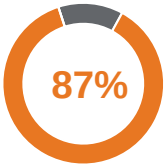
Kansas Tobacco Quitline Stakeholder Report – 2016/2017

had been quit for at least 30 days 7 months after beginning **phone** treatment

had been quit for at least 30 days 7 months after beginning **Web-Only** treatment



of phone program participants were satisfied with the program

of Web-Only program participants were satisfied with the program

What is the Kansas Tobacco Quitline?

- The Kansas Tobacco Quitline (KTQL) provides empirically supported telephone- and web-based tobacco cessation coaching to all Kansans, including cessation medication support and education, integrated Web Coach®, text messaging support, printed materials, and referral to community resources. A **2-week supply of Nicotine Replacement Therapy** (NRT) was offered during special promotions. Stand Alone Web Coach® (Web-Only) is also offered.

Why is the Quitline needed?

- In 2016, one in six adults in Kansas (17.2%) were current smokers, and more than half (55.4%) of these smokers made a quit attempt.[1] The KTQL 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.[2,3,4] The United States Community Preventative Services Taskforce recommends quitline interventions based on 71 study trials of telephone counseling that show their effectiveness.[5]

Is the program cost-effective?

- $9.38 was saved in Kansas in medical expenditures, lost productivity, and other costs for every $1 spent on the Quitline and tobacco cessation media from June 2016 to May 2017.

Who enrolls in KTQL phone or Web-Only services?

- 84% enroll in the phone program
- 16% enroll in the Web-Only program
- 63% female
- 80% White
- 12% Black or African American
- 48% between the ages of 41 and 60
- 44% live with a chronic health condition
- 46% live with a mental health condition
- 17% have less than a high school education
- 34% have a high school diploma or GED
- 28% have some college or trade school
- 21% have a college or trade school degree

In this document

- Tobacco use impacts in Kansas
- Best practices and research evidence for phone-based tobacco cessation
- Description of KTQL services
- Who uses the Quitline services
- Program outcomes and Return On Investment (ROI) findings

Tobacco use in Kansas

"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[6]

- In 2016, 17.2% of adults in Kansas were current smokers, which is slightly higher than the national average of 16.4%.[1] This translates to over 377,000 adult tobacco users in the state.[7]
- Smoking costs Kansas over $1.1 billion annually in health care expenditures.[8] Nationally, it is estimated that each pack of cigarettes sold costs $19.16 in direct health care expenditures and lost workplace productivity.[9]
- Kansans who do not 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.[10]
  - While this percentage has dropped dramatically over the last three decades (from 87.5% in 1988 to 25.2% in 2014), there are notable disparities in exposure. Children, non-Hispanic blacks, persons living in poverty, and persons living in rental housing still face high exposure rates.[10]
- Kansas' excise tax on cigarettes was last increased in 2015.[11] At $1.29 per pack, it is below the national average of $1.81.[11] The Community Preventative Services Task Force recommends tobacco taxes as a method to increase the cost of tobacco as part of a comprehensive tobacco control strategy.[12]

Kansas' smoking prevalence and related costs underscore the importance of smoking cessation programs in improving the lives and health of Kansans.

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[2]

- Quitting smoking reduces a person's risk for numerous chronic health conditions and premature death, with greater benefits the younger a person quits.[13] Quitting smoking by age 50 cuts a person's risk of dying within 15 years in half.[14]

- Extensive research and meta-analyses have proven the efficacy and real-world effectiveness of tobacco quitlines.[2,3,4,5]
  - **Tobacco users who receive quitline services are 60% more likely to successfully quit** compared to tobacco users who attempt to quit without assistance.[2]
  - **Tobacco users who receive medications and quitline counseling have a 30% greater chance of quitting** compared to using medications alone.[2]

Quitlines

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

- 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, may provide services that are not available locally, and reduce disparities in access to care.[15]

- The Community Preventative Services Taskforce has concluded that quitlines are cost-effective based on a review of 27 studies.[5]

- Three strategies have been proven to be especially effective in promoting Quitline use: [5]
  - 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 medication and nicotine replacement therapy through the Quitline
  - Referral to the Quitline by a health care provider

Assuring Quitline Service Best Practices for Kansans

The Kansas Tobacco Quitline is **operated and evaluated in line with North American Quitline Consortium (NAQC) best practices**. The Quitline has been operated by Optum since January 2010.

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 federally and state-funded randomized clinical trials have demonstrated the effectiveness of Optum's tobacco cessation program.[16,17,18,19,20]

Additional vendor qualifications:

- More than 30 years of experience providing phone-based tobacco cessation services.
- Provision of tobacco cessation services to 27 tobacco quitlines (25 states, Washington DC, and Guam) and more than 750 commercial organizations (76 in the Fortune 500).
- Selected by the American Cancer Society to be its operating partner for quitline services.
- 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.

What services did the Kansas Tobacco Quitline provide in 2016 – 2017?

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*.

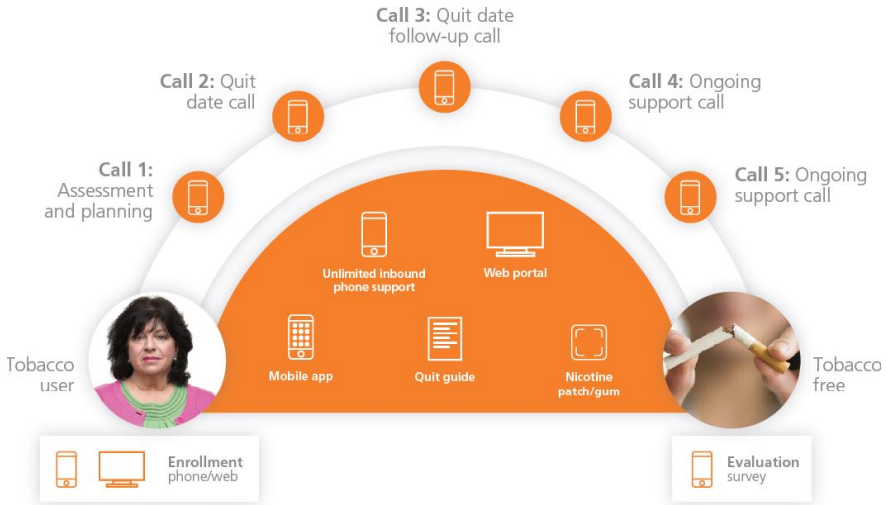


Image source: Optum

- Phone-based tobacco cessation services:
  - **One-call (C1) tobacco cessation program *for all callers***
    - Initial coaching session with Quit Coach® staff
  - **Five-call (C5) tobacco cessation program *those ready to quit within 30 days***
    - Initial coaching session and four 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
  - **Youth Support Program (YSP) for tobacco users aged 13 to 17 years**
    - Behavioral support tailored to unique challenges faced by youth tobacco users
    - All calls completed with the same Quit Coach® trained in youth support
- Web- and text-based tobacco cessation services:
  - **Integrated Web Coach®**
    - Interactive, web-based cessation tool designed to complement and enhance phone counseling
    - Integrated access with any phone-based Quitline program
    - Community forum for participants to discuss successes and challenges, moderated by Quit Coach® staff
  - **Stand Alone Web Coach® program**
    - Online participant application designed to guide tobacco users through an evidence-based process of quitting tobacco
  - **Text2Quit for KTQL callers with cell phones**
    - Interactive text messaging cessation aid designed to help guide smokers through the quitting process over a 12-month period
    - Integrated access with any phone-based Quitline program
- A **2-week supply of Nicotine Replacement Therapy (NRT)** offered during special promotions.

Quitline Reach

Promotional reach is calculated as the percentage of adult tobacco users in Kansas who contact the KTQL from June 1, 2016 through May 31, 2017:[21, 22]

$$\frac{\text{\# of adult tobacco users in Kansas who contacted the KTQL}}{\text{\# of adult cigarettes users in Kansas}} = \mathbf{0.95\%}$$

Treatment reach is calculated separately for cigarette users and smokeless tobacco users and is the percentage of cigarette (or smokeless) users in Kansas who enrolled in the KTQL phone program from June 1, 2016 through May 31, 2017 and received evidence-based phone treatment (at least one intervention call).

Treatment reach for cigarette users:

$$\frac{\text{\# of adult cigarette users in Kansas who received treatment from the KTQL}}{\text{\# of adult cigarettes users in Kansas}} = \mathbf{0.47\%}$$

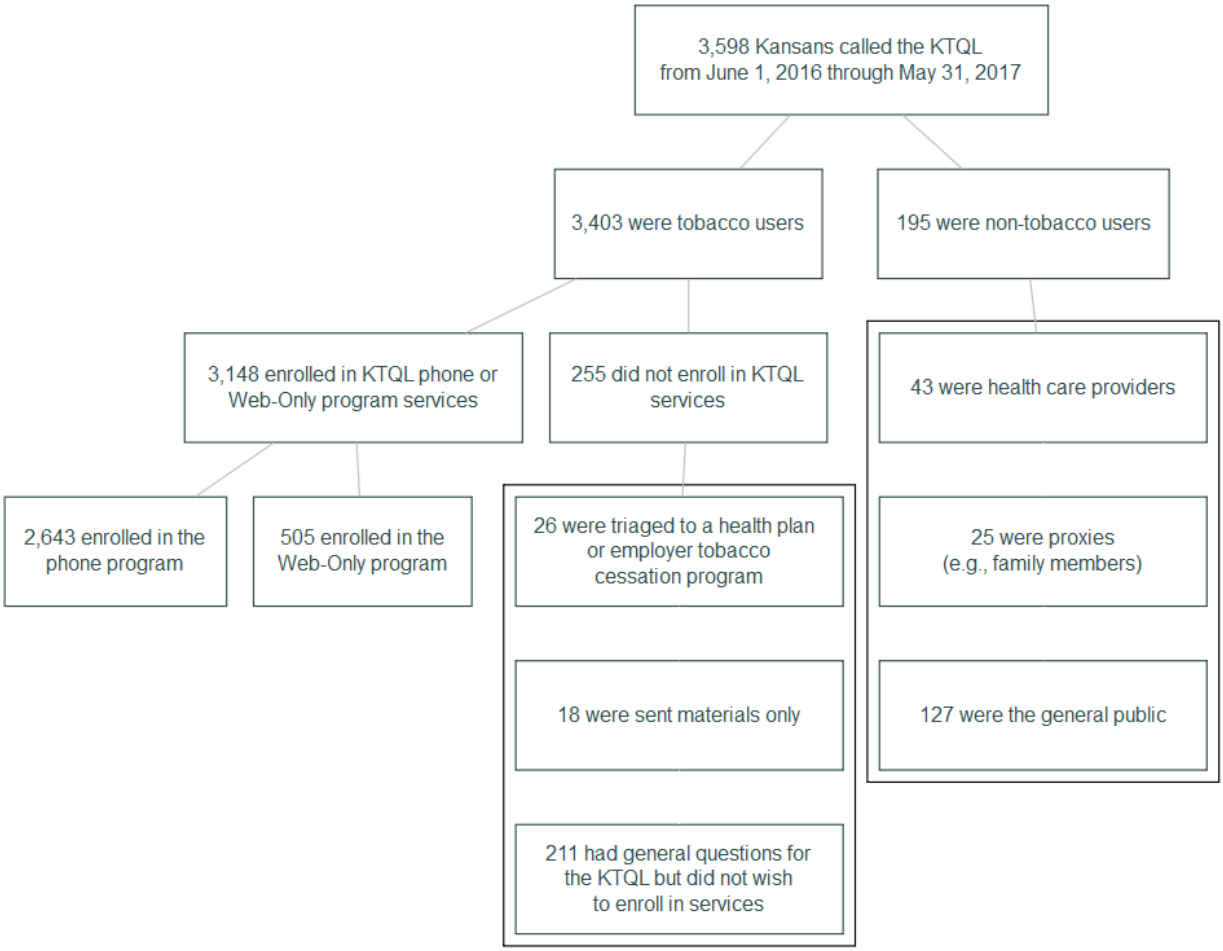
Treatment reach for smokeless tobacco users:

$$\frac{\text{\# of adult smokeless tobacco users in Kansas who received treatment from the KTQL}}{\text{\# of adult smokeless users in Kansas}} = \mathbf{0.06\%}$$

The North American Quitline Consortium's (NAQC) annual survey found that the treatment reach rate for state quitlines across the United States was 0.87% in FY 2017 (ranging from 0.21% to 4.95%; included 49 quitlines).[23] The CDC has suggested that fully funded state quitlines could reach 6% of tobacco users for treatment.[24] NAQC has estimated that reaching this goal would require quitlines to spend $10.53 per smoker.[25] Kansas could potentially increase the reach of the KTQL by investing additional funds in the program.

Who calls the Kansas Tobacco Quitline?

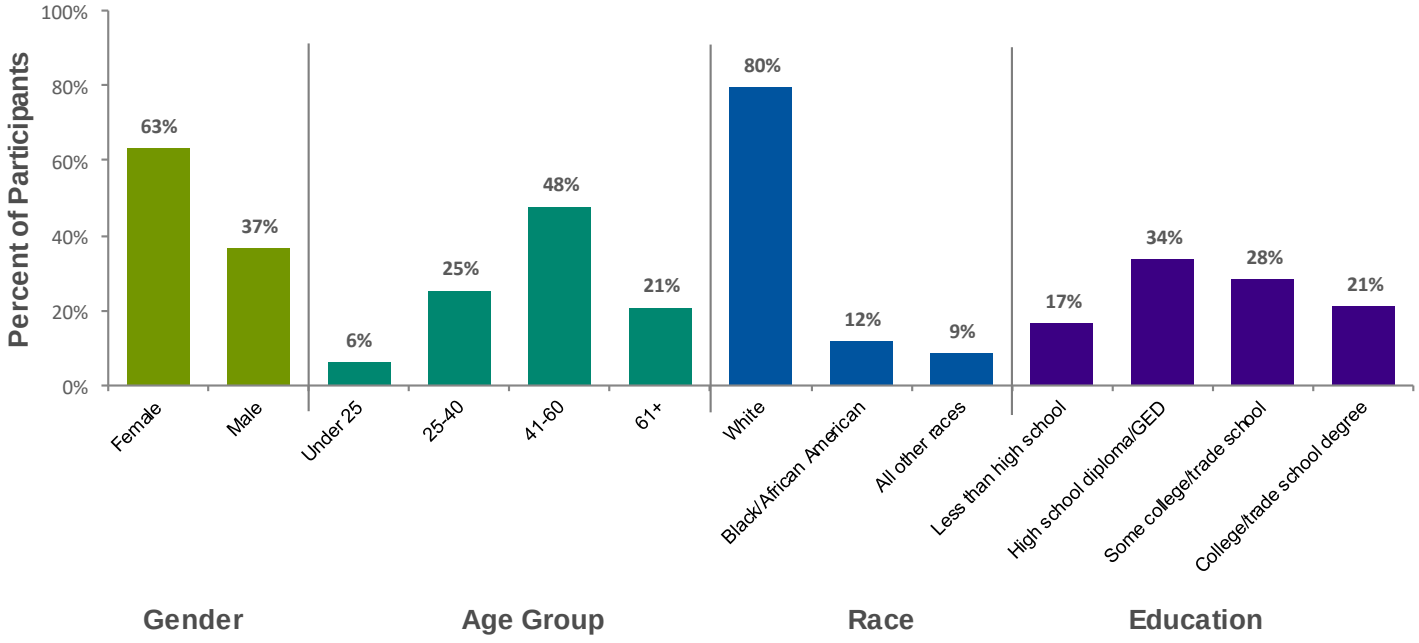
The **KTQL served 3,598 Kansans** from June 2016 through May 2017.



Who uses Kansas Tobacco Quitline phone or Web-Only services?[26]

- From June 2016 to May 2017, 2,643 (84%) enrolled in a phone-based program and 505 (16%) enrolled in the Web-Only program.
- The Quitline serves tobacco users in need who may have limited access to other resources:
  - 50.9% of enrollees were either uninsured (25.2%) or Medicaid-insured (25.7%).
  - 50.5% did not have education beyond high school.
  - 69.4% reported a household income under $25,000 per year.
- Services were provided in English (99.0%) and Spanish (1.0%); translation services were also available for callers who speak other languages.
- Most participants sought help to quit cigarettes (93.6%), as well as cigars (4.8%), smokeless tobacco (5.3%), pipes (0.8%), and other tobacco products (2.7%).[27]
- Over one third of tobacco users who requested an intervention learned about the Quitline through TV commercials or news (36.3%). Other callers learned of the Quitline through a health professional (19.2%), family or friends (10.0%), a website (4.8%), or a brochure/newsletter/flyer (4.0%).

Demographics of Tobacco Users who Enrolled in the Kansas Tobacco Quitline Phone or Web-Only Program (June 2016 – May 2017)



Nicotine Replacement Therapy

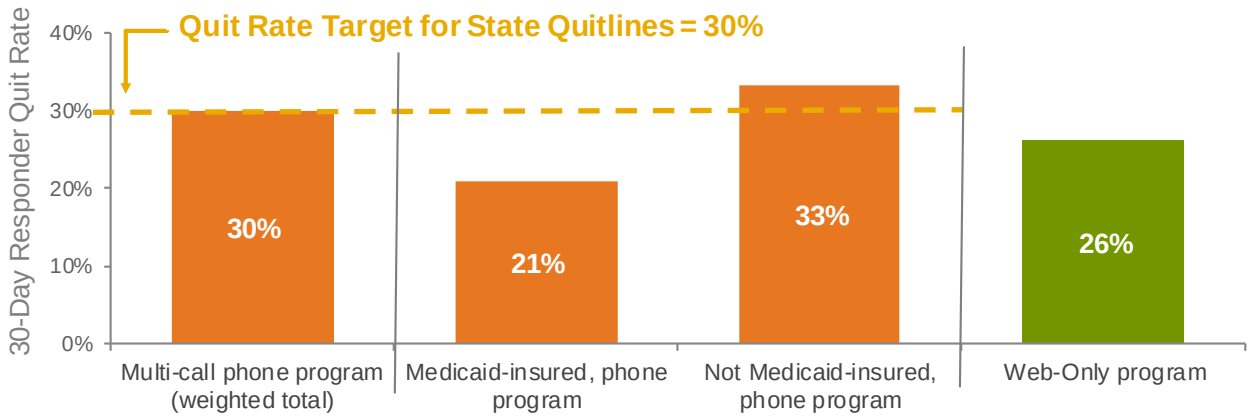
- Nicotine replacement therapy (NRT) is a vital component in a multifaceted approach to tobacco cessation. It is available in several forms, including gum, patches, lozenges, inhalers, and nasal spray.
- A combination of quitline counseling and medication is particularly effective in treating nicotine dependence. Those who use quitline counseling and medication are 30% more likely to successfully quit than those who use medication alone.[2]
  - Using a combination of medications at the same time has also been shown to aid in quitting tobacco, especially for highly dependent smokers.[2]
- 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.[5]
- At various points during the evaluation period, Kansas offered a 2-week supply of NRT (patch or gum) to certain phone program populations. Web-Only users were not eligible to receive NRT through the Quitline.
- Callers who were sent NRT were significantly more likely to be satisfied with the program compared to those who were not sent NRT (92% vs. 81%, $p<0.001$).
- Callers who were sent NRT were also significantly more likely to report using NRT or other cessation medication to help them quit compared to those who were not sent NRT (81% vs. 54%, $p<0.001$). Web-Only users were not eligible to receive NRT from the Quitline; around half (57%) of Web-Only users reported using NRT or other medications to help them quit.

How do we know the Kansas Tobacco Quitline works?

What are the program outcomes?

Three in ten respondents in the multi-call phone program successfully quit, and more than one in four in the Web-Only program successfully quit; continued tobacco users also made important reductions in their use and dependence, increasing their likelihood of future success.

Tobacco Quit Rates for the Quitline by Program



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

- 27% were quit from both conventional tobacco products and electronic nicotine delivery systems or e-cigarettes[28]

of Web-Only participants were quit at the 7-month follow-up evaluation survey (30-day responder quit rate)

- 23% were quit from both conventional tobacco products and electronic nicotine delivery systems or e-cigarettes[28]

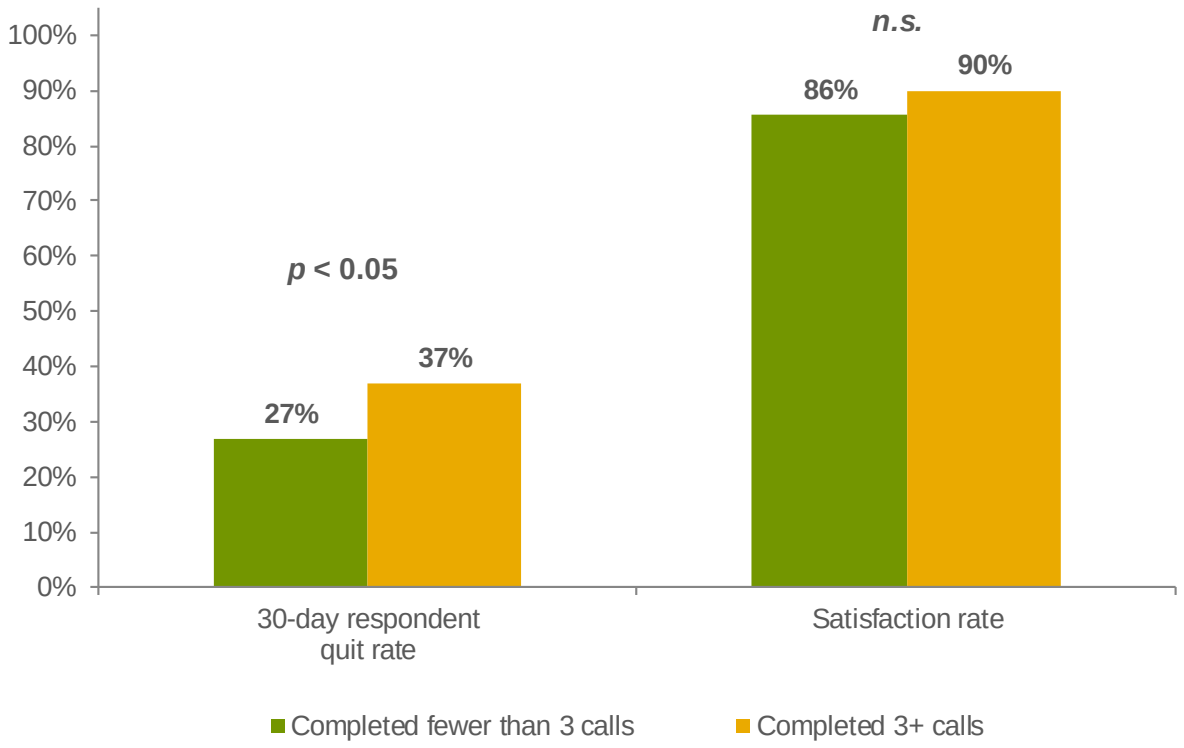
were satisfied with the phone program

were satisfied with the Web-Only program

- Although the goal is tobacco abstinence, important health improvements were made among continued tobacco users in the phone and Web-Only programs:
  - **Reduction in use**: Approximately three in five continued smokers in both programs reduced the number of cigarettes they smoked per day **by more than half pack** (12 cigarettes), on average.
  - **Reduction in dependence level**: There was a 31% decrease for the phone program and 32% decrease for the Web-Only program in the number of continued smokers who reported smoking their first cigarette within 5 minutes of waking.
  - The majority of callers (77%) and Web-Only users (69%) who continued using tobacco intended to quit within the next 30 days.

Call Completion

- Program engagement is consistently related to improved program outcomes. Quit and satisfaction rates were examined as a function of call completion for participants in the phone program.
- Phone program participants who completed 3 or more calls had significantly higher quit rates compared to those who completed fewer than 3 calls (37% vs. 27%, $p < 0.05$). Participants who completed 3 or more calls did not have significantly higher satisfaction rates than those who completed fewer than 3 calls.



n.s. = not significant

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.[24]
- Assessment of outcomes 7 months following callers' enrollment in services, utilizing NAQC methodology and measurement guidelines.[29]
- 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.[29]

The Kansas Tobacco Quitline has a strong commitment to evaluation and identifying ways to improve their program to benefit the health of Kansans. Evaluations are designed utilizing strong methodology and adequate sample sizes for confidence and accuracy in outcome estimates. The findings on pages nine through eleven come from the KTQL's **third evaluation** and represent 7-month outcome data from a sample of June 2016 through May 2017 registrants who received treatment (i.e., completed one or more coaching calls or logged into Web Coach one or more times) through the program. Survey response rate was 43% for phone program participants insured through Medicaid, 44% for phone program participants not insured through Medicaid, and 33% for Web-Only program.

Is the program cost-effective?

$9.38 saved in Kansas in medical expenditures, lost productivity, and other costs _for every $1 spent_ on the KTQL from June 2016 through May 2017

Return on Investment (ROI) June 2016 – May 2017	
Quit Rate 30-day respondent quit rate for June 2016 – May 2017 registrants: • Phone program • Web-Only program	**30%** **26%**
# Quit • 30.1% x 2,061 distinct tobacco users enrolled in the phone program from June 2016 through May 2017 and received intervention • 26.2% x 491 distinct tobacco users enrolled in the Web-Only program from June 2016 through May 2017 and received intervention	**749**
Total $ Saved • Medical expenses:[30, 31, 32] $3,694 x 749 = $2.77M • Lost productivity: [33] $1,066 x 749 = $798K • Worker's compensation:[34] $146 x 749 = $109K • Secondhand smoke:[35,36, 37,38] $384 x 749 = $288K	**$3.96M**[39]
Total $ Spent • KTQL operating costs[40]	**$423K**[41]
Return On Investment	**$9.38**

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[26] All demographics represent tobacco users who requested an intervention through the KTQL (i.e., registered for Service Type of 'Intervention requested' or 'Web-Only' from 6/1/2016 – 5/30/2017.

[27] Participants may report multiple tobacco products. Because these are not mutually exclusive groups, results may not total 100%.

[28] This percentage represents the 30-day conventional tobacco + ENDS quit rate, a secondary quit rate calculated per NAQC recommendation. The tobacco plus electronic nicotine delivery system (ENDS) quit rate is defined as being abstinent from both conventional tobacco and ENDS for the last 30 days or more at the time of the 7-month survey. See NAQC's Calculating Quit Rates: 2015 update, available: www.naquitline.org/resource/resmgr/Issue_Papers/WhitePaper2015QRUpdate.pdf.

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[39] Rounded; exact total $ saved equals $3,962.096.92.

[40] Costs are from June 1, 2016 through May 31, 2017. Thank you to Kansas Department of Health and Environment for providing cost information.

[41] Rounded; exact total spent equals $422,536.26.