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Department of Health and Human Services
Tobacco Prevention and Control Branch

QuitlineNC

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1 EXECUTIVE SUMMARY

Evaluation data show that the North Carolina (NC) Tobacco Quitline, QuitlineNC, continues to provide a valuable and necessary service to North Carolinians in every county, reaching users from groups with disparities in tobacco use and related health outcomes. In Fiscal Year 2014-2015 (FY 2015), compared to the previous year, QuitlineNC funding increased 10%, more targeted grassroots outreach efforts were conducted by the NC Tobacco Prevention and Control Branch (TPCB), and free nicotine replacement therapy (NRT) was more available, with many callers eligible throughout the year and additional callers eligible during two successful promotional events. Subsequently, QuitlineNC caller volume increased 10.9% in FY 2015 compared to the previous year, with 14,962 North Carolinians registering with QuitlineNC, the second highest annual caller volume to date. The combination of free NRT promotional efforts and the federally sponsored “Tips from Former Smokers” advertising campaign strongly influenced this success. Continuing to pair free NRT promotions for all callers with targeted outreach efforts designed to reach health care providers and members of disparate populations will be important to sustaining high caller volume. Over ten years, nearly 105,000 North Carolinians have contacted QuitlineNC. Removing statewide advertising restrictions would help reach more North Carolinians and ensure optimal delivery of Quitline services, which are necessary to achieving the Healthy People 2020 target of reducing NC smoking prevalence to below 13%.

QuitlineNC is a free telephone-based, tobacco cessation service for all NC residents who want to quit tobacco. Quitlines are an effective and evidence-based approach to tobacco cessation, significantly increasing quit rates compared to quitting with no support.¹ Combining cessation coaching with free NRT increases Quitline caller volume, caller satisfaction, and quit rates.²⁻⁵ Marketing campaigns promoting Quitline services effectively increase utilization.⁶⁻⁸ The Tobacco Prevention and Evaluation Program at the University of North Carolina at Chapel Hill School of Medicine has provided independent evaluation of QuitlineNC since 2005. From its launch in 2005 through June 2011, QuitlineNC was jointly funded by the NC Health and Wellness Trust Fund (HWTF) and the Tobacco Prevention and Control Branch (TPCB) of the NC Department of Health and Human Services. Beginning in July, 2011, QuitlineNC was funded solely through the TPCB. In fiscal year 2014-2015 (Year 10 of QuitlineNC operation), total funding increased from \$2.6 million to \$2.87 million and was limited to service provision only, as legislation prohibited the TPCB from using funds on statewide TV or radio.

In FY 2015, more targeted grassroots promotion and outreach activities were conducted, and free NRT was available to more callers compared to the previous year. These promotions helped QuitlineNC achieve its second highest caller volume in Year 10, with 14,962 North Carolinians who use tobacco calling from every county in the state (registration reach of 0.97% and treatment reach of 0.71%). More than half of all callers were uninsured or had Medicaid (59%), half had a high school diploma or less (52%), and about a quarter reported Black/African American race (28%), indicating that QuitlineNC continues to reach users from populations that experience disparities in tobacco use. Callers from other disparate groups, including those with mental illness and people identifying as LGBT, were reached at rates exceeding the proportion of NC adults who smoke in these populations.

Two free NRT promotions and the “Tips from Former Smokers” TV ad campaign resulted in significant increases in caller volume and were critical in achieving high caller volume during Year 10. The success of the free NRT promotions indicates that the grassroots communication strategies employed by TPCB are effectively disseminating information to key stakeholders across the state. Continuing to pair free NRT promotions available to all callers with targeted outreach efforts designed to reach healthcare providers and members of disparate populations will be important to sustaining high caller volume.

2 QUITLINE NC BACKGROUND

The North Carolina (NC) Tobacco Prevention and Control Branch (TPCB) in the NC Division of Public Health, NC Department of Health and Human Services (DHHS) launched the North Carolina Quitline (QuitlineNC) in 2005. Currently operated by Alere Wellbeing, Inc., QuitlineNC provides free, proactive telephone tobacco cessation coaching services 7 days per week, 24 hours a day in multiple languages. Callers who are ready to set a quit date within 30 days may enroll in the multi-call program, which offers up to four calls with a Quit Coach; callers who are not ready to set a quit date may opt for the one-call program which provides one call with a Quit Coach. Callers who are pregnant are eligible for an intensive, tailored 10-call program. All callers have access to written educational materials, web-based support, and referrals to community-based supports.

In Year 10, free NRT was available to medically eligible callers who registered for the multi-call program at different time periods and varying intensities throughout the year. Medically eligible callers who registered for the multi-call program and were enrolled in Medicaid or Medicare or were uninsured could receive a two week starter kit of nicotine patches. Multi-call enrollees who were members of the State Health Plan, which reimburses QuitlineNC for services used by their members, could receive eight weeks of free nicotine patches, gum, or a combination of patches and gum; beginning January 1, 2015 this benefit expanded to 12 weeks and members could choose nicotine lozenges alone or in combination with nicotine patches. Multi-call enrollees from Orange County could receive eight weeks of nicotine patch, gum, or lozenge. The TPCB conducted two promotional events during which all medically eligible multi-call enrollees could receive eight weeks of free nicotine patches. The first promotion was tied to the Great American Smokeout on November 20, 2014; the second was conducted over ten days leading up to May 31, 2015, which marked World No Tobacco Day and No Menthol Sunday, a new event sponsored by the National African American Tobacco Prevention Network.

QuitlineNC coaching services are available to all North Carolinians age 13 or older; callers must be at least 18 years old to receive free nicotine patches or gum. QuitlineNC users can register over the phone or via the QuitlineNC website: <https://www.quitlinenc.com>. QuitlineNC accepts fax referrals from healthcare providers; fax referrals generate proactive calls from Quitline coaches within 24 hours.

QuitlineNC is managed by the NC TPCB. In FY 2015 (July 1, 2014 – June 30, 2015) QuitlineNC received funding from the NC General Assembly, the NC State Health Plan (SHP), and the CDC. State and SHP funding was designated for services only and the TPCB was legislatively prohibited from using funds on statewide TV or radio promotional efforts. At the time of this report, TPCB is in Year 2 of a 5-year CDC grant (CDC capacity grant) designed to strengthen QuitlineNC service capacity and sustainability and to increase reach to members of populations experiencing disparities in tobacco use and related disease.

The UNC Tobacco Prevention and Evaluation Program (TPEP) provides independent evaluation of QuitlineNC. This report presents findings for FY 2015, Year 10 of QuitlineNC. Findings are based on analysis of QuitlineNC intake, utilization, and follow-up data collected by Alere Wellbeing.

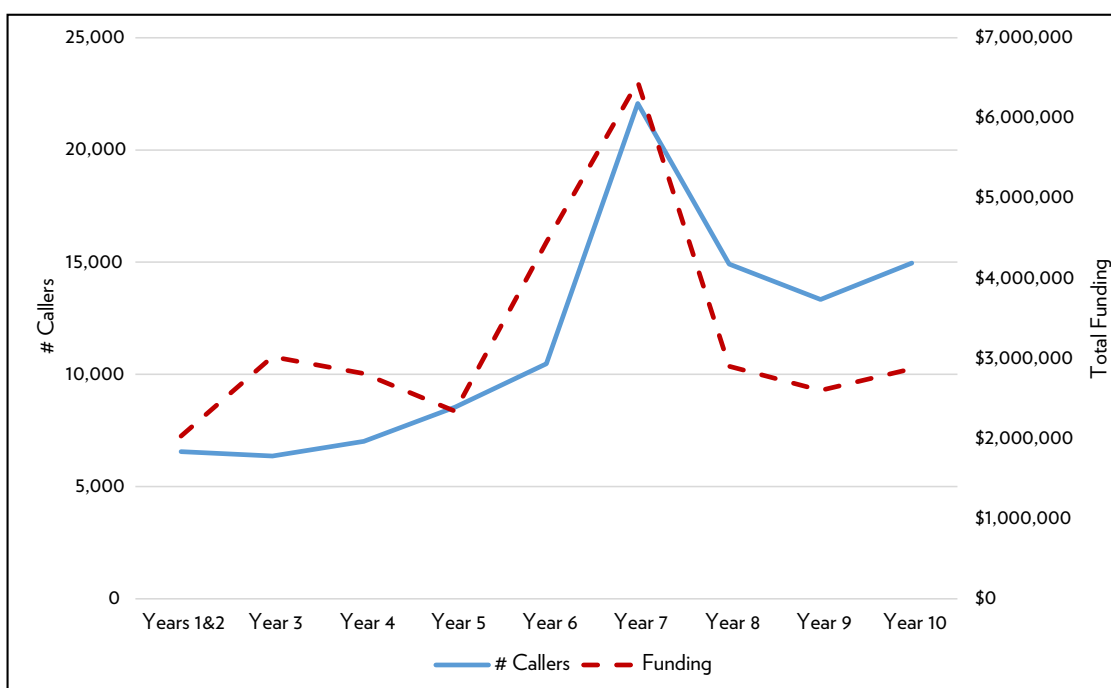
3 KEY FINDINGS & OUTCOMES

All data presented in this report reflect QuitlineNC callers who use tobacco and completed a registration call, excluding any callers (e.g., healthcare professionals or family members) who contacted the Quitline as a proxy for a tobacco user. Data presented reflect unique Quitline caller volume (i.e., callers who registered for services more than once during the year are counted only once).

A. To what extent does QuitlineNC reach NC tobacco users?

Nearly 105,000 North Carolina tobacco users (not including proxies) have contacted QuitlineNC since it launched in 2005 (Figure 1), with 14,962 North Carolinians registering in FY 2015 (Year 10 of QuitlineNC operation). This represents a modest increase of 10.9% over Year 9, bringing overall caller volume back to the level observed in Year 8. Year 10 marked the second highest caller volume recorded since QuitlineNC began in 2005, despite an absence of statewide media promotion. As shown in Figure 1, substantially higher funding in Year 7, which allowed for strong media promotion and provision of free NRT for all callers, facilitated a dramatic rise in caller volume. As state funding levels have declined over the past three years, caller volume also declined, with federally funded mass media campaigns playing a significant role in sustaining caller volume levels that are higher compared to previous years of similarly lower QuitlineNC funding.

FIGURE 1. OVERALL TOBACCO USER CALLER VOLUME, 2005-2015*



*Funding levels represent state level funding for services and promotion and does not include federal promotional funding (i.e. Tips campaign funding). Annual call volume reflects unduplicated callers, but duplication of callers may exist across years.

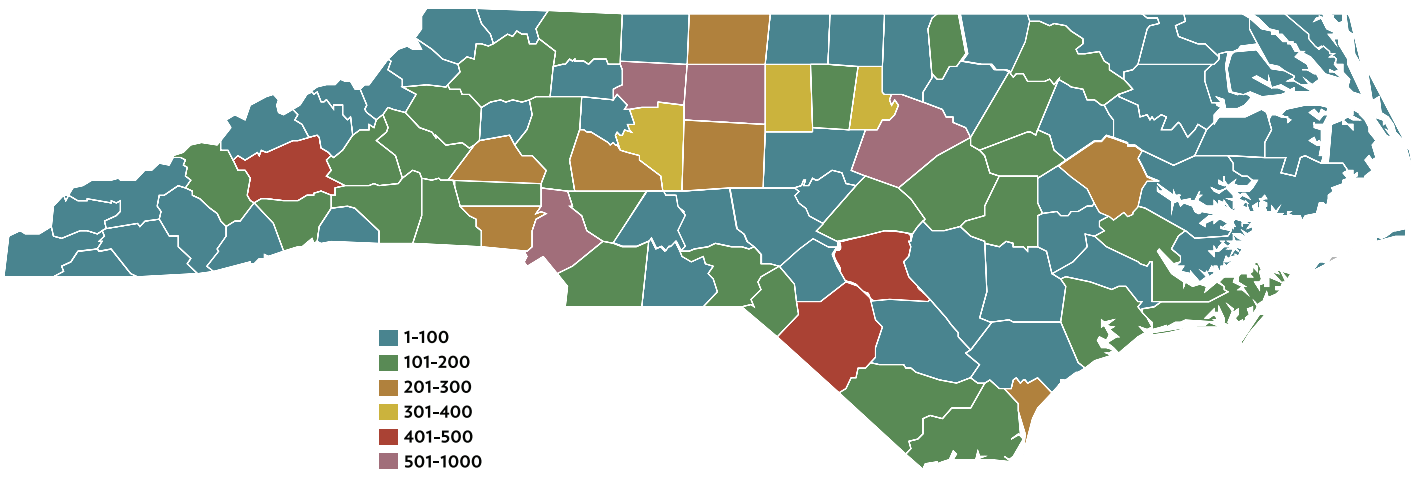
Registration reach provides a measure of the proportion of a state’s tobacco users completing a registration call in a given year, and treatment reach measures the proportion of the state’s tobacco users who receive evidence-based cessation treatment in the form of a completed cessation coaching call.⁹ In Year 10, QuitlineNC registration reach was 0.97%, compared with 0.87% in Year 9, and treatment reach was 0.71% compared with 0.65% in Year 9. QuitlineNC reach in this fiscal year was lower than the most recent national estimates (1.22% registration reach and 1.08% treatment reach in 2013).⁹ The CDC Best Practices for Comprehensive Tobacco Control Programs sets an ambitious target for state quitlines, recommending that they seek to reach 8% of their state’s tobacco users annually.¹⁰ Achieving this goal requires funding resources for Quitline services and promotion at significantly higher levels than those currently available to QuitlineNC.

While most callers accessed QuitlineNC via a direct inbound call (81%), a substantial number were connected via a fax referral from a health care provider (9.5%, n=1,428). The number of registered callers entering via a fax referral represents 33% of all unique fax referrals received by QuitlineNC in Year 10 (n=4,336). Nearly 200 healthcare facilities sent in referrals that resulted in a registered caller, including at least 10 behavioral health facilities, which resulted in 100 registered callers. This may be an underestimate due to inconsistencies in how agency names are recorded on fax referral forms.

B. Who calls QuitlineNC?

Tobacco users from every county in NC called QuitlineNC (Figure 2), with more than 700 callers from Forsyth, Wake, Mecklenburg, and Guilford counties.

FIGURE 2. CALLER VOLUME BY COUNTY (N=14,962)



QuitlineNC callers were predominantly female (60%), at least 35 years old (78%), and white (57%) (Table 1). More than half of callers (52%) had a high school education or less, 33% were uninsured, and 25% were enrolled in Medicaid, matching the Year 10 goal in percentage of callers with Medicaid reached.

TABLE 1. QUITLINE NC CALLER DEMOGRAPHICS (N=14,962)

Demographic Characteristic*		#	%
Gender	Female	8955	59.9%
	Male	5675	37.9%
	Unknown	332	2.2%
Age	17 and under	36	0.24%
	18 – 24	761	5.1%
	25 – 34	2085	13.9%
	35 – 64	10239	68.4%
	65 and older	1373	9.2%
	Unknown	468	3.1%
Race	White	8554	57.2%
	Black/African American	4225	28.2%
	American Indian/Alaskan Native	475	3.2%
	Other†	452	3.0%
	Unknown	1256	8.4%
Ethnicity	Hispanic	338	2.3%
	Non-Hispanic	13358	89.3%
	Unknown	1266	8.5%
Sexual Orientation	Heterosexual/Straight	12346	82.5%
	GLBT	563	3.8%
	Other	100	0.7%
	Unknown	1953	13.1%
Health Insurance Status	State Health Plan	615	4.1%
	Other private insurance	2710	18.1%
	Medicaid	3778	25.3%
	Medicare	2091	14.0%
	No Insurance	4996	33.4%
	Unknown	772	5.2%
Education Level	Less than high school	3039	20.3%
	High School/GED	4777	31.9%
	More than high school	5421	36.2%
	Unknown	1725	11.5%

*Unknown includes refused, not collected, not asked, does not know and missing

†Other includes callers reporting Arab/Arab American (0.07%), Asian (0.2%), Native Hawaiian/Other Pacific Islander (0.05%), or Other (2.7%)

As shown in Table 2, most callers (86%) smoked cigarettes only; 12.2% used multiple tobacco products (compared to 10.4% in Year 9); and 9% were dual users of cigarettes and electronic cigarettes, which was the same percentage as Year 9. Many callers were highly dependent tobacco users, with over half (54%) smoking at least one pack of cigarettes per day (20 cigarettes) and 81% of callers using tobacco within 30 minutes of waking. Many QuitlineNC callers reported having a tobacco-related health condition such as COPD (64%), having at least one mental health condition (41.5%), or living and/or working in a smoking environment (50%). Over 200 women (2.3% of female callers) were planning a pregnancy, pregnant, or breastfeeding at the time of their Quitline registration; reaching these women with effective cessation services can result in significant health benefits and medical cost savings for the women and their infants.

TABLE 2. QUITLINE NC CALLER TOBACCO USE AND HEALTH CHARACTERISTICS (N=14,962)*

Tobacco Use/Health Characteristics		#	%
Tobacco use	Cigarettes only	12026	85.8%
	Cigarettes and other tobacco products (includes e-cigarettes)	1708	12.2%
	Cigarettes and e-cigarettes	1251	9.0%
Cigarette smokers' smoking intensity (n=13,734)	Light (0-10 cpd)	4649	33.9%
	Moderate (11-19 cpd)	1671	12.2%
	Heavy (20+ cpd)	7414	54.0%
Nicotine dependence	Use tobacco within 5 minutes of waking	6888	50.9%
	Use tobacco within 30 minutes of waking	10952	81.0%
Health status	Tobacco-related health condition†	9609	64.2%
	At least 1 mental health condition‡	6204	41.5%
	2+ mental health conditions	3573	23.9%
	Drug or alcohol abuse	825	5.5%
Smoking exposure	Live/work in smoking environment	7543	50.4%
Pregnancy status (female callers only, n=8,955)	Planning pregnancy, pregnant, or breastfeeding	203	2.3%

cpd: cigarettes per day

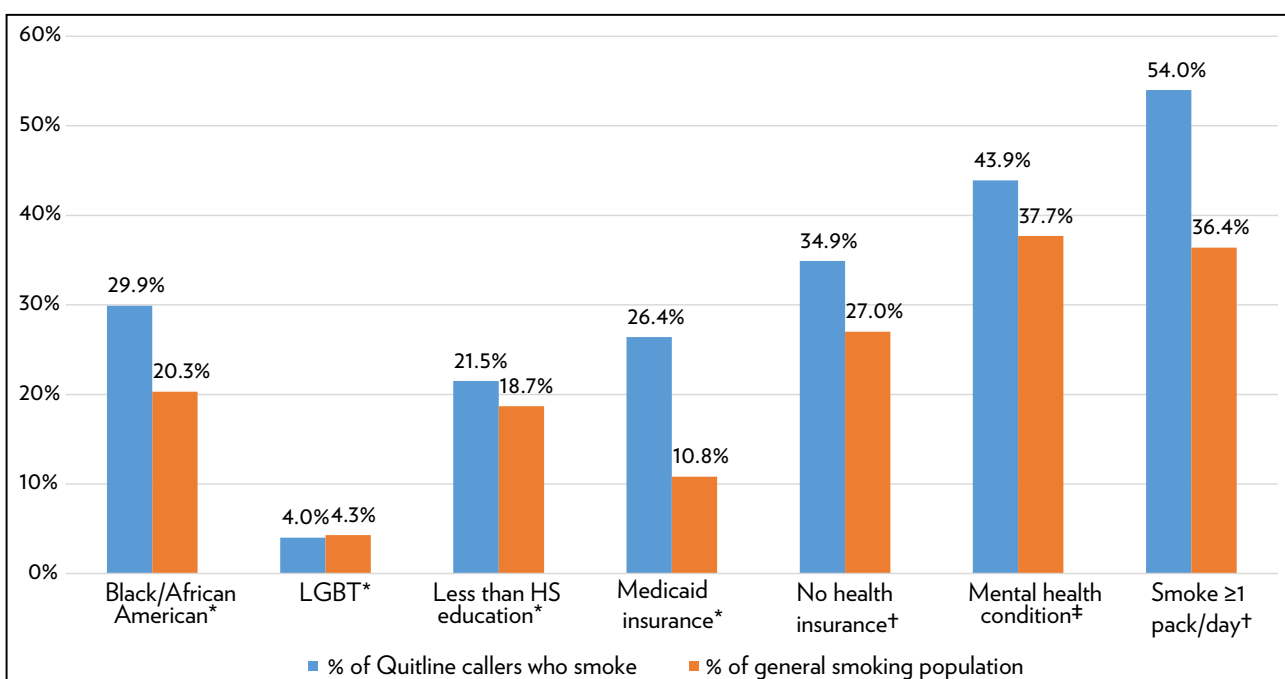
*Excludes callers with missing data

†Includes asthma, chronic obstructive pulmonary disease (COPD), coronary artery disease (CAD), diabetes, high blood pressure, arthritis, high cholesterol, or cancer

‡Includes depression, ADHD, bipolar, anxiety disorder, PTSD, or schizophrenia

QuitlineNC is successfully reaching callers from populations that experience disparities in tobacco use and tobacco related diseases and/or have more difficulty quitting at rates approximately equal to or exceeding the proportion of NC adults who smoke in each of these populations (Figure 3). In Year 10, QuitlineNC was particularly successful in reaching callers who reported African American race, were enrolled in Medicaid or were uninsured, and/or reported heavy smoking. The two week free nicotine patch starter kit offered to callers with Medicaid or no insurance likely contributed to the success in reaching callers from these populations. Activities conducted as part of the CDC capacity grant, including technical assistance to three healthcare agencies serving behavioral health and Medicaid populations and outreach to LGBT organizations, appear to be helping QuitlineNC in successfully reaching callers from these populations, which have been identified as priority populations in the five year grant.

FIGURE 3. QUITLINE NC CALLERS FROM DISPARATE POPULATIONS



*Estimate based on 2012-2013 NC Behavioral Risk Factor Surveillance Survey

†Estimate based on 2012-2013 National Health Interview Survey

‡Estimate based on 2009-2011 National Survey on Drug Use and Health

C. How do callers engage with QuitlineNC services?

Most (94%) tobacco users who call QuitlineNC request an intervention (i.e., request a coaching call rather than requesting materials only or asking general questions). Of callers requesting an intervention (n=14,033), most (76%) enrolled in the four-call program, 23% enrolled in the one-call program, and 1% enrolled in the multi-call program tailored to pregnant women or youth callers. Most multi-call enrollees (84%) completed at least 2 coaching calls, though only 7.5% completed at least four coaching calls as recommended by tobacco use treatment guidelines.¹¹

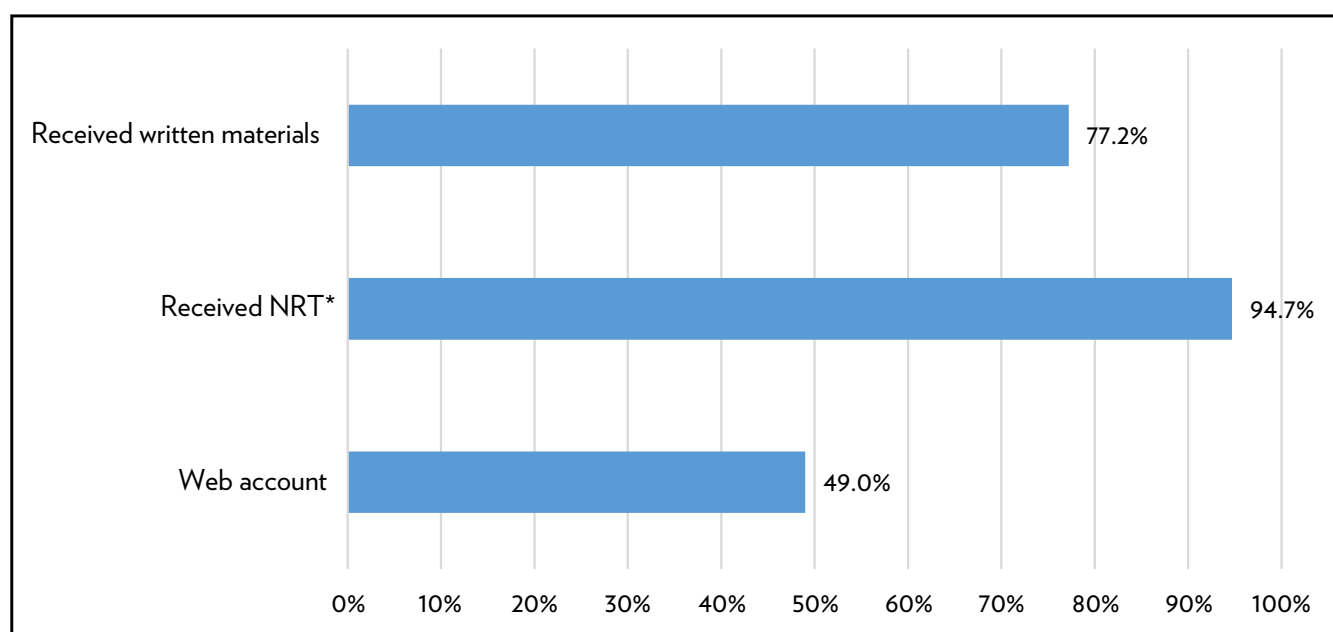
Certain caller characteristics were associated with a lower likelihood of completing multiple coaching calls. Callers who were younger (ages 18-34), uninsured or Medicaid insured, had less than a high school education, those living and/or working in a smoking environment, and those who smoke at least 20 cigarettes (1 pack) per day were less likely to complete the recommended four coaching calls.

Identifying barriers that result in lower utilization of QuitlineNC services from these callers (e.g., limited cell phone minutes, lack of social support) is crucial in developing strategies to better engage NC tobacco users from disparate populations.

Strategies to increase QuitlineNC service utilization by one-call program enrollees are also needed; the majority of one-call program enrollees (93%) do not complete any coaching calls following registration. QuitlineNC callers who are not ready to set a quit date during the registration process are directed to the one-call program. These callers may be less motivated or confident in their ability to quit and thus may be less likely to accept a coaching call following the registration process. Strategies are needed to increase the number of one-call program enrollees who complete a coaching call; such strategies may result in increasing caller motivation and self-efficacy.

Many callers utilized additional supports offered through QuitlineNC (Figure 4). The majority of callers (77%) received written materials and most (95%) eligible multi-call program callers (i.e., callers with State Health Plan insurance, Medicaid, Medicare, or no insurance; callers who were residents of Orange County; and callers who registered during the Great American Smokeout (November 20, 2014) or during the ten days marking World No Tobacco Day and No Menthol Sunday (May 21-May 31, 2015) received NRT. Roughly half of callers (49%) utilized support through a registered web account.

FIGURE 4. UTILIZATION OF QUITLINE NC RESOURCES FOR CALLERS ENROLLED IN A CALL PROGRAM (N=14,033)



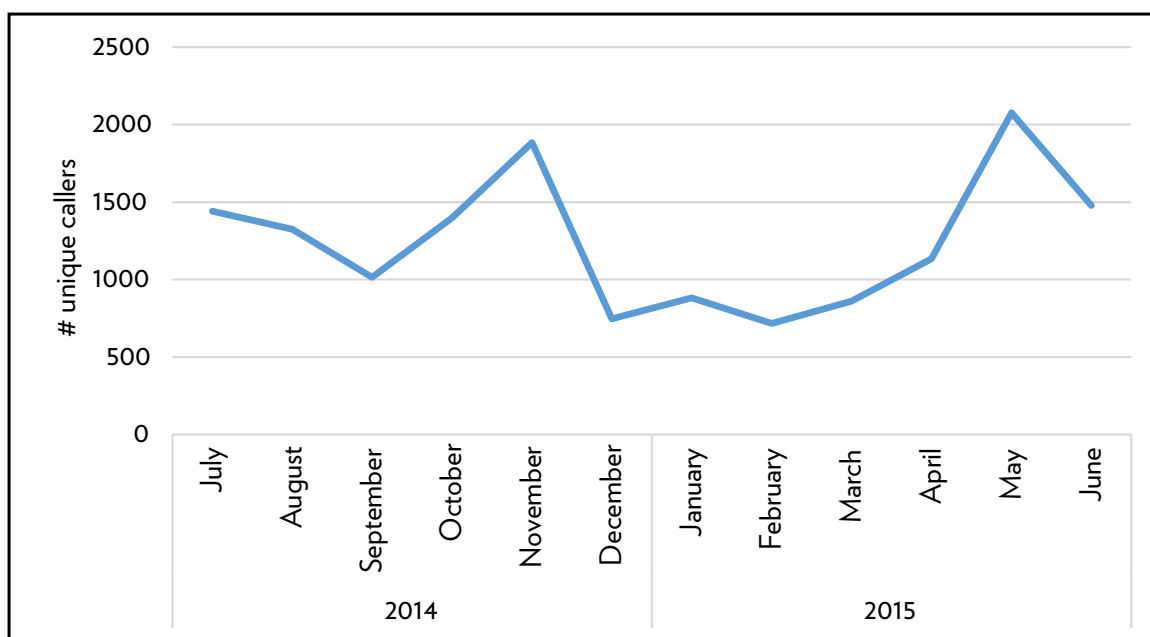
*Only multi-call program callers with State Health Plan insurance, Medicaid, Medicare, or no insurance; callers who were residents of Orange County; and callers registering during the Great American Smokeout or during promotions marking World No Tobacco Day and No Menthol Sunday were eligible for NRT (n=9,312)

D. What impact does promotion have on QuitlineNC caller volume?

FY 2015 marked the third consecutive year without continuous wide-scale media promotion, with continued legislative prohibition of statewide TV and radio ads since FY 2013 and no dedicated media promotion funding. Promotion and outreach activities sponsored by the TPCB and local health groups increased compared to the previous year. A few small scale, time-limited paid efforts, including radio, transit, and billboard ads, were conducted by local health groups; these activities were not of sufficient scale to noticeably influence overall caller volume. As part of the CDC capacity grant, the TPCB conducted a mobile/online advertising campaign from January 5 – March 1, 2015 targeting the LGBT community in urban areas of NC with ads from the CDC Tips from Former Smokers campaign. The proportion of callers identifying themselves as LGBT during the campaign was 12.4% higher than the proportion of LGBT callers during the remainder of Year 10.

TV ads from the federally funded CDC Tips campaign, tagged with the Quitline number, aired in North Carolina for 13 weeks, from March 30,, 2015 through the end of the fiscal year, during which time overall caller volume increased by 97% compared to the preceding 13 weeks (Figure 5). While other factors contributed to this increase, nearly one-third of callers (30.6%) reported hearing about the Quitline from a TV commercial during this period, suggesting a strong influence of the campaign.

FIGURE 5. QUITLINENC CALLER VOLUME BY MONTH (N=14,962)

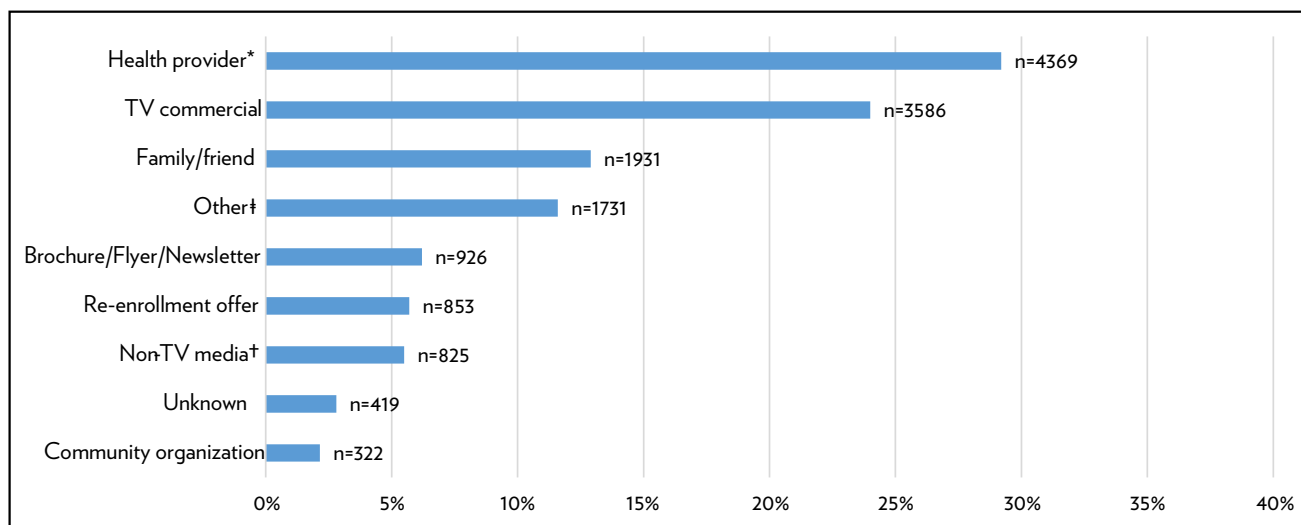


Two free NRT promotions sponsored by the TPCB were associated with spikes in caller volume in November and May. In conjunction with the American Cancer Society’s Great American Smokeout observation on November 20, 2014, eight weeks of free nicotine patches were promoted for anyone who registered with the Quitline that day. Response to the promotion was strong, with 761 callers registering on November 20th, accounting for 40% of all November callers and totaling more callers than during the entire month of December. A second eight week patch promotion ran from May 21 – May 31, 2015, in conjunction with observations of World No Tobacco Day and No Menthol Sunday. Response to this promotion was very strong, with 1,332 callers registering over the 10 day period, a 210% increase compared to the preceding 10 days, indicating that the promotion impacted caller volume beyond any increases associated with the Tips media campaign.

These two promotions were publicized by TPCB via notifications to TPCB sponsored listservs primarily made up of public health and health professionals across the state. Each event generated a number of earned media in the form of newspaper articles and local TV news coverage. The strong response to these promotions suggests that the grassroots communication strategies employed by TPCB are effectively communicating to key stakeholders across the state who are able to effectively disseminate information and generate earned media coverage.

As in Year 9, health providers, including health departments and pharmacies, were the most frequently cited source of how callers heard about QuitlineNC (29% compared to 34% in Year 9), followed by TV commercial (24% compared to 21% in Year 9) (Figure 6). Word of mouth was also an important source of information, with nearly 2,000 callers (13%) hearing about QuitlineNC from a family member or friend. As in Year 9, there appears to be a sustained impact of previous year's efforts to raise awareness and utilization of QuitlineNC among health providers. It is also likely that TPCB's use of email listservs to disseminate information about QuitlineNC promotions to health and public health practitioners across the state helps to maintain awareness of the service among health providers.

FIGURE 6. HOW CALLERS HEARD ABOUT QUITLINE NC (N=14,962)



*Health provider includes health department, health professional, and pharmacy

‡Other includes health insurance providers, TV news, cigarette pack, employer/worksites, and other

†Non-TV media includes newspaper/magazine, outdoor ad, radio, and website

E. How effective are QuitlineNC services?

Satisfaction and quit data are collected with a seven-month follow-up survey conducted by the QuitlineNC vendor, Aleré Wellbeing. At the time of this report, data on Year 10 callers was not available. Based on previous quit data from Year 8 (FY 2012-2013) and Year 9 (FY 2013-2014), which both had an intent-to-treat quit rate of 11% and a responder quit rate of 28%,¹²⁻¹³ between 1,645 and 4,189 QuitlineNC callers quit their tobacco use for at least 30 days in Year 10. Since the launch of QuitlineNC in 2005, between 8,704 and 22,594 NC tobacco users who utilized QuitlineNC coaching have quit, resulting in between \$53.2 and \$185.1 million in net medical cost savings (costs of healthcare savings minus costs of services). Savings estimates apply current quit rates to the total number of unique QuitlineNC callers and assume a \$9,500 medical cost savings per tobacco user who quits.¹⁴

4 CONCLUSIONS

Evaluation data show that the North Carolina (NC) Tobacco Quitline, QuitlineNC, continues to provide a valuable and necessary service to North Carolinians in every county, reaching users from groups with disparities in tobacco use and related health outcomes. In Fiscal Year 2014-2015 (FY 2015), compared to the previous year, QuitlineNC funding increased 10%, more targeted grassroots outreach efforts were conducted by TPCB, and free nicotine replacement therapy (NRT) was more available, with many callers eligible throughout the year and additional callers eligible during two successful promotional events. Subsequently, Quitline caller volume increased 10.9% in FY 2015 compared to the previous year, with 14,962 North Carolinians registering with QuitlineNC, the second highest annual caller volume to date. The combination of free NRT promotional efforts and the federally sponsored “Tips from Former Smokers” advertising campaign strongly influenced this success. Continuing to pair free NRT promotions available to all callers with targeted outreach efforts designed to reach health care providers and members of disparate populations will be important to sustaining high caller volume. Removing statewide advertising restrictions would help reach more North Carolinians and ensure optimal delivery of Quitline services, which are necessary to achieving the ambitious Healthy People 2020 target of reducing smoking prevalence to below 13%.

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