported that they received cessation assistance from a health care provider. These adults most frequently reported receiving assistance related to over-the-counter nicotine replacement therapy, but also reported receiving assistance related to prescription medication; cessation classes, programs or counseling; and setting a quit date (**Figure 7**). Across all types of provider assistance, these adults reported receiving assistance at similar rates regardless of whether they experience frequent mental distress (**Figure 7**).

Figure 7. Type of health care provider cessation assistance offered to New York adults who currently smoke, by frequent mental distress status.

New York Adult Tobacco Survey, 2020-2023 pooled.

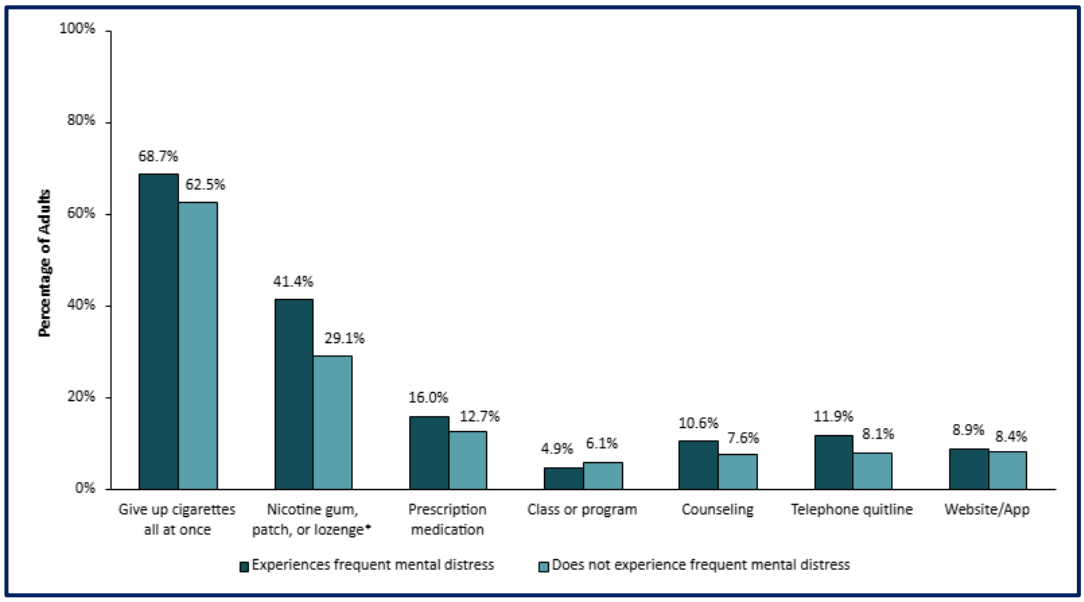


There are no statistically significant differences by frequent mental distress in the percent of adults who smoke and reported receiving healthcare provider assistance with cessation, either overall or by type of assistance.

Most New York adults who smoke, regardless of whether they experience frequent mental distress, reported trying to "cold turkey" or giving up cigarettes all at once (**Figure 8**). Fewer New York adults report the use of evidence-based cessation methods, such as over-the-counter nicotine replacement therapy (nicotine gum, patches, or lozenges), prescription medications, a class or program, counseling, a telephone quitline, or a website/app. Of these evidence-based cessation methods, over-the-counter nicotine replacement therapy was most commonly reported, followed by prescription medications (**Figure 8**), paralleling health care provider recommendations (**Figure 7**).

Figure 8. Type of quit attempt among New York adults who currently smoke and made a past-year quit attempt, by frequent mental distress status.

New York Adult Tobacco Survey 2020-2023 pooled.



** Reported use of nicotine gum, patches, gum, or lozenges for cessation is significantly more common among people who experience frequent mental distress than among people who do not experience frequent mental distress ($p < 0.05$).*

In New York, most adults who attempt to quit smoking try to quit cold turkey. Adults experiencing frequent mental distress are more likely to use over-the-counter nicotine replacement therapy than adults who do not experience frequent mental distress.

One notable difference is that more New York adults who smoke and experience frequent mental distress used over-the-counter nicotine replacement therapy compared to New York adults who do not experience frequent mental distress (**Figure 8**). As noted earlier, adults who experience frequent mental distress are more likely to live at or below the poverty line and be unemployed, which could impact healthcare provider access and prescription medication. Adults who identify as LGBTQIA+ are also more likely to lack healthcare insurance and experience stigma that discourages seeking healthcare (Baptiste-Roberts et al, 2017). These factors might be reflected in the higher use of over-the-counter nicotine replacement therapy (**Figure 8**), which is less

burdensome than navigating the healthcare systems and less expensive to access.

Secondhand Smoke Exposure

In New York, adults experiencing frequent mental distress are exposed to secondhand smoke in the home or car at higher rates than adults who do not experience frequent mental distress.

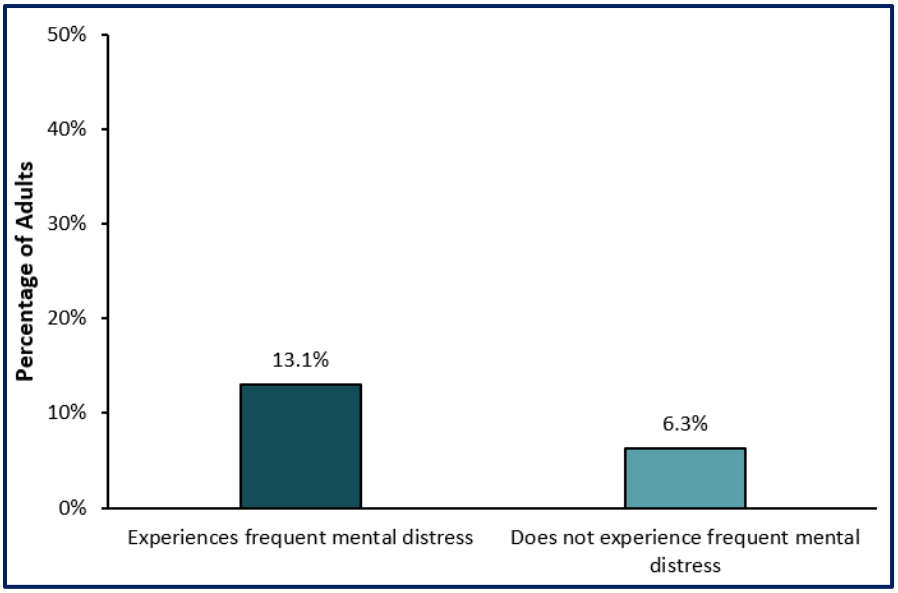
Secondhand smoke exposure puts individuals, including non-smoking individuals, at risk for serious and long-term health issues that contribute to early death. People may be exposed to secondhand smoke in their homes or cars, with New York's Clean Indoor Air Law protecting people in workplaces including bars and restaurants.

We found that more non-smoking adults experiencing frequent mental distress were exposed to secondhand smoke in a house or car (**Figure 9**) compared to adults not experiencing frequent mental distress.

Secondhand smoke exposure is a predictor of many mental health challenges, including frequent mental distress, and therefore people at higher risk of secondhand smoke exposure may also be at higher risk for frequent mental distress (Zeng & Li, 2015).

Figure 9. Percent of non-smoking New York adults exposed to secondhand smoke in their house or car, by frequent mental distress status.

New York Adult Tobacco Survey, 2020-2023 pooled.



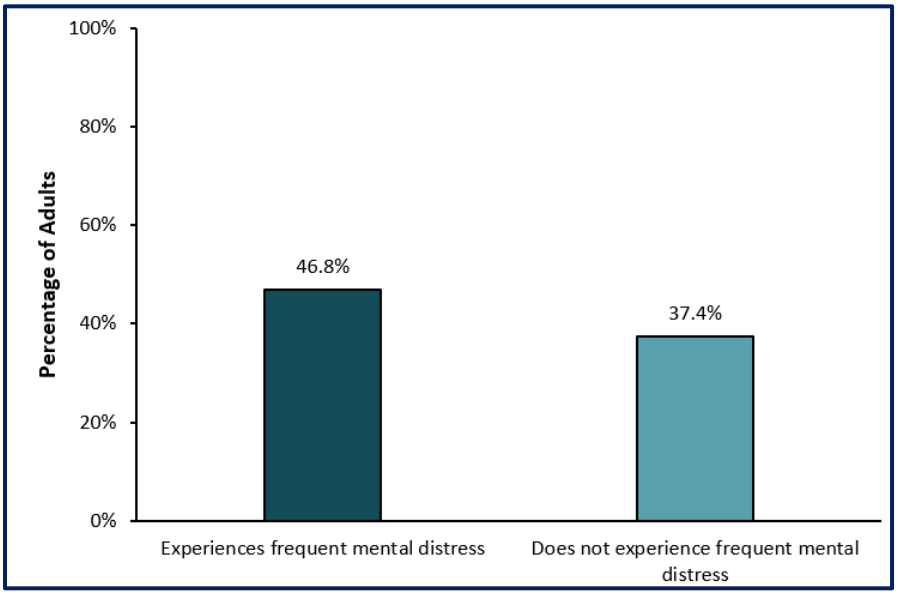
Exposure to secondhand smoke in a house or car is significantly more common among non-smoking adults experiencing frequent mental distress than among non-smoking adults who do not experience frequent mental distress ($p < 0.05$).

Of adults who live in multi-unit housing in New York, adults experiencing frequent mental distress are more likely to be exposed to secondhand smoke than adults who do not experience frequent mental distress.

Among non-smoking New York adults who live in multi-unit housing, adults experiencing frequent mental distress are more likely to be exposed to secondhand smoke than adults who do not experience frequent mental distress (**Figure 10**). While the U.S. Department of Housing and Urban Development passed a policy in 2017 requiring all Public Housing Authorities to implement smoke-free policies, this policy only applies to federally-funded housing and does not apply to non-federally-funded affordable housing[3] (U.S. Department of Housing and Urban Development, 2016; Goldberg & Levy, 2022). Privately owned apartment complexes are more likely to have voluntary smokefree policies than affordable housing (NYC Smoke-Free, 2023), and this disparity can put individuals living in affordable housing, especially people at or below the poverty line, at higher risk of being exposed to secondhand smoke in apartment complexes without smoke-free policies.

Figure 10. Percent of non-smoking New York adults living in multi-unit housing exposed to secondhand smoke in multi-unit housing, by frequent mental distress status.

New York Adult Tobacco Survey, 2020-2023 pooled.



Exposure to secondhand smoke in multi-unit housing is significantly more common among non-smoking adults experiencing frequent mental distress than among non-smoking adults who do not experience frequent mental distress ($p < 0.05$).

[3] Non-federally funded affordable housing provides housing to families and individuals whose income is below a certain percentage of median income for a geographic area.

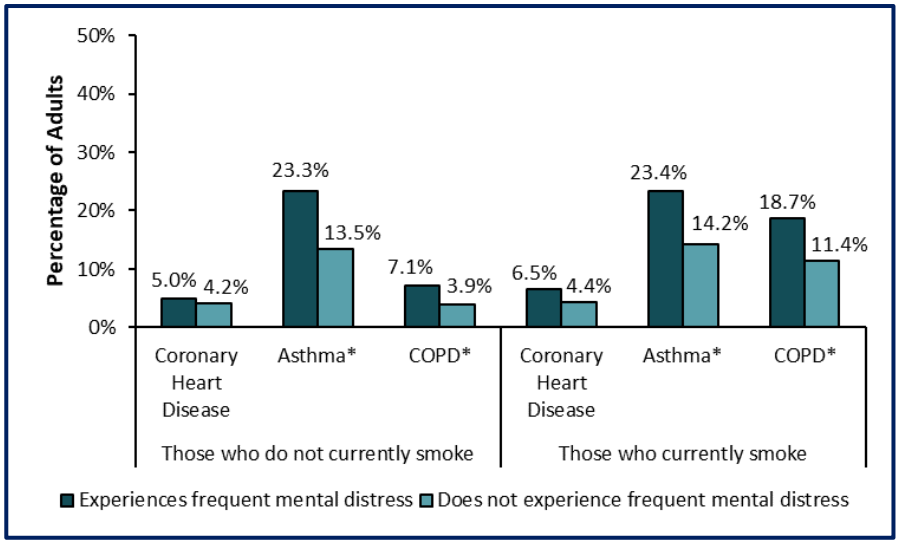
Health Outcomes

In New York, adults experiencing frequent mental distress are more likely to have asthma or COPD than adults who do not experience frequent mental distress, regardless of smoking status.

Tobacco use and secondhand smoke put individuals at risk for poor health outcomes, including heart disease, asthma, and lung disease, such as chronic obstructive pulmonary disease (COPD) (CDC, 2024c; US Department of Health and Human Services, 2014). Findings from this analysis further confirm that New York adults who experience frequent mental distress are more likely to use tobacco products and be exposed to secondhand smoke than adults who do not experience frequent mental distress, which puts them at risk for these types of diseases and health conditions. In addition, New York adults who experience frequent mental distress experience asthma and COPD more often than adults who do not experience frequent mental distress, regardless of smoking status (**Figure 11**). This elevated prevalence of asthma and COPD among adults who experience frequent mental distress across groups underlines the compounding effect that mental distress can have on physical health. Chronic stress and mental health conditions can negatively impact health, including decreasing immune system response, elevating risk of heart disease, and triggering asthma attacks (Alosaimi & Hawa, 2009; Dragoş & Tănăsescu, 2010; Edmondson & von Känel, 2017; Leonard, 2010; Oren et al., 2017). Chronic diseases, like asthma, COPD, and heart disease can also trigger frequent mental distress over coping with disease and other factors like social exclusion, treatment costs, and decreased quality of life (de Ridder et al, 2008; Jeon et al, 2010; Ma et al, 2021; Turner & Kelly, 2000).

Figure 11. Percent of New York adults reporting chronic conditions, by smoking status and frequent mental distress status.

Behavioral Risk Factor Surveillance System, 2022.



**Asthma and COPD are significantly more common among adults experiencing frequent mental distress than among adults who do not experience frequent mental distress, regardless of smoking status ($p < 0.05$).*

There are also socio-demographic factors associated with frequent mental distress that can put individuals at risk for poor health outcomes. People who report living at or below the poverty level or people who identify as LGBTQIA+ might experience barriers to preventative healthcare or early diagnosis and treatment. Also, people who initiate tobacco use as young adults are at risk of lifelong cigarette use, have higher long-term exposure to toxins, and therefore have a higher risk of developing diseases and experiencing poor health outcomes later in life.

Individuals who experience frequent mental distress are disproportionately affected by tobacco use, secondhand smoke, and related health outcomes. However, the structural determinants that contribute to these disparities are complex and embedded in other inequities across various populations.

New York Interventions to Reduce Tobacco-related Disparities Among People Who Experience Frequent Mental Distress

The New York Tobacco Control Program is committed to promoting cessation among all who smoke in New York, especially among populations inequitably affected by tobacco use. New York has taken a multi-pronged approach to collaborate across healthcare and community-based sectors to tailor interventions that address tobacco-related disparities among adults experiencing mental distress, including populations reporting frequent mental distress. The New York State Department of Health has partnered with other state agencies, including the Office of Mental Health and the Office of Addiction Services and Supports, to support strategic planning, policy development, and communications related to addressing tobacco dependence. Further, New York has engaged in a variety of interventions to reach demographic populations who experience frequent mental distress by partnering with organizations that work with underserved populations. New York efforts in recent years include:

The New York Tobacco Control Program takes a multi-pronged approach to address tobacco-related disparities among people experiencing frequent mental distress.

- Targeted outreach to behavioral health organizations (including mental health and substance use treatment facilities), as well as Federally Qualified Health Centers, to provide technical support for the establishment of policies, procedures, and workflows that facilitate the delivery of

evidence-based tobacco dependence treatment. Interventions to create health systems change in behavioral health settings can reinforce provider/patient conversations about tobacco and remove barriers to treatment for patients experiencing frequent mental distress.

- Funding of a statewide center of excellence that supports interventions and develops actionable resources to equip behavioral health providers to effectively engage with their patients about tobacco use and treatment, as well as to prescribe FDA-approved tobacco cessation medications when appropriate.
    - Report: Treating Tobacco Use Disorder in Behavioral Health Populations: Innovative Approaches and Uses of Approved Medications
    - One-pager: Seven key messages when communicating about tobacco use as a chronic disorder
    - Webinar: Getting Beyond No: Engaging Pre-Contemplative Tobacco Users with Behavioral Health Conditions (slides)
- Dissemination of media campaigns focused on reaching New York adults who experience frequent mental distress, including ads addressing the intersection of depression and tobacco cessation. Other media campaigns have addressed tobacco industry targeting of Black communities and the LGBTQIA+ community to increase awareness of tobacco-related inequities, promote the treatment of tobacco dependence, and encourage evidence-based quit attempts.
- Support for planning of the New York State Behavioral Health Tobacco Summit, first held in 2019 and also in early 2025. This summit brings together statewide healthcare and tobacco control experts to develop strategies to reduce tobacco use prevalence among people receiving mental health and/or addiction services.
- Promotion of Medicaid and other health plan coverage benefits for tobacco dependence counseling and medications to increase tobacco dependence treatment access. The high proportion of New York adults enrolled in Medicaid who

experience frequent mental distress indicates that improving Medicaid coverage for tobacco cessation treatment could uniquely benefit this priority population.

- Pursuit of smoke-free policies in affordable housing to protect New York residents who have low income to address disparities in secondhand smoke exposure, including the development of a toolkit for New York landlords to implement smoke-free housing in their residential buildings.

New York continues to be a state that is leading the charge nationally in leveraging evidence-based practices to reach and support people who experience frequent mental distress, particularly within substance use and mental health treatment facilities. Almost 90% of mental health treatment facilities in New York screen for tobacco use, compared to 67% of facilities nationally, and 80% of New York mental health facilities provide smoking cessation counseling, compared to only half of facilities nationally. Tobacco screening and counseling rates are even higher in New York substance use treatment facilities, which also outpace the national average (New York State Department of Health, 2024b).

Other states across the nation have also implemented interventions that focus on addressing tobacco use among people who experience mental distress. For example, Colorado has implemented targeted messaging on the benefits tobacco cessation can have on mental health (Stewart et al, 2020) and New Jersey has developed a peer-to-peer education and counseling program to support tobacco cessation for people with mental health needs (Williams et al, 2010a; Williams et al, 2010b), which has since been adapted for use in other states (American Legacy Foundation, 2011). Many other states have implemented tobacco dependence treatment policies for mental health and substance use centers, such as Alabama, Maryland, and Oregon (Public Health Law Center, 2023).

Summary and Conclusions

Key Takeaways

Inequities in social and commercial determinants of health contribute to disparities in tobacco use and exposure to secondhand smoke, as well as mental distress. Inequitable access to health care, education, and economic opportunity, as well as structural forms of discrimination, can influence chronic stress levels as well as initiation and cessation of tobacco use. Further, the tobacco industry intentionally targets certain groups with advertising that may disproportionately reach people who experience frequent mental distress and even advertises tobacco use as a stress relief (Acosta-Deprez et al, 2021; Bach et al, 2024; CDC, 2024b; Hirshbein, 2012; Truth Initiative, 2017; Truth Initiative, 2024). Thus, people who experience frequent mental distress may have greater exposure to the marketing of products that actively contribute to mental distress, as well as make it more difficult to quit.

In New York, people who identify as LGBTQIA+, young adults, people who are insured by Medicaid, people who live at or below the poverty level, people who are unemployed, and people with racial backgrounds other than exclusively White, Black, Asian, or Hispanic are more likely to experience frequent mental distress.

In New York, adults who experience frequent mental distress are more likely to use most types of tobacco products on the market and are more likely to use tobacco products soon after waking, compared to adults who do not experience frequent mental distress. Quit attempt rates and cessation methods were similar across groups, which is promising, but people who experience mental distress may find it more difficult to quit successfully in the long term (Lawless et al, 2015, McKee et al, 2010). With prolonged tobacco use, there are also higher risks for poor health outcomes associated with tobacco use; people who experience frequent mental distress are more at risk for asthma and COPD regardless of smoking status. Further, among non-smoking adults, adults who experience frequent mental distress are more likely to report secondhand smoke exposure in homes (i.e., houses and multi-unit housing) and cars.

Public Health Opportunity: Looking Ahead to Advance Health Equity Among Adults Who Experience Frequent Mental Distress

People who experience frequent mental distress, and people who experience mental distress in general, continue to face tobacco-related inequities. New York and other states across the nation are developing multi-pronged approaches to advance health equity in tobacco control interventions and cessation treatment.

State- and organizational- level interventions can expand access to tobacco dependence treatment, disseminate media campaigns to combat tobacco industry messaging and increase awareness of cessation resources, and increase healthcare providers' provision of tobacco screening and treatment. These interventions should be tailored to address disparities among people who experience frequent mental distress, as well as other intersectional and compounding disparities across socioeconomic status, age, gender identity, sexual orientation, and race/ethnicity.

Reducing tobacco-related disparities among people experiencing mental distress in the United States requires addressing the wide variety of social and commercial determinants of health that underlie these disparities.

As states and organizations sharpen their focus on addressing tobacco-related disparities among people who experience frequent mental distress, it is important to continue developing tailored interventions that address inequities across the wide variety of social and commercial determinants of health that influence these disparities. This requires investment in surveillance tools, cross-sectoral partnerships, and community-led engagement with populations disproportionately affected by the burden of tobacco use. Promising interventions are being implemented in New York and around the nation, and continued persistence is needed to assess and refine these interventions such that tobacco-related disparities can be overcome among people experiencing frequent mental distress and beyond.

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Appendix

Data Sources

- NY Adult Tobacco Survey (ATS), 2020-2023, pooled
- National Adult Tobacco Survey (NATS), 2020-2023, pooled
- New York Behavioral Risk Factor Surveillance System (BRFSS), 2022

Measures

Name of construct	Instrument items used to generate construct	Description of how construct was created
Frequent mental distress (ATS)	*Web only:* Now thinking about your mental health, which includes stress, depression, and problems with emotions, for how many days during the past 30 days was your mental health not good? [Range 0-30] *Paper only:* Now thinking about your mental health, which includes stress, depression, and problems with emotions, for how many days during the past 30 days was your mental health not good? • 0 days • 1-7 days not good • 8-13 days not good • 14-21 days not good • 22-30 days not good	Frequent mental distress was defined as having 14 or more poor mental health days in the past month. *Categories:* • Does not experience frequent mental distress • Exp eriences frequent mental distress
Frequent mental distress (NATS)	Now thinking about your mental health, which includes stress, depression, and problems with emotions, for how many days during the past 30 days was your mental health not good? • _ _ Number of days (01-30) • None	Frequent mental distress was defined as having 14 or more poor mental health days in the past month. *Categories:* • Does not experience frequent mental distress • Experiences frequent mental distress
Current cigarette use (ATS)	Have you ever smoked a cigarette, even 1 or 2 puffs? • Yes • No *If yes to ever smoking:* Have you smoked at least 100 cigarettes in your entire life? • Yes • No *If yes to ever smoking:* Do you now smoke cigarettes every day, some days, or not at all? • Every day • Some days • Not at all	Current cigarette use was defined as having smoked at least 100 cigarettes in the participant's lifetime and currently smoking every day or some days. *Categories:* • Currently smokes cigarettes • Does not currently smoke cigarettes

Name of construct	Instrument items used to generate construct	Description of how construct was created
Use of menthol cigarettes (ATS)	Do you usually smoke menthol or non-menthol cigarettes? • Menthol • Non-menthol	Menthol cigarette use was defined as usually smoking menthol cigarettes, among adults who currently smoke cigarettes. *Categories:* • Usually smoke non-menthol cigarettes (among adults who smoke cigarettes) • Usually smoke menthol cigarettes (among adults who smoke cigarettes)
Current e-cigarette use (ATS)	Do you now vape nicotine every day, some days, rarely, or not at all? • Every day • Some days • Rarely • Not at all	Current e-cigarette use was defined as currently using e-cigarettes every day, some days, or rarely. *Categories:* • Currently uses e-cigarettes • Does not currently use e-cigarettes
Menthol vape product use (ATS)	The last time you vaped, what flavor did you use? • Tobacco or regular • Mint flavor, such as wintergreen, frost, spearmint, peppermint • Menthol • Fruit flavor, such as citrus, apple, berry, cherry, peach, grape • Alcohol flavor, such as sweet scotch, whiskey • Candy flavor, such as chocolate, vanilla • Spiced flavor, such as clove, spice, or herb flavored • Cooling, ice, or frosty • Another flavor • Unflavored	Menthol vape product use was defined among adults who currently vape as adults who report using a menthol-flavored product the last time they vaped. *Categories:* • Used menthol flavored e-cigarette (among those who use e-cigarettes) • Did not use menthol vape product (among those who use e-cigarettes)
Current cigar use (ATS)	Do you now use traditional cigars, every day, some days, rarely, or not at all? • Every day • Some days • Rarely • Not at all Do you now use cigarillos or little filtered cigars, every day, some days, rarely, or not at all? • Every day • Some days • Rarely • Not at all	Current cigar use was defined as currently using traditional cigars, cigarillos, or little filtered cigars every day, some days, or rarely. *Categories:* • Currently uses cigars/cigarillos/little filtered cigars • Does not currently use cigars/cigarillos/little filtered cigars

Name of construct	Instrument items used to generate construct	Description of how construct was created
Current smokeless tobacco use (ATS)	Do you now use chewing tobacco, snuff, dip, or snus such as Copenhagen, Grizzly, Skoal, or Camel Snus, every day, some days, rarely, or not at all? • Every day • Some days • Rarely • Not at all	Current smokeless tobacco use was defined as currently using smokeless tobacco every day, some days, or rarely. *Categories:* • Currently uses smokeless tobacco • Does not currently use smokeless tobacco
Current hookah/water pipes use (ATS)	Do you now smoke tobacco from a water pipe or hookah every day, some days, rarely, or not at all? • Every day • Some days • Rarely • Not at all	Current hookah/water pipes use was defined as currently using hookah/water pipes every day, some days, or rarely. *Categories:* • Currently uses hookah/water • Does not currently use hookah/water pipes
Current e-cigarette with cannabis use (ATS)	Have you ever vaped cannabis/marijuana? • Yes • No *If yes:* Do you now vape cannabis/marijuana every day, some days, rarely, or not at all? • Every day • Some days • Rarely • Not at all	Current e-cigarette with cannabis use was defined as currently using e-cigarette with cannabis every day, some days, or rarely. *Categories:* • Currently uses e-cigarette with cannabis • Does not currently use e-cigarette with cannabis
Current blunt use (ATS)	Do you now smoke part or all of a cigar with marijuana or cannabis in it (blunt) every day, some days, rarely, or not at all? • Every day • Some days • Rarely • Not at all	Current blunt use was defined as currently smoking part or all of a cigar with marijuana or cannabis in it (blunt) every day, some days, rarely, or not at all. *Categories:* • Currently uses blunts • Does not currently use blunts
Tobacco dependency (ATS)	On the days that you smoke, how soon after you wake up do you have your first cigarette? Would you say… • Within 5 minutes • 6-30 minutes • 31-60 minutes • After 60 minutes	Tobacco dependency was measured by how much time one takes between waking and their first smoke of the day. *Categories:* • Within 5 minutes • 6-30 minutes • More than 30 minutes.

Name of construct	Instrument items used to generate construct	Description of how construct was created
Age (ATS)	*2020-present (web only):* What is your age? • [Range 18–96] *2020-2021 (paper only):* What is your age? • 18-24 • 25-34 • 35-44 • 45-54 • 55-64 • 65 or older *2022-present (paper only):* What is your age? • 18-20 • 21-24 • 25-34 • 35-44 • 45-54 • 55-64 • 65 or older	Age was collected as a continuous measure, and was categorized into the following groups: 18-to-24-year-olds and 25-year-olds and older. *Categories:* • 18-24 years • 25+ years
Race/ethnicity (ATS)	Are you Hispanic, Latino, or Spanish origin? • Yes • No • Don't know • Prefer not to say Which one or more of the following would you say is your race? • White • Black or African American • Asian • Native Hawaiian or Other Pacific Islander • American Indian, Alaska Native • Other (specify)	Information on race was collected using a multi-select question. Respondents who selected "other" in response to the race question were permitted to specify their race through a write-in response. Responses were then coded into the below mutually exclusive categories: • Non-Hispanic White • Non-Hispanic Black • Hispanic • Non-Hispanic Asian • Non-Hispanic Other (Native Hawaiian or Other Pacific Islander, American Indian, Alaska Native, Other race not listed as a response option)/multi-race

Name of construct	Instrument items used to generate construct	Description of how construct was created
LGBTQIA+ identity (ATS)	*2020 to 2021:* What was your sex at birth? Do you identify as...? • Male • Female • Another gender How do you describe your gender? • Transgender • Genderqueer/Gender non-conforming • Different identity Do you consider yourself to be transgender? • Yes • No Which of the following best represents how you think of yourself? • Straight, that is not lesbian or gay • Lesbian or gay • Bisexual • Something else • Prefer not to say *2022 to present*: What was your sex at birth? • Male • Female • Intersex • Sex at birth not listed How do you describe your gender? • A man • A woman • Gender queer, nonconforming or non-binary • Transgender, man • Transgender, woman • Transgender, nonconforming • Another gender Which of the following best describes your sexual orientation? • Lesbian or gay • Straight, that is not lesbian or gay • Bisexual • Questioning • Asexual • Pansexual • Other	In 2020-2021, respondents were coded as LGBTQIA+ if they thought of themselves as lesbian or gay, bisexual, or something else OR considered themselves to be transgender OR identified as transgender. Respondents who thought of themselves as straight AND did not consider themselves to be transgender AND identified as either male or female were coded as non-LGBTQIA+. In 2022 and onwards, LGBTQIA+ was defined as any identity that was not straight or cisgender. For sexual orientation, those who identified as lesbian or gay, bisexual, or 'something else' were coded as LGBTQIA+. Gender identity was determined based on sex at birth and gender questions. If a respondent reported their sex at birth as male and described their gender as anything other than a man, they were coded as LGBTQIA+. If a respondent reported their sex at birth as female and described their gender as anything other than a woman, they were coded as LGBTQIA+. Respondents were also coded as LGBTQIA+ if they described their sex at birth as intersex or described their gender as gender queer, nonconforming or non-binary, transgender man, transgender woman or transgender nonconforming. Respondents that did not meet any of the above criteria (identified as straight, reported their sex at birth as aligning with their gender identity, and did not consider themselves to be transgender, gender queer, or another gender) were coded as non-LGBTQIA+. *Categories:* • Identifies as LGBTQIA+ • Does not identify as LBGTQIA+

Name of construct	Instrument items used to generate construct	Description of how construct was created
Sexual orientation (ATS)	Which of the following best describes your sexual orientation? • Lesbian or gay • Straight, that is not lesbian or gay • Bisexual • Questioning • Asexual • Pansexual • Other	Sexual orientation was categorized as either identifying as straight or a version of non-straight, including but not limited to gay, lesbian, bisexual, or other. *Categories:* • Straight • LGB
Gender identity (ATS)	What is your gender? Do you identify as...? • Male • Female • Gender queer, gender nonconforming or non-binary • Transgender, man • Transgender, woman • Transgender, non-conforming • Another gender	Gender identity was categorized as identifying as male, female, or another gender. *Categories:* • Male • Female • Another gender
Employment status (ATS)	What is your current employment status? Please select only one response, your main status now. • Employed for wages • Self-employed • Out of work for more than 1 year • Out of work for 1 year or less • Homemaker • Student • Retired • Unable to work	Employment status was categorized as employed, unemployed, or not in the labor force. *Categories:* • Employed (employed for wages or self-employed) • Unemployed (out of work for more than 1 year or for 1 year or less) • Not in labor force (homemaker, student, retired, or unable to work)
Insurance status (ATS)	What is the primary source of your health care coverage? • A plan purchased through an employer or union (includes plans purchased through another person's employer) • A plan that you or another family member buys on your own • Medicare, for people 65 and older or for people with certain disabilities • Medicaid, Medical Assistance, or any kind of government assistance plan for those with low incomes or a disability • TRICARE (formerly CHAMPUS), VA, or Military • Alaska Native, Indian Health Service, Tribal Health Services • Other • No coverage of any type	Insurance status was categorized as enrolled in Medicaid, private insurance through an employer or self-enrolled, another form of public insurance, or uninsured. *Categories:* • Private (purchased through employer or bought on own) • Medicaid • Other public (Medicaid, Medical Assistance, government assistance plan; TRICARE, VA, Military; Alaska Native, Indian Health Service, Tribal Health Services) • Uninsured (no coverage)
Poverty status (ATS)	How many adults age 18 and older are living or staying in your household? (***Include yourself***	Poverty status was defined using household size (defined as the number of

Name of construct	Instrument items used to generate construct	Description of how construct was created
	and everyone who is 18 and older living or staying in your household for more than 2 months.) • 1 • 2 • 3 • 4 • 5 • 6 or more How many children younger than 18 are living or staying in your household? ***Include*** *any children who are living or staying in your household for more than 2 months.* • 0 (none) • 1 • 2 • 3 • 4 • 5 • 6 or more Which of the following categories best describes the total income of your family from all sources in 2022? • Less than $12,000 • $12,000 to under $18,000 • $18,000 to under $22,000 • $22,000 to under $26,000 • $26,000 to under $30,000 • $30,000 to under $50,000 • $50,000 to under $70,000 • $70,000 or more	adults plus the number of children in the household) and household income to determine if the household is above the federal poverty guideline. Respondents are then categorized as either above the federal poverty guideline or at or below the poverty guideline. *Categories:* • Above • At or below
Level of education (ATS)	What is the highest level of school you completed or the highest degree you received? • Never attended school or only attended kindergarten • Grade 1 through 8 • Grade 9 through 11 • Grade 12 (high school graduate) or GED • Some college, no degree • Associates degree (AA, AS) • College graduate (BA, BS) • At least some graduate or professional school • Graduate or professional degree	Level of education was categorized as either having less than the equivalent of a high school diploma or having a high school diploma, GED, or higher. *Categories:* • Completed less than a high school diploma or GED • Completed a high school diploma or GED or greater

Name of construct	Instrument items used to generate construct	Description of how construct was created
Geographic region (ATS)	What county do you live in?	Geographic region variable was derived from the respondents' county of residence. *Categories:* • NYC • Rest of the state excluding New York City
Angina or coronary heart disease (BRFSS)	Has a doctor, nurse, or other health professional ever told you that you had angina or coronary heart disease? • Not told they had angina/coronary heart disease • Told they had angina/coronary heart disease	Defined as ever being told they had angina or coronary heart disease. *Categories:* • Not told they had angina/ coronary heart disease • Told they had angina/ coronary heart disease
Asthma (BRFSS)	Has a doctor, nurse, or other health professional ever told you that you had asthma? • Not told they had asthma • Told they have asthma	Defined as ever being told they had asthma. *Categories:* • Not told they had asthma • Told they have asthma
COPD (chronic obstructive pulmonary disease), emphysema or chronic bronchitis (BRFSS)	Has a doctor, nurse, or other health professional ever told you that you had told you had COPD. (chronic obstructive pulmonary disease), emphysema or chronic bronchitis? • Not told they had COPD • Told they have COPD	Defined as ever being told they had COPD (chronic obstructive pulmonary disease), emphysema or chronic bronchitis. *Categories:* • Not told they had COPD • Told they have COPD

Analytical Approach

For our analyses, we used pooled data across years to ensure sufficient sample size for analysis. We then compared the prevalence of tobacco use, purchasing behavior, cessation behavior, secondhand smoke exposure, and health outcomes between those who experience frequent mental distress and those who do not experience frequent mental distress. We used either f-tests or chi-squared tests to assess differences in the distribution of each outcome variables between the two groups. We used Stata 16 analytic software. All differences noted in the text are statistically significant at $p < 0.05$.

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