



# North Carolina QuitlineNC



## QuitlineNC Year 6 Annual Report July 2010 – June 2011

Prepared for:  
North Carolina Department of Health and Human Services  
Tobacco Prevention and Control Branch



Prepared by:  
UNC School of Medicine  
Tobacco Prevention and Evaluation Program



---

For more information about the QuitlineNC Outcomes Evaluation, please contact:

## **Tobacco Prevention and Evaluation Program**

**University of North Carolina at Chapel Hill**

**School of Medicine**

**Department of Family Medicine**

**CB #7595, Manning Drive**

**Chapel Hill, NC 27599**

**T: 919-843-9751**

**F: 919-966-9435**

**Web: [www.tpep.unc.edu](http://www.tpep.unc.edu)**

**Email: [tpep@med.unc.edu](mailto:tpep@med.unc.edu)**

## I. Executive Summary

The North Carolina (NC) Tobacco Quitline (QuitlineNC) is a state-funded, call-in tobacco cessation service that provides free support to all NC residents who want to quit tobacco. From its launch in late 2005 through June 2011, QuitlineNC was jointly funded by the North Carolina Health and Wellness Trust Fund (HWTF) and the Tobacco Prevention and Control Branch (TPCB) of the NC Department of Health and Human Services. The HWTF provided funding for four targeted populations: youth aged 17 and younger; young adults 18 through 24; school and childcare employees and adults who are the primary caregiver of a youth; and women who are pregnant, planning a pregnancy, or breastfeeding. Since inception, the University of North Carolina School of Medicine Tobacco Prevention and Evaluation Program (UNC TPEP) has evaluated the HWTF-funded portion of QuitlineNC.

From July, 2010 through June, 2011 (the sixth year of operation), QuitlineNC funding totaled \$4.45 million (\$3.15 million for services, \$1.3 million for promotion). Evaluation data continue to demonstrate that QuitlineNC is a valuable and necessary service to the citizens of North Carolina. Year 6 saw record growth in overall caller volume, with 10,476 NC tobacco users reaching out for services, an increase of 22.7% from Year 5. QuitlineNC callers came from every NC county. Almost one-third of all callers were uninsured, many of whom might not receive cessation services without the Quitline. Callers from uninsured, Medicaid, and young adult populations all significantly increased in Year 6. Fax referrals as a means of accessing QuitlineNC were notably higher. Quit rates also increased, with between 1,278 and 3,132 of QuitlineNC callers reporting success in quitting tobacco for at least 30 consecutive days in Year 6. Since program inception, between 3,065 and 8,632 unique tobacco users who have contacted QuitlineNC have succeeded in quitting, amounting in a medical cost savings of between \$29.1-\$82 million.

State surveillance data indicate the prevalence of NC adult smokers is at an all-time low (19.8%). Among young adults, however, smoking prevalence remains high (29.1%).

Based on the important role QuitlineNC plays in addressing important Health People 2020 objectives, its availability to populations who often have no other access to assistance with smoking cessation, and the medical cost-savings realized through its existence, TPEP recommends leveraging additional resources to expand program services and promotion. In addition, efforts to target young adults who are not post-secondary education students should be continued.

## II. Overview

QuitlineNC funding in Year 6 for coaching services, nicotine replacement therapy (NRT), evaluation, and custom reporting totaled \$3.15 million. Funding came from three sources: the HWTF (\$1.55 million), State Health Plan (\$1.25 million to cover call services and NRT for their members), and the TPCB (\$345,000 of American Recovery Reinvestment Act [ARRA] funding to cover services for callers who were uninsured or on Medicaid). Included in the \$3.15 million reported above were HWTF funds used to support the NC Colleges NRT pilot program, which included \$190,000 to cover NRT for callers who were students in higher education and an additional \$67,000 for evaluation of the pilot program.

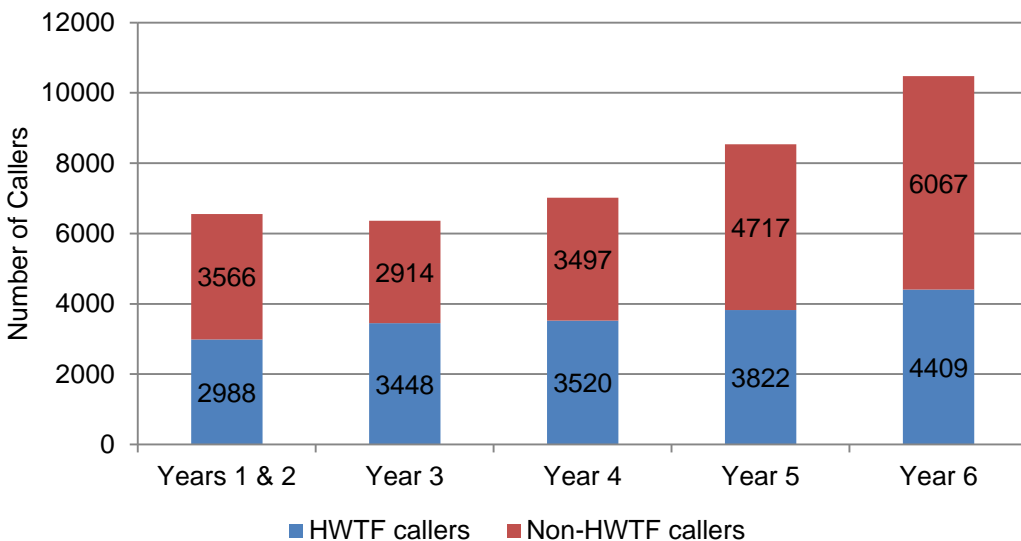
Funding for promotion of QuitlineNC came from two sources. The HWTF invested \$1 million for promotion, and an additional \$315,000 of ARRA funding was used for targeted promotion of QuitlineNC among the uninsured and those on Medicaid.

### III. Summary of Key Findings and Outcomes

#### A. QuitlineNC Caller Volume

Nearly 40,000 North Carolina tobacco users have contacted QuitlineNC since its inception in November of 2005 (Figure 1).<sup>1</sup> Overall caller volume to QuitlineNC increased 22.7% in Year 6 (10,476 tobacco users called) from Year 5 (8,539 tobacco users called). This call volume increase was consistent with that experienced from Year 4 to Year 5. Caller volume for HWTF target groups increased 15.4% from 3,822 callers in Year 5 to 4,409 callers in Year 6. Adequately promoted Quitlines may result in 1-2% of adult (aged 18 and older) tobacco users calling their state Quitline (i.e. utilization reach).<sup>2</sup> In Year 6, 0.64% of North Carolina's adult tobacco users called QuitlineNC, up from 0.46% in Year 5. Treatment reach provides a measure of the proportion of callers who receive evidence-based cessation treatment in the form of a completed cessation coaching call. In Year 6, 0.52% of North Carolina adult tobacco users completed at least one coaching call compared to 0.45% in Year 5.

**Figure 1: Overall QuitlineNC Caller Volume, 2005-2011**



#### B. Caller Demographics and Characteristics

Callers represented all 100 counties of NC. Callers to QuitlineNC were predominately female (58.9%), over the age of 45 (51.2%), and white (65.8%). The percentage of callers identified as being Black or African-American (27.1%) remained similar to Year 5.<sup>3</sup> Nearly 31% percent of callers had no insurance in Year 6 (22.3% in Year 5) and 16.3% were insured through Medicaid (13.1% in Year 5). This change was a 68.3% increase in callers with no insurance (2,941 in Year 6; 1,747 in Year 5) and a 53.0% increase in callers who were insured through Medicaid (1,565 in Year 6; 1,023 in Year 5). Most callers (86.3%) reported being in the preparation stage of quitting

<sup>1</sup> QuitlineNC vendor, Alere, estimates a 19.7% repeat caller rate, thus the actual number of unique callers may be closer to 32,000.

<sup>2</sup> Miller CL, Wakefield M, Roberts L. Uptake and effectiveness of the Australian telephone Quitline service in the context of a mass media campaign. *Tob Control*. 2003; 12 Suppl 2:ii53-8.

<sup>3</sup> Not all QuitlineNC callers were asked to provide all or some of their demographic information and others chose not to provide this information. Percentages were based only on those that did provide information regarding a particular demographic variable. Note that the Year 5 report did not account for the large quantities of missing data so percentages for Year 5 data reported here may not match those reported in the Year 5 Annual Report.

(i.e., preparing to quit in the next 30 days), indicating QuitlineNC was successfully reaching those ready to quit in the next 30 days. Nine percent reported being in the action stage, indicating they were working to sustain their quit attempt of between 24 hours and 6 months.

Of the 4,409 callers from the HWTF target populations, 99 were youth ages 17 and younger; 1,140 were young adults; 2,905 were adults who were primary caregivers, teachers, or childcare providers to youth; and 265 were women who were pregnant, planning a pregnancy, or breastfeeding.<sup>4</sup> The number of young adults who called QuitlineNC increased by 53.0% from 745 in Year 5 to 1,140 in Year 6.

**Table 1: QuitlineNC Caller Demographics\***

<b>Demographic Characteristic</b>	<b>#</b>	<b>%</b>
<b>Gender (n=10,184)</b>		
Male	4,188	41.1
Female	5,996	58.9
<b>Age Group (n=10,007)</b>		
17 and under	105	1.0
18 to 24	1,251	12.5
25 to 34	1,760	17.6
35 to 44	1,773	17.7
45 to 54	2,671	26.7
55 to 64	1,877	18.8
65 and older	570	5.7
<b>Race (n=9,389)</b>		
White	6,177	65.8
Black/African American	2,544	27.1
Native American	227	2.4
Other Race	441	4.7
<b>Ethnicity (n= 9,403)</b>		
Hispanic (can be of any race)	357	3.8
Non-Hispanic	9,046	96.2
<b>Health Insurance (n=9,611)</b>		
State Health Plan	1,856	19.3
Other Private Insurance	2,413	25.1
Medicare	836	8.7
Medicaid	1,565	16.3
Uninsured	2,941	30.6
<b>Education Level (n=8,081)</b>		
Less than High School	1,388	17.2
High School or GED	2,257	27.9
More than High School	4,436	54.9
<b>Pregnancy Status (female callers only, n=5,996)</b>		
Planning Pregnancy, Pregnant or breastfeeding	265	4.4
Not in a Pregnancy Group	5,731	95.6

\*Not all respondents were asked to provide all demographic information and some refused to respond.

‡ "Other" includes callers who reported race as Asian, Arab or Arab American, Native Hawaiian/Other Pacific Islander, or Other.

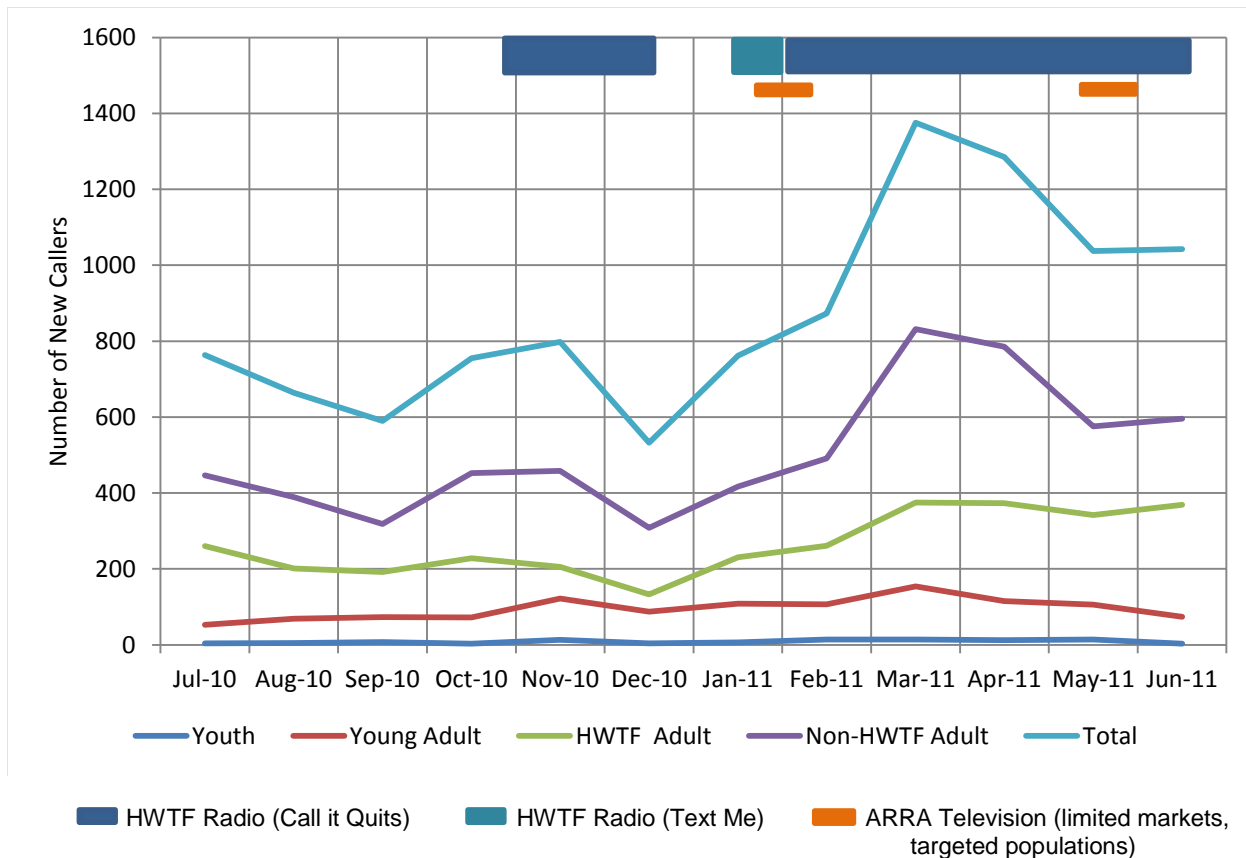
<sup>4</sup> All youth and young adult callers who fell into a pregnancy group were classified as a pregnancy-group caller. Among pregnancy group callers, 6 were ages 17 and under and 111 were ages 18-24.

### C. Promotion and Monthly Caller Volume

Low caller volume during the first quarter of the fiscal year may have been the result of a lack of large-scale promotion during that period. Radio ads paid for by the HWTF that aired from late-October until mid-December and from mid-January through the end of June, along with television commercials in limited viewing areas and targeted toward the uninsured and those on Medicaid, appeared to positively impact caller volume (Figure 2). The five most frequently-cited sources of information about QuitlineNC were health care professionals (20.9% of callers), radio (14.4%), outbound re-enrollment offer<sup>5</sup> (9.9%), family or friend (9.8%), and TV/commercial (8.3%). It appears that the radio campaign was effective since radio was cited by callers as the second-most frequent source for gaining information about the Quitline.

Nearly 17% of callers entered QuitlineNC via fax referral in Year 6, up from 12% in Year 5. This may reflect efforts to increase fax referrals among hospitals and trainings/webinars to providers on evidence-based tobacco dependency treatment resources and information on how to refer a patient via fax to QuitlineNC.

**Figure 2: Overall QuitlineNC Caller Volume, Year 6 (n=10,476)**



<sup>5</sup> Outbound re-enrollment offer was a Quitline-initiated effort to re-contact and re-enroll previous participants who did not complete their initial series of Quitline calls. This re-enrollment offer continued through September, 2011.

## D. Satisfaction and Quit Rates

According to analysis by QuitlineNC vendor, Alere, 75.6% of callers who responded to the seven month follow-up survey (n=958) reported being very or mostly satisfied with QuitlineNC services. Among HWTF target populations, 75.1% of primary caregivers/school employees, 81.4% of young adults and 87.5% of youth reported being very or mostly satisfied with QuitlineNC services.

Alere reported an intent-to-treat 30-day quit rate (meaning the caller had quit using tobacco for at least 30 consecutive days at the time of the seven month follow-up survey) of 12.2% for all callers, up from the 8.7% rate reported in Year 5. Intent-to-treat quit rates assume that all survey non-respondents are continued tobacco users, and thus underestimates the true quit rate among all QuitlineNC callers. The respondent 30-day quit rate was 29.9%, up slightly from the 27.2% rate observed in Year 5. The respondent quit rate does not account for the tobacco use status of survey non-respondents and thus overestimates the true quit rate among all QuitlineNC callers. The true 30 day quit rate, therefore, lies between the 12.2% intent-to-treat estimate and the 29.9% respondent estimate. Using these estimates, between 1,278 and 3,132 QuitlineNC callers succeeded in quitting tobacco for at least 30 consecutive days in Year 6. Since program inception, between 3,065 and 8,632 unique tobacco users who have contacted QuitlineNC have succeeded in quitting, amounting in a medical cost savings of between \$29.1 million and \$82 million.<sup>6</sup>

## E. Statewide Surveillance Data

Data from the 2010 NC BRFSS indicate that the prevalence of smoking among all NC adults is 19.8% (95% Confidence Interval [CI] 18.5-21.1%), compared to 20.3% (95% CI 19.0-21.6%) in 2009. Among young adults, however, the prevalence of smoking is 29.1% (95% CI 22.9-36.3%), compared to 2009's 24.1% (95% CI 18.9-30.1%). Nearly 53% of adult smokers were aware of QuitlineNC in 2010, compared to 2009's awareness of 57%. Comparable to the previous year, 60.5% reported attempting to quit in the last year (59.3% in Year 5); 44.5% of high school smokers and 67.9% of middle school smokers reported a quit attempt.

## F. Conclusions

QuitlineNC saw increased caller volume and quit rates and improved reach. Growth in caller volume from uninsured, Medicaid, and young adult populations were notable. QuitlineNC remains a valuable resource to the citizens of North Carolina. The medical cost savings associated with QuitlineNC cannot be ignored. If these cost savings are to continue to be realized, TPEP recommends:

- Leveraging additional resources to expand program services and promotion in order to greater maximize the cost savings potential of the program;
- Continuing to target the uninsured and those on Medicaid; and
- Expanding efforts targeting the young adult population including the use of innovative social media approaches.

---

<sup>6</sup> Range calculated using mean 30-day respondent and intent-to-treat quit rates (2006-2011); minus the 19.7% repeat caller rate, from the 7-month follow-up survey. \$9,500 lifetime savings per successful quitter- Source: Campaign for Tobacco Free Kids, LIFETIME HEALTH COSTS OF SMOKERS vs. FORMER SMOKERS vs. NONSMOKERS, accessed at: <http://www.tobaccofreekids.org/research/factsheets/pdf/0277.pdf>