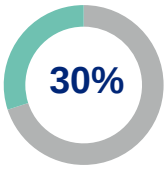
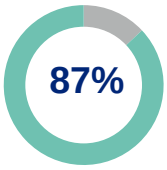
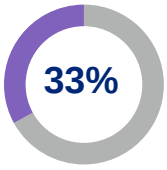
# Quit Now Virginia
# Stakeholder Report 2020/2021




**of phone program participants were quit** 7 months after receiving treatment




**of phone program participants were satisfied with the program**




**of TCBHP participants were quit** 7 months after receiving treatment


**of TCBHP participants were satisfied with the program**

## What is included in this document?

This document presents an overview of tobacco cessation services provided to the residents of Virginia through the Quit Now Virginia quitline (VAQL). It includes national and state-level statistics on tobacco use; research on tobacco control efforts; data on demographics, tobacco use history, and program utilization for VAQL participants; and the results of the 7-month post-registration follow-up survey that assessed outcomes for the census of eligible VAQL Phone program, Behavioral Health program, and Pregnancy program participants.

## What is Quit Now Virginia?

The VAQL provides empirically supported telephone- and web-based tobacco cessation coaching to all Virginias, including cessation medication support and education, nicotine replacement therapy (NRT), integrated Web Coach®, and referral to community resources.

## Why is Quit Now Virginia needed?

Almost one in seven adults in Virginia (13.6%) are current smokers,[1] and more than half (55.1%) of these smokers make a quit attempt in the course of a year.[2] The VAQL provides an easily accessible, free resource for those trying to quit.

## What is the evidence for quitline effectiveness?

Tobacco users who use quitline services are 60% more likely to successfully quit compared to those who attempt to quit without help.[3,4,5] The United States Community Preventative Services Taskforce recommends quitline interventions based on 71 study trials of telephone counseling that show their effectiveness.[6]

## How do we ensure continued success of the program in Virginia?

Virginia currently funds state tobacco control programs at only 16.4% of nationally recommended levels.[7] At last reporting, the funding was at 11.0%. There was a one -time increase in tobacco Master Settlement Agreement payments to the the Virginia Foundation for Health Youth that caused this increase. The funding is expected to return to normal funding levels after FY 2022.[7] The state should consider continuing to increase current funding levels to ensure the success of VAQL and other tobacco control efforts. For example, raising the cigarette excise tax is one of the most effective ways to reduce smoking, especially among youth.[8] While Virginia increased this tax in July 2020,[9] it is still one of the lowest in the country at only $0.60 per pack.[10] Additionally, the American Lung Association chapter in Virginia has called for elected officials to increase taxes on all tobacco products.[7] A portion of the resulting tax revenue could be earmarked for the VAQL.

## Is Quit Now Virginia cost-effective?

An estimated $2.05 was saved in Virginia in medical expenditures, lost productivity, and other costs for every $1 spent on the Quitline and tobacco cessation media.

## Who uses Quit Now Virginia?

- 87% enroll in a phone program
- 62% female
- 32% Black or African American
- 60% White
- 28% Medicare insured
- 17% do not have a high school diploma or GED
- 55% live with a chronic health condition
- 55% live with a behavioral health condition
- 43% between ages of 41 and 60
- 46% Medicaid insured or uninsured

Quit Now Virginia
Tobacco User Quitline

Report prepared for the Virginia Department of Health

May 31, 2022

Optum

# In this document

# Tobacco use in Virginia

***"The epidemic of smoking-caused disease in the twentieth century ranks among the greatest public health catastrophes of the century, while the decline of smoking consequent to tobacco control is surely one of public health's greatest successes."***

**— US Department of Health and Human Services**[11]

- In 2020, **13.6 % of adults in Virginia were current smokers, making Virginia's smoking prevalence one of the lowest in the nation—only 17 states have lower rates.**[1,12] This translates to around 919,123 adult tobacco users in the state.[13] Approximately 10,300 Virginian adults die each year from smoking.[12]
- Approximately **5.5% of youth** in Virginia currently smoke. Each year, approximately 2,300 youth in the state start smoking.[12]
- **Smoking costs Virginia over $3.11 billion annually in health care expenditures**.[12] Nationally, it is estimated that smoking-caused health costs and productivity losses is $31.08 for each pack of cigarettes sold.[14]
- **Virginians who do <u>not</u> smoke are impacted** by tobacco use. The Centers for Disease Control and Prevention (CDC) estimates that 25.2% of nonsmokers are exposed to harmful secondhand smoke, increasing the risk for smoking-attributable illnesses.[15]
  - While this percentage dropped dramatically between 1988 and 2014, there are notable disparities in exposure. Children, non-Hispanic Blacks, persons living below the poverty level, and persons living in rental housing still face high secondhand smoke exposure rates.[15]
  - In the United States, secondhand smoke costs approximately $1.9 billion per year in healthcare costs for adults[16] and around $63 million per year in emergency room visits for children.[17]
- The American Lung Association's 2022 State of Tobacco Control Report **rated Virginia's policies on tobacco prevention and cessation funding, tobacco taxes, smoke free air, and flavored tobacco products an 'F'**.[7]
  - Virginia's excise tax on cigarettes was last increased in July of 2020.[18] At only $0.60 per pack, it is far below the national average of $1.91 and one of the lowest in the nation.[19] **Raising this tax is one of the most effective ways to reduce smoking, especially among youth**.[20] The Community Preventive Services Task Force recommends tobacco taxes as a method to increase the cost of tobacco as part of a comprehensive tobacco control strategy.[21] **The U.S. Surgeon General's report released in January 2020 reinforces these findings**.[22]

While Virginia's smoking prevalence is relatively low, the related costs and loss of life still underscore the importance of smoking cessation programs in improving the lives and health of Virginians.

# Quitline research – What is the evidence base for state quitlines?

***"Tobacco use treatment has been referred to as the 'gold standard' of health care cost-effectiveness."***

**— US DHHS, Clinical Practice Guideline: Treating Tobacco Use and Dependence**[3]

**Quitlines**

- **Available in every state**
- **Proven to help tobacco users quit**
- **Best outcomes with multiple sessions + NRT**
- **Remove barriers**
- **Cost-effective**

- Quitting smoking reduces a person's risk for numerous chronic health conditions and premature death, with greater benefits the younger a person quits.[23] Quitting smoking before age 40 cuts a person's risk of dying from smoking by about 90%.[24]
- Extensive research and meta-analyses have proven the efficacy and real-world effectiveness of tobacco quitlines.[3,4,5,6]
  - **Tobacco users who receive quitline services are 60% more likely to successfully quit** compared to tobacco users who attempt to quit without assistance.[3]
  - **Tobacco users who receive medications and quitline counseling have a 30% greater chance of quitting** compared to using medications alone.[3]
- State quitlines **eliminate barriers** that may be present with in-person cessation interventions because they are free to callers, often available evenings and weekends, convenient, provide services that may not be available locally, and reduce disparities in access to care.[25]
- The Community Preventive Services Taskforce has concluded that quitlines are cost-effective based on a review of 27 studies.[6]
- Three strategies have been proven to be especially effective in promoting quitline use:[6]
  - Wide-reaching health communications campaigns through channels such as television, radio, newspapers, and cigarette pack health warning labels that provide tobacco cessation messaging and the Quitline phone number.
  - Offering tobacco cessation medication and nicotine replacement therapy through the quitline.
  - Referral to the quitline by a health care provider.

# Assuring Quitline Service Best Practices for Virginians

Quit Now Virginia is **operated and evaluated in line with North American Quitline Consortium (NAQC) best practices**. Since the inception of the VAQL in 2006, Virginia has selected Optum as its quitline service vendor.

Optum specializes in behavioral coaching to help people identify health risks and modify their behaviors so they may avoid or manage chronic illness and live longer, healthier lives. Five large federal- and state-funded randomized clinical trials have demonstrated the effectiveness of Optum's tobacco cessation program.[26,27,28,29,30]

Additional vendor qualifications:

- More than 30 years of experience providing phone-based tobacco cessation services.
- Provision of tobacco cessation services to 23 tobacco quitlines (21 states, Washington DC, and Guam) and more than 750 commercial organizations (76 in the Fortune 500).
- Participant in national tobacco control and treatment policy committees and workgroups.
- Quit Coach® staff complete more than 200 hours of rigorous training and oversight before speaking independently with participants.

Quitline services are culturally appropriate, available 24 hours per day, 7 days per week, and incorporate evidence-based strategies for tobacco dependence treatment as outlined in the USPHS Clinical Practice Guideline, Treating Tobacco Use and Dependence: 2008 Update.[3]

**Phone-based tobacco cessation services**:

- **One-call (C1) tobacco cessation program *for all callers***
  - Initial coaching session with Quit Coach® staff.
- **Four-call (C4) tobacco cessation program**
  - for all callers August 1, 2020 – October 14, 2020
  - after October 14, 2020 for uninsured or age 18-20
  - Initial coaching session and three additional proactive follow-up calls.
- **Intensive 10-call (C10) program for pregnant tobacco users**
  - Intensive behavioral support tailored to unique needs during pregnancy and including postpartum contact to prevent relapse.
- **Tobacco Cessation Behavioral Health Program (TCBHP)** for uninsured tobacco users or age 18-20 with a behavioral health condition[31]
  - Intensive behavioral support tailored to unique challenges faced by tobacco users with behavioral health condition(s).
  - Program launched on March 18th, 2021.
- **Youth Support Program (YSP) for tobacco users ages 13 to 17**
  - Behavioral support tailored to unique challenges faced by youth tobacco users.
  - All calls completed with the same Quit Coach® trained in youth support


- **All phone participants also have access to web- and text-based tobacco cessation services:**
  - **Integrated Web Coach**®: Interactive, web-based cessation tool designed to complement and enhance phone counseling.
  - **Text2Quit**: Interactive text messaging cessation aid designed to help guide smokers through the quitting process over a 12-month period.

**Stand-alone Web Coach® program (Web-Only)**

- Online participant application designed to guide tobacco users through an evidence-based process of quitting tobacco.

**Nicotine Replacement Therapy (NRT)**

**2 weeks of patch or gum**

For select participants enrolled in C1, C4, C10, and Web-Only participants planning to quit in the next 30 days

**12 weeks of patch, gum or combination NRT (patch + gum) was available for TCBHP participants**

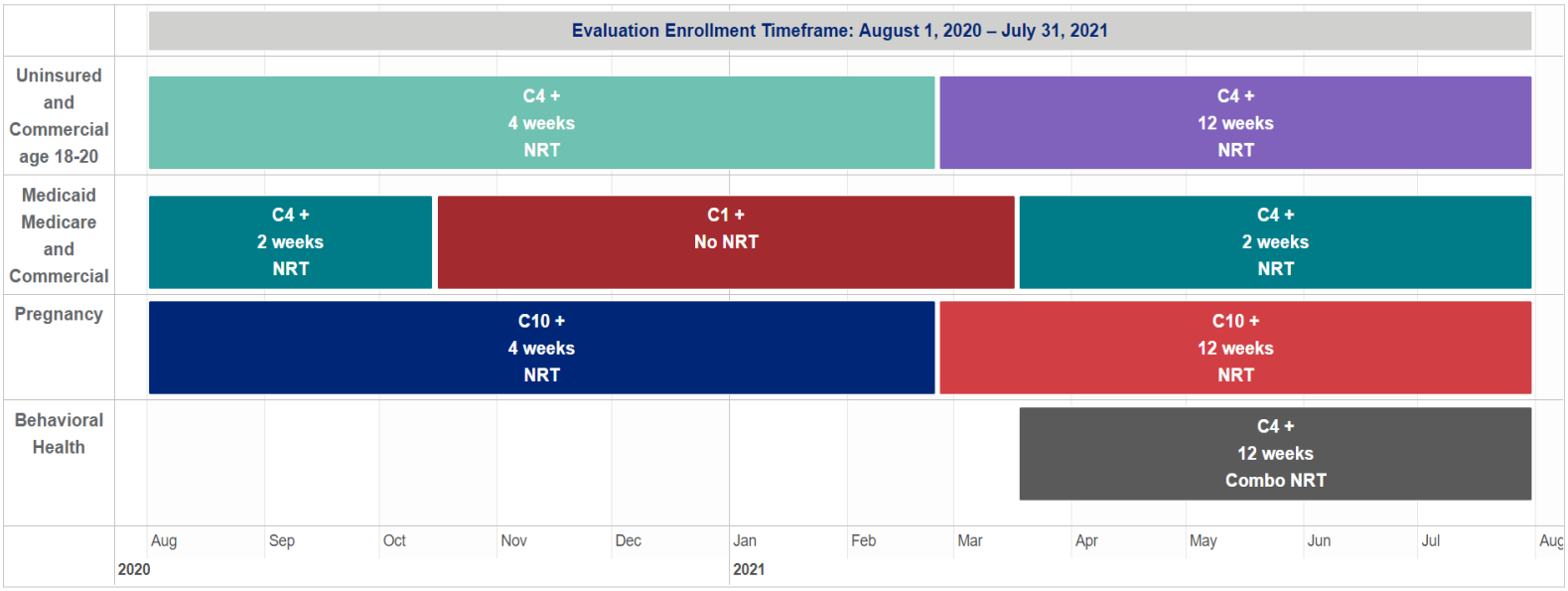
The NRT benefit varied throughout the evaluation timeframe based on a participant's insurance status and age.

# Nicotine Replacement Therapy

**Nicotine replacement therapy (NRT) is a vital component in a multifaceted approach to tobacco cessation.** It is available in several forms, including gum, patches, lozenges, inhalers, and nasal spray. **The U.S. Surgeon General's report released in January 2020 reinforces the following findings.**[22]

- A combination of quitline counseling and medication is particularly effective in treating nicotine dependence. Those who use quitline counseling and medication are 30% more likely to successfully quit than those who use medication alone.[3]
- Using a combination of medications at the same time has also been shown to aid in quitting tobacco, especially for highly dependent smokers.[3] For example, combining a long-acting form of NRT, such as the patch, with a short-acting form like nicotine lozenges or gum is often more effective than using a single form of NRT.
- NRT is often used as an incentive to engage tobacco users with quitline services. Several studies have shown that when quitlines promote free medication for callers, call volume and quit rates increase.[6]

VAQL participants could receive NRT through the phone program (C1 or C4), 10-Call Intensive Pregnancy program, and the TCBHP program, which launched on March 18, 2021. As shown below, the **NRT benefit varied during the evaluation timeframe based on a participant's insurance status, age, and program**.

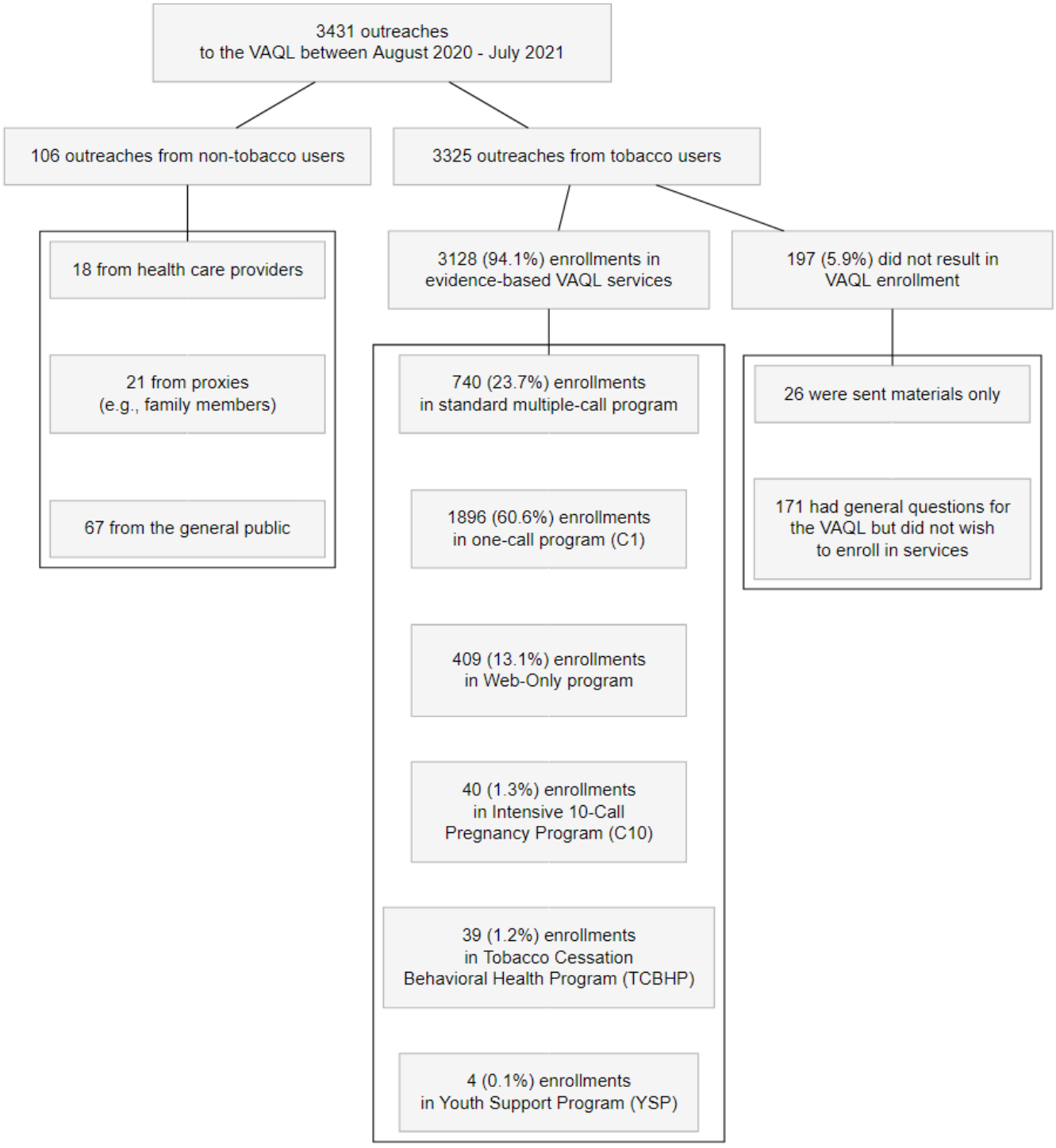



**Among respondents to the follow-up survey** at 7 months post enrollment:

- 56% of the phone program and 100% of TCBHP respondents were sent NRT through the VAQL.
- NRT patches were the most common medication sent to phone program respondents (41%). Most of the TCBHP respondents (67%) were sent combination NRT (patch + gum).[1] Around 15% of phone program and 33%[1] of TCBHP respondents were sent NRT gum.

[1] Because such a small number of TCBHP participants responded to the 7-month follow-up survey, all estimates for this subgroup should be considered provisional and interpreted with caution. A small number of additional responses could significantly alter outcomes.

## Who contacts Quit Now Virginia?



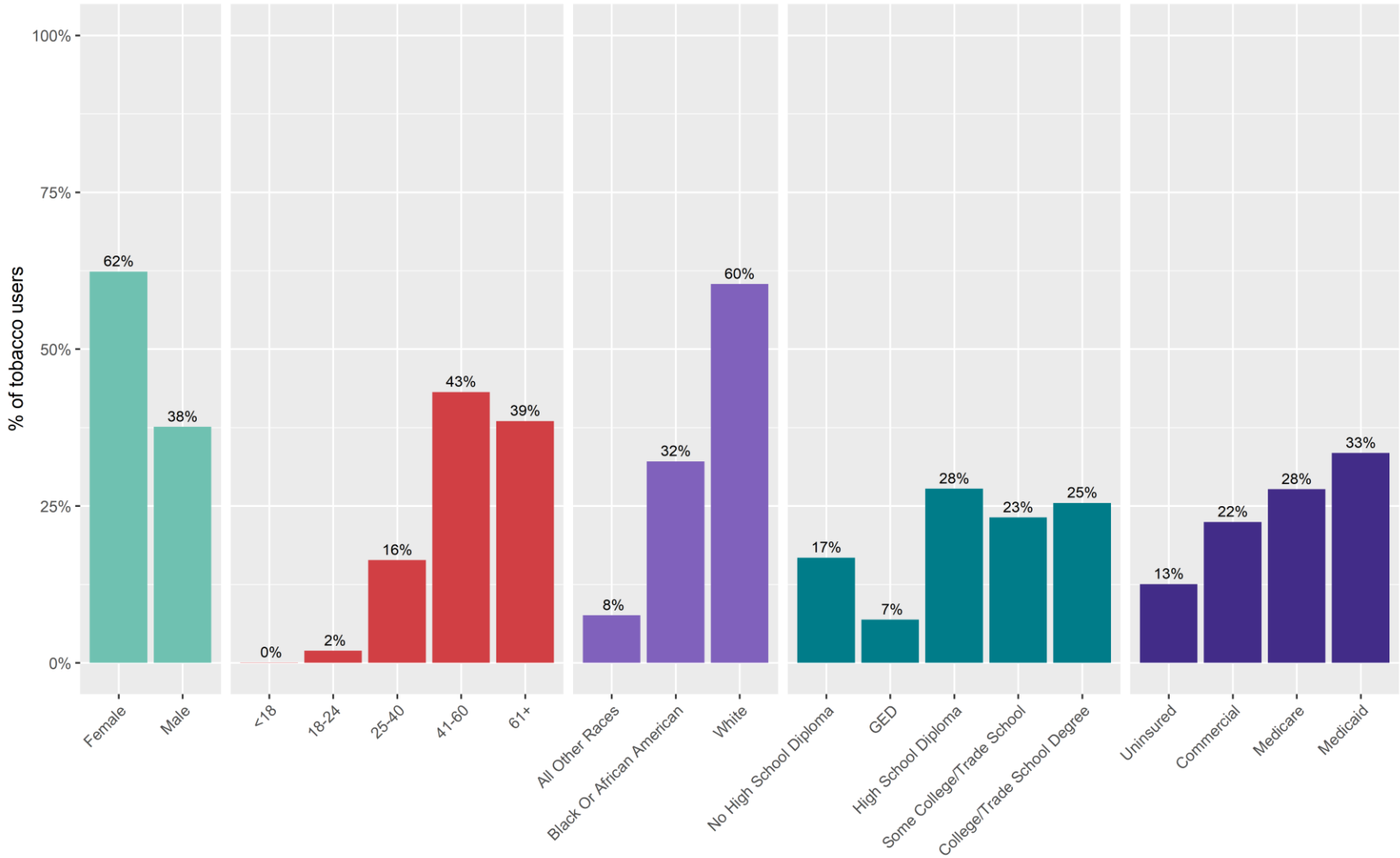

The figure above represents all outreaches to the VAQL between August 2020 – July 2021 for enrollment or other services. For individuals who reached out and/or enrolled in quitline services multiple times, every outreach is included.

## Who enrolls in Quit Now Virginia services?

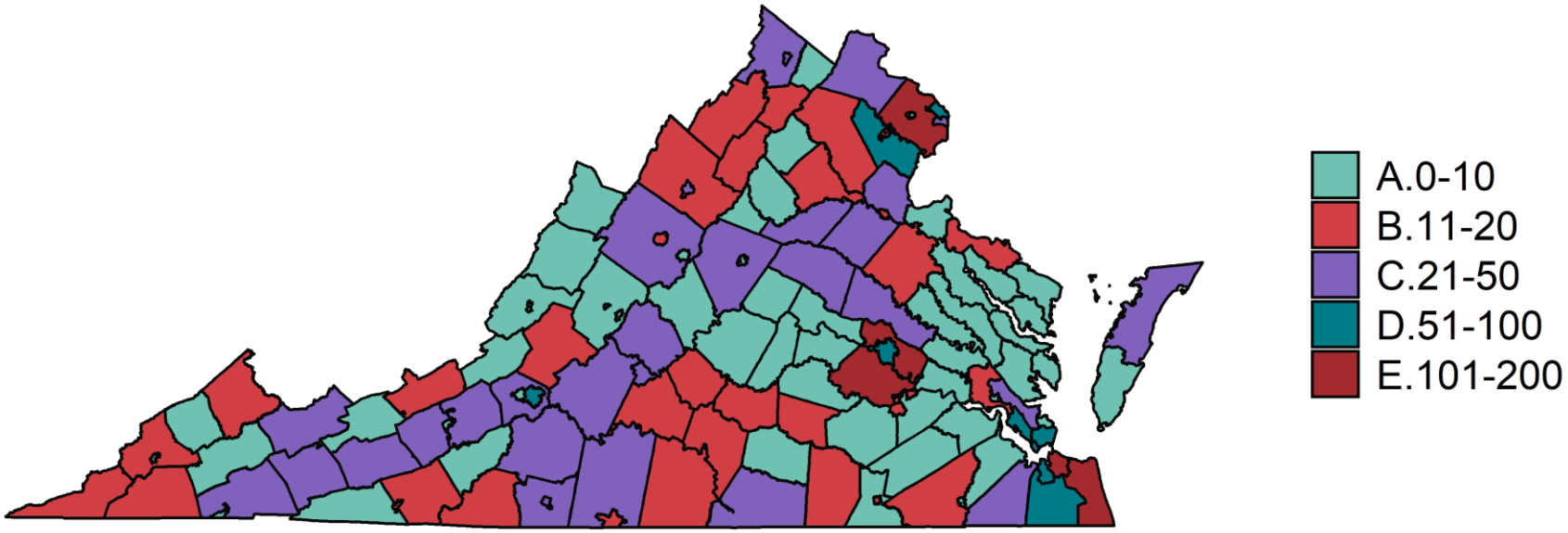
Between August 1, 2020 and July 31, 2021, there were a total of 3,431 enrollments into either a phone-based program or the Web-Only program. Of those total enrollments, 2,605 were *unique* individuals who enrolled in a phone-based program, and 407 were *unique* individuals that enrolled in the Web-Only program. The difference in total enrollments versus unique individuals is due to some participants choosing to re-enroll in services for additional support.

- Over six out of ten participants were female (62%); the majority (82%) were over age 40.
- **The quitline serves tobacco users who may have limited access to other resources**:
  - 46% of enrollees were either uninsured (13%) or Medicaid-insured (33%).
  - 17% did not have a high school diploma or GED.
- **The VAQL also serves tobacco users whose health status is especially vulnerable:**
  - 55% live with at least one chronic health condition, most commonly COPD (27%), asthma (20%), and diabetes (19%).
  - 55% live with at least one behavioral health condition, most commonly depression (38%), anxiety (32%), bipolar disorder (16%), and PTSD (16%).
- Services were provided in English (99.5%) and Spanish (0.4%, 13 participants); translation services were also available for callers who speak other languages.
- Most participants sought help to quit cigarettes (95%), but also cigars (3%), smokeless tobacco (2%), pipes (0.4%), and other tobacco products (10%).
- Over one in nine participants (12%) reported using e-cigarettes or “vaping” at enrollment.
- Over half of the VAQL program participants learned about the quitline through TV commercials (55%). Other callers learned of the quitline through a health professional (17%), family or friends (8%), or a website (6%).

## Demographics of Tobacco Users Who Enrolled in VAQL Services



## Constituents served by county of residence




*See table on following page for county-specific counts*

| County | Total Served | County | Total Served | County | Total Served | County | Total Served |
|---|---|---|---|---|---|---|---|
| ACCOMACK | 29 | DICKENSON | 7 | KING WILLIAM | 5 | PRINCE GEORGE | 4 |
| ALBEMARLE | 40 | DINWIDDIE | 10 | LANCASTER | 6 | PRINCE WILLIAM | 58 |
| ALEXANDRIA CITY | 38 | EMPORIA CITY | 15 | LEE | 11 | PULASKI | 21 |
| ALLEGHANY | 10 | ESSEX | 4 | LEXINGTON CITY | 5 | RADFORD | 0 |
| AMELIA | 5 | FAIRFAX | 140 | LOUDOUN | 37 | RAPPAHANNOCK | 0 |
| AMHERST | 21 | FAIRFAX CITY | 0 | LOUISA | 25 | RICHMOND | 4 |
| APPOMATTOX | 14 | FALLS CHURCH CITY | 1 | LUNENBURG | 9 | RICHMOND CITY | 100 |
| ARLINGTON | 74 | FAUQUIER | 19 | LYNCHBURG CITY | 48 | ROANOKE | 34 |
| AUGUSTA | 21 | FLOYD | 7 | MADISON | 5 | ROANOKE CITY | 74 |
| BATH | 1 | FLUVANNA | 3 | MANASSAS CITY | 15 | ROCKBRIDGE | 2 |
| BEDFORD | 26 | FRANKLIN | 22 | MANASSAS PARK CITY | 0 | ROCKINGHAM | 13 |
| BLAND | 6 | FRANKLIN CITY | 8 | MARTINSVILLE CITY | 23 | RUSSELL | 8 |
| BOTETOURT | 11 | FREDERICK | 35 | MATHEWS | 5 | SALEM | 0 |
| BRISTOL CITY | 0 | FREDERICKSBURG CITY | 11 | MECKLENBURG | 35 | SCOTT | 12 |
| BRUNSWICK | 11 | GALAX CITY | 17 | MIDDLESEX | 4 | SHENANDOAH | 19 |
| BUCHANAN | 13 | GILES | 12 | MONTGOMERY | 31 | SMYTH | 26 |
| BUCKINGHAM | 10 | GLOUCESTER | 9 | NELSON | 10 | SOUTHAMPTON | 11 |
| BUENA VISTA CITY | 3 | GOOCHLAND | 3 | NEW KENT | 8 | SPOTSYLVANIA | 46 |
| CAMPBELL | 14 | GRAYSON | 5 | NEWPORT NEWS CITY | 97 | STAFFORD | 23 |
| CAROLINE | 11 | GREENE | 7 | NORFOLK CITY | 148 | STAUNTON CITY | 15 |
| CARROLL | 15 | GREENSVILLE | 1 | NORTHAMPTON | 0 | SUFFOLK CITY | 49 |
| CHARLES CITY | 1 | HALIFAX | 16 | NORTHUMBERLAND | 8 | SURRY | 6 |
| CHARLOTTE | 12 | HAMPTON CITY | 70 | NORTON CITY | 5 | SUSSEX | 7 |
| CHARLOTTESVILLE CITY | 9 | HANOVER | 26 | NOTTOWAY | 12 | TAZEWELL | 23 |
| CHESAPEAKE CITY | 71 | HARRISONBURG CITY | 26 | ORANGE | 22 | VIRGINIA BEACH CITY | 139 |
| CHESTERFIELD | 123 | HENRICO | 130 | PAGE | 11 | WARREN | 17 |
| CLARKE | 9 | HENRY | 24 | PATRICK | 16 | WASHINGTON | 31 |
| COLONIAL HEIGHTS CITY | 20 | HIGHLAND | 1 | PETERSBURG CITY | 13 | WAYNESBORO CITY | 2 |
| COVINGTON CITY | 5 | HOPEWELL CITY | 17 | PITTSYLVANIA | 44 | WESTMORELAND | 12 |
| CRAIG | 2 | ISLE OF WIGHT | 9 | POQUOSON CITY | 3 | WILLIAMSBURG CITY | 1 |
| CULPEPER | 16 | JAMES CITY | 13 | PORTSMOUTH CITY | 51 | WINCHESTER CITY | 24 |
| CUMBERLAND | 3 | KING AND QUEEN | 5 | POWHATAN | 6 | WISE | 16 |
| DANVILLE CITY | 15 | KING GEORGE | 10 | PRINCE EDWARD | 18 | WYTHE | 23 |
| | | | | | | YORK | 23 |

# Tobacco Use and Behavioral Health Conditions

Adults with behavioral health conditions (BHC) smoke at higher rates than the general population; in 2016, 34.6% of adults with a BHC were current tobacco users, compared to 23.3% of adults without a BHC.[32] Adult smokers with BHCs also tend to be heavier smokers,[33,34] more nicotine dependent, experience worse nicotine withdrawal, and have more trouble successfully quitting.[34]

Many people with BHCs want to quit and can successfully quit smoking. Contrary to previous popular belief, tobacco cessation appears to enhance outcomes for individuals with BHCs:

- Research indicates that quitting smoking is linked to *decreased* anxiety, depression, and stress, and *increased* quality of life and overall mood—**regardless of whether a person has a BHC**.[35]
- Tobacco cessation interventions with smokers in substance abuse treatment have been associated with a 25% **greater likelihood of long-term sobriety**.[36]
- Among smokers in inpatient psychiatric care, tobacco cessation interventions have been associated with a **lower likelihood of readmission**.[37]

Quitlines have been shown to be an effective resource for those living with BHC in cutting down tobacco use and achieving abstinence, especially when combined with NRT and more intensive treatment.[38] Participants who report a BHC may benefit from additional benefits, such as targeted counseling sessions or additional NRT shipments.

Overall, approximately **55% of all VAQL participants reported one or more BHCs**, including depression (38%), anxiety (32%), post-traumatic stress disorder (PTSD; 16%), bipolar disorder (16%), drug or alcohol abuse (8%), schizophrenia (7%), and attention-deficit/hyperactivity disorder (ADHD; 9%).

### Among respondents to the follow-up survey at 7 months post enrollment:

- 57% of the phone program respondents, and 100% of the TCBHP and pregnancy respondents reported having one or more behavioral health conditions during enrollment.
- Across all programs, depression was the most common behavioral health condition reported, followed closely by anxiety disorder.

# Menthol Cigarettes and Tobacco Cessation

Based on data from the 2020 National Survey on Drug Use and Health, the Federal Drug Administration (FDA) reported that 18.6 million people currently smoke menthol cigarettes. Data collected for the 2016 survey reported menthol use of 19.5 million, so an improvement is shown.[39] Current research suggests that use of menthol cigarettes is higher among youth, young adults,[39, 40, 41] and minorities, with the highest rates of menthol use among Black or African American adults.[42, 43, 44, 39, 40,41]

Research suggests that adult non-menthol smokers have greater short- and long-term success in smoking cessation than menthol cigarette smokers.[45, 46, 43, 47] Differences in quit outcomes are well documented among Black or African American smokers, showing that those who smoke menthol cigarettes are less likely to quit than their non-menthol smoking counterparts.[48, 49, 42]

As of April 2021, the FDA committed to proposing product standards that would ban the use of menthol as a "characterizing flavor" in both cigarettes and cigars.[50] This announcement comes after the FDA banned other flavored cigarettes in 2009. Current research suggests that a ban on menthol flavored cigarettes and cigars could help improve quit outcomes for current menthol smokers:

- In recent studies and reviews, 25% to 64% of adult menthol cigarette smokers stated that they would quit smoking if menthol cigarettes were banned and no longer sold in the US.[51, 52, 53, 41]
- A small study conducted in Ontario, Canada with past month smokers who reported smoking at least one menthol cigarette in the past year observed changes in smoking behavior as quickly as one month after a menthol cigarette ban. Of the 206 participants who responded both before and after the menthol ban took effect, 60 (29%) reported quitting or making a quit attempt at 1-month post-ban implementation. Pre-ban, only 30 participants (14.5%) had stated they would quit after the ban was implemented. [54]

With appropriate retailer education and compliance,[55, 56, 52] a ban on menthol cigarette sales and advertising could have positive implications in Virginia.[54]

Future evaluations should consider assessing menthol use among VAQL enrollees, as well as potential impacts of the future ban on menthol flavors in cigarettes and cigars.

# Electronic Nicotine Delivery Systems

***"The potential benefit of e-cigarettes for cessation among adult smokers cannot come at the expense of escalating rates of use of these products by youth."***

**— US Department of Health and Human Services[22]**

Electronic nicotine delivery systems (ENDS), also called vapes, e-cigarettes, electronic, or vapor cigarettes, are battery operated devices that vaporize nicotine, flavoring, and other chemicals for a user to inhale. A 2018 report released by the National Academies of Science, Engineering, and Medicine concluded that while e-cigarettes are less harmful than cigarettes, they are not without risk.[57] More research is needed to understand the long-term effects of e-cigarettes and their utility as a potential smoking cessation aid. The January 2020 U.S. Surgeon General report concluded that "**There is presently inadequate evidence to conclude that e-cigarettes, in general, increase smoking cessation.**"[22]

There is particular concern about e-cigarette use among youth and young adults, and in 2018 the Surgeon General declared an epidemic of e-cigarette use among youth.[58] In 2020, almost one in five high school students and about one in twenty middle school students used e-cigarettes, translating to about 3.6 million US youth. Though these rates have decreased since 2019, they are still much higher than just a few years ago: from 2017 to 2020, **e-cigarette use increased by 68% among high school students** (from 11.7% to 19.6%). **While use among middle-schoolers decreased from 10.5% in 2019 to 4.7% in 2020, usage among this population is still greater than in 2017 (3.3%)**.[59,60,61] In addition, the drop in prevalence may be related to the extreme limitations on social situations during the COVID-19 pandemic, and not a true indication of trend.

Research has shown that **e-cigarette companies are using tactics to target youth and young adults**, such as adding flavorings that appeal to kids and using social media campaigns directed at young people.[59] While the FDA issued a ban on flavored e-cigarettes in February 2020, the ban makes significant exceptions on flavored e-cigarette cartridges/pods, specifically. **Flavored nicotine e-liquids, refillable e-cigarettes, and cheap, disposable e-cigarettes are still widely available** in flavors like cool mint, pink lemonade, and gummy bear. In addition, **all menthol-flavored e-cigarettes (including pods) are still available**.[62,63,64] These tactics, loopholes, and the high prevalence of ENDS use among youth and young adults are especially concerning given **research indicating that nicotine exposure may harm brain development in this vulnerable population**.[65]

In 2019, about 10.9 million adults in the United States were e-cigarette users (4.5% of the adult population).[66] Among adults, ENDS use is highest among those aged 18 to 24, and use rates tend to drop off with age.[67] Current cigarette smokers and former smokers who quit within the last year are more likely to use ENDS than the general population.[68,69] However, the rate of current **e-cigarette use among young adults (18-24) who have *never smoked combustible cigarettes* increased significantly** from 1.5% in 2014 to 4.6% in 2018.[67]

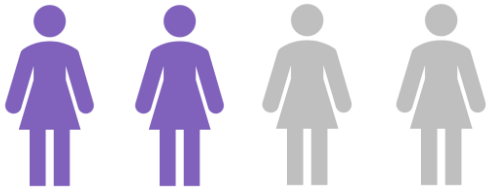
VAQL participants were asked about their e-cigarette use at both enrollment and 7-month follow-up. **About 11.8% of all VAQL enrollees reported using e-cigarettes or "vaping" within the 30 days prior to enrollment into the quitline**. ENDS use was more common at enrollment among Web-Only participants compared to participants who enrolled into a phone program (15% vs. 11.3%, $p < .05$).

### Among survey respondents:

- At follow-up 24% of phone program respondents reported past or current ENDS use.
- About 7% of phone program respondents were current ENDS users (used in the last 30 days) at follow-up.

# Pregnancy and Tobacco Use

- **From August 1, 2020 – July 31, 2021, 8% of women (age 18 to 49) served by the VAQL were pregnant (34), planning pregnancy in the next 3 months (14), or breastfeeding (1).**
- Reducing tobacco use among pregnant women reduces infant mortality rates, improves birth outcomes, decreases neonatal health care spending in the state, and improves maternal health.[70,71]
- The VAQL continues to provide the enhanced 10-call program for pregnant tobacco users with the goal of reducing health risks to the baby and other children in the household. The program targets cessation during pregnancy and skill development to help women sustain their quit postpartum.
- For this evaluation year:
  - **4 out of 25** (16%) participants in the pregnancy program **responded to the follow-up survey at 7 months post-enrollment.**
  - **2 out of 4** (50%) survey respondents **had been quit for at least 30 days** at 7 months post-enrollment with the VAQL.
  - **4 out of 4** (100%) survey respondents **reported being satisfied with the pregnancy program.**
- Because such a small number of pregnant women contact the VAQL, **all estimates for this subgroup should be considered provisional and interpreted with caution. A small number of additional responses could significantly alter estimates.**



# How do we know Quit Now Virginia works?

## Best practices in quitline evaluation and measurement of outcomes

To encourage quality standards and comparability of findings across state quitlines, the North American Quitline Consortium (NAQC) has established a series of recommendations and best practices for the evaluation of tobacco cessation quitlines. These standards include:

- Ongoing evaluation to maintain accountability and demonstrate effectiveness.[72]
- Assessment of outcomes 7 months following callers' enrollment in services, utilizing NAQC methodology and measurement guidelines.[73]
- Reporting of 30-day point prevalence tobacco quit rates (the proportion of callers who have been tobacco-free for 30 or more days at the time of the 7-month follow-up survey) in conjunction with survey response rates.[73]

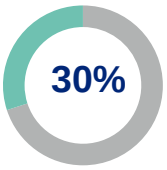
Quit Now Virginia has a strong commitment to evaluation and identifying ways to improve their program to benefit the health of Virginians. Evaluations are designed utilizing strong methodology and adequate sample sizes for confidence and accuracy in outcome estimates. VAQL's 2020-2021 evaluation included:

- a random sample of regular **phone program participants who received treatment** (i.e., completed one or more coaching calls) through the one-call (C1) or four-call (C4) program,
- a census sample of **participants who received treatment through the Tobacco Cessation Behavioral Health Program (TCBHP)**, and
- a census sample of **participants who received treatment in the 10-Call Intensive Pregnancy program**.

The survey response rates for the phone program, Tobacco Cessation Behavioral Health program (TCBHP), and Intensive Pregnancy program were 23.9%, 17.6%, and 16.0%, respectively. Pregnancy program outcome estimates are described separately on the previous page. **The findings on the following page include data from the VAQL's thirteenth annual evaluation (2020-2021) and represent 7-month outcome data from sampled phone and TCBHP participants who enrolled August 2020 through July 2021.**

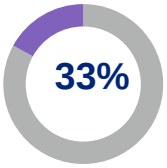
## What are the program outcomes?

### About 30% of phone program respondents and 33% of TCBHP[i] respondents successfully quit.



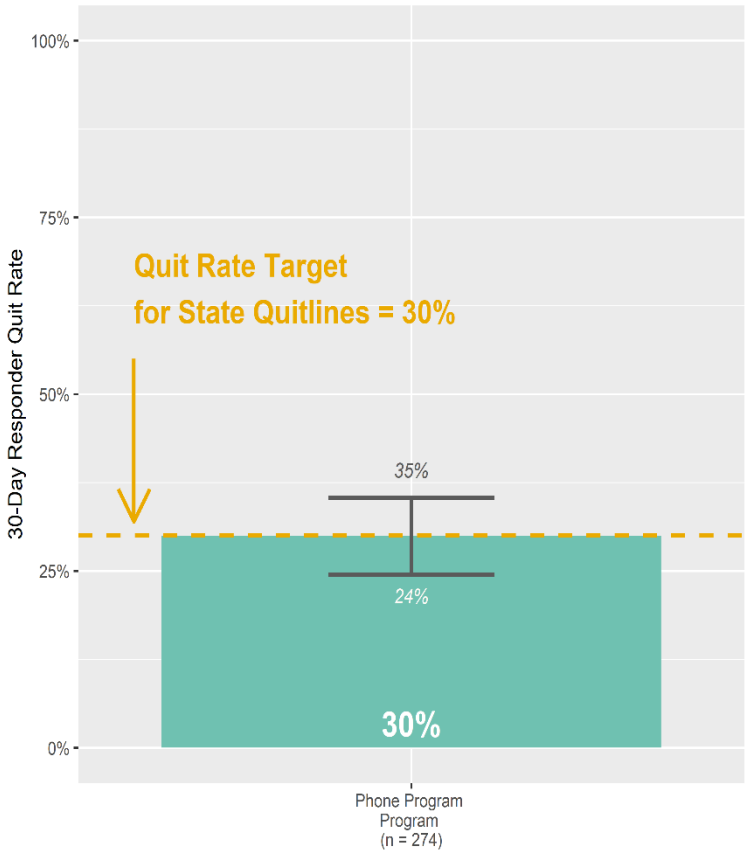

**of phone program participants were quit** at the 7-month follow-up evaluation survey (30-day responder quit rate)

27% were quit from both tobacco and ENDS at 7-month follow-up




**of TCBHP respondents were quit** at the 7-month follow-up evaluation survey (30-day responder quit rate)

17% were quit from both tobacco and ENDS at 7-month follow-up





**were satisfied** with the phone program


**were satisfied** with the Tobacco Cessation Behavioral Health Program

[i] The TCBHP launched in March 2021. The sample size at the time of evaluation was small. All estimates for this subgroup should be considered provisional and interpreted with caution. A small number of additional responses could significantly alter estimates. Future evaluations with 12 months of program activity should yield more responses.

# Is Quit Now Virginia cost-effective?

***Estimated $2.05* saved* in medical expenditures, lost productivity, and other costs *for every $1 spent* on the VAQL standard phone program, TCBHP, and tobacco cessation media for those programs.**

| Return on Investment (ROI) | |
|---|---|
| **Quit Rate**<br>• 30-day respondent quit rate for standard **phone program** respondents *(August 2020 – July 2021 enrollees; one-call and multiple call combined)*<br>• 30-day respondent quit rate for **TCBHP** respondents *(March 2021 – July 2021 enrollees)* | 29.9%<br>33.3% |
| **Estimated Total Quit**<br>• 29.9% quit rate x total of 2367 unique tobacco users enrolled in the phone program and received a phone intervention: 708<br>• 33.3% quit rate x total of 34 unique tobacco users enrolled in the TCBHP program and received a phone intervention: 11 | 719 |
| **Total $ Saved**<br>• Medical expenses (one year):[74] $312 x 719 = $224,328<br>• Lost productivity:[75] $1,066 x 719 = $766,454<br>• Worker's compensation:[76] $146 x 719 = $104,974<br>• Secondhand smoke (one year): [16,17,77] $55 x 719 = $39,545 | $1.14 M |
| **Total $ Spent**<br>• Total VAQL operating ($397,958)[78] and tobacco cessation media [79] costs | $554,797 |
| **Return on Investment**<br>• Amount saved per $1 spent on the VAQL (ratio of Total $ Saved / Total $ Spent) | **$2.05** |

*ROI calculated in this report is based on phone program (one-call and multiple-call combined), and TCBHP participants who received services from August 2020 – July 2021. The calculations excluded operating and media costs attributed to the Web-Only, pregnancy, or youth programs as these programs were not included in the ROI estimates for this evaluation. Medical expenses are calculated using the estimated short-term medical savings per quitter for one year from Milliman, Inc. (2006).

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[78] Operating costs exclude billing line items specific to evaluation, Live Vape Free, one-time implementation fees, the pregnancy, youth, and Web-Only programs. All other line items specific to the phone program, TCBHP, health systems change, and items that apply to multiple programs (e.g., text message enrollment, materials, NRT) are included.

[79] State anti-tobacco media campaign expenditures related to the Quitline provided by the State; costs are from FY 2020/2021 and total $183,400. A percentage of the costs were attributed to each Quitline program provided based on enrollment volumes into each program.